

Master Thesis Economic Geography

The Influence of EU Membership on Entrepreneurship

and how Macedonia can anticipate on the future EU influence

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View on fortress Kale in Skopje Macedonia

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Abstract

This research considers literature on the effect of EU membership on entrepreneurial attitude and entrepreneurial behavior, while controlling for the influence of personal and regional characteristics. By making use of data from the Global Entrepreneurship Monitor and the World Bank a data analysis is performed on the new EU members Hungary and Slovenia. The data outcomes are used in a questionnaires among entrepreneurship experts in Hungary and Slovenia. The questionnaire outcomes are in turn considered by entrepreneurship experts from a candidate EU country, namely Macedonia. This is done to answer to what extent EU accession relates to subsequent changes in both attitude towards entrepreneurship and entrepreneurial behavior and how entrepreneurship policy in Macedonia, as a candidate EU member, can anticipate on this. It shows that EU accession does not have a positive influence on entrepreneurial attitude in Hungary and Slovenia and that EU accession has a negative influence on entrepreneurial behaviour in Hungary and a positive in Slovenia. After EU accession the influence of education become of greater positive influence in explaining EA and EB. For Macedonia to anticipate well on changes in entrepreneurial attitude and entrepreneurial behaviour after EU accession they should focus on entrepreneurship education, preparing entrepreneurs for the single EU market and provide financial aid to start-ups.

June 5th 2011, Bussum

Word of thanks

Even though my name is stated as the author of this thesis on the front page, the process of writing involved many more people who rightfully deserve a word of thanks.

Early 2010 I formulated a research question which I thought would be interesting as a topic for my thesis. The influence of EU accession on entrepreneurship was appealing to me, due to the international character and combination with entrepreneurship.

What better place to start writing the thesis than in a country that might benefit from the outcomes of the research. Within a week I found the perfect place for an internship abroad. For six months I would live and work in Skopje, Macedonia at the Netherland Embassy. For this lifetime experience I would like to thank Her Excellency Mrs. Simone Filippini, Ambassador of The Netherland to Macedonia and His Excellency Mr. Gert Kampman, Deputy Ambassador of The Netherlands to Macedonia. They made me feel welcome right from the start and allowed me to experience the diplomatic expatriate life from nearby. Of course my time at the Embassy would not have been the same without all my colleagues, who I would like to thank for their openness in welcoming yet another trainee.

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Chapter 1: Introduction

During the last decennia there has been an increasing interest in entrepreneurship in the academic world. It was Birch (1979) who pointed out that entrepreneurs are a catalyst for economic growth, but later also Wennekers and Thurik (1999), Acs et al, (2004) and Audretsch et al (2006) found support for this. There is also evidence that job creation and job destruction is taking place in transition economies. Konings et al (1996) show by making use of firm level data from 1988-1991 for Polish manufacturing companies that there is job creation and job destruction in Poland during the transition from a planned economy to a market economy. Especially the state-owned enterprises see many jobs lost, whereas the privately owned and smaller firms do see an increase in jobs. SMEs are expected to create jobs to help solve unemployment and also fight recession by creating new jobs (Storey, 1994; Reynolds et al., 2003; Arenius et al., 2004). Considering the position in which a country is (e.g. transition country) and the potential of SMEs to create jobs in a country, it is beneficial to a country to understand what their entrepreneurial base needs and how they can anticipate to a changing environment.

Macedonia is a young country that gained independence from Yugoslavia in 1991. For decades the country has been under the socialist regime of Yugoslavia. Since December 2005 Macedonia has been a candidate member for joining the European Union (EU) and has applied for NATO membership. As a result Macedonia has been drafting laws and has set up regulations that are in accordance with European law. They affect every day life of the Macedonian citizens because the topics are concerned with political criteria, rule of law, democracy, human rights, regional issues, a well functioning market economy and many other topics (EU Commission, 2009). The importance of entrepreneurship for national economies as well as the candidate EU member status of Macedonia and the expected behavioral and attitude change that comes with EU membership lead to the following question in this thesis:

To what extent does EU accession relate to subsequent changes in both attitude towards entrepreneurship and entrepreneurial behavior and how can entrepreneurship policy in Macedonia, as a candidate EU member, anticipate on this?

1.1 Goal of the research

The goal of this research is for Macedonia to learn from the experience of other European countries, that have joined the EU in recent years, regarding possible subsequent changes in both entrepreneurial attitude and entrepreneurial behavior. The countries of interest (Slovenia and Hungary) share a similar history in terms of socialist regimes that were dominating the political spectrum in these countries for decades. They have, in comparison to Macedonia, already joined the EU and thus could provide valuable information concerning behavior and attitude change when it comes to entrepreneurship. Slovenia was like Macedonia part of the Yugoslavian Republic, but in earlier times has also been part of Italy and Austria. Within the Yugoslavian Republic (1943-1992) it was the most prosperous nation (Bureau of European and Eurasian Affairs, 2010). The ethnic diversity within Slovenia is smaller than Macedonia,

however many Slovenians live abroad. Hungary has been part of the Austrian Hungarian empire, though the Austrian House of Habsburg was for a long time the ultimate ruler in Hungary. The country has for 150 years been part of the Ottoman empire. After the first World War the country gained independence from Austria, this freedom ended after the second World War as the Soviet troops imposed a socialist regime (Halász, 1998). Slovenia, Hungary and Macedonia all have a history in which they were part of a bigger nation. All three have experienced a planned economy and all three have (re)-established independence after the Soviet Union fell apart. This is what makes these three countries interesting subjects for this thesis.

Hungary, Slovenia and Macedonia have participated in entrepreneurship research of the Global Entrepreneurship Monitor (GEM) for several years. There is data available from the years leading on to EU accession and the period after they obtained EU membership. Before an evaluation of Hungary and Slovenia can be made it is important to establish a theoretical background on entrepreneurial attitude and entrepreneurial behavior that can serve as a conceptual framework. It is also important to see to what extent Macedonia has changed the national policy regarding SMEs over the last couple of years.

1.2 Sub questions

Following from the research question and the goal of this thesis six sub questions have been formulated that assist in answering that main question. Two questions relate to literature on entrepreneurship, another relates to entrepreneurial attitude and entrepreneurial behavior in Macedonia. To complete the six questions, there are three questions that relate to countries that have already experienced EU accession and thus moved along a similar path that Macedonia will walk in the future. The questions are:

1. According to the literature what is known on the effect of EU accession on entrepreneurship?
2. According to the literature what other determinants influence entrepreneurship?
3. What did EU accession change in Hungary and Slovenia in terms of government policy and regulation with relation to entrepreneurship?
4. To what extent does the data show changes in Hungary and Slovenia in terms of entrepreneurial attitude and entrepreneurial behavior after EU accession?
5. What does the data show for Macedonia in terms of their entrepreneurial attitude and entrepreneurial behavior?
6. What are the expert opinions on the data outcomes for Hungary and Slovenia and what can Macedonia expect in terms of EU influence on entrepreneurial attitude and entrepreneurial behavior?

1.3 Academic relevance

This research is academically relevant because it studies changes in entrepreneurship in a country, both in terms of attitude and behavior as a result of EU accession that has taken place in these countries. The influence of EU accession on entrepreneurial behavior and entrepreneurial attitude has not received significant attention in the academic world. As a

result, there has been limited research done when it comes to former socialist countries and their entrepreneurial behavior and attitude change leading to and after joining the EU. Tominc and Rebernik (2007) are one of the few that have done research solely on former socialist countries (Slovenia, Hungary and Croatia) with respect to the growth aspirations of the early stage entrepreneurs. In explaining the variations regarding entrepreneurship the cultures differ across countries and this should not be disregarded (Hofstede et al., 2004; Gianetti & Simonov, 2004). Recently, the OECD (2009) has presented a report that concerns entrepreneurship in the Western Balkans. In their report an assessment was presented of the quality and level of implementation of SME policy in the Western Balkans. The report shows the development in implementing SME policy that has taken place since 2006, when a similar assessment was made. However, what these papers do not cover is how new EU membership might affect the behavior and attitude of people which is what this research contributes to existing studies and literature.

1.4 Societal relevance

The social relevance of this research is highly interconnected with the potential economic growth that entrepreneurs bring to an economy. For a country it is of great importance to understand the changes that are at hand when they are in an accession process to the EU. Their response to a changing environment will eventually affect entrepreneurs as market access, capital access, competition and market size may change (EU Commission, 2009). This research tries to assist governments in their decision making process by learning from past experiences of other countries. The current recession that the world is facing and the increasing unemployment (2.2% increase in Hungary in 2009 and 1.5% increase in Slovenia in 2009) also adds to the societal importance of this research since SMEs are the backbone of national economies and job creation (Eurostat, 2010). However, a careful note should be made that SMEs are not the same as entrepreneurs and that SMEs as such not all survive and experience growth (Cefis and Marsili, 2005; Dunne and Hughes, 1994). SMEs are business entities that are already fully operating. Entrepreneurs can be active within SMEs, but entrepreneurial behavior can also be present in an earlier stage, consider the process of forming a business for instance. Chapter 2.1 provides a definition of entrepreneurship.

1.5 Research design

This research builds on theories that are concerned with entrepreneurship, entrepreneurial attitude and behavior and characteristics that determine the entrepreneurial attitude and behavior. From the theoretical background data from countries of interest is collected that can assist in providing a clearer picture of developments that take place when a country undergoes a institutional change. This data is analyzed and questions are formulated that need additional expert knowledge to be answered. The questions are put together in a questionnaire for experts of the concerning countries (Hungary and Slovenia). Their input provides additional insight to understand the data on entrepreneurial activity and behavior better and the underlying impact on characteristics when an institutional change takes place. The expert opinions from Hungary and Slovenia are considered when preparing a second questionnaire

for Macedonia, a country that is a candidate EU member. This results in a policy advice for Macedonia, but has relevance for other candidate EU members, that will experience an institutional change in the future.

1.6 Reading guide

This research continues with a Chapter that provides overview of the existing literature on entrepreneurial behavior and attitude. A theoretical framework is provided from which hypotheses are formulated. The third Chapter consists of the methodology and data used. The current entrepreneurship policy and the recent developments of Hungary, Slovenia and Macedonia are considered in Chapter four as well as its position in relation to Hungary and Slovenia. The fifth Chapter consists of an empirical analysis on changes in both entrepreneurial attitude and entrepreneurial behavior since EU accession for both Slovenia and Hungary. In Chapter six the outcomes of the Hungarian and Slovenian questionnaire are discussed. Chapter seven considers the Macedonian questionnaire, which follows on outcomes of the Hungarian and Slovenian questionnaire. This thesis ends in Chapter eight by drafting conclusion, answering the research question and opening in the outcome for discussion.

Chapter 2: Theoretical Framework on characteristics influencing entrepreneurial attitude and behavior.

This chapter provides insight in the reasons behind the decision of individuals to engage in entrepreneurial activity but also the different aspects that make up their entrepreneurial attitude. The following sub questions will be answered in this chapter making use of a literature analysis:

1. According to the literature what is known on the effect of EU accession on entrepreneurship?
2. According to the literature what other aspects influence entrepreneurship?

To begin with, paragraph 2.1 provides a definition of entrepreneurship after which the concepts of entrepreneurship as a rational choice (2.2) and entrepreneurship as an occupational choice (2.3) are introduced. This shows the different ways entrepreneurship can be perceived. Next, paragraph 2.4 considers the challenges and opportunities that entrepreneurship face in a larger market. The definition of ‘entrepreneurial attitude’ (EA) and ‘entrepreneurial behavior’ (EB) are considered in paragraph 2.5 as well as their behavior on regional and national scale. The way institutions can influence EA and EB is dealt with in paragraph 2.6. The next paragraph (2.7) shows how various personal characteristics affect EA and EB, followed by paragraph 2.8 which is going into detail concerning the influence of regional economic characteristics on EA and EB. Lastly, in paragraph 2.9, the effect of EA on EB is considered. The various paragraphs of chapter 2 provide the input for a graphical conceptual model (2.10) which is shown in the final paragraph of this chapter. This graphical conceptual model shows the influence of regional economic characteristics, personal characteristics and institutional characteristics on EA and EB. Based on this conceptual model hypotheses are formulated that are tested later in this thesis.

2.1 The definition of entrepreneurship

The debate concerning a generally accepted definition of an entrepreneur has always been very active. Cole (1969) recognized that it would be difficult to come up with a generic definition of the entrepreneur. This statement has repeatedly been confirmed by other scholars (Carsrud, Olm and Edy, 1985; Wortman, 1985; Sexton and Smilor, 1986). It was Gartner (1988) who broadened the scope of the definition debate. He stated that: *‘the attempt to answer the question ‘Who is an entrepreneur?’ ,which focusses on the traits and personality characteristics of entrepreneurs, will neither lead us to a definition of the entrepreneur nor help us to understand the phenomenon of entrepreneurship’* (Gartner, 1988 p.48). He concludes that the entrepreneur is not a fixed state of existence and that entrepreneurship is a role that individuals undertake to create organizations. Regardless of the broader scope Gartner, Wennekers and Thurik (1999) conclude that entrepreneurship is weakly defined. They provide the following definition of entrepreneurship based on work of Hébert and Link (1989), Bull and Willard (1993) and Lumpkin and Dess (1996):

‘Entrepreneurship is the manifest ability and willingness of individuals, on their own, in teams, within and outside existing organizations, to:

- *perceive and create new economic opportunities (new products, new production methods, new organizational schemes and new product-market combinations) and to*
 - *introduce their ideas in the market, in the face of uncertainty and other obstacles, by making decisions on location, form and the use of resources and institutions.'*
- (Wennekers and Thurik, 1999 p.46-47)

Shane and Venkataraman (2000) provide a definition of entrepreneurship following Gartner's research. They do so by defining the field of entrepreneurship *'as the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, valued and exploited'* (Shane and Venkataraman, 2000 p.218)

The definition debate has thus moved from the entrepreneur towards entrepreneurship and along with that the scope has broadened. The definition that is used in this thesis is the same as the one proposed by Wennekers and Thurik (1999) since, in comparison to Shane and Venkataraman's definition, they clearly take into consideration a country's institutional setting as a factor of influence. Since this thesis studies the effect of a changing institutional setting, it is important that the definition of entrepreneurship incorporates institutions as a factor of influence as well.

Following the definition of Wennekers and Thurik (1999), that entrepreneurship is being influenced by several factors (e.g. location, available resources and institutions) that can change over time, it is suggested that entrepreneurship is a process. This is also being confirmed by the GEM Global Report (2009) as well as Coulter (2001) and Kuratko and Hogretts (2004) who describe entrepreneurship as a process. An earlier study from Bhave (1994) finds, by making use of interviews among 27 entrepreneurs from New York, that the entrepreneur is the prime mover in the entrepreneurial process.

The definition of Wennekers and Thurik (1999) allows to include institutions as a factor of influence. EU accession is a factor that will have its influence on local institutions. Not only when a country is in the process of EU accession is there an effect on local institutions, but simultaneously after EU accession the country gains access to a substantial larger market. Entrepreneurship is affected by the process of a changing market. However, as the next two paragraphs will show, there is a second option to the way entrepreneurship can be perceived. In this view entrepreneurship moves away from being a process to a choice of individuals and the choice aspect of entrepreneurship is considered central in this thesis.

2.2 Entrepreneurship as a rational choice

The previous paragraph showed that entrepreneurship is a process that is subject to changes in location, available resources and institutions. However, this paragraph argues that entrepreneurship is a choice rather than a process and is centered around the person who chooses.

The rational choice theory is a framework that allows to model social and economic behavior (Blume & Easley, 2007). The core idea of rational choice theory is that behavioral patterns in society reflect the choices made by individuals as they maximize their benefits and minimize their costs (Allingham, 2002; Moll and Hoque, 2006). This leads to a situation where actions are based on comparing costs and benefits that result from the options at hand. The theory has several assumptions concerning the individuals' preferences:

- 1) Completeness: which means that all actions can be ranked in order of preference (it is impossible to be indifferent between certain actions).
- 2) Transitivity: which means that if action a1 is preferred to a2 and a2 is preferred to a3, then a1 is also preferred to a3.
- 3) Perfect information: all individuals have full knowledge about what will exactly happen when a choice is being made.
- 4) Cognitive ability: all individuals have the cognitive ability to fully understand the implications of each choice.

The assumptions made in the rational choice theory are not without discussion (Lehtinen and Kuorikoski, 2007; Kahnman, 1994). Assumption 3 and 4 are very difficult to meet in a real life situation. Perfect information would mean that individuals would have to spend time on gathering all information needed to make a rational choice. Collecting all information would be beyond any economic reason. Radner (1992) assumed that individuals have only a fixed and finite computational capabilities in accepting and processing new information. Casson and Wadeson (2007) make an addition to the rational choice model as they state that individuals can always process additional information as long as they are willing to incur the (time) related costs. They assume that individuals are 'meta-rational', which means that they optimize the amount of information they get. It concerns the trade-off between the costs of collecting additional information and the benefit of reducing the risk of a miscalculation.

Individuals who consider entrepreneurship as their profession and rationally consider their options will thus encounter real life issues which go beyond the assumptions of the theory. Other issues like their personal financial position and regulations might also affect the choice of an individual when considering entrepreneurship. These issues are covered in the occupational choice theory which is introduced next. When considering the rational choice theory and the occupational choice theory it is worthwhile to add that the two theories do not exclude each other.

2.3 Entrepreneurship as an occupational choice

Economic literature sees the entrepreneur often explained by an occupational definition (Banerjee and Duflo, 2007). Within this occupational definition entrepreneurs are noted as self-employed next to unemployed or wage-employed. Not all entrepreneurs are in business because they exploit a great business opportunity. Some might be self-employed because the alternative of wage-employment was not easier. One example is the research of Banerjee and Duflo (2007) who describe the difficulty that many poor people have in recognizing good business opportunities. This difficulty in recognizing opportunities might be the result of their poor financial situation as they cannot afford to seek or perceive new opportunities. In addition, the risk that comes with the poor financial position of many households might withhold them to enter an uncertain period that might result in higher financial losses than gains. (Naudé, 2008)

Lucas (1978) was one of the first who approached the decision of an individual to start an own business as an occupational choice between self-employment and wage-employment. Evans and Jovanovic' (1989) contributed in describing entrepreneurial ability as a core element of occupational choice models and the significance of wealth as a determinant for

start-ups added to the occupational choice perspective. Murphy's et al. (1991) addition, that describes the returns to entrepreneurship, was also a significant contributor in forming the occupational choice perspective. The factors that affect occupational choice depend broadly on the individual's entrepreneurial potential, the returns to entrepreneurship, but also capital constraints (Evans and Jovanovic, 1989), regulations (Fonseca et al., 2001) and factors that influence the opportunity costs of becoming self-employed as the example of Banerjee and Duflo (2007) indicated.

2.4 The effect of entering the EU on entrepreneurship

Entering the EU as a country means that it gains access to a single market where capital and labour can move freely. On the one hand, for entrepreneurs this offers an opportunity to gain access to new markets, additional sources of supply, capital and labour and technology. On the other hand they will experience increased competition. The opportunities that arise from a larger market are subject to the relative level of economic development on both sides of the border (current EU member and new EU member). The physical border of the EU is lifted when a country joins the EU. In the absence of this border, regions might benefit when there is cross border entrepreneurship due to the previously mentioned opportunities. Economic development may take place in the areas that are considered peripheral to the nation's economic core, because they are now closer to the economic activity of a neighboring country (Blatter, 2000). Regions that previously were found to be at the periphery of a country's economic activity could very well now be found to be at the heart of a much larger economic area, because the restrictions of borders no longer exist.

Examples of cross border entrepreneurial partnerships are present in Germany and Austria where local entrepreneurs initiated partnerships with businesses of entrepreneurs in former Communist economies, like Poland, Hungary and the Czech Republic (Huber, 2003). Labrianidis (1999) showed similar partnerships between entrepreneurs from Greece and Bulgaria. Businesses are allowed to operate at a larger scope and therefore scale benefits and the related financial benefits, are the most obvious benefits of cross border partnerships.

Although cross-border cooperation may lead to regional development which in turn leads to economic benefits, the regions in different countries may be heterogeneous in several aspects. They may differ in the level of economic development, the institutional setting and level of entrepreneurship. These differences can influence the cross border interaction between entrepreneurs and they should be regarded in forming policies in these regions (Smallbone and Welter, 2009). Krätke (2002) shows in a study on cooperation between German and Polish border areas, that forming policies of cross border cooperation is more difficult when there are 'hard' borders instead of soft borders. The outer border of the European Union can be seen as a hard border and the study of Krätke took place when Poland was still outside of the hard EU border. EU membership allows companies to access a bigger market, but at the same time they face an increased pressure from competitors from other nations that also can access the new market.

Businesses from former socialist countries have limited experiences in dealing with competition in a market economy, which limits their chances in competing with businesses in old EU member states (Narula and Bellak, 2009). New EU member states have the advantage

of lower wages, which could benefit their competitive position. Pfaffermayr et al. (2004) find that new member states see an increase in the wages paid, which is due to the big market potential of the EU. Older industries that performed well in a secluded market will most likely face the toughest period after EU accession. On the whole EU membership is expected to boost entrepreneurs to pursue their business idea (Pfaffermayr et al.; 2004), which means that the opportunity recognition of individuals increases.

A larger market offers opportunities to entrepreneurs and at the same time requires governments to consider and deal with the differences that are present between the different regions. A too big of a difference between two regions might result in an unequal situation for entrepreneurs to operate in and cause businesses to discontinue their operations and lay off personnel. The chances for success of businesses from former socialist countries are limited in a larger open market due to their lack of experience in dealing with market competition, however these countries offer lower wages, which could benefit their competitive position within the EU.

2.5 Entrepreneurial attitude (EA) & entrepreneurial behavior (EB)

It is important, prior to describing the differences between EA and EB, to establish a definition of EA and EB that is used in this study. When an individual possesses the right skills, but also recognizes opportunities and has no fear of failure to become entrepreneurial active he or she can value these skills and make a rational choice. This relates back to the rational choice theory. The skills that are required for an entrepreneurial attitude are being used as input for a rational decision. The skills are not the sole variable that determine whether an individual has an entrepreneurial attitude. A large part is just being entrepreneurial and having the entrepreneurial spirit. Entrepreneurial behavior is an individual act that indicates the occupational choice of that individual. As such entrepreneurial behavior is the result of the different occupational choices that an individual has. The individual considers factors that influence this decision such as the entrepreneurial potential, the return to entrepreneurship, capital constraints and the opportunity cost of becoming self employed as described in paragraph 2.3.

2.5.1 Difference between entrepreneurial attitude and entrepreneurial behavior

Before going into entrepreneurial attitude and entrepreneurial behavior deeper it is important to understand the differences between the two concepts. The entrepreneurial attitude of individuals is influenced by social, psychological and economical factors. The surrounding in which people live has an important influence on these three perspectives (Chell en Baines, 2000). In stating this they primarily mean to say the culture of a country, which is strongly related to the institutional setting of a country (Hall en Soskice, 2001). Culture and institutions are capable to change the skills, attributes (e.g. through schooling) and preferences of people (Thurik et al, 2002), which can have influence on the entrepreneurial attitude of individuals. The macro environment is important in the decision making process to become an entrepreneur. Jack and Anderson (2002) state that engaging in EB is not only an economical process, but that the specific context also has its influence. As previously mentioned, the

occupational choice that individuals face is being influenced by factors like capital constraints. Culture and the institutional setting are hard to change, even in the long run (Arenius and Minitti, 2005). It is important to consider that there are individuals who consider entrepreneurship as their occupation and those who act and actually take the step and truly engage in entrepreneurship. Those who engage in EB actually made the occupational choice of self-employment. Those who possess an entrepreneurial attitude might be unemployed, wage-employed or self-employed.

The chance that an individual has an entrepreneurial attitude can depend on several aspects. Arenius and Minitti (2005) call these aspects 'perceptual variables' and these variables consist of the subjective attitude of individuals towards entrepreneurship. There are three individual variables that can be considered in this respect (Bosma and Wennekers, 2004).

- Fear of failure: Kihlstrom and Laffont (1979) and more recently GEM (2008) research indicated the relation between the will to become an entrepreneur and risk aversion. Most people are expected to be risk averse and thus the fear of failure can be considered an important personal characteristics in measuring an individual's EA. The perception of a lower risk, which means a lower risk to fail, increases the chances to start a business (Weber and Milliman, 1997).
- Recognition of opportunities: Arenius and Minitti (2005) and Shane and Venkataraman (2000) consider opportunity recognition as the most distinct attribute of an individual when it comes to entrepreneurial attitude. There is also a strong relation between the recognition of opportunities and contact with existing entrepreneurs (Clerce et al, 2004). Being in contact with an entrepreneur increases the chances that an individual recognizes opportunities.
- Sustained skills: An individual can perceive his or hers skills towards entrepreneurship in several ways. The study field of psychology has indicated that the confidence in own knowledge and skills is an important attribute that contributes to an entrepreneurial attitude (Baron 2000).

2.5.2 Entrepreneurial Attitude on regional and national level

Entrepreneurial Attitude has been studied on several different levels of geographical scope and has resulted in two different research fields (Bosma, 2009). A division can be made between the international and intra-national scope. The international scope looks at the cross national perspective, in which the analysis of national differences in EA is central. The intra-national scope looks at reasons for regional differences in EA. An example of an intra-national score is the study of Breugelsdijk and Noorderhaven (2004), who make use of the European Values Survey (EVS) for 54 European regions, to distinguish values that characterise self-employment. It is important to realise that regions might develop differently than the national scale. Regions might be at the periphery of a country's economic activity, however if you consider cross border EU regions then the regions might well be at the core of

a much larger economic area. Their relative distance from economic activity might have diminished when businesses can easily cross international borders.

The influence of culture on EA and EB is shown by several scholars (Mueller and Thomas, 2000; Wennekers et al, 2001; Hofstede et al, 2004; Gianetti and Simonov, 2005). Beugelsdijk et al. (2006) show, by making use of Eurostat and the EVS database on cultural attitudes for 55 European regions (from 8 countries) in the period 1990-1999, that regional differences are present. The path dependency of religion is important in this respect. Catholic regions like Spain, France and Italy develop different from Protestant regions like the UK, Germany and The Netherlands. The differences in cultural attitudes are significant and constant over the period observed. As mentioned previously there is a correlation between institutions and culture. Cultural differences thus might indicate different institutional settings.

Bosma (2009) finds that a large share of the observed regional differences in entrepreneurial attitude across Europe are accounted for by characteristics of the population in terms of age, education and income. Tamásy (2006) used regional GEM data to make an assessment of various German regions. She reports, by making use of German data originating from the Regional Entrepreneurship Monitor and the New Firm Survey, that there are significant regional differences in entrepreneurial attitudes across German regions. These two scholars show that regions show variety in EA and that a regional approach is worthwhile. Other research shows that on a country level there are also differences to be observed.

The attitude towards entrepreneurship is even more clearly different across countries. The GEM Global Report (2009) and Grilo and Thurik (2006), who make use of Eurobarometer data, clearly show that entrepreneurial perceptions are different across countries. On the one hand there are the larger European countries, Germany and France, who show relatively low levels of interest in self-employment. On the other hand there are countries like Greece, Finland and Ireland where there is relatively more interest in self-employment. The opportunity cost of becoming self employed is much higher in Germany and France where a wage-paid job is considered to be very secure.

2.5.3 Entrepreneurial Behavior on regional and national level

Several studies have been pointing out the differences in entrepreneurial behavior across different countries (GEM 2009; Blanchflower, 2001; Verheul et al., 2002; Grilo and Thurik, 2006; Wennekers, 2006). The explanation for these differences on the national level have caused some debate in the academic world. The World Bank (2005) states that high regulatory and administrative burdens cause barriers that affect EB. Djankov et al. (2002) find a similar conclusion, based on data retrieved from government publications, reports from development agencies (WB, USAID) and government web pages of 85 countries that describe the entry regulations of start-up companies. Van Stel et al. (2006) on the other hand point out, based on GEM data and World Bank Doing Business data base, that it is mainly the financial side (minimum capital requirements to entry) that withholds potential entrepreneurs from actually engaging in entrepreneurial behavior. Finally Grilo and Irigoyen (2006) question, based on the Flash Eurobarometer survey of September/October 2000 that provides data for the EU-15 and the USA, whether differences in EB between countries can be attributed to institutional

barriers or to differences in culture. Both cultural differences as well as the institutional differences (e.g. tax environment, bankruptcy law etc.) seem to play a role in national differences when it comes to EB, but further research should determine their exact influence. Furthermore they find that the sectoral composition of economic activity might also play a role in understanding differences between countries. The tourism sector serves as an example because that industry might have lower barriers and might be less demanding in terms of human and financial resources required to start a business, which could result in a bias towards countries in which these industries are more present.

EB has also been studied on regional scale. Lee, Florida and Acs (2004) find by making use of Longitudinal Establishment and Enterprise Microdata (LEEM) for American Metropolitan areas that policy makers should pay more attention to the context and habitat in which entrepreneurship takes place. Regional differences like gross regional product and unemployment data are thus important to understand entrepreneurship in regions. Bergmann and Sternberg (2007) point out by making use of GEM data for Germany that a good institutional framework can stimulate EB, because it might affect regional variables like unemployment. They find that people in Germany who were previously wage-employed had a higher start-up propensity after policy changes occurred in 2003. Bosma and Schutjens (2007) showed, by making use of GEM data for 125 European regions, that the process of setting up a business relates to regional economic conditions (e.g. economic growth) and regional demographic effects (e.g. age distribution and education structure). Reynolds et al. (2004) found, based on PSED data from the USA, that differences in economic conditions, such as market size and market growth, immigration patterns and labour market opportunities are major determinants of regional differences in EB. Fritsch and Mueller (2006) find, based on the German Social Insurance Statistics, that regions with high start-up rates in the past can expect to have high start up rates in the future as well. The opposite holds goes for regions with low start-up rates: it will take a long period to change to a situation where there are high start-up rates. For this reason Fritsch and Mueller (2006) suggest that in order to stimulate the regional level of entrepreneurship a long time horizon is needed.

The overview of the academic discussion above shows that at different geographical scopes there are different factors (institutional, regional and personal) influencing the chance for EB. The influences of the institutional, regional and personal characteristics on EA and EB are considered in the next three paragraphs.

2.6 Institutional influence and its effect on entrepreneurship

2.6.1 Institutional influence on entrepreneurial attitude and behavior

Thurik et al. (2002 p.39) state that opportunities in the market *'may be found in emerging technologies, in the industrial structure and in the degree of differentiation of consumer demand. But demographic, cultural and institutional factors also can foster or impede these opportunities'*. Institutions (e.g. the policy of a government) and culture are thus important factors that can influence how opportunities are perceived (opportunity recognition), which might affect entrepreneurial attitude and in turn entrepreneurial behaviour of individuals. Hall and Sobel (2008) found, based on data of the Economic Freedom of North America index

(EFNA) and the Kauffman Index of Entrepreneurial Activity, that the difference in quality of institutions helps to explain differences in entrepreneurship rates across states in the USA. Institutions that are consistent with free market capitalism are found to be beneficial as they reduce uncertainty and provide clear regulations. The EFNA index measures the influence of government regulation on economic freedom and does so by looking at the size of government, earnings and discriminatory taxation, and labor market freedom. According to their findings better institutions, those that respect free market capitalism, lead to higher innovative states which will continue to stay ahead of states that have less well functioning institutions. Good institutions allow research and development to be translated into economic growth and channel productive resources to the highest valued use. Entrepreneurship can benefit from good institutions because of the positive effect of good institutions on economic growth. This allows individuals to recognize opportunities and economic growth can also boost household income. The influence of household income on EB is discussed in more detail in paragraph 2.7.5. Chapter 1 showed that entrepreneurship has a positive effect on economic growth (Audretsch et al, 2006), so there might be a circular effect when economic growth stimulates entrepreneurship and entrepreneurship in turn stimulates economic growth. Another institutional characteristic that deserves attention is corruption. Dreher and Gassebner (2007) state, based on data from Transparency International, the World Bank and the Economic Freedom Index for 43 countries over the period 2003-2005, that corruption might make business in an official economy easier. Corruption can work around long lasting bureaucracy and increase the pace of the business process. Wei (1999) however does not find any evidence, based on data from the World Bank, that 'greasing the wheels' makes business easier. Desai et al (2003) show, based on panel data from Amadeus on corporate activity across Europe, that firm entry rates are not significantly affected by corruption in their overall sample, however corruption does reduce firm entry in Central and Eastern European countries. Ovaksa and Sobel (2004) find that corruption significantly reduces the number of new firms established per 1000 inhabitants. Dreher and Gassebner (2007) find, based on GEM data for 43 countries since 2001, World Bank data on doing business, the Economic Freedom Index and data from Transparency International, that corruption can be beneficial. In case of a highly regulated system, corruption significantly increases the entrepreneurial activity. The influence of corruption on entrepreneurship seems to be related to the level of bureaucracy that affects entrepreneurship in a country. Countries with low bureaucracy seem to experience more harm from corruption whereas entrepreneurship in highly bureaucratic countries might benefit from corruption as a way to cut through the red tape.

2.6.2 Institutional change and entrepreneurship

Whenever a country changes its institutional setting drastically, (e.g. from a socialist regime to a capitalist system) there are two theories that can help explain the impact of these changes. First there is the big bang theory, which entails a very rapid change of institutions. Wei (1997) provides an overview of six studies that offer arguments in favour of the big bang theory. One finding shared by most of the researchers points out that a big bang transition is favourable over the gradual reform because of the high credibility and time related benefits that are directly visible for the public and also for businesses (Roland and Verdier, 1994; Lipton and

Sachs, 1990a, 1990b; Martinelli and Tommasi, 1995). The credibility of the institutional change increases with a big bang transition because a quick change does not leave any discussion open for old institutional influences on the new system. The time related benefits of a big bang transition are apparent because there will not be any discussion on whether old or new institutional rules apply, which saves time. A pitfall of a big bang transition is that it might trigger a *Parallel Economy*. This parallel economy is a normal functioning market that operates according to the old set of rules under the old institutions and thus has not changed towards the new institutional setting. A parallel economy might emerge next to the official economy when people can not adapt to the instant changes and start an underground market (Kessel, 2006).

The second theory is the gradual reform. Wei (1997) also provides an overview of the benefits of a gradual reform. Earlier studies of Dewatripont and Roland, (1992a, 1992b), Nielsen, (1993) and Wang (1992) point out that a gradual reform avoids excessive costs for the government and reduces the chance of a drop in living standard for people. Another important benefit is the increased credibility of the government when they handle reforms in a gradual way (Fang, 1992). Here also lies a pitfall as some reforms might take too long according to the public opinion. Nevertheless, according to Wei (1997), a gradual reform is more politically sustainable and should therefore be prioritized over a big bang transition.

An example in recent history can be found in South-East Asia. Vietnam is a country that has both seen a gradual reform and a big bang. Between 1985 and 1988 the country was undergoing a gradual reform, which failed to address macroeconomic imbalances (e.g. currency exchange rate). This resulted in a decrease in both output and trade while inflation increased (Drabek, 1990). To overcome these problems a big bang approach was adopted in 1989. A devaluation of the local currency of 450% to balance the exchange market and tightening credit to stop inflation were some of the instant changes. This resulted in a growing economy, a low inflation and small businesses that flourished outside the private sector (Leipziger, 1992; Dollar 1993). In the example of Vietnam this was only achieved after a big bang transition. Paragraph 2.8.5 provides more information on the influence of inflation on EA and EB.

Institutional change, taking place in a quick or moderate pace, affects people's perceptions and thus their EA and it is likely to also affect EB. The changes can improve stability and property rights and increase the trust individuals have in the government, which benefits the entrepreneurial attitude of the population and also EB.

2.7 Personal Characteristics affecting entrepreneurship

Littunen (2000) states that studies of entrepreneurship can be divided between two schools of thought. One is based on the trait model and the other is based on contingency thinking. Studies that use the trait model are looking for answers to questions like: why certain individuals start a firm and turn out to be successful as entrepreneur (e.g. Reynolds, 1997b; Diochon, 2007). The context of the current economic/market situation is of no importance on personal characteristics when dealing with the trait model. Once you possess the right personality traits it does no longer matter what other current factors (like the market condition) might influence the decision to become an entrepreneur. This is in a sense a very black and

white approach and thus limited in its usability. On the other hand, the models based on contingency thinking look at personal characteristics that identify entrepreneurship which are bound up with the firms' environment and the current political, economic and cultural situation (Gilad and Levine, 1986). Personal characteristics are influenced by the interplay between the environment and the individual. Of course this influence can only be limited when you consider a personal characteristic like age that can never be influenced by the environment.

Rotter (1975, 1990) showed that individual experiences and changes in the individuals life play a central role in this interplay. Therefore becoming an entrepreneur can be subject to changes in one's life which depend on the individual's personal characteristics. It is important to establish which personal characteristics influence an individual's attitude and which are of influence in becoming an entrepreneur. Arenius and Minitti (2005), Shane and Venkataraman (2000) and Kirzner (1973 & 1979) all indicate in their studies that it is important to recognize opportunities in order to have a entrepreneurial attitude. The recognition of opportunities can even be increased when an individual has had contact with established entrepreneurs (Clercq et al, 2004). The line of thought of the contingency thinking model is used because it considers the changes in an individuals' life which depend on the individual's personal characteristics. This is important because EU accession involves changes that might affect individuals and the contingency thinking model considers changes whereas the trait model does not.

There are several studies in which personal characteristics of individuals and their relation to EA and EB are studied. These variables include age, gender, education level, workstatus and household income (Delmar and Davidson, 2000; Storey, 1994; Reynolds, 1997; Reynolds et al, 2003; Grilo and Thurik, 2008; Langowitz and Minitti, 2005; Blanchflower, 2004; Kan and Tsai, 2006). The relation and direction of these personal characteristics on EA and EB is explained in more details in the coming paragraphs.

2.7.1 Age and entrepreneurship

Tamizharasi and Panchanatham (2010) conclude that individuals see an increase in their entrepreneurial attitude as they age. However, their database consists of 120 individuals who are already entrepreneurs. So these individuals have already taken the step to engage in entrepreneurial behavior. As such, the results are biased because with increased numbers of years active as an entrepreneur individuals are likely to value their entrepreneurial attitude higher over the years. Blanchflower et al. (2001) showed, based on OECD Labour Force Statistics and International Social Survey Programme (ISSP) data, that the probability of preferring self-employment over wage-employment decreases with age, while the likelihood of owning a business increases with age. In other words, the EA decreases while getting older and the chance of engaging in EB increases. Individuals in the age category 25-34 have the highest possibility to be a nascent entrepreneur, based on GEM data (Reynolds et al, 2003) and the Current Population Survey, General Social Survey, World Values Survey and Eurobarometer Surveys and ISSP data (Blanchflower, 2004). An individual is considered to be a nascent entrepreneur when they commit time and resources to founding a new firm and when this firm operates as an independent start-up (Wagner, 2004). One group that engages in

EB, namely the established business owners, see the highest prevalence in the middle age category (25-45) according to data from the UK (Storey, 1994). Evans and Leighton (1989), Storey (1994), and Cowling and Taylor (2001) all have showed that there is a curvilinear relation between age and entrepreneurial behavior. The younger and older age groups are expected to engage less in entrepreneurial behavior than the middle age group. For the older age group risk aversion and the opportunity cost of leaving wage-employment are high and thus they engage less in entrepreneurial behavior. The younger age group might lack the professional experience and financial means to start a business.

2.7.2 Gender and entrepreneurship

Grilo and Thurik (2008) and Langowitz and Minniti (2005) find, based on the Entrepreneurship Flash Eurobarometer and GEM data, that the respective chance of becoming an entrepreneur is similar for men and women, though the majority of entrepreneurs remains men. Delmar and Davidsson (2000) also conclude, based on a random sample among individuals living in Sweden, that men are more likely to become an entrepreneur. The difference in human (e.g. competences and knowledge), and social capital (social networks) between men and women is suggested to be an explanation for this disparity (Greene, 2000). Minniti and Nardone (2007) indicate, based on GEM data of 37 countries in 2002, that women are more sensitive to non-monetary factors than men and this might cause the disparity between EA and the actual EB between men and women. Women tend to consider family needs and nurturing children more than men do before starting a business. So there might be a bigger gap between the amount of women that have EA, but do not engage in EB than there is with men and thus EB is higher for men.

2.7.3 Education level and entrepreneurship

Whereas one would expect that a higher level of education (better able to identify opportunities in the market) would have a positive effect on EB the opposite has been shown in research. Uhlaner et al (2002) showed for 14 OECD countries, based on OECD data and World Value Surveys, that a higher level of education of the population leads to a lower level of entrepreneurs. Arenius and Minniti (2005) and Davidson and Honig (2003) are, based on GEM data and a random sample of individuals living in Sweden, uncertain about the relations between education and business start-ups. They question whether education creates a better EA and thus might create a basis for higher EB. The alternative of wage-employment does not come with issues related to capital constraints and regulations to follow. The occupational choice theory indicated that these restraints could withhold individuals from engaging in EB. Higher educated individuals might value the issues differently/better than lower educated individuals. The opportunity cost of becoming self-employed is also higher because the higher educated usually have a higher salary in wage paid jobs. Blanchflower (2004) did find a positive effect of post graduate training on start-up rates in the high-tech sector, based on the Current Population Survey, General Social Survey, World Values Survey and Eurobarometer Surveys and ISSP data.

2.7.4 Workstatus and entrepreneurship

Workstatus, being employed or unemployed, has an effect on the EA of individuals (Blanchflower, 2004). The employed value their skills more positively and thus have a higher chance of EA. The GEM 2008 executive report shows that when an individual is employed, the higher the level of social security that he/she has, the less they are inclined to become an entrepreneur (Bosma et al, 2009). Individuals make a trade-off between the financial compensation and benefits of being employed and being an entrepreneur in their occupational choice (Bird, 1989). Therefore, a higher social security in their current employment lowers the EB of people.

2.7.5 Household income and entrepreneurship

Kihlstrom and Laffont (1979), Evans and Jovanovic (1989), Kan and Tsai (2006) and Weber and Milliman (1997) all showed, making use of the National Longitudinal Survey from the USA, the Panel Study of Income Dynamics (PSID) and questionnaires conducted in the USA, that a higher household income leads to a higher chance to become an entrepreneur. This might be a result from the inability of individuals to receive funding from a bank and thus a higher household income makes it easier to acquire the required start-up funds. A stronger financial position also decreases the fear of failure of an individual and thus increases EA. Due to the easier access to start-up funds and a lower fear of failure, a higher household income has both a positive effect on EA and EB, which makes the choice of entrepreneurship a more rational choice.

2.8 Regional Economic Characteristics affecting EA and EB

Regional economic characteristics and their influence on EA and EB of individuals have been widely discussed in literature: To understand differences in entrepreneurship, the sub-national level is equally important as the national level (Sternberg 2000, Fritsch and Mueller, 2006; Tamásy, 2006). Reynolds et al (1994; 1995) and Bosma (2009) showed that there are several regional characteristics that have influence on EB in addition to cultural, institutional and national effects. These additional characteristics like unemployment, market concentration, economic strength of a region, taxation and inflation are considered below.

2.8.1 Unemployment effects on entrepreneurship

Oxenfeldt (1943) was one of the first to link unemployment to self-employment. His findings are on a regional level. The suggestion made by Oxenfeldt was that unemployment and those who have low prospects of becoming employed are more likely to turn to self-employment. The opportunity costs of starting an own business decrease as regional unemployment levels increase (Blau, 1987; Evans and Jovanovic, 1989; Evens and Leighton, 1990; Blanchflower and Meyer, 1994). Bosma (2009) shows a similar conclusion, by making use of GEM data of European regions, that the level of regional unemployment also affects start-up rates and thus EB, because for unemployed, the opportunity costs of self-employment are relatively low. A different argument that might indicate that higher regional unemployment levels do not lead to higher self-employment comes from the general economic conditions in a country. High

unemployment may be the result of a stagnating economy in which fewer entrepreneurial opportunities are present. The relationship between regional unemployment rate and self-employment is ambiguous. Other studies provide arguments on individual level. They indicate that those who are unemployed tend to have lower human capital and entrepreneurial talent, which are needed to start a business. Being unemployed means lower personal wealth, which would also reduce the likelihood of being self-employed (Johansson, 2000; Hurst and Lusardi, 2004).

2.8.2 Market concentration effects on entrepreneurship

Entrepreneurial Behavior is negatively affected by market concentration, a high share of SMEs and entry or exit barriers (Tödting and Wanzenböck, 2003; Fritsch, 1992). Capital requirements are an example of an entry barrier that can withhold individuals to engage in Entrepreneurial Behavior, but also the presence of many businesses in a region can create a lock-in situation. The region is too much equipped for the existing businesses and leaves limited room or chances for new businesses to start and develop. EB is also affected by demand and supply effects of wage-employed work (Tödting and Wanzenböck, 2003). When there is an abundance of other well paid job opportunities, the occupational choice to become self-employed is less likely. Good market conditions on both national and regional scale affect the start-up rate of businesses (e.g. due to an increase in the opportunities in business) and thus increase EB.

2.8.3 Agglomeration effects on entrepreneurship

Chinitz (1961) hypothesized that a key requirement for entrepreneurship is the presence of a network of suppliers. In recent studies the focus has turned towards agglomeration benefits of businesses within a certain geographical location. The economies of agglomeration can be found in economies of scale and network effects. Competing suppliers lower the cost for companies within the agglomeration, but also greater specialization can take place and a better supply of labour. There is a discussion on what size of firms could be best for an agglomeration. On the one hand, Henderson (2003), Rosenthal and Strange, (2003) and Glaeser et al (2010) focus on the role of smaller (younger) firms in creating agglomeration benefits and enhancing new business creation. While on the other hand there are studies that indicate that an 'anchor' firm is needed in a region, which attracts other firms and create spin-offs (Enright, 2000; Agrawal and Cockburn, 2002; Klepper, 2007; Greenstone et al., 2008). This anchor firm can even be a multinational. Delgado et al (2010) find, based on the Longitudinal Business Database covering the USA, that a strong cluster (with both multinationals and smaller companies) accelerates the start-up rate in that region's industry. The presence of agglomeration/clusters therefore seems to have an important influence on entrepreneurial behavior of regional residents. It is not clear however, what the best possible built up of companies in this agglomeration should be for the agglomeration to be performing optimally. Urbanization economies and the associated externalities suggest that firms should locate in the most densely populated markets, where productivity is the highest (Ciccone and Hall, 1996; Ciccone, 2002). In addition the expected quality of employer-employee is best,

the search costs to find extra workers is lowest and spillovers and other learning processes are taking place fastest, in urbanized areas (Helsley and Strange, 1990; Kim, 1990; Wheeler, 2001; Guiso and Schivardi, 2007; Rosenthal and Strange, 2004). However, bigger is not always better, because after a certain threshold dis-economies start to take over of the agglomeration economies. The order of arrival into the market, the productivity, the backward and forward linkages businesses have in the market or the sector in which the businesses operate become factors that influence their position in the market (Helsley and Strange, 1990; Behrens and Robert-Nicoud, 2008; Baldwin and Okubo, 2006; LaFountain, 2005). As paragraph 2.7.1 showed a too high market concentration has a negative effect on EB.

2.8.4 GRP and GDP effects on entrepreneurship

Beugelsdijk (2007) concludes in a regional study, by making use of 1998 Gross Regional Product (GRP) data from Eurostat, that regions that have experienced higher economic growth rates have a culture that can be characterized as entrepreneurial. The discussion how and if Gross Domestic Product (GDP) per capita affects entrepreneurship is still developing. Ovaska and Sobel (2004) find, based on Eurostat data of former socialist countries, that there is no significant impact of GDP per capita on the number of new enterprises established per 1000 inhabitants. Parker and Robson (2004) find, based on OECD data for 12 countries running from 1972-1996, that high GDP per capita increases entrepreneurship, which is a similar outcome as Fisman and Sarria-Allende (2004). The demand side of the economy might show extra possibilities in times of higher GDP per capita, which results in more individuals making use of the opportunity to start an own business. On the contrary there are the studies of Van Stel et al (2003), Noorderhaven et al (2004), Bjørnskov and Foss (2006) and Wennekers et al (2007) who all find, based on GEM data, OECD data and data from the World Bank, that GDP per capita reduces the entrepreneurial activity. There is one exception to be noted; the study of Van Stel et al (2003). They find by taking the square of GDP per capita that nascent entrepreneurship is more widespread, which suggest a u-shaped relationship. This u-shaped relationship is confirmed by Verheul et al (2004), who make use of GEM data from 2002 from 37 countries, with a suggested turning point of \$26,000. The explanation that Verheul et al provide is that with development the real wages increase which in turn increases the opportunity cost of self-employment. However, when the development continues a certain point is passed after which the service sector gains more importance in an economy, which increases the share of self-employed.

2.8.5 Inflation, taxation and FDI effects on entrepreneurship

Inflation, taxation and Foreign Direct Investment (FDI) are also potential determinants that influence individuals in their consideration to engage in EB. Ovaska and Sobel (2004) show, based on Eurostat data of former socialist countries, that inflation significantly reduces nascent entrepreneurship and thus EB. People avoid starting a business in times when there is high inflation, because inflation brings uncertainty that more people wish to avoid. Parker and Robson (2004) find, based on OECD data for 12 countries running from 1972-1996, that self-employment increases as the average income tax level increases. The greater opportunities in both tax deduction of work related expenditures and income tax evasion are the reason behind

the positive relation between self-employment and the average income tax level. Van Stel et al (2003) do not find that the tax level is of influence on entrepreneurs, nor does FDI influence the engagement in EB according to Parker and Robson 2004.

2.9: The effect of entrepreneurial attitude on entrepreneurial behavior

Arenius and Minniti (2005) and Tamásy (2006) showed a link between entrepreneurial attitude and behavior on an individual level. However, their datasets cause a bias because individuals already engaged in EB tend to think more positively about their EA as well. This problem stems from the order of the questions in the questionnaire where first entrepreneurial behavior and later entrepreneurial attitude is considered. Bosma and Wennekers (2004) found for the Netherlands that there is a willingness to become an entrepreneur. However, the actual entrepreneurial behavior stays behind. Grilo and Thurik (2006) find, based on the Flash Eurobarometer survey on Entrepreneurship from 2004 among 25 European countries and the USA, a similar conclusion for many EU countries and point out that administrative complexities in several countries limit both the entrepreneurial attitude and the actual entrepreneurial behavior as well as. The data show that the difference between latent (the wish to be self-employed) and actual entrepreneurship is higher in former communist European countries than Western European countries. Also at the national level and especially when it comes to the effect of national institutions and the perception of these institutions, there may be barriers between EA and EB (Blanchflower et al, 2002; Djankov et al, 2006; Van Stel et al, 2006). One such barrier is the behavior of the governments, which, in case of less democratic behavior, try to regulate entry. They hinder the process of firm entry.

Tamásy (2006) concludes, in an interregional study within German regions, that regional variation influences entrepreneurial activity both directly and indirectly, where the indirect effect proves to have an even stronger effect than the direct effect in the German regions, even after controlling for personal characteristics. The geographical environment influences start-up activities predominately indirectly via entrepreneurial attitudes. One example of such a determinant is age. Age is assumed to have both a direct and indirect effect. The suggestion is that age is directly linked to start-up activities. However, Tamásy also notes the indirect effect of age as it influences entrepreneurial attitude, which in turn influences the start-up activities. A word of caution is in place because Tamásy neglects the fact that his data input comes from GEM questionnaires, which means that the entrepreneurs answering the questions have a strong bias towards their own skills.

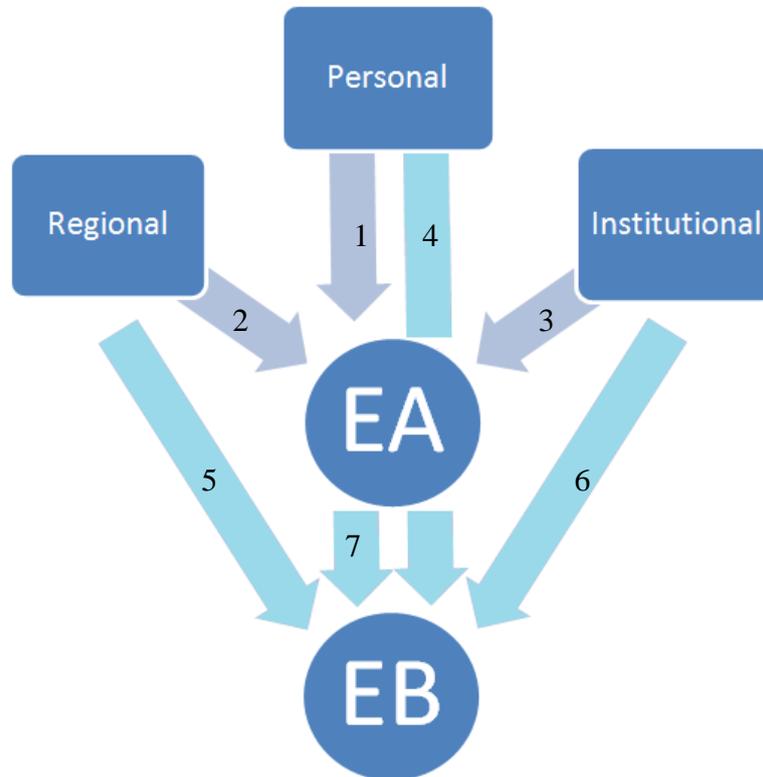
Davidsson and Wiklund (1997) find only limited evidence of the effect of values and beliefs on EB on regional level. Bosma (2009) concludes that the relation between EA and EB is not clear cut. Forces from both regional and national level have their influence on EA and EB. An example of these forces is the historical rooted culture in a country, but also regulations and legislation play a role on national level.

2.10 Graphical conceptual model

The previous paragraphs showed the influence of institutional, regional and personal characteristics on entrepreneurial attitude and entrepreneurial behavior. Also the influence of

EA on EB was shown. A graphical image of these relationships is shown in Figure 1. The gray-bluish arrows (1, 2, 3), indicate the influence of personal, regional and institutional characteristics on EA. The turquoise arrows (4, 5, 6 & 7) show the effect of personal characteristics, regional characteristic, institutions and EA on EB.

Figure 1



2.10.1 Hypotheses

Based on the theory some hypotheses will be tested. These hypotheses are introduced in Chapter 3 alongside the selection of data. Starting from paragraph 3.4 the hypotheses are provided based on theoretical support from other research and the graphical conceptual model shown in paragraph 2.10. Table 1 indicates using a + of – whether the expected influence of the independent variable is positive or negative on EA and EB, but does not state exact hypotheses. Table 1 states that:

- EU membership is expected to have a positive influence on EA and EB.
- Being a female is expected to have a negative influence on EA and EB.
- A higher age is expected to have a negative influence on EA and a positive influence on EB.
- Workstatus, those who work, are expected to have positive influence on EA and EB.
- A higher education is expected to have a positive influence on EA and EB.
- A higher household income is expected to have a positive influence on EA and EB.
- An entrepreneurial attitude is expected to have a positive influence on EB.
- a higher level of Unemployment is expected to have a negative influence on EA and a positive influence on EB.

- A higher Gross Regional Product is expected to have a positive influence on EA and EB.
- A higher level of inflation is expected to have a negative effect on EA and EB.
- A higher level of tax is expected to have a positive effect on EB and unspecified for EA
- A greater agglomeration is expected to have a positive effect on EB and a higher market concentration is expected to have a negative effect on EB. EA is unspecified.

Table 1: The expected influence of independent variables on entrepreneurial attitude and entrepreneurial behavior

Variable	Entrepreneurial attitude	Entrepreneurial behavior
EU membership	+	+
Female	-	-
(higher) Age	-	+
Workstatus (working)	+	+
Education	+	+
Entrepreneurial attitude	N/A	+
Household income	+	+
Unemployment	-	+
Gross Regional Product	+	+
Inflation	-	-
Taxation	N/A	+
Agglomeration/market concentration	N/A	+/-

Chapter 3: Data and Methodology

3.1 Methodological approach of the research

This chapter is set out to provide insight how the research of this thesis is built up. This thesis tries to find an answer to the question: *To what extent does EU accession relate to subsequent changes in both attitude towards entrepreneurship and entrepreneurial behavior and how can entrepreneurship policy in Macedonia, as a candidate EU member, anticipate on this?*

The first step is a data analysis. The second step is to use the data analysis as input for the first questionnaire. The third and last step is to use the outcomes of the first questionnaire as input for a second questionnaire. The way the data analysis is performed and the need for two questionnaires is explained in the remaining paragraphs of this chapter.

3.1.1 Quantitative approach

The first part of the research question, which measures to what extent EU accession relates to subsequent changes in both attitude towards entrepreneurship and entrepreneurial behavior, is answered by studying the effects of EU accession on entrepreneurial attitude and behavior in Hungary and Slovenia, who have recently joined the EU and which share a history similar to Macedonia. The selection of these countries is discussed in paragraph 3.2. A quantitative analysis is conducted in the statistical programme SPSS based on data on EA and EB of the respective countries prior- and post-EU accession. The aim is to acquire insight in the determinants that affect EA and EB prior to EU accession and whether there is a change in determinants after EU accession took place. Also important is to establish whether EA and EB change due to EU accession itself. The selection of the data is covered in paragraph 3.3. The quantitative analysis serves as a basis for to the next step in this research.

3.1.2 Qualitative approach

The qualitative approach starts out with a brief overview of the entrepreneurship related policies in Hungary, Slovenia and Macedonia. This is done to show what the countries have done and are currently undertaking in the field of entrepreneurship related policy. The qualitative part of the research answers the latter part of the research question, which studies the way entrepreneurship policy in Macedonia, as a candidate EU member, can anticipate on changes in attitude and behavior as a result of EU accession. The plan is to conduct a questionnaire among experts from Hungary and Slovenia based on the quantitative analysis of EA and EB in these countries. The experts are confronted with the data outcome from their country and are asked to reflect on the policy that was in place at the time. This is where the quantitative part and the qualitative part of the thesis merge. The experts have been selected based on their knowledge of entrepreneurship and entrepreneurship policy in their country. The information that comes from the questionnaire allows for statements to be made concerning the policies applied towards entrepreneurship prior, during and after EU accession in Hungary and Slovenia.

The outcome of the expert questionnaire from Hungary and Slovenia is compared to the policy situation of Macedonia in a second questionnaire, which again is conducted among

entrepreneurship experts from Macedonia. These experts are selected based on their knowledge of entrepreneurship and entrepreneurship policy in Macedonia.

The input from the Macedonian experts combined with the data analysis and questionnaires from Hungary and Slovenia result in an advice on how entrepreneurship policy in Macedonia can anticipate best on EU membership.

The questionnaire is on a scaling base. This means that a statement is made on which the experts can indicate their opinion by selecting a bullet, which runs from ‘not at all’ to ‘absolutely’. Even though this is a closed answer, there is room for the expert to include comments. As an example the questions in the questionnaire will look roughly like this.

<i>Question 1:</i>						
<i>The influence of X on Y could have been more successful if Z was considered in an earlier stage?</i>						
<i>Not at all</i>			<i>in some parts</i>			<i>Absolutely</i>
<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>
<i>Comments:</i>						
.....						
.....						

3.2 Country selection

In order to make statements on how Macedonia can anticipate on changes that EU accession causes, both in terms of attitude towards entrepreneurship and entrepreneurial attitude, the experiences on EA and EB of other countries who have already experienced EU accession are needed to learn from. These other countries need to have a comparable history to Macedonia.

Macedonia is a young country that has been part of Yugoslavia for decades. This means that the country, with its 2.1 million inhabitants, has been subject to a socialist regime, but also that it has been part of a bigger group of countries before it gained independence in 1991. More information on Macedonia and especially the policy developments in the country are presented in Chapter 4.

A country that shares a similar history as Macedonia is Slovenia. Like Macedonia the country has been part of Yugoslavia and thus was subject to a socialist regime. The country, with just over 2 million inhabitants, joined the EU in 2004. The shared history and the fact that Slovenia joined the EU in recent history makes that Slovenia is comparable with Macedonia. More information on Slovenia and especially the policy developments in the country are presented in Chapter 4.

Another country that is eligible for comparison with Macedonia is Hungary. This country with its 10 million inhabitants, has experienced socialist ruling and has, like Slovenia, joined the EU in 2004. Hungary has been part, though be it a longer time ago than Macedonia and

Slovenia, of a bigger group of nations. Hungary was part of The Austrian-Hungarian empire (1867-1918), but gained independence. The fact that Hungary recently joined the EU and was part of a larger empire, makes it eligible for comparison with Macedonia. More information on Hungary and especially the policy developments in the country are presented in Chapter 4.

3.3 Data selection

3.3.1 The dependent variables

This thesis uses two different dependent variables. One is a measure for entrepreneurial attitude and the other measures the entrepreneurial behavior.

3.3.1.1 Entrepreneurial attitude

Arenius and Minitti (2005) consider perceptual variables that show the subjective attitude of individuals towards entrepreneurship. Bosma and Wennekers (2004) use three individual aspects to measure entrepreneurial attitude. As paragraph 2.5.1 shows the fear of failure, opportunity recognition and confidence in own knowledge and skills are important aspects that can indicate an individual's entrepreneurial attitude. When an individual has no fear of failure, recognizes opportunities and has the confidence in its own knowledge and skills to start an own business, this person is considered to have an entrepreneurial attitude. This thesis argues that someone has an entrepreneurial attitude when he or she has at least 2 of the 3 aspects that can indicate EA. Two out of three is used because of the three variables that could indicate EA this represents at least a majority.

The fear of failure, opportunity recognition and knowledge and skills can be measured by making use of data from the Global Entrepreneurship Monitor (GEM). Since 1999, GEM has conducted yearly telephone interviews in an increasing number of countries to acquire national indicators on entrepreneurial activity. Between 1999 and 2010 the number of participating countries grew from 10 to 59. GEM is a not-for-profit academic research consortium that has as its goal to make available information on entrepreneurship activity on a global scale. The GEM study is the largest single study of entrepreneurial activity in the world (GEM Consortium, 2011).

Slovenia, Hungary and Macedonia have all participated in GEM. The data is available for the years 2002 until 2006 for Slovenia and Hungary. This means that both data from pre-EU accession and post-EU accession is available in these two countries. Macedonia has only participated in 2008.

3.3.1.2 Entrepreneurial behaviour

To establish who is engaging in entrepreneurial behaviour a quick look back at the occupational choice theory and the definition of entrepreneurship is needed.

Banerjee and Duflo (2007) see entrepreneurship as an occupational choice. Entrepreneurs are seen as self-employed next to those who are wage-employed and the unemployed. Those who engage in entrepreneurial behavior made the occupational choice of self-employment. Considering the definition of entrepreneurship used in this thesis, as proposed by Wennekers and Thurik (1999); entrepreneurship is the ability to perceive and create new economic

opportunities within or outside existing organizations and to introduce them to the market in the face of uncertainty. This indicates that perceiving and creating an economic opportunity is useful to become an entrepreneur and thus to engage in entrepreneurial behavior. It also means that the idea of entrepreneurship can begin within an existing organization. Therefore it is important to carefully select the right individuals as entrepreneur. This is the group of individuals who have an existing business, but also those individuals who commit time and resources in founding a business and do so independently (the so called nascent entrepreneur). These nascent entrepreneurs have already conceptualized the idea of a firm, but the firm birth has not yet taken place. As said before, the committing of time and resources in founding a business can already take place when an individual is in an existing business, hence is wage-employed. The GEM questionnaire incorporates questions concerning the occupational choice of individuals and the reasoning behind it. This dataset serves as an indicator for entrepreneurial activity. The first self-employed are part of two groups, namely managers that own a business that is up to 42 months old and managers that own a business that is older than 42 months (established business owners). The GEM questionnaire also recognizes nascent entrepreneurs and they are the 3rd group that make up the entrepreneurs in the database. The nascent entrepreneur and the manager/owner of a business up to 42 months old are joined in one group called 'Total Early-stage Entrepreneurial Activity' (TEA) (GEM Global Report, 2009) or Early Stage Entrepreneurial Activity (ESEA). This TEA/ESEA terminology indicates that the self-employed who own a business up to 42 months old can indeed be regarded as individuals who engage in entrepreneurial activity. In addition to the TEA/ESEA reasoning, this research will also regard the individuals who manage and own an established business (EBO), of 42 months and older.

In sum this means that (1) the TEA/ESEA group (nascent entrepreneur and owners of businesses up to 42 months) and (2) the established business owners are used to determine the presence of entrepreneurial behavior within the dataset of GEM.

3.3.2 Independent variable selection

Entrepreneurial attitude and behavior of individuals is influenced by institutional characteristics, personal characteristics and regional economic characteristics and as was shown in Chapter 2. The selection of the three different types of characteristics is discussed next.

3.4 Institutional Characteristics

The period of interest that is covered by the data holds a time in which Slovenia and Hungary were subject to a changing institutional setting. The data covers a period from prior their accession to the EU and after. Institutions and culture are important factors that can influence how opportunities are perceived, which might affect the entrepreneurial attitude and in turn entrepreneurial behavior (Thurik et al, 2002). Institutions that are consistent with free market capitalism are found to be beneficial as they reduce uncertainty and provide clear regulations (Hall and Sobel, 2008). A part of the information on institutional change comes from the analysis of the data, which covers periods prior and after EU accession. However to gain more insight in the effect of institutional characteristics and institutional change on EA and EB it is

necessary to conduct a questionnaire based on the data outcomes. This allows to more deeply analyse how the influence of EU membership has been on EA and EB and how the policy of the respective country is perceived by experts. These questionnaires are held among experts from the countries in question. The questionnaires should explain whether the increased market size, because of the open institutional character of the EU, has influenced EA and EB. In addition the experts indicate best practices and provide a word of warning for certain pitfalls when dealing with institutional change.

The experts are selected based on their knowledge of the country (Slovenia, Hungary and Macedonia) and their familiarization with entrepreneurship policy.

The hypotheses are as follows:

- Controlled for personal characteristics and regional characteristics EU accession increased entrepreneurial attitude.
- Controlled for personal characteristics and regional characteristics EU accession increased entrepreneurial behavior.
- The 'power' of determinants of EA and EB change after EU accession.

3.5 Personal characteristics

Rotter (1975, 1990) showed that individual experiences and changes in the individuals life play a central role in the interplay of the environment and the individual. Contingency thinking looks at personal characteristics that are needed in entrepreneurship, which are related to the firms' environment and the current situation (Gilad and Levine, 1986). Becoming an entrepreneur can be subject to changes in one's life which depend on the individuals personal characteristics. Therefore it is important to study the effect of personal characteristics on entrepreneurial attitude, because personal characteristics can change over time due to new experiences. Paragraph 2.6 introduced five personal characteristics that might influence entrepreneurial attitude and entrepreneurial behavior.

3.5.1 Age

Paragraph 2.6.1 showed that entrepreneurial attitude decreases as individuals get older, but also that there is a curvilinear relation between age and entrepreneurial behavior. This means that younger and older age groups are less likely to engage in EB, whereas the middle age group has the highest chance to engage in EB. In selecting the right data we turn to GEM. The respondents of the GEM questionnaire have all stated their age and have been categorized further based on their age. The GEM data divides the age groups in young (15-34 years), middle (35-54 years) and old (55 years and older). In doing so a comparison can be made between the different age groups, where according to the theory differences in the chance of EA and EB should be present.

In the regressions with EA and EB as the dependent variable, the young age category is set as the reference category. This way the middle and old age group can be compared with the young age group.

3.5.1 Gender

Previous studies indicated that the chance of becoming an entrepreneur is similar for men and women (Grilo and Thurik, 2008; Langowitz and Minniti, 2005), however men are more likely to be entrepreneur (Delmar and Davidsson (2000)). All respondents participating in GEM were asked to indicate their gender, which resulted in two obvious categories namely male and female.

This thesis studies the entrepreneurial attitude of male and female by setting male as the reference category. In doing so statements can be made on the entrepreneurial attitude and entrepreneurial behavior of women compared to men.

3.5.3 Education level

Arenius and Minniti (2005) and Davidson and Honing (2003) were unsure about the influence of education level on entrepreneurial attitude. The occupational choice theory indicated that capital restraints and regulations could withhold individuals from engaging in EB. Higher educated individuals might value the issues differently/better than lower educated individuals. The opportunity cost of becoming self-employed for the higher educated is also higher because the higher educated usually have a higher salary in wage paid jobs. Regardless of this the expectation is that a higher level of attained education leads to a higher chance of an entrepreneurial attitude and a higher chance to engage in entrepreneurial behavior.

Our data should show different levels of education attained to analyze the chances that individuals have an EA and engage in EB. Within the GEM data a division is made between 5 different levels of education: *no education*, *some secondary*, *secondary degree*, *post secondary* and *grad exp*. The respondent group with no education at all is either not existing (Slovenia) or very small (Hungary). In case they are present, they have been added to the missing variables. The reference category is the lowest educated group, namely respondent that only received *some secondary* education. The second group has a *secondary degree* and the third group is a combination of the groups *post secondary* degree and *grad exp*. Combining the two groups that have the highest level of education gives a sample group that is large enough to be compared with the other levels of education.

3.5.4 Workstatus

Employed individuals have a higher chance of an EA than unemployed individuals (Blanchflower, 2004). The choice for self employment depends on the trade-off between the financial compensation and benefits of being wage-employed and being a self-employed entrepreneur (Bird, 1989). The GEM 2008 executive report shows that when an individual is employed, the higher the level of social security that he/she has, the less they are inclined to become an entrepreneur (Bosma et al, 2009). The GEM questionnaire asks the respondents to indicate their workstatus. The variable workstatus has three categories, namely (1) *working*, (2) *not working* and *student or retired*. The people that are working are either full time or part time employed.

The *working* group is selected as the reference category both when EA and when EB are the dependent variable. This way a statement can be made on the *not working* and *student or*

retired compared to the working population concerning entrepreneurial attitude and entrepreneurial behavior.

3.5.5 Household income

Several studies showed that a higher incomes leads to a higher chance to have an entrepreneurial attitude and engage in entrepreneurial behavior (Kihlstrom and Laffont, 1979; Evans and Jovanovic, 1989; Kan and Tsai, 2006; Weber and Millijman, 1997). The GEM questionnaire asks the respondents for their household income and this puts them in an income bracket. The GEM data recognizes three different income brackets. Namely the lowest, middle and highest 33% income bracket.

By setting the lowest income group as the reference category a comparison can be made between the middle and highest income group in relation to the lowest income group.

3.5.6 General hypothesis personal characteristics

There has already been done a lot of research in the field of personal characteristics and entrepreneurial attitude and entrepreneurial behavior. Therefore not every variable has a hypothesis, but one general hypothesis is formulated for personal characteristics. The hypothesis:

The personal characteristics behave according to the expectation that are presented in Table 1 in paragraph 2.10.

3.6 Regional Economic Characteristic

Parker (2005) and Fritsch and Mueller (2006) found that regional variation in entrepreneurship is persistent. Reynolds et al (1994; 1995) showed that there are several regional characteristics that have influence on entrepreneurial behavior. Even though this paragraph looks at regional economic characteristics and entrepreneurial attitude, the following characteristics, as mentioned by Reynolds et al, are assessed in relation to entrepreneurial attitude: unemployment, personal wealth, economic strength of a region, taxation and inflation.

3.6.1 Agglomeration and market concentration

Entrepreneurial Behavior is negatively affected by market concentration, a high share of SMEs and entry or exit barriers (Tödting and Wanzenböck, 2003; Fritsch, 1992). Delgado et al (2010) find, based on the Longitudinal Business Database covering the USA, that a strong cluster (with both multinationals and smaller companies) accelerates the start-up rate in that region's industry. The presence of agglomeration/clusters therefore seems to have an important influence on entrepreneurial behavior of regional residents. Henderson (2003), Rosenthal and Strange, (2003) and Glaeser et al (2010) focus on the role of smaller (younger) firms in creating agglomeration benefits and enhancing new business creation. The Worldbank provides national data on the business entry rate (new registrations as a percentage of the total businesses) and data on the total number of businesses registered.

3.6.2 Unemployment

The data on unemployment for Slovenia, Hungary and Macedonia come from Eurostat. The data are on NUTS 3 level and range from 2002 until 2006 and are on an annual basis. The relation between unemployment and self-employment is ambiguous. Several studies indicate that the opportunity cost of starting an own business decreases as unemployment increases (Evans and Leighton, 1990; Blanchflower and Meyer, 1994). An argument that is closer to entrepreneurial attitude comes from Johansson (2000) and Hurst and Lusardi (2004). Those who are unemployed in times of low unemployment tend to have lower human capital and entrepreneurial talent.

3.6.3 GRP and GDP

Ovaska and Sobel (2004) find, based on Eurostat data of former socialist countries, that there is no significant impact of GDP per capita on the number of new enterprises established per 1000 inhabitants. Van Stel et al (2003) find a u-shaped relation between GDP and entrepreneurial activity. Higher real wages increase the opportunity cost of self-employment and result in lower entrepreneurial activity. The data come from Eurostat and are on a NUTS 3 level. The countries of interest in this study are all former socialist countries, just like Ovaska and Sobel's research.

3.6.4 Inflation, Taxation and FDI effects

Ovaska and Sobel (2004) show, based on Eurostat data of former socialist countries, that inflation significantly reduces nascent entrepreneurship and thus EB. People avoid starting a business in times when there is high inflation, because inflation brings uncertainty that more people wish to avoid. The inflation data come from the Worldbank and measure inflation of consumer prices on an national annual percentage.

Parker and Robson (2004) find, based on OECD data for 12 countries running from 1972-1996, that self-employment increases as the average income tax level increases. The Worldbank provides data on annual basis which measures the taxes on income, profits and capital gains as a percentage of total taxes.

According to Parker and Robson (2004), there is no relation between FDI and the engagement in EB. The FDI data come from the Worldbank and are on a national scale.

3.6.5 General hypothesis on regional characteristics

The regional characteristics that are incorporated in the final regression are subject to one hypothesis. This is done to avoid many different hypotheses each related to one regional characteristic. The hypothesis is as follows:

The regional characteristics behave according to the expectation as shown in Table 1 in paragraph 2.10.

Chapter 4: Context of Hungary, Slovenia and Macedonia

This chapter is designed to provide additional information about the countries that are being analyzed. It starts with an overview of the national or EU policy that was applied towards entrepreneurship at the time of interest. Furthermore there is an overview of several national indicators that could be important in understanding EA and EB development. Lastly, it contains an overview of the development in entrepreneurial attitude (EA) and entrepreneurial behavior (EB) that has taken place in the selected countries.

This chapter answers (in part) the following sub questions:

- To what extent does the data show changes in Hungary and Slovenia in terms of entrepreneurial attitude and entrepreneurial behavior after EU accession?
- What did EU accession change in Hungary and Slovenia in terms of government policy and regulation with relation to entrepreneurship?

4.1 Hungary

4.1.1 Entrepreneurial attitude and entrepreneurial behavior in Hungary

Table 2 shows the development of entrepreneurial attitude in Hungary. The tables show years in which the survey was administered. From 2004 onwards the data represent post-EU times. All years before that are pre-EU. The answers from GEM data have been weighted to avoid a possible overrepresentation of certain groups within the data. The presence of any overrepresentation is avoided this way and the chance of a bias in the data is evaded as well.

Table 2: Entrepreneurial attitude in Hungary.

			Year of survey				Total / average
			2001	2002	2004	2006	
Respondents that have an entrepreneurial attitude	NO	number	1148	1151	1303	1529	5131
		% within Year	57,4%	57,6%	72,9%	61,2%	61,9%
	YES	number	852	849	485	971	3157
		% within Year	42,6%	42,5%	27,1%	38,8%	38,1%
Total	number	2000	2000	1788	2500	8288	
	% within Year	100,0%	100,0%	100,0%	100,0%	100,0%	

Source: based on GEM data

From the data in Table 2 it can be concluded that the percentage of people with an entrepreneurial attitude in Hungary was quite stable in the years before EU accession (2001 and 2002) and experienced a drop in the year of EU accession to 27.1%. This percentage recovered in 2006 to 38.8%.

The development of entrepreneurial behavior in Hungary is presented in Table 3. The definition of EB is according to the definition of EB provided in Chapter 2.5. The development of EB follows a similar path as EA. In the years prior to EU accession the amount of people who engage in EB is at a level above the average of the entire period.

However, in 2004 there is also a strong drop in the percentage of people engaged in EB and this restores to more pre-EU levels in 2006.

Table 3: Entrepreneurial behavior in Hungary

			Year of survey				Total / average
			2001	2002	2004	2006	
Respondents that engage in entrepreneurial behavior	NO	number	1714	1768	2647	2185	8314
		% within Year	85,7%	88,4%	93,6%	87,4%	89,1%
	YES	number	286	232	182	315	1015
		% within Year	14,3%	11,6%	6,4%	12,6%	10,9%
Total		number	2000	2000	2829	2500	9329
		% within Year	100,0%	100,0%	100,0%	100,0%	100,0%

Source: based on GEM data

An additional division that can be made is the splitting of entrepreneurial behavior back into the groups of early stage entrepreneurial activity (ESEA) and the established business owners (EBO). ESEA is the group of individuals who are actively gathering resources to start a business or who have a business up to 42 months. The EBO represents the group of respondents who own a business older than 42 months. Table 4 shows the development of ESEA and like the development of entrepreneurial behavior in table 3 there is a drop in 2002 and another in 2004. Table 5 shows the established business owners and again there is a drop of respondents that indicate to be an EBO in 2004. This indicates that the drop in 2004 when considering EB is not solely based on ESEA or the established business owners who experience a drop. Both of the underlying variables experience this decrease. It is worth noting that adding up ESEA and established business owners data will not give the same absolute number for EB because some respondents indicated that they are young and old entrepreneurs at the same time. They are active in multiple types of entrepreneurial behavior, but when considering EB they are treated just as individuals who are only active in ESEA or EBO.

Table 4: Early stage entrepreneurial activity in Hungary

			Year of survey				Total / average
			2001	2002	2004	2006	
Involved in ESEA	NO	number	1823	1869	2708	2349	8749
		% within Year	91,2%	93,5%	95,7%	94,0%	93,8%
	YES	number	177	131	121	151	580
		% within Year	8,9%	6,6%	4,3%	6,0%	6,2%
Total		number	2000	2000	2829	2500	9329
		% within Year	100,0%	100,0%	100,0%	100,0%	100,0%

Source: based on GEM data

Table 5: Established business owners in Hungary

			Year of survey				Total / average
			2001	2002	2004	2006	
Established business owner	NO	number	1882	1890	2767	2332	8871
		% within Year	94,1%	94,5%	97,8%	93,3%	95,1%
	YES	number	118	110	62	168	458
		% within Year	5,9%	5,5%	2,2%	6,7%	4,9%
Total		number	2000	2000	2829	2500	9329
		% within Year	100,0%	100,0%	100,0%	100,0%	100,0%

Source: based on GEM data

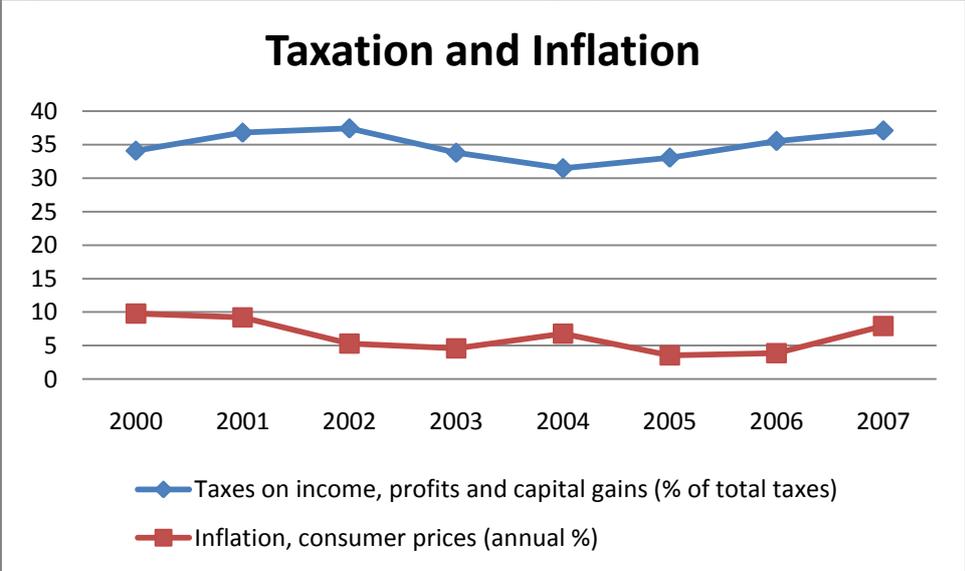
4.1.2 National indicators of entrepreneurial attitude and entrepreneurial behavior

There are several national indicators that according to literature could potentially influence EA and EB. Market concentration, inflation, taxation and FDI are national indicators that can influence the level of EA and EB in a country (Delgado et al, 2010; Tödting and Bockenböck, 2003; Ovaska and Sobel, 2004; Parker and Robson, 2004). The data used in this part comes from the World Bank and runs from the years 2000 until 2007. The data from 2004 onwards is post-EU.

4.1.2.1 Inflation and taxation in Hungary

Figure 2 shows the development of inflation and taxation from 2000 to 2007. It shows quite well that leading up to EU accession the taxes on income, profits and capital gains as a percentage of total tax decreases in Hungary. After EU accession this tax percentage steadily increases year by year. Inflation becomes lower as EU accession gets closer. However there is a peak in the accession year of almost 7% and the percentage fluctuates in the years after accession. Ovaska and Sobel (2004) found that high inflation significantly reduces nascent entrepreneurship. 2004 did see a peak in inflation and also a drop in EB and this follows Ovaska and Sobel's finding. There is however not a clear causality that can be established between the two variables. 2004 was also the year with the lowest tax level and following Parker and Robson (2004) this fits well with their finding that self employment increases as the average income tax level increases or vice versa. Again the causality between the two variables cannot be determined with certainty.

Figure 2: Taxation and Inflation in Hungary

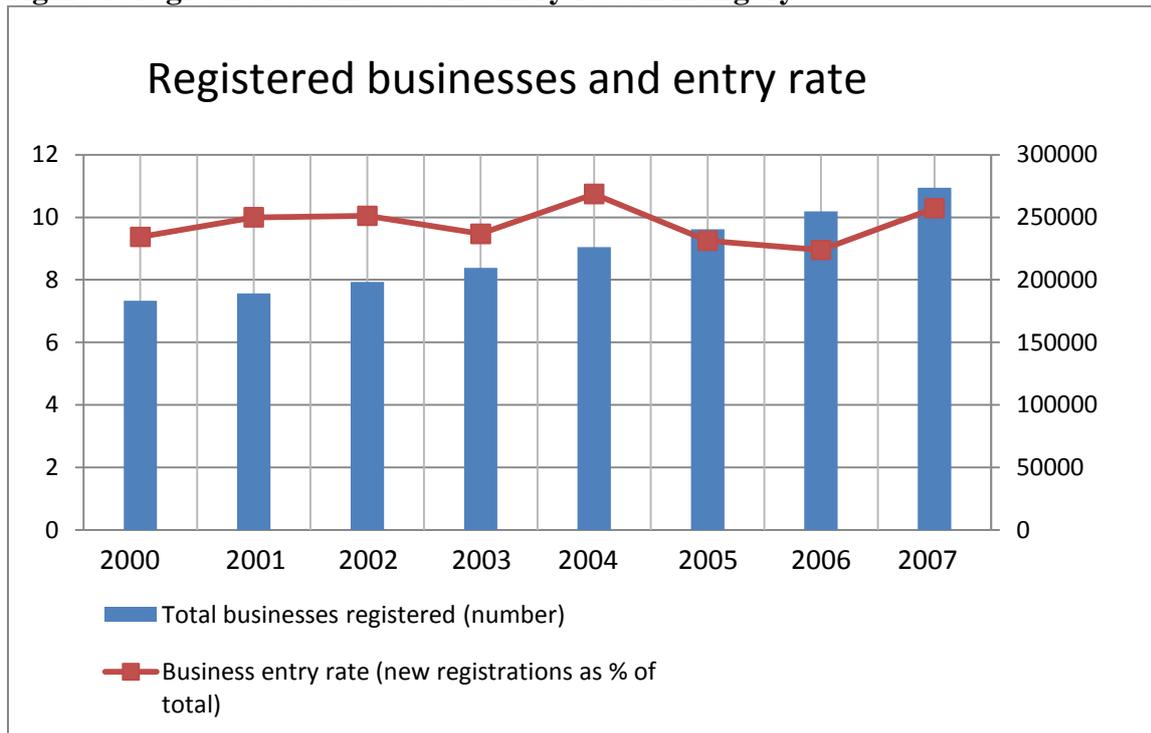


Source: own creation based on World Bank data

4.1.2.3 Registered businesses and entry rate in Hungary

The number of registered businesses and the entry rate are important because they indicate the agglomeration of businesses in a country. From theory we know that more businesses in a region (a higher agglomeration) accelerates the start-up of other businesses as well (Delgado et al, 2010). Figure 3 shows the development of the registered businesses and the entry rate of new businesses in Hungary. The entry rate is the percentage of new businesses as part of the total number of businesses. It is clear that the entry rate is the highest in 2004, while table 3 indicated that EB was very low among the respondents in the GEM data. Clearly the number of businesses is steadily rising in Hungary and the entry rate remains around the 9% to 10% each year.

Figure 3: registered businesses and entry rate in Hungary



Source: own creation based on World Bank data

4.1.3 Entrepreneurship policy in Hungary

Hungary did not have a specific policy that directly targets entrepreneurship during the period for which the GEM data is available (2001-2006). Entrepreneurship policy is incorporated in SME policy, which will therefore serve as input for this part. In order to understand the entrepreneurship policy in Hungary it is important to look at European legislation as well. The European Charter for Small Enterprises aims for the best possible environment for small businesses and entrepreneurship, because small enterprises are a key source of jobs and a breeding ground for business ideas (EU Commission, 2000). Hungary committed itself to the EU Charter in 2002. The Charter sums up 10 points that should receive attention in order to stimulate SME development:

1. Education and training for entrepreneurship
2. Cheaper and faster start-up
3. Better legislation and regulation
4. Availability of skills
5. Improving online access
6. More out of the Single Market
7. Taxation and financial matters
8. Strengthen the technological capacity of small enterprises
9. Successful e-business models and top-class small business report
10. Develop stronger, more effective representation of small enterprises' interests at Union and national level. (EU Commission, 2000)

Based on the EU Charter Hungary developed a Medium-term Action Programme (Ministry for National Economy, 2005) in which it aims to improve online access for entrepreneurs.

Even more importantly is that there is a focus on the education and training of entrepreneurs, the availability of skills and cheaper and faster start-ups. This can be achieved by making entrepreneurship education available at a younger age (starting at primary school) already and by taking away excessive rules and regulations that hinder the start-ups.

In 2003 the European Charter for Small Enterprises was supplemented by the European Union. The 'Green Paper: Entrepreneurship in Europe' was drafted in order to boost entrepreneurial thinking and with the aim to seek answers to how entrepreneurial activity could be enhanced in Europe. The Green Paper recognizes that *'it is the individual's motivation and capacity, to independently or within an existing organization, identify and exploit an opportunity in order to produce new value or economic success'* (Hungarian Ministry for National Economy, 2005 pp.21). This should be achieved by bringing down barriers to business development and growth, create a society which values entrepreneurship and balance the risks and rewards of entrepreneurship.

This Green Paper later in 2004 resulted in the Action Plan (Ministry for National Economy, 2005): The European Agenda for Entrepreneurship in which five strategic areas were identified. The first two areas aim at EA by fuelling the entrepreneurial mindset and encouraging people to become an entrepreneur. The third area prepares entrepreneurs for growth and market competition. The fourth area considers the financial side and aims to improve the flow and access of finance. The last area focuses on regulations related to SME and how these can be simplified. (Hungarian Ministry for National Economy, 2005)

The Hungarian government had a mid-term SME development strategy for the years 2003-2006. This program was called the Széchenyi Enterprise Development Programme and was adopted in 2002. The objectives of this program were firstly to further stimulate development of growing SME and their expansion on the domestic and foreign market. Secondly, to provide support to stagnating but viable SME to succeed and operate on the single EU market. And third and lastly to assist SME in a disadvantage region to create equal chances. (Hungarian Ministry for National Economy, 2007). This enterprise development programme is a Hungarian programme that unlike earlier SME policies was not adopted from EU policy, but drafted by the Hungarians themselves.

This mid-term strategy focuses primarily on established business and leaves out explicit development and training of entrepreneurs. Even in a later stage (2006) when the 'New Hungary' program was introduced, by the Hungarian government, there was little attention for entrepreneurship specific policy. Many of the national plans focus on financial aid for entrepreneurs, which might take away some of the fear of failure in the country, but it does not do anything to increase the level of education. The program 'In Tune with Business', which was introduced in 2006 by the Hungarian government, aims to improve the entrepreneurial environment by reducing operational and transactional cost of enterprises. By decreasing or even removing these burdens the business ownership can be boosted significantly (Hungarian Ministry for National Economy, 2007).

As a conclusion about entrepreneurship policy in Hungary the following can be stated. Many of the SME policy plans in Hungary touch upon entrepreneurship policy, but clear policy towards entrepreneurship is only developing slowly. The program 'In Tune with Business' is clearly moving away from the SME policy that covered entrepreneurship policy in the

beginning of the decade and allows for policy directly aimed at entrepreneurship. It seems that there is a realization that entrepreneurship needs a different approach than SMEs do.

4.2 Slovenia

4.2.1 Entrepreneurial attitude and entrepreneurial behavior in Slovenia

Like the Hungarian data also the Slovenian data is weighted to avoid any overrepresentation. Table 6 shows the development of entrepreneurial attitude (EA) in Slovenia. The year 2004 belongs to the post-EU period. Again, like the case was with Hungary, fear of failure, knowledge and skills and seeing opportunities serve as the variables that make up an entrepreneurial attitude. Whenever a respondent is positive on at least two out of the three variables he or she will be regarded to have an entrepreneurial attitude. Roughly speaking well over 40% of the Slovenian respondents indicated that they have an entrepreneurial attitude. In 2005, the year after EU accession there is a drop to just below 40%, only to restore in the next year to the highest percentage of the five years observed.

Table 6: Entrepreneurial attitude in Slovenia

			Year of survey					Total / average
			2002	2003	2004	2005	2006	
Respondents that have an entrepreneurial attitude	NO	number	955	576	522	1166	914	4133
		% within Year	56,4%	53,8%	52,4%	60,1%	48,7%	54,6%
	YES	number	737	495	474	775	961	3442
		% within Year	43,6%	46,2%	47,6%	39,9%	51,3%	45,4%
Total	number	1692	1071	996	1941	1875	7575	
	% within Year	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Source: based on GEM data

The entrepreneurial behavior (EB) is shown in Table 7. Just like the Hungarian data EB is made up of those who are engaged in early stage entrepreneurial activity (ESEA) and the established business owners (EBO). The Slovenian EA and EB do not seem to follow each other perfectly. In the year 2004 there is a drop in EB, whereas this is not the case for EA in that year. The increase in EB in 2005 is not reflected in the EA of that year. However, there is no clear indication of causality here. If there is any relation then it seems that there is a certain time lag between EA and EB. EA decreased in the year after EB experienced a decrease.

Table 7: Entrepreneurial behavior in Slovenia

			Year of survey					Total / average
			2002	2003	2004	2005	2006	
Respondents that engage in entrepreneurial behavior	NO	number	1506	1527	1568	2704	2736	10041
		% within Year	89,0%	90,8%	93,4%	89,7%	91,0%	90,6%
	YES	number	186	155	111	312	272	1036

		% within Year	11,0%	9,2%	6,6%	10,3%	9,0%	9,4%
Total		number	1692	1682	1679	3016	3008	11077
		% within Year	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Source: based on GEM data

Table 8 and 9 show that the underlying variables of EB, namely ESEA and the established business owners, who both experienced a drop in the first year of post-EU namely 2004. This means that the drop in EB cannot be ascribed to either ESEA or the established business owners. Comparing Hungary with Slovenia it shows that the percentage of people active in ESEA is one and a half times or even twice as high in Hungary as in Slovenia, but the general trend is that they follow the same pattern year by year. When looking at the established business owners, the percentage in Hungary is sometimes higher and sometimes lower compared to Slovenia.

Table 8: ESEA in Slovenia

		Year of survey						Total / average
		2002	2003	2004	2005	2006		
Involved in ESEA	NO	number	1614	1614	1635	2885	2869	10617
		% within Year	95,4%	96,0%	97,4%	95,7%	95,4%	95,8%
	YES	number	78	68	44	131	139	460
		% within Year	4,6%	4,0%	2,6%	4,3%	4,6%	4,2%
Total		number	1692	1682	1679	3016	3008	11077
		% within Year	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Source: based on GEM data

Table 9: Established business owners in Slovenia

		Year of survey						Total / average
		2002	2003	2004	2005	2006		
Established business owner	NO	number	1579	1590	1608	2827	2874	10478
		% within Year	93,3%	94,5%	95,8%	93,7%	95,5%	94,6%
	YES	number	113	92	71	189	134	599
		% within Year	6,7%	5,5%	4,2%	6,3%	4,5%	5,4%
Total		number	1692	1682	1679	3016	3008	11077
		% within Year	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Source: based on GEM data

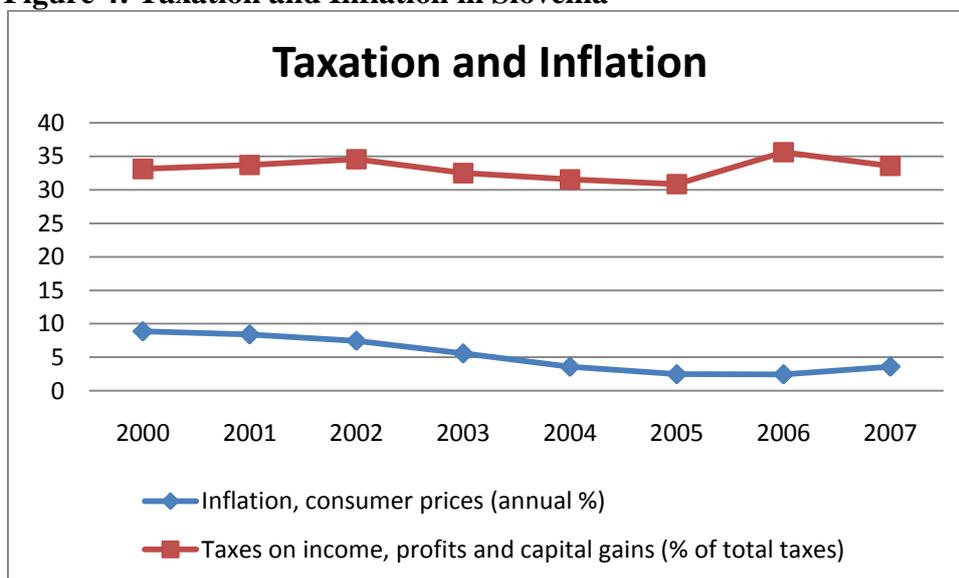
4.2.2 National indicators of entrepreneurial attitude and entrepreneurial behavior

As for Hungary the data comes from the World Bank and consists of data that is available on national level and therefore unsuitable for usage in the regressions. The time period runs from 2000 until 2007 and from 2004 onwards the data is post-EU.

4.2.2.1 Inflation and taxation in Slovenia

Figure 4 shows the development of taxation and inflation in Slovenia. The inflation shows a steady decline in the years leading up to EU accession and the first years thereafter. The taxation follows a quite similar path leading up to EU accession and the first year thereafter, however 2006 is faced with a strong increase. Parker and Robson (2004) found that higher taxation leads to higher self-employment. This positive relations is due to the greater opportunities in tax deduction of work related expenditures that entrepreneurs have. Based on the data available here this is a conclusion that cannot be made for Slovenia. The same problem arises when considering inflation. A higher inflation would lead to lower EB (Ovaska and Sobel, 2004). The level of inflation is getting lower each year, however the EB is fluctuating during these years.

Figure 4: Taxation and Inflation in Slovenia

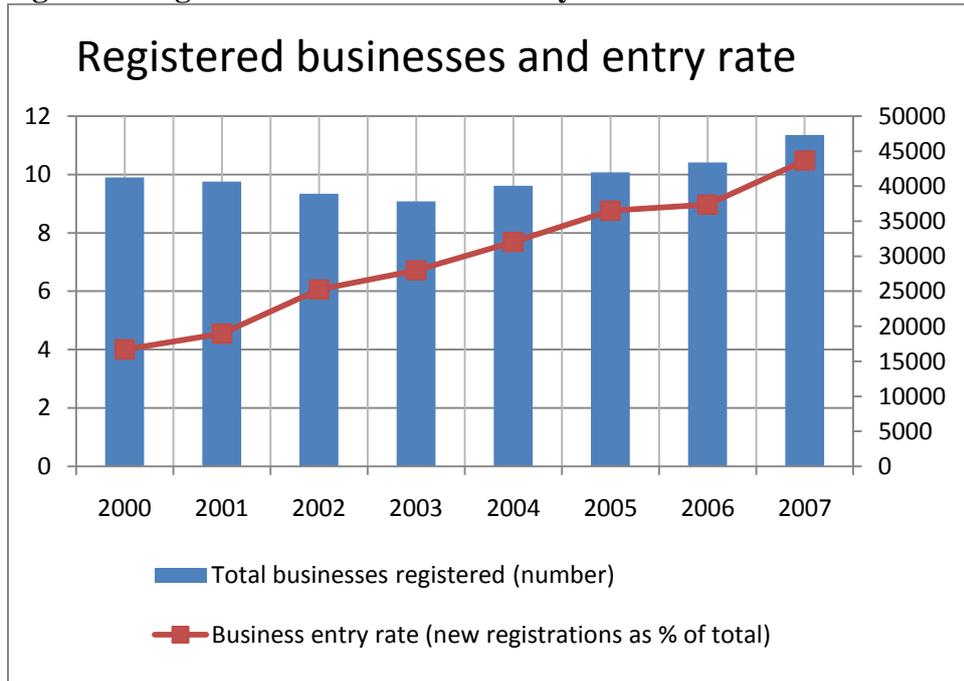


Source: own creation based on World Bank data

4.2.2.3 Registered business and entry rate

Figure 5 shows the number of registered businesses and the entry rate of new businesses in Slovenia. Entrepreneurial behavior is negatively affected by market concentration, a high share of SMEs and entry or exit barriers (Tödtling and Wanzenböck, 2003; Fritsch, 1992). Leading up to EU accession the number of businesses decreased to a little under 38000 businesses. After accession this number steadily increase to more than 47000 in 2007. The entry rate has experienced an increase year over year from 2000 to 2007. Because of the decline in the total number of businesses in the years 2000 to 2003 we can safely assume that the number of businesses that discontinued their operations in these years was a higher percentage of the total businesses than the percentage of new business registrations.

Figure 5: Registered businesses and entry rate in Slovenia



Source: own creation based on World Bank data

4.2.3 Entrepreneurship policy in Slovenia

The entrepreneurship policy in Slovenia is not very clear cut. Like Hungary it adopted the EU Charter for Small Enterprises in 2002. The main action points of the Charter are provided in Chapter 4.1.3 and will therefore not be provided again.

The Institute of Macroeconomic Analysis and Development (IMAD) in Slovenia prepared a strategy for economic development in Slovenia for 2001-2006 (IMAD, 2001). This strategy document does focus on SME and other business related policies, but does not go into specific entrepreneurship policy. There are however some points within the strategy document that do touch upon entrepreneurship. The focus of these points is to strengthen managerial skills, but also education is subject to changes. Especially the managerial skills focus on the entrepreneur, but only when he or she has already taken the initiative to engage in entrepreneurial behavior. Regarding education the plan is to have more business related courses and internship possibilities, but only at the professional schools, high schools and universities and therefore only when individuals have already reached a certain age and not from primary school onwards. The strategy document indicates that the lifting of administrative burdens and improvement of the business environment can benefit the entry and development of businesses (IMAD, 2001).

The National Action Plan for Unemployment (Government of the Republic of Slovenia, 2004) was published in 2004 and focuses on topics that might benefit entrepreneurship. The plan sets out to raise the level of education and qualifications of the labour force and encourages employment for women and marginalized groups. However, these employment plans remain very general and do not focus on entrepreneurship specific. Other parts of the plan do focus on entrepreneurship and see it as a way to lower the number of unregistered work and unemployment. This is a development that takes time as the socialist regime did not stimulate

private businesses at all. Therefore an entrepreneur-friendly environment needs to be created and financial assistance for entrepreneurial investments is provided. The entrepreneurial environment has less administrative burdens, lower taxes and also extra training in the field of entrepreneurship. The Plan also focuses on taking away regional differences and also here there is mention of entrepreneurship as a possible way of achieving this. Again the creating of an entrepreneurial environment is needed and entrepreneurship incubators can assist in this (Government of the Republic of Slovenia, 2004).

The Slovenian Reform Programme for Achieving the Lisbon Strategy Goals (for the EU to become the most dynamic and competitive economy by the year 2010) of 2005 has a special chapter on the business environment and the development of entrepreneurship. Again the improving of the business environment is considered and the reduction of administrative burdens. Another important part is the promotion of entrepreneurial development and innovation. Special attention is there for entrepreneurship education which aims at vocational training, undergraduate education but also specializations. The access to finance for SMEs is another point, which could benefit entrepreneurship. Lastly the reform programme considers internationalization. This is of course important because of the single market that Slovenia joined as they became an EU member in 2004 (Government of the Republik of Slovenia, 2005)

The Reform Programme for Achieving the Lisbon Strategy Goals was updated in 2008. Entrepreneurship education received more focus in this document. Especially the age on which students get in contact with entrepreneurship education and entrepreneurial thinking is lowered. The Junior Achievement programme is one way to let students experience entrepreneurship with the cooperation of schools and the enterprise sector (Government of the Republik of Slovenia, 2008).

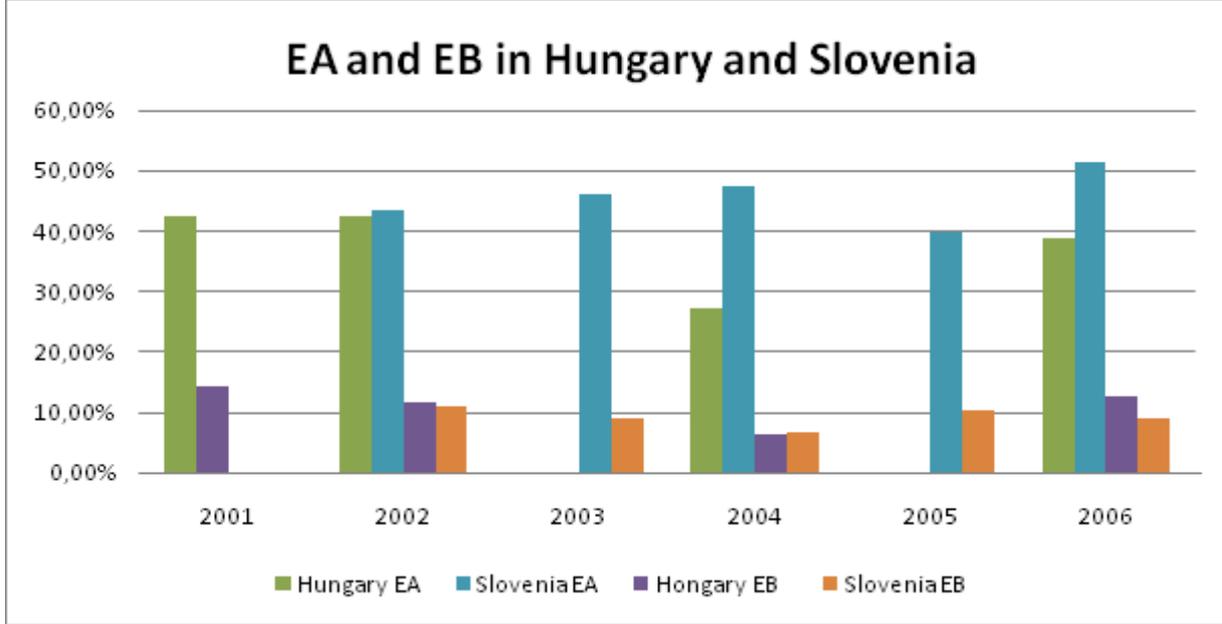
Concluding it can be stated that the entrepreneurship policy in Slovenia has developed quite significantly over the years towards a situation where entrepreneurship education receives an increasing amount of attention. There has been an increased attention for lowering the administrative burdens that entrepreneurs face as well as improving the general entrepreneurial environment in Slovenia. The focus on entrepreneurship education has increased by allowing more students to familiarize themselves with entrepreneurship and at a younger age.

4.3 Comparison between Hungary and Slovenia

Figure 6 shows the percentage of entrepreneurial attitude and entrepreneurial behavior in Hungary and Slovenia per year. Not every country is represented each year. What can be seen from Figure 6 is that EA in Slovenia is quite high, but that EB remains at a lower level throughout. A similar relation holds for Hungary, but the difference between entrepreneurial attitude and entrepreneurial behavior is lower than Slovenia. This is due to an overall lower level of EA in Hungary, but an EB that is quite similar to Slovenia. Whenever EA drops in Slovenia the level of EB increases and vice versa. 2003 and 2004 show an increase in EA for Slovenia, but EB that is decreasing. In 2005 the entrepreneurial attitude decreases, but the entrepreneurial behavior is on the rise again. This behavior of EB in opposite direction of the development of EA is not present when looking at Hungary. In 2004 the EA is lower in

Hungary and so is the EB. 2004 is the first year in the post-EU times. This is for Hungary and Slovenia the year with the lowest level of entrepreneurial behavior. Hungary also experiences the lowest level of EA in the accession year 2004. A reason for the low level of EB might be the expectation of Hungarians and Slovenians regarding EU membership. The inflow of FDI, which is much higher in Hungary than Slovenia, might have caused for individuals to become wage-employed rather than self-employed, because businesses were hiring additional personnel and thus necessity entrepreneurial behavior is expected to be lower. The increase in EB in Hungary and Slovenia in the years after EU accession (2005 and 2006) might indicate that the initial expectations of people regarding the number of positions for wage-employed were overestimated and that entrepreneurial behavior as a result returned to more normal levels of EB that were present in pre-EU times.

Table 6: EA and EB development in Hungary and Slovenia



Source: own creation based on World Bank data

4.4 Macedonia

4.4.1 Entrepreneurial developments in Macedonia

The 2008 GEM report of Macedonia encompasses a phone survey of 2,000 citizens between 18-64 years of age and examines their perceptions and attitudes towards entrepreneurship, entrepreneurial activity and the their entrepreneurial aspirations. For Macedonia only one year of GEM data is available, because 2008 is the first year of their participation. The entrepreneurial perceptions in Macedonia are mainly positive. 47%

Chart 1. Entrepreneurial perceptions in Macedonia



Source: own creation based on World Bank data

of the respondents feel that there will be good opportunities for starting a business in the next 6 months, 46% personally know someone who started a business in the last two years and 52% feel that he/she has the required knowledge and skills to start a business. Only 35% state that the fear of failure would prevent them from starting a business, whereas 39% expects to start a business within the next three years. 80% consider self-employment a desirable career choice and 66% find that the media pays sufficient attention to entrepreneurship. An overview of the entrepreneurial perceptions of the Macedonian adult population is shown in Chart 1.

The Total Early-stage Entrepreneurial Activity (TEA) in Macedonia ranks the highest among the participating GEM countries in Europe. The TEA index for Macedonia is 14.5%, meaning that 14.5% of the respondents engage in early stage entrepreneurial activity. Half of this group can be considered nascent entrepreneurs. The other half are new business owners, who are involved in businesses up to 3.5 years. Half of the Macedonian entrepreneurs are necessity driven whereas the other half is motivated by opportunity.

Macedonian experts expect that as the country develops economically the TEA index will decrease along with a decrease in the entrepreneurs that were driven by necessity (GEM Macedonia, 2010). Entrepreneurs motivated by opportunity will increase during this period. When the established business owners (managers/owners of businesses over 3.5 years of age) are added then the total entrepreneurial activity in Macedonia is 24.8%, which again makes it rank highest among the European countries that participate in the GEM studies. The typical entrepreneur in Macedonia is most likely to be a man, aged 25 to 34 with a relatively high education and income.

The reasons to discontinue a business are mostly unprofitable business and problems with financing. Financing from the informal side come mostly from relatives whereas the most common formal means of financing is bank credits.

Compared to neighbouring countries Macedonia underperforms in view of entrepreneurial training related to starting and managing a business, especially after completion of the formal education (GEM Macedonia, 2010).

4.4.2 National indicators on entrepreneurship in Macedonia

The national indicators in Macedonia are not as complete as for Hungary and Slovenia. There is no data available on the Business Entry Rate nor the Total Businesses registered. The data on taxes from income, profits and capital gains (% of total taxes) is only available from 2005 onwards.

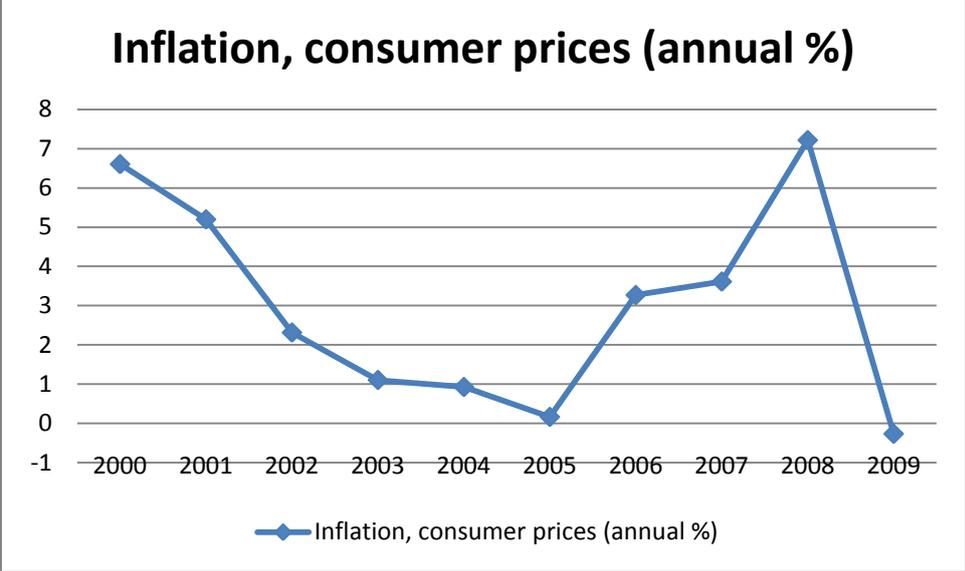
According to World Bank data the inflation rate in Macedonia has been quite volatile. Figure 7 shows the development of inflation in Macedonia. In 2005 the inflation was almost 0% and in the years thereafter it increased to over 7% in 2008. Then in 2009 the inflation instantly turns into deflation probably caused by the global financial crisis

The unemployment rate in Macedonia is very high. It reaches and remains at levels that are unseen anywhere else in Europe. In 2008 the unemployment was at 33.8% of the total labor force. In the nine years from 2000 to 2008 the percentage has never been below 30% and reached as high as 37.3% in 2005 (Worldbank, 2011)

The level of taxes paid on income, profit and capital gains as a percentage of total taxes is roughly around 20% to 21% in Macedonia. The GDP per capita is at a very low level compared to the rest of Europe. Figure 8 shows the development of GDP per capita in US\$.

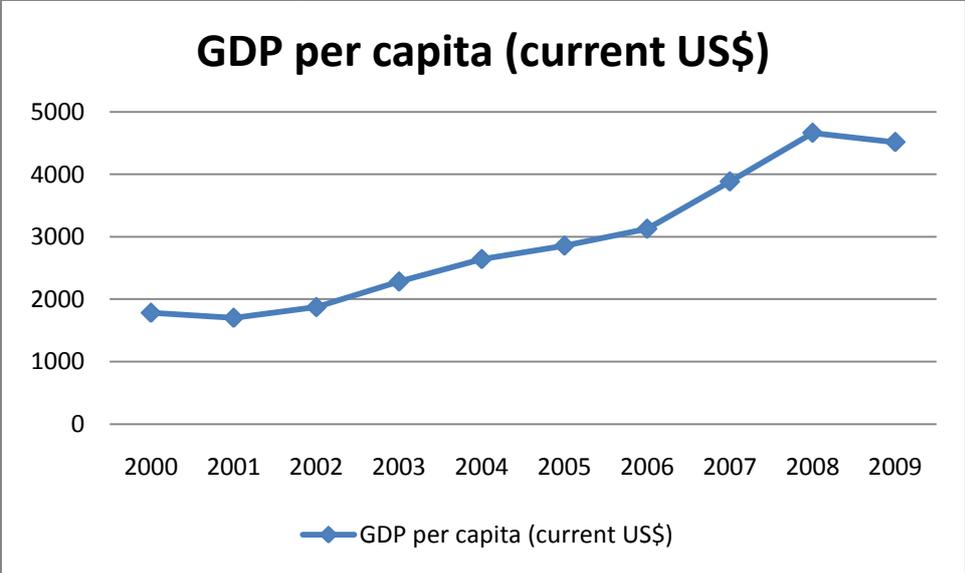
Due to the global financial crisis the increase in GDP per capita from 2001 to 2008 could not be continued in 2009 which shows negative growth. A higher GDP per capita reduces the entrepreneurial activity (Van Stel et al, 2003; Noorderhaven et al, 2004; Wennekers et al, 2007).

Figure 7: Inflation rate in Macedonia



Source: own creation based on World Bank data

Figure 8: GDP development in Macedonia



Source: own creation based on World Bank data

4.4.3 Entrepreneurship policy in Macedonia

The current position of Macedonia regarding entrepreneurship policy and the implementation of this policy is analyzed in an OECD report published in 2009 (OECD, 2009). The objective of this report is to monitor the progress in implementation of the European Charter for Small Enterprises in the Western Balkans. The Western Balkan countries include: Albania, Bosnia

and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro and Serbia. It is a follow-up report of a identical assessment report that was published in 2007. At the 2003 EU-Western Balkans Summit in Thessaloniki, Macedonia adopted the European Charter for Small Enterprises. This Charter is a policy document to improve cooperation on enterprise policy issues within the EU and between EU member states. The initial program was implemented for 2003, 2004 and 2005. On the request of the Western Balkan countries this period was extended with another three years. Early 2009 at a regional meeting in Zagreb, the Western Balkan countries expressed strong interest in adopting the European Small Business Act as a measuring tool for SME policy. This Act should replace the European Charter for Small Enterprises. They called for a continuation of the regional SME policy measuring and implementation process. The European Small Business Act shows the political will of the European Commission regarding the importance of SMEs in the European economy. Furthermore it provides a wide-ranging SME policy framework for the EU and its member states. With their interest in the European Small Business Act as a leading policy for business policy, the Western Balkan countries show their willingness to comply with EU policy. The 2009 OECD report shows a SME policy index which is structured around ten different policy dimensions that are covered in the European Charter for Small Enterprises as were first discussed in Chapter 4.1.3. The ten indicators are introduced in table 10.

These ten indicators are structured around five levels of policy reform, where 1 is the weakest and 5 is the strongest.

Level 1: There is no law or institution in place to cover the area concerned;

Level 2: There is a draft law or institution, and there are some signs of government activity to address the area concerned;

Level 3: A solid legal and/or institutional framework is in place for this specific policy area;

Level 4: Level 3 + some concrete indications of effective policy implementation of the law or institution;

Level 5: Level 3 + some significant record of concrete and effective policy implementation of the law or institution.

Table 10: Macedonia and the European Charter for Small Enterprises

	2007	2009	Progress Macedonia	Average in the region 2009	Average progress region
1: Entrepreneurship education and training	-	2.5	N/A	2.43	N/A
2: Cheaper and faster start-ups	3.0	4.0	+1.0	3.54	+0.75
3: Better legislation and regulation	2.0	3.5	+1.5	3.04	+0.75
4: Availability of skills	-	2.0	N/A	2.18	N/A
5: Improving on-line access	2.5	2.75	+0.25	2.82	+0.5
6: Getting more out of the single market	3.0	3.5	+0.5	3.07	+0.25
7a: Taxation	-	2.25	N/A	2.21	N/A

7b: Access to finance	3.5	3.25	-0.25	3.57	+0.5
8: Strengthening the technological capacity	3.5	3.25	-0.25	2.75	+0.25
9: Successful e-business models	2.75	3.0	+0.25	3.11	+0.50
10: Develop stronger representation	3.25	3.0	-0.25	3.14	+0.25

Source: OECD, SME policy index 2009

Judging from Table 10, there has been limited improvements in the overall performance of Macedonia; few policy initiatives have been launched in the last two years. Macedonia did make significant progress on two dimensions relating to start-up time and cost of a business as well as on the legislation and regulations dimension (see shaded area table 10). Macedonia is relatively weak in the areas of supporting SME competitiveness and technological capacity as well as in the export promotion area. In these areas Macedonia is underperforming compared to the other Western Balkan countries or even experiences a decrease in the policy reform process. For entrepreneurship education and training there was no measure in 2007. Entrepreneurship education and training is at 2.5 in 2009, which indicates that the government has plans, but no solid framework has been put in place yet.

4.5 Conclusion on the context of Hungary, Slovenia and Macedonia

This Chapter was set out to answer the following sub questions: What did EU accession change in Hungary and Slovenia in terms of government policy and regulation with relation to entrepreneurship and what does the data show for Macedonia in terms of entrepreneurial attitude and entrepreneurial behavior? The government policy in Hungary and Slovenia has increasingly moved towards direct entrepreneurship policy instead of SME policy. Entrepreneurship education is becoming more available and from a younger age onwards. Macedonia is a country with a very high level of entrepreneurial behavior. The entrepreneurs in Macedonia are mostly men aged 15-34 with a high education and high income. In comparison to other countries in the region Macedonia is scoring rather similar in their policy development. Macedonia is just like Hungary and Slovenia following the EU charter for SMEs. In doing so Macedonia has the same ultimate goal as Hungary and Slovenia did prior to their EU accession and they use the same EU guidelines.

Chapter 5: Data analyses on Hungary and Slovenia

This Chapter shows the data analysis for Hungary and Slovenia. At the end of the Chapter an answer is provided to the sub question: To what extent does the data show changes in Hungary and Slovenia in terms of entrepreneurial attitude and entrepreneurial behavior after EU accession.

5.1 EU membership influence in Hungary and Slovenia on EA

The first analysis of EA, shown in Table 11, considers all of the personal characteristics, the regional characteristics and a dummy indicator for EU membership over the entire period for which data is available. The personal characteristics are the only variables that are measured on a categorical basis. This means that the outcome is relative to the reference category. Table 11 shows four columns with data outcomes. The outcomes discussed here have been shaded to emphasize them

By looking at the first and third data column, it becomes instantly clear that there is an influence of EU membership on entrepreneurial attitude when taking into account the personal and regional characteristics. As the Nagelkerke R^2 shows, the variation in the variables in the regression explain well over 10% of the variation in entrepreneurial attitude in Hungary and well over 11% for Slovenia. Because of the significance of EU membership it is worth looking deeper into the data. Therefore the data is split in pre-EU and post-EU to see if any differences in the data surface in the pre and post-EU times. Before splitting the data another analysis is done including the same variables except for EU membership. Table 11 includes this analysis as well. Without EU membership the Nagelkerke R^2 drops 0.07 for Hungary. This means that EU membership only adds 0.7% to the explanation of the variation in EA for Hungary. In case of Slovenia the Nagelkerke R^2 drops 0.09 when EU membership is excluded. This means that EU membership only adds 0.9% to the explanation of the variation in EA for Slovenia. The exclusion of EU membership does not change any of the indicators of the other variables.

Table 11: EU membership and the Slovenian and Hungarian entrepreneurial attitude

Dependent variable: entrepreneurial attitude		Entire period			
Countries in regression		Hungary		Slovenia	
Number of observations		4333		6737	
Nagelkerke R^2		0.103	0.096	0.113	0.104
		Beta			
EU membership		-,383***		-,714***	
Personal	Female	-,601***	-,599***	-,659***	-,669***
	Age (15-34)				
	Age (35-54)	-,179**	-,148**	-,157**	-,120*
	Age (55+)	-,177	-,137	-,244***	-,157*
	Workstatus (fulltime/parttime)				
	Workstatus (unemployed)	-,057	-,029	-,069	-,074
	Workstatus (retired/student)	-,375***	-,342***	-,125	-,112
	Education (Some secondary)				

	Education (Secondary degree)	,449***	,568***	,612***	,644***
	Education (Post secondary)	,869***	,754***	,814***	,890***
	Household income (lower 33%)				
	Household income (middle 33%)	,123	,135*	,081	,042
	Household income (upper 33%)	,443***	,417***	,479***	,472***
Regional	Regional unemployment 2001(H), 2002(SI)	,131***	,138***	,063	,074
	Regional development unemployment till 2006 from starting year	,002	,003	-,002	-,003
	Regional GRP 2001(H), 2002(SI) (x1000)	,094	,104	,074	,081
	Regional development GRP till 2006 from starting year	-,005	-,007	-,033	-,030
Constant		-1,475	-1.673	-,962	-1,248

*** significant at 1% level, ** significant at 5% level, * significant at 10% level

5.2 Entrepreneurial attitude

Table 12 shows an overview of the pre and post-EU data outcomes for Hungary and Slovenia when including personal and regional characteristics. The regional characteristics have been excluded in some of the regressions and included in others. This way the influence of regional characteristics on personal characteristics can be observed. Additionally the development of the Nagelkerke R^2 can be seen when regional characteristics are being added to the regression.

5.2.1 Entrepreneurial attitude in Hungary

From Table 12 it can be observed that adding regional characteristics to the regression does not change any of the significance in the personal variables and hardly affects their direction. When observing the data outcomes it is clear that adding regional characteristics to the pre-EU data of Hungary results in a 1.9% higher Nagelkerke R^2 , namely from 11.9% to 13.8%. In the post-EU the regional variables add less explaining value to the regression. The Nagelkerke R^2 goes from 8.3% to 9.0%, meaning a 0.7% increase.

5.3.1.1 Personal characteristics affecting EA in Hungary

In discussing the personal characteristics only the part of the table where regional characteristics have been incorporated are considered, because the inclusion of the regional variables did not result in any drastic change in the data of the personal characteristics. The shaded areas of Table 12 indicate the parts where changes occurred while going from pre to post-EU.

Looking at Table 12 it shows that females have a statistical lower chance to have an entrepreneurial attitude than men. Other research showed that the chance of becoming an entrepreneur is similar for men and women (Grilo and Thurik, 2008; Langowitz and Minniti, 2005), but that the majority of entrepreneurs remain men.

The outcomes in Table 12 for age broadly follow other research (Blanchflower et al, 2001) in that older people tend to have a lower entrepreneurial attitude. This can only be stated for the middle age group in pre-EU times and for the oldest age group in post-EU times because these variables are significant.

For the workstatus we expect that unemployed and those who are retired/student have a lower chance of entrepreneurial behavior. In pre-EU times this expectation holds for the retired/student group. However, this significance is lost after EU accession and the group unemployed remains insignificant. This outcome indicated that workstatus has no relation with EA in post-EU times.

In pre-EU times education follows the expectations perfectly. Those who have a higher level of education have a significant higher chance to have an entrepreneurial attitude than those who have received the lowest form of education. However, in post-EU times this significance is lost for the middle education group and those who received the highest form of education have a beta which is 3 times smaller than in pre-EU times. With EU membership it seems that higher education has lost its significance and strength in explaining entrepreneurial attitude. The household income follows the expectations that are based on prior research. The highest 33% income group has a significant higher chance of EA than the lowest 33% income group, both pre and post-EU. The Beta, a number indicating the change in the dependent variable when the independent variable changes by one unit, has even become a lot stronger in post-EU times for the highest 33% income group. The middle 33% income group does not show a significant relation in pre or post-EU times.

5.2.1.2 Regional characteristics affecting EA in Hungary

The regional characteristics have little influence on EA and EB in Hungary. Especially after EU accession their importance diminishes. There are however some interesting changes that take place in the pre and post-EU data. A little warning is in place going from pre to post-EU because there might be other variables that change over time that influence variables included in the model. Regional unemployment in the starting year, which is 2001 for Hungary, is positively significant in pre-EU times and becomes negatively significant in post-EU times. According to the expectations as formulated in Chapter 2.10 a higher unemployment should have a positive influence on the chance to have an entrepreneurial attitude. This finding shows that this expectation holds in pre-EU, but in post-EU times the starting year of unemployment becomes negatively significant with EA.

The regional GRP level in the starting year in Hungary is positively significant, but this significance is completely lost in post-EU times. In general, the regional characteristics do not play a very important role in regression. Their inclusion only added 0.7% to the Nagelkerke R^2 and in the post-EU times the Nagelkerke R^2 indicates that the variables only explains 9% of the total variation in EA, where this was 13.8% in pre-EU times.

5.2.2 Entrepreneurial attitude in Slovenia

From Table 12 it can be observed that adding regional characteristics to the regression hardly changes the influence and direction of personal variables. The only important change that occurs when including regional characteristics is that the middle household income group becomes significant. Therefore the model that includes regional characteristics is considered.

5.2.2.1 Personal characteristics affecting EA in Slovenia

The data results show that females have a significant lower chance of entrepreneurial attitude in Slovenia than men. Other research showed that the chance of becoming an entrepreneur is similar for men and women (Grilo and Thurik, 2008; Langowitz and Minniti, 2005), but that the majority of entrepreneurs remain men.

The older an individual becomes the lower the chance that he or she will have an entrepreneurial attitude. This is the expectation based on other research (Blanchflower et al, 2001). Though this situation does not hold when considering the pre-EU data, which are completely insignificant. The post-EU data do show an outcome that can be expected according to prior research, namely that older age categories have a lower chance of EA compared to the young age category.

Workstatus is negatively significant for the workstatus retired/student in post-EU times in Slovenia. In pre-EU times the indicator is negative as well, however the value is not significant. This means that individuals who are retired or students have a significant lower chance of EA than the working population in post-EU times in Slovenia. This finding does comply with many of the findings in other studies (Blanchflower, 2004).

Education shows that a higher level of attained studies does lead to a higher chance to have an entrepreneurial attitude. However, the direction coefficient dropped (almost half in value) in post-EU times compared to pre-EU times. This means that the influence of education on EA has become less strong.

The highest 33% income group has a positive influence on EA in pre and post-EU times. The influence even becomes stronger in post-EU times. Those who are in the highest 33% income group have a higher chance to have an entrepreneurial attitude compared to those who are in the lowest 33% income group. The middle 33% income group is the most interesting. This group was completely insignificant both pre and post-EU when regional characteristics were not included. However, when regional characteristics are included they become positively significant in post-EU times.

Table 12: Entrepreneurial attitude pre and post-EU in Hungary and Slovenia

Dependent variable: entrepreneurial attitude		Pre-EU	Post-EU	Pre-EU	Post-EU	Pre-EU	Post-EU	Pre-EU	Post-EU
Countries in regression		Hungary				Slovenia			
Number of observations		2874	1459	2874	1459	1861	4876	1861	4876
Nagelkerke R^2		0.119	0.083	0.138	0.090	0.143	0.073	0.147	0.073
		Beta							
Personal Characteristics	Female	-,623***	-,552***	-,629***	-,571***	-,820***	-,580***	-,821***	-,579***
	Age (15-34)								
	Age (35-54)	-,203**	-,143	-,198**	-,138	,058	-,245***	,063	-,244***
	Age (55+)	-,058	-,481**	-,037	-,518**	-,167	-,312***	-,156	-,310***
	Workstatus (fulltime/parttime)								
	Workstatus (unemployed)	-,083	,079	-,103	,093	-,205	-,036	-,189	-,038
	Workstatus (retired/student)	-,423***	-,120	-,454***	-,099	-,021	-,161*	-,028	-,163*
	Education (Some secondary)								
	Education (Secondary degree)	,592***	,199	,624***	,198	,838***	,457***	,836***	,457***
	Education (Post secondary)	1,413***	,435***	1,443***	,443***	1,192***	,602***	1,177***	,602***
	Household income (lower 33%)								
	Household income (middle 33%) (1)	,124	,141	,106	,132	,011	,136	,008	,138*
Household income (upper 33%)	,299***	,622***	,341***	,580***	,378***	,567***	,371***	,570***	
Reginal Characteristics	Regional unemployment 2001(H), 2002(SI)			,293***	-,181*			,165	,011
	Regional development unemployment till 2006 from starting year			,009	-,012			-,015	,004
	Regional GRP 2001(H), 2002(SI) (x1000)			,233***	-,162			,219	,001
	Regional development GRP till 2006 from starting year			-,020	,022			-,099	,001
Constant				-2,806	-2,806	-,664	-1,063	-2,019	-1,151

*** significant at 1% level, ** significant at 5% level, * significant at 10% level

5.3 Entrepreneurial behavior

To analyze the influence of EU membership on entrepreneurial behavior the entire period is considered first. Therefore, the personal, regional and EU dummy variable have been included while considering the data for the entire period that is available.

The results for Hungary are presented in Table 13 and indicate that EU membership is negatively related to entrepreneurial behavior in Hungary. Therefore it is worthwhile to analyze the Hungarian data deeper by making a separation between pre and post-EU data.

The Slovenian data are also present in Table 13 and show that there is a positive relation between EU membership and the entrepreneurial behavior in Slovenia. The result also requires a more in dept analysis of the pre and post-EU situation in Slovenia.

5.3.1 *The influence of EA on the other variables in the model*

The independent variables in Table 13 explain 18.7% of the variation in entrepreneurial behavior for Hungary. For Slovenia this number is much higher at 31.8% of the variation in EB explained. The GEM questionnaire is set out in such a way that respondents are asked if they engage in entrepreneurial behavior and if they think that they possess the skills that make up an entrepreneurial attitude. Including this on one and the same questionnaire might result in a bias towards their own skills. As such, the influence of entrepreneurial attitude on entrepreneurial behavior might be very high. Therefore this variable is omitted in a new analysis to establish its influence on EB. These result are also presented in Table 13, in the 2nd and 5th data column. In the case of Hungary the exclusion of EA results in a drop of 5.6% of the Nagelkerke R^2 . For Slovenia this drop is even larger with 17% in total. The exclusion of EA also results in changes of the other variables in the model. In the case of Hungary the middle age group (34-54 years) is no longer significant, whereas education (secondary degree) becomes significant. In the absence of an entrepreneurial attitude the level of education does matter again. The regional characteristics in Hungary gain significance in the absence of EA. A higher development of unemployment and a higher starting value of GDP both increase the chance that an individual engages in EB when EA is omitted. The influence of EU membership on EB in Hungary remains negative and even becomes more negative without EA included. The discussed changes are shaded in Table 13.

In case of Slovenia the oldest age category (55+ years) is no longer significant when EA is excluded. The exclusion of EA results in a situation where education starts to matter again. Both the secondary degree and the post secondary are of positive influence on EB. Therefore in the absence of EA it turns out that education matters again. The regional characteristics in Slovenia do not change in the absence of EA. EU membership has a positive influence on entrepreneurial behavior when entrepreneurial attitude was one of the independent variables. This influence is lost when EA is not included and even the indicator sign has turned negative. This means that there is a strong interaction between EA and EU membership that cause for the indicator sign to become negative. The important changes are shaded in Table 13.

5.3.2 *The influence of EU membership on the other variables in the model*

Another situation that is worth analyzing is the influence of EU membership on entrepreneurial behavior. Therefore the dummy variable for EU membership is also omitted from the model. The 3rd and 6th data column from Table 13 show the results without EU membership. These columns should be compared to the 2nd and 5th data column, because EA is also omitted from the results in the 3rd and 6th column.

In case of Hungary the Nagelkerke R^2 drops by 0.7%. This indicates that EU membership is only responsible for 0.7% of the variation in EB in Hungary. The middle age category (35-54 years) becomes of positive influence again on EB (see shaded area). All the other variables in the model remain similar to the situation when EU membership was included.

In case of Slovenia the Nagelkerke R^2 does not drop at all when EU membership is excluded. This means that EU membership does not matter in explaining any of the variation in the dependent variable. The oldest age group (55+ years) becomes of positive influence when EU membership is omitted (see shaded area).

It seems that the exclusion of EU membership has limited effect on EA and EB. The middle age group in Hungary and the oldest age group in Slovenia do become of influence again. This indicates that age is less important in explaining EA and EB when EU membership is not considered.

Table 13: EU membership and the Slovenian and Hungarian entrepreneurial behavior

Dependent variable: entrepreneurial behavior		Entire period & all variables	Entire period & no EA	Entire period & no EA & no EU	Entire period & all variables	Entire period & no EA	Entire period & no EA & no EU
Countries in regression		Hungary			Slovenia		
Number		4333			6737		
Nagelkerke R^2		0.187	0.131	0.124	0.318	0.148	0.148
		Beta					
EU membership		-,333***	-,467***		,297***	-,108	
Personal	Female	-,548***	-,710***	-,711***	-,658***	-,916***	-,914***
	Age (15-34)						
	Age (35-54)	,224**	,157	,193*	,345***	,220**	,218**
	Age (55+)	,636***	,606***	,659***	,358**	,254	,259*
	Workstatus (fulltime/parttime)						
	Workstatus (unemployed)	-,533***	-,542***	-,513***	-,603**	-,575**	-,578**
	Workstatus (retired/student)	-1,634***	-	-	-1,722***	-	-
			1,739***	1,712***		1,683***	1,671***
	Education (Some secondary)						
	Education (Secondary degree)	,183	,285**	,433***	,227	,446***	,439***
	Education (Post secondary)	,585***	,811***	,694***	,139	,463***	,443***
	Household income (lower 33%)						
	Household income (middle 33%)	-,060	-,033	-,024	,553***	,561***	,560***
	Household income (upper 33%)	,406***	,517***	,485***	,838***	1,015***	1,033***
Entrepreneurial Attitude	1,239***			2,402***			
Regional	Regional unemployment 2001(H), 2002(SI)	,173**	,207***	,214***	,034	,072	,074
	Regional development unemployment till 2006 from starting year	,015	,017*	,017*	-,004	-,003	-,003
	Regional GRP 2001(H), 2002(SI) (x1000)	,172	,196*	,205*	,041	,080	,082
	Regional development GRP till 2006 from starting year	-,009	-,009	-,011	-,031	-,051	-,052
Constant		-4,725	-4,438	-4,656	-4,094	-2,790	-2,866

*** significant at 1% level, ** significant at 5% level, * significant at 10% level

5.3.3 Entrepreneurial behavior in Hungary

The outcome in Table 14 shows that the exclusion of EA has limited effect on the other variables in the model. Some changes that can be observed, when excluding EA, are the increased importance of education in pre-EU times and the influence of the regional level of unemployment in pre-EU times (see shaded area's in Table 14).

Table 14 shows four different columns with data for Hungary. The first two columns are the ones where personal characteristics and regional characteristics have been included. The latter two are identical except for the omission of entrepreneurial attitude as an independent variable. This allows to see the effect of EA on EB. The GEM questionnaire might cause for a bias because respondents are first asked if they engage in entrepreneurial behavior before they are asked if they have an entrepreneurial attitude. Those who indicate that they engage in EB are more inclined to answer positively on the questions that relate to their EA.

The exclusion of EA results in a lower Nagelkerke R^2 for Hungary. The other variables in the model do not change that much except for those who received post secondary school education in pre-EU times. This indicator has gained strength and therefore education at a post secondary level is more important pre-EU in explaining EB when EA is omitted.

5.3.3.1 Personal characteristics affecting EB in Hungary

This part analyses the personal characteristics as they are shown in Table 14 in the first two columns, hence this part does not look at the analysis without EA as an independent variable.

The indicators for gender influence on EB and age behave according to expectation, meaning that women have a significant lower chance to engage in EB than men. Those who are unemployed have a significant lower chance to engage in EB in pre-EU. In post-EU times the indicator remains negative, but is no longer significant. Those who are retired or student have a lower chance to engage in EB. The influence becomes three times as strong in post-EU times. This finding supports the results that other researchers have found between workstatus and EB (Blanchflower, 2004).

The influence of education becomes stronger from pre to post-EU. In pre-EU times the only category that was significant was the category that included those people who received post secondary education. In the post-EU data education becomes of influence for both those who received education at the level of secondary degree and those who received post secondary education. The strength of the indicator of post secondary degree category almost triples. It clearly shows that a higher level of education leads to a higher chance to engage in entrepreneurial behavior in post-EU times. This follows the expectation.

Those who are in the upper 33% income bracket have a higher chance to engage in EB both pre and post-EU. Even though the middle 33% income bracket is insignificant, the indicator changes from negative to positive when moving from pre to post-EU times. The insignificance of this outcome makes it difficult to make concise statements about the values, but putting this aside results in a conclusion that the middle 33% income group in post-EU times has a positive influence on EB instead of a negative.

Those individuals who have an entrepreneurial attitude have a significant higher chance to engage in EB than those who do not have an entrepreneurial attitude. This conclusion follows the expectation. However, as earlier discusses in this paragraph, the way the data on EA is collected might have caused for a bias to develop.

5.3.3.2 Regional characteristics affecting EB in Hungary

The regional characteristics add very little to the Nagelkerke R^2 in Hungary. This means that the variation in the regional characteristics explains very little of the variation of EB. The pre-EU data go from 21.9% to 22.2% and the post-EU data go from 17.5% to 18.2%. This means that the inclusion of regional characteristics only adds 0.3% and 0.7% respectively to

the variation of EB that is explained by the independent variables. In post-EU times the personal characteristics become less important in explaining entrepreneurial behavior. The only variable that is significant is the regional development of unemployment in post-EU times. The variable is positively significant at a 10% level in the post-EU period. This indicates that an increase in the unemployment rate leads to a higher chance for individuals to engage in entrepreneurial behavior.

5.3.4 Entrepreneurial behavior in Slovenia

The outcomes in Table 14 shows that the exclusion of EA results in a decreased influence of age on EB in post-EU times, whereas education becomes more important in post-EU times (see shaded area's).

Table 14 shows four columns for Slovenia. The first two columns include all the available variables. The last two columns are identical except for the exclusion of entrepreneurial attitude as an independent variable. As stated before: the GEM questionnaire might cause for a bias because respondents are first asked if they engage in entrepreneurial behavior before they are asked if they have an entrepreneurial attitude. Those who indicate that they engage in EB are more inclined to answer positively on the questions that relate to their EA. The exclusion of EA results in a lower Nagelkerke R^2 for Slovenia. In post-EU times, the model where EA is excluded shows that age matters less in understanding EB. However, education becomes more important (the indicator doubles) in explaining EB in post-EU times when EA is excluded. This shows that there is an interaction between EA and the level of education received by an individual.

5.3.4.1 Personal characteristics affecting EB in Slovenia

This part analyses the personal characteristics as they are shown in Table 14 in the 5th and 6th column, hence this part does not look at the analysis without EA as an independent variable. Only the outcomes that are out of the ordinary, meaning different than expectation are mentioned in more detail.

The gender variable behaves according to expectation. Pre-EU there is no significance in the age categories. However, in post-EU times both the middle and older age categories are positively significant and their strength doubles. This means that in post-EU times the older age groups have a stronger influence than the youngest age group on entrepreneurial behavior. The unemployed have a lower chance to engage in EB than the working population in post-EU. Those individuals who belong to the retired/student category have a significant lower chance to engage in EB than the working population in pre and post-EU times. Education seems to be of little importance when considering its influence on EB. Only the category who attained education at the level of secondary degree have a positive influence on EB in post-EU times.

Those individuals who have an entrepreneurial attitude have a significant higher chance to engage in EB. The strength of the indicator has doubled from pre to post-EU times.

5.3.4.2 Regional characteristics affecting EB in Slovenia

The regional characteristics in Slovenia have little effect on entrepreneurial behavior in Slovenia. The explaining power of the independent variables, expressed in the Nagelkerke R^2 , only increases by 0.1% when including the regional characteristics for both the pre and post-EU data. What is interesting to find is that pre-EU the variation in personal characteristics explain 25.3% of the variation in EB. In the post-EU data this explaining power increases with over 10% to 35.7%. This indicates that in post-EU times the personal characteristics in Slovenia become more important in explaining entrepreneurial behavior. This is the opposite from what the Hungarian data showed.

5.4 Intermediate conclusions on data analysis

This Chapter was set out to answer the sub question: To what extent does the data show changes in Hungary and Slovenia in terms of entrepreneurial attitude and entrepreneurial behavior after EU accession? EU membership seems to be important for both Hungary and Slovenia when considering entrepreneurial attitude as well as entrepreneurial behavior as the dependent variable. A difference between Hungary and Slovenia can be found in the negative effect of EU membership for Hungary when considering EB, while there is a positive effect of EU membership on EB for Slovenia (see Table 13). This finding raises new questions. Could this indicate that Slovenia was better prepared for EU accession and therefore could reap the benefits from EU membership, hence the positive significance of EU membership on EB in Slovenia?

The pre and post-EU analysis showed that several factors change from pre to post-EU, hence going from positive to negative or vice versa. In some cases significance was lost or gained. Education becomes more important in explaining EA and EB in post-EU in both Hungary and Slovenia. These changes cause for new questions to arise. What happened in the respective country that could explain the change in indicators and the change of significance? These changes and the questions that arise from them are the basis for the next chapter where the results of a questionnaire, based on the data outcomes, are discussed. This questionnaire was sent to experts in the field of entrepreneurship from Hungary and Slovenia.

Table 14: Entrepreneurial behavior pre and post-EU in Hungary and Slovenia

Dependent variable: entrepreneurial behavior		Pre-EU & all variables	Post-EU & all variables	Pre-EU & no EA	Post-EU & no EA	Pre-EU & all variables	Post-EU & all variables	Pre-EU & no EA	Post-EU & no EA
Countries in regression		Hungary				Slovenia			
Number of observations		2870	1459	2870	1459	1861	4876	1861	4876
Nagelkerke R ²		0.222	0.182	0.126	0.173	0.254	0.358	0.198	0.132
		Beta							
Personal	Female	-,458***	-,739***	-,670***	-,806***	-,920***	-,598***	-,1,147***	-,842***
	Age (15-34)								
	Age (35-54)	,211	,275	,120	,250	,206	,440***	,228	,228*
	Age (55+)	,537**	,780**	,522**	,765**	,258	,440**	,262	,280
	Workstatus (fulltime/parttime)								
	Workstatus (unemployed)	-,532**	-,533	-,554**	-,514	-,048	-,851***	-,125	-,764***
	Workstatus (retired/student)	-,1,357***	-,3,634***	-,1,503***	-,3,681***	-,2,022***	-,1,561***	-,2,019***	-,1,513***
	Education (Some secondary)								
	Education (Secondary degree)	-,036	1,015***	,179	1,024***	,113	,323*	,322	,496***
	Education (Post secondary)	,335*	,945***	,780***	,984***	,098	,237	,387	,508***
	Household income (lower 33%)								
	Household income (middle 33%) (1)	-,129	,057	-,085	,056	,771***	,453***	,765***	,489***
	Household income (upper 33%)	,396**	,469*	,505***	,530**	1,042***	,726***	1,134***	,969***
Entrepreneurial Attitude	1,716***	,471***			1,382***	2,759***			
Regional	Regional unemployment 2001(H), 2002(SI)	,149	,154	,247***	,138	,031	,051	,038	,080
	Regional development unemployment till 2006 from starting year	,005	,037*	,010	,037*	-,005	-,003	-,011	,000
	Regional GRP 2001(H), 2002(SI) (x1000)	,091	,323	,163	,314	-,039	,098	-,011	,108

	Regional development GRP till 2006 from starting year	-,004	-,024	-,006	-,023	,030	-,070	,020	-,074
Constant		-4,283	-5,621	-4,327	-5,295	-3,752	-3,989	-3,242	-2,721

*** significant at 1% level, ** significant at 5% level, * significant at 10% level

Chapter 6: The Hungarian and Slovenia questionnaires

This chapter shows the outcome of the questionnaire that was conducted among entrepreneurship experts from Hungary and Slovenia. Experts in the field of entrepreneurship and entrepreneurship policy from both Hungary and Slovenia have been approached with a questionnaire in which they are confronted with outcomes from their respective countries. They were asked to comment on the entrepreneurship policy in their country and what type of policy is most significant when a country tries to promote EA and EB. This is done to answer the following sub question: What are the expert opinions on the data outcomes from Hungary and Slovenia and what can Macedonia expect? The outcomes of the questionnaires are discussed per country and are followed by a conclusion.

6.1 Outcome of the Hungarian questionnaire

The questionnaire for Hungary is prepared based on entrepreneurship policy that was in place prior to EU accession and shortly thereafter (see chapter 4) and on the data analysis performed in Chapter 5. The questionnaire has been sent out to several experts who are expected to have enough knowledge on entrepreneurship and entrepreneurship policy in Hungary. Sadly some respondents never showed interest to answer the questionnaire and one respondent indicated to have too little knowledge to answer the questionnaire. The three questionnaires from Hungary that were returned show an interesting insight in entrepreneurship and entrepreneurship policy in Hungary and are discussed per question. The questionnaire shows eight statements on which eight questions are based that have been answered on a scaling basis. The scale has seven answer boxes running from 'not at all' (far left) to 'absolutely' (far right). The fourth and middle answer box states 'not successful nor unsuccessful' or in some cases this box is labelled 'in some parts'. There is a possibility for the respondents to comments on each scaling question. The questionnaire is concluded with two open questions that relate to a best practice for Hungary and Slovenia respectively in hindsight and an advice for Macedonia. The list of respondents that filled out the questionnaire is available upon request. The specific comments of the respondents are incorporated and referred to without including their names nor will be written as quotes.

The next part is structured in a way that first the policy related questions are dealt with, followed by EU related questions and lastly questions related to data outcomes.

6.1.1 Questions related to policy in Hungary

The first question related to policy relates to the regional policy programme called Széchenyi Enterprise Promotion Programme, which was a Hungarian policy to level out any regional entrepreneurship differences within the country. Already the first differences in the answers of the experts surface. Two of the respondents indicate a score of 2 out of 7, which means that the regional policy hardly resulted in leveling out differences in opportunities to become entrepreneurial active or develop an entrepreneurial attitude across regions. The third respondent indicates a score of 5 out of 7, which is clearly more positive. The two respondents who value the regional policy as quite negative indicate that the policy only reached a few entrepreneurs and it had very little impact overall. The programme did not cause for additional development in all regions. Money remained in the Central region, which houses the capital Budapest. The more positive respondent indicated that the regional policy

did decrease regional differences, but that the main focus was on giving subsidies to existing entrepreneurs. The better prepared entrepreneurs could receive more money. Next to the direct money transfers the inclusion of services for entrepreneurs could have been an important attribute to level out regional differences. These services should have focused on education in the field of intellectual property rights and taxation in other EU countries. It is clear that not all aspects of the programme reached those for whom it was intended and financial aid is not sufficient. Services and education of entrepreneurs are important as well.

The second question related to policy relates to the importance of regional policies towards entrepreneurship in Hungary and if their importance changed after EU accession. Two of the respondents indicated the middle answer, which states that the regional policy in some parts became less important after EU accession. The respondents indicate that the regional programs were too similar to the national policy and that overall the role of entrepreneurship in regional development is at a very low level in Hungary. One respondent indicated that the regional policy did not at all become less important after EU accession. The respondent adds that Hungary has more funds available to distribute among entrepreneurs since EU accession and that regional policy towards entrepreneurship also benefitted from this. However as the first question showed it is not just financial aid that helps entrepreneurs. Other services and education are important in this respect as well.

The third question related to policy relates to the EU Small Business Charter, which Hungary followed in preparation for their EU accession. This Charter aims to improve entrepreneurship and entrepreneurial thinking. There was a supplement to the Charter in 2003 to improve the effectiveness of the charter especially in the field of entrepreneurial thinking. This supplement to the Charter resulted in the statement that the supplement to the EU charter indicates that Hungary was not adequately dealing with entrepreneurial thinking before the supplement in 2003. The answers from the respondents range from the middle answer (in some parts) to the sixth and even seventh bullet. However some of the respondents add that following the EU Charter is not to be blamed, but that opportunities in Hungary are different. The difference stems from the fact that Hungary is a post communist country, where private businesses were not supported for many years. The change in mentality goes slowly. This indicates that all other variables aside, the entrepreneurial attitude and entrepreneurial behavior very much depends on personal characteristics.

The fourth question related to policy relates to the EU Small Business Charter as well. The focus within the Charter is primarily on SME policy and not so much on entrepreneurial thinking and entrepreneurial behavior. Therefore it states that the focus on SME policy within the EU Charter created a situation in which entrepreneurial thinking and entrepreneurial behavior received too little attention. One respondent indicates the second of the seven bullets which means that the statement (almost) not at all reflects the actual situation. The respondent adds that the problem is marginal. The two other respondent are more critical towards the EU Charter and this is reflected in their answers. They indicate the fifth and the seventh bullet and add that there is no entrepreneurship policy in Hungary and that small business policy is not effective. The initial intention for entrepreneurship policy was there but was never followed

by actions by the government. This related to the big bang transition and gradual reform that were introduced in Chapter 2. When the transition takes too long it might lose its credibility, whereas a big bang change might have prevented this, because change would be instant in that case.

The fifth question related to policy relates to specific policy directed at entrepreneurs and how this policy could have affected EA and EB if it were implemented earlier. The exact statement is: If specific policy directed at entrepreneurs like the 'Action Plan: The European Agenda for Entrepreneurship' would have been in place earlier then EA and EB in Hungary would have been able to benefit for EU membership. The respondents indicate the second, third and fourth (middle) bullet as their answer. This means that in the opinion of the respondents an earlier implementation of specific entrepreneurship policy would not, or only in parts, have resulted in a situation where EA and EB in Hungary would have benefitted from EU membership. The respondents add that it is difficult to make statements in hindsight, but point out that the development of entrepreneurship policy requires a long approach and is a time consuming process, which stretches well over a political cycle. Also the presence of market forces are stronger than political change. A big bang transition might be very clear for everyone involved, however as the respondent describe it takes a long period for new entrepreneurship policy to be fully accepted by the people.

6.1.2 Question related to the influence of the EU in Hungary

The question related to the influence of the EU in Hungary relates to the readiness of the Hungarian population for EU accession. Two of the respondents indicate the fifth of the seven answer options. This means that these respondents feel that Hungarians were quite well prepared for EU accession. The respondents indicate that Hungarians had realistic expectations of EU membership. From a business perspective, only a few businesses were ready for EU membership. Many businesses faced difficulties in exporting to other EU member states. They had little experience competing in the bigger market, a low level of technology and limited connections. One respondent indicates that Hungarian were not at all prepared for EU membership. This respondent adds that the Hungarian population expected to receive huge amounts of money that would increase their wellbeing in a short time. On a company basis the respondent adds that the small businesses were least prepared for EU accession and the increased competition of a larger market. It seems that the expectations of EU membership were too high in Hungary and that especially the smaller businesses were prepared less for the single market.

6.1.3 Questions related to data outcomes of Hungary

The first question related to the data outcomes of Hungary relates to readiness of Hungarians for EU membership. It states that the Hungarian population was insufficiently prepared for EU membership and that this resulted in a negative relation between EU membership and entrepreneurial attitude (EA) and entrepreneurial behavior (EB). Two respondents indicated the second bullet, which is very close to not at all. This means that they are quite sure that the Hungarians were not insufficiently prepared and that this resulted in a negative relation

between EU membership and EA and EB. They add that Hungary was not unprepared for EU accession, but that Hungary was too small to compete at a European level and had limited experience in international competition. In some industries the competition grew, but in others Hungarian companies got new opportunities for selling abroad. One respondent indicates the sixth of the seven bullets and thus this respondent is quite sure that Hungarians were insufficiently prepared for EU membership and that therefore EU membership has a negative relation with EA and EB.

The second question related to the data outcomes of Hungary relates to the way Hungarians were prepared for EU accession. It states that earlier preparation for EU accession could have prepared the Hungarian population better and could have resulted in a positive relation between EU membership and entrepreneurial attitude and entrepreneurial behavior. The answers of the respondents are diverse. One respondent indicates the far left bullet of 'not at all', a second opts for the middle bullet 'in some parts' and the third respondent indicates the sixth of the seven bullets. The respondent that indicated 'in some parts' adds that it is difficult to tell in hindsight what would have happened if there would have been better preparation. The respondent that answered 'not at all' adds that the preparation as such is not the problem, but that the general economic trend and national politics are much more important.

6.1.4 Open questions for the Hungarian experts

The questionnaire has two open questions as well. One relates to Hungary and the other relates to candidate EU countries (e.g. Macedonia). The first open question is: In hindsight, what is the single most important policy aspect that influenced entrepreneurial attitude and entrepreneurial behavior in Hungary? The second open question is: What would you recommend candidate EU countries (like Macedonia) to do when preparing for EU accession in dealing with entrepreneurship policy that relates both to entrepreneurial attitude and entrepreneurial behavior?

6.1.4.1 The Hungarian policy towards entrepreneurship in hindsight

The Hungarian experts were asked to reflect the Hungarian policy towards entrepreneurship and indicate the single most important aspect to pay attention to when dealing with EA and EB. One respondent indicates that the 2006 government programme called 'In tune with business' (see Chapter 4.1.3) is the most important policy that influenced EA and EB in Hungary, because it eased the entry barriers significantly. This lifting of barriers is an aspect that the second respondent also finds most important. Especially the lower bureaucracy when establishing a business and the decrease of administration costs connected when starting a business. The third respondent indicates that high corruption and a lack of power by the government were important aspects that negatively influenced EA and EB in Hungary.

6.1.4.2 Hungarian expert advice for Macedonia

The Hungarian experts were asked to give an advice to Macedonia on how to best approach EA and EB in the face of EU accession. The first respondent indicates that there are some key

aspects like opportunity recognition, which is difficult to influence. It is therefore important to start entrepreneurship related education from an early age onwards. This means starting with entrepreneurship education in elementary schools already, continued in secondary and tertiary education. The respondent adds that science, engineering and information technology major students should be prepared for starting their own business. It is not just easing out the financial burdens that requires attention, but the development of managerial skills as well. The second respondent indicates that for candidate EU countries it is important to develop a policy that aims at the services for supporting small businesses. The third respondent adds that it is important to keep all utilities in domestic hands. And in order to stay/become competitive the interest rates should be low, have comparable taxes to other EU members and low cost of energy. In sum this means that governmental and financial institutions should be stable.

6.2 Slovenia questionnaire

The Slovenian questionnaire was set up in a similar way as the Hungarian questionnaire. It was sent out to several experts with the request to fill out the questionnaire and comment on the findings for Slovenia as they surfaced in chapter 5. Sadly no replies from the Slovenian experts were ever received except from one respondent who indicated that there might be a problem within the data. The respondent indicated that the data from the year 2004 might not be representative for the country. Therefore, the suggestion was to leave out this year from the regression and see how this might affect the outcome. Appendix 2 shows the regression without the year 2004, but no further questionnaire is developed based on this. This is done because of time constraints. The questionnaire for Macedonia that was supposed to be based on Hungarian and Slovenian questionnaires is now solely based on the Hungarian questionnaire and not on Slovenian questionnaire input.

6.3 Conclusion on the questionnaires

This Chapter showed the results of the questionnaires and in doing so it partly answered the following sub question: What are the expert opinions on the data outcomes from Hungary and Slovenia and what can Macedonia expect?

With respect to Hungary the questionnaire showed that entrepreneurial attitude and entrepreneurial behavior are best served when considering a long time horizon with a stable government that is willing to invest in entrepreneurship and aims to limit bureaucracy. The stimulation of entrepreneurial attitude and entrepreneurial behavior should not only focus on monetary assistance, but provide an education system that teaches entrepreneurship related courses from a young age onwards and where graduate students are assisted in their start-up activities.

Based on the Hungarian questionnaire it can be concluded that the experts point towards a stable long term approach of entrepreneurial policy where the focus should not be primarily on financial stimulation, but on entrepreneurship education.

Chapter 7: The Macedonian questionnaire

In this Chapter Macedonian experts on entrepreneurship are asked to fill out a questionnaire that is based on answers that were received from the Hungarian experts and current entrepreneurship policy in Macedonia. The Macedonian questionnaire helps to answer the latter part of the following sub question: What are the expert opinions on the data outcomes for Hungary and Slovenia and what can Macedonia expect?

The questionnaire is structured in a similar way as was done in Chapter 6. This entails that there are seven scaling questions where the respondents are asked to indicate their answer in one of the seven bullets. The answer options range from ‘not at all’ agreeing with the above statement to ‘absolutely’ agreeing. After each statement there is room for the respondent to add comments to the respective statement. The questionnaire is concluded with an open question. In discussing the questionnaire there is a split between Macedonian policy related questions, policy questions based on answers from the Hungarian questionnaire and direct EU related questions.

The questionnaire was sent out to researchers in the field of entrepreneurship from the Ss. Cyril and Methodius University in Skopje, Macedonia. Other institutions that were approached are entrepreneurship related institutions like the Agency for Promotion of Entrepreneurship, a business start-up centre affiliated with the Ss. Cyril and Methodius University and the Macedonian Enterprise Development Foundation. From each of the above mentioned institutions at least one completed questionnaire was received back. In discussing the questionnaire the respondents are considered in random order and without direct reference to their identity or institution they work for.

7.1 The outcome of the Macedonian questionnaire

7.1.1 Questions related to policy in Macedonia

The first question related to policy is as follows: Macedonia intends to follow the EU Charter for Small Businesses (since June 2003) as a guide towards EU accession. The Charter aims to improve entrepreneurship and entrepreneurial thinking. In following the EU Charter for Small Businesses, has Macedonia chosen the right path in establishing a stable environment for entrepreneurship and entrepreneurial thinking?

Two of five respondents indicate the fourth and middle bullet, indicating that they in some parts agree with the statement. They add that there are a lot of efforts ongoing to develop an entrepreneurial environment and stimulate entrepreneurial thinking. However, there is no established system or a strategy that is applied on a national level to work out the initial efforts.

There are two respondents that are more positive about the statement. One respondent indicates the fifth bullet, and another indicates the seventh and final bullet. They indicate that Macedonia did well as a reformer in ‘Doing Business’ reports. This relates back to Chapter 4.4, where an overview of the development of Macedonia was provided on the ten main points from the EU Charter. The second dimension, cheaper and faster start-ups is mentioned as a success for Macedonia. As a critical note they add that closing down a business is a lot harder due to many administrative burdens and could potentially withhold entrepreneurs from taking a second chance.

The fifth respondent is less optimistic about following the EU charter. However, he adds that the Ministry of Economy in Macedonia considers all the relevant EU actions that support small businesses and the Ministry is very active in establishing a stable environment for entrepreneurship. Other initiatives, which are not related to the EU charter but do benefit entrepreneurship legislation, are the multi-stakeholder partnerships. These partnerships consist of governmental and non-governmental organizations and other relevant stakeholders. They participate in a transparent manner to adopting new entrepreneurship policy. The respondent indicates that it is not just the EU Charter that helps in establishing a stable environment for entrepreneurship and entrepreneurial thinking, but that own initiatives from the government and other institutions are also important. It seems that not just the Charter, but participation of all shareholders is needed to develop successful entrepreneurship policy

The second question related to policy in Macedonia relates to the development of entrepreneurship and whether the development of entrepreneurship and entrepreneurial thinking is receiving an equal amount of attention throughout Macedonia, or whether there are regional differences in dealing with these issues.

Three of the five respondent indicate the middle bullet as their answer. The respondents add that there are big differences between urban and rural areas concerning entrepreneurial activity in Macedonia. The government has established a system that supports entrepreneurship countrywide, but local socio-economic, political and local customs influence entrepreneurial behavior to a large extent. There are strategic policy documents that touch upon the business environment and entrepreneurs on a regional scale, but these are primarily focused on investing in municipalities within a region. To the knowledge of the experts there are no specific entrepreneurship programmes taking place on a regional level.

The two other respondents indicate the sixth and seventh bullet and state that they indeed find that there are regional differences. They indicate that Macedonian regions are very different from a historical and economical perspective, but also the nationality of the population plays an important role. The historical and economical aspect and the nationality are very influential when it comes to the perception and aspirations of entrepreneurship. The entrepreneurial spirit is more easily spread in big cities, like the capital Skopje, due to the surrounding environment of already existing business activity. Many of the funds and events related to entrepreneurship are concentrated to a few of the larger cities.

The regional differences in Macedonia are not only caused by the dominant influence of several big cities that attract all the government support. An important difference in how entrepreneurship is perceived in Macedonia stems from the different nationalities in regions and their socio-economic and cultural background.

7.1.2 Questions related to policy in Macedonia based on the Hungarian questionnaire

The first question related to policy in Macedonia is based on expert opinions from Hungary who indicated that it takes a long time horizon for proper implementation and acceptance from the population when new entrepreneurship policy is introduced. The Macedonian experts are asked whether there are issues with the implementation and acceptance of entrepreneurship policy in Macedonia.

The answers from the respondents are quite diverse. One respondent indicates the second bullet, which almost means that there are not at all issues with the implementation and acceptance of new entrepreneurship policy. The respondent adds that the Ministry of Economy does a relatively fair job in deciding the main direction that should be followed in terms of providing a stable environment for entrepreneurs. A critical note is there for the main organization that is responsible for the implementation of entrepreneurship policy, the Agency for Promotion of Entrepreneurship in Macedonia. This is a political body without any significant undertaking in the field of entrepreneurship and does not influence the implementation of entrepreneurship policy. The respondent adds that the acceptance and implementation of new entrepreneurship policy could be better served if entrepreneurship would be a subject in secondary education.

Three respondents indicated the fourth or fifth bullet. They add that the government has established more or less all the necessary strategies for support of entrepreneurship, but all of these documents are high level documents. Their implementation is going slow and the pace of implementation differs per region. Another respondent adds that it is very hard for Macedonian people to accept the fact that times are changing and that they cannot expect somebody to simply employ them after they graduate as was normal during the communist times. It is a change of mindset that has to happen and the policies that are related to entrepreneurship should bear in mind the time that it requires for people to change.

A fifth respondent indicates the last bullet and therefore underlines that there are issues with the implementation and acceptance of entrepreneurship policy in Macedonia. No further comments were included.

It seems that a long time horizon for the successful implementation and acceptance of entrepreneurship policy is needed in Macedonia. Therefore a gradual reform could be preferred, because it allows the Macedonian population to slowly get used to the new situation.

The second question related to policy in Macedonia relates to the Hungarian questionnaire where entrepreneurship education was said to be an important factor in EA and EB development in a country. Therefore the question states whether entrepreneurship education has been wide spread in Macedonia.

Two respondents indicate the middle answer stating 'in some parts'. They add that entrepreneurship education is a relatively new topic in Macedonia, but that in the last few years there has been an increase in the number of initiatives and trainings on this subject. Most faculties have included entrepreneurial learning as a mandatory subject and it has even become a mandatory subject for all high-school students across Macedonia. One respondent adds that a shift needs to take place in the entrepreneurship education from 'teaching about' entrepreneurship to 'teaching to be' an entrepreneur. This means that teachers and professors need to infuse their students with an entrepreneurial spirit. A good example is the National best business plan competition where students take part in a competition to write the best business plan and really feel like an entrepreneur. Two respondents indicated the fifth bullet. Their comments are in line with those of the respondents who indicated the middle bullet, but they both add that entrepreneurship education should also be included in elementary schools.

The fifth respondent indicates the seventh and last bullet, but adds no comment to the questions.

The Macedonian experts on entrepreneurship are very keen on including entrepreneurship education more widely in the education system to make students from a young age onwards aware of the possibilities that entrepreneurship offers.

The third question related to policy in Macedonia relates back to the Hungarian experts who indicated that lack of power from the government and corruption had a negative influence on EA and EB in their country. The Macedonian questionnaire asks whether the Macedonian government sufficiently dealt with power issues and corruption to prevent negative externalities on EA and EB that result from a weak government and corruption.

Two respondents indicate the second bullet, stating that the government almost not at all dealt with power issues nor corruption. Two respondents indicated the middle bullet and the last respondent indicated the sixth bullet, which is a lot more positive than the two respondents who indicated the second bullet. None of the respondents included additional comments, which in itself could be a sign as to the openness of the topic.

7.1.3 Questions related to the influence of the EU in Macedonia

The first question related to the influence of the EU in Macedonia relates to the single European market and the readiness of Macedonian entrepreneurs to compete in this market.

The respondents are not optimistic about the readiness of Macedonian entrepreneurs to compete in the single European market. One respondent filled out the first bullet, another the second bullet, followed by two who indicated the third bullet and the fifth respondent chose the middle answer.

One respondent adds that the expectation about the single market is completely wrong. Macedonian entrepreneurs would falsely expect major European investment when Macedonia would join the single market. Another respondent adds that companies that have done well in the past are usually left on their own and receive no support from institutions, banks or the chamber of commerce. This might hinder their success and growth when they gain access to a larger market. An important issue that influences the readiness of Macedonian entrepreneurs for EU membership is the ability of entrepreneurs to speak English and accept any form of consultancy advice. Especially the older entrepreneurs have difficulties in both these fields and this puts them in an unfavorable position compared to the other entrepreneurs in the European market.

It seems there are differences in the expectations and the ability to accept the changes that EU accession bring. The single market is seen a financial stimulator for Macedonian businesses and not so much as a threat, which could result in a false hope.

The second question related to the influence of the EU in Macedonia relates to the influence of EU membership on the entrepreneurial attitude and entrepreneurial behavior of Macedonians. The statement made is that EU membership results in a boost in the entrepreneurial attitude and entrepreneurial behavior of Macedonians.

Two respondents indicate the first and third bullet and are therefore not very optimistic about the influence of EU membership on EA and EB. They add no comments as to why they think this is. The other three respondents all indicate the middle answer. They add that Macedonians might learn from the European way of doing business. Visa liberalization has helped Macedonians to travel freely to the European Union and learn already from their way of doing business. The European competition might result in additional entrepreneurial behavior. Again the point is being made about the registration time of a business, which is very fast and therefore deserves credits. However, at the other end of the spectrum the closing of a business takes an awful lot of time. This means that when good business opportunities arise, possibly due to additional chances related to EU membership, the Macedonian entrepreneurs can quickly establish themselves, whereas a business failure takes a long time to be closed down.

7.2 Advice of Macedonian entrepreneurship experts to improve EA and EB in the face of EU accession

The questionnaire for the Macedonian experts is concluded with one open question. The question is: What to your opinion is the single most important thing that Macedonia should undertake to improve entrepreneurial attitude and entrepreneurial behavior in the face of EU membership?

The first respondent indicates that cheaper loans should be provided as well as a relaxation of the registration and closing procedures for businesses. Furthermore entrepreneurship education should be incorporated in the curriculum from the elementary school level onwards. The second respondent indicates that government support is the most important aspect when improving EA and EB. This should not be a simple financial support programme, but more in a way of offering wider opportunities for starting a business. The third respondent suggests that more entrepreneurial education in all levels of formal education benefits EA and EB and that financial and non-financial instruments for start-ups can benefit EA and EB. A more efficient and professional public service and administration will also help to improve EA and EB in the face of EU membership. The fourth respondent indicates that in order to improve entrepreneurial attitude and entrepreneurial behavior there is need for successful entrepreneurial stories. In order for that to happen a sound policy framework for entrepreneurship and SMEs should be in place. The process for registration of a business has been simplified over the last couple of years, but that is just the beginning. The variety of policies and bureaucracy that entrepreneurs encounter once they start operating causes for a great burden on the entrepreneur. Entrepreneurs need practical help after they established their business. In the face of EU membership they need to be educated on the opportunities and threats that EU membership will bring. One respondent did not include an answer to the open question.

It seems that education and better, more efficient, services from the government are the prime factors that should be addressed according to the Macedonian experts. To a lesser extent financial instruments, like start-up aid, are mentioned as factors that can improve EA and EB in Macedonia in the face of EU accession. Entrepreneurship education has become more prominent, which is a good development and could benefit the entrepreneurial attitude of

Macedonians. The role of the government in starting and closing a business and the variety of policies and bureaucracy related to entrepreneurship are still very prominent in Macedonia, which could hinder entrepreneurial behavior.

7.3 Conclusion on the Macedonian questionnaire

This Chapter was set out to answer the latter part of the following sub question: What are the expert opinions on the data outcomes for Hungary and Slovenia and what can Macedonia expect?

The Macedonian entrepreneurship experts indicated that regional differences are present in Macedonia, which are primarily caused by socio-economic differences, hence the different nationalities (large Albanian minority in the West) that are present in Macedonia. Culture and the institutional setting are hard to change, even in the long run (Arenius and Minitti, 2005) and therefore differences between regions in Macedonia are likely to remain.

The experts all recognize the importance of entrepreneurship education and would like to see an even wider inclusion of entrepreneurship education in the schooling system. A higher level of education increases the chance to have an entrepreneurial attitude and increases the likelihood to engage in entrepreneurial behavior as the data for Hungary and Slovenia showed in Chapter 5. However, the variety of policies related to entrepreneurship in Macedonia and the bureaucracy could lower the number of individuals who take the step to actually start a business and engage in entrepreneurial behavior.

Especially the older entrepreneurs in Macedonia are said to experience difficulties when Macedonia joins the EU and the single market. Their inability to speak English and skepticism regarding advice puts them behind the younger generation, who are more Western orientated.

Chapter 8: Conclusion and discussion

This thesis combines different methods of analysis to assess the influence of EU membership on entrepreneurial attitude (EA) and entrepreneurial behavior (EB) and the outcomes are not just an addition to academic understanding of the subject, but are also important for society as a whole.

It serves an important societal relevance because for a country it is of great importance to understand the changes that are at hand when they are in an accession process to the EU. Their response to a changing environment will eventually affect entrepreneurs as market access, capital access, competition and market size change (EU Commission, 2009).

The influence of EU accession on entrepreneurial attitude and entrepreneurial behavior has not received significant attention in the academic world. As a result, there is only limited research done when it comes to former socialist countries and their entrepreneurial attitude and behavior change leading to and after joining the EU. Tominc and Rebernik (2007) are one of the few that have done research solely on former socialist countries (Slovenia, Hungary and Croatia) with respect to the growth aspirations of the early stage entrepreneurs. Therefore this thesis provides great insight in a field of study that so far has not received the attention it deserves.

The research question of this thesis is:

To what extent does EU accession relate to subsequent changes in both attitude towards entrepreneurship and entrepreneurial behavior and how can entrepreneurship policy in Macedonia, as a candidate EU member, anticipate on this?

In order to answer this research question several sub questions have been formulated.

1. According to the literature what is known on the effect of EU accession on entrepreneurship?
2. According to the literature what other determinants influence entrepreneurship?
3. What did EU accession change in Hungary and Slovenia in terms of government policy and regulation with relation to entrepreneurship?
4. To what extent does the data show changes in Hungary and Slovenia in terms of entrepreneurial attitude and entrepreneurial behavior after EU accession?
5. What does the data show for Macedonia in terms of their entrepreneurial attitude and entrepreneurial behavior?
6. What are the expert opinions on the data outcomes for Hungary and Slovenia and what can Macedonia expect?

The expectations beforehand regarding the influence of EU membership on EA and EB did not prove to be right. The influence of EU membership on EA and EB is not positive. The underlying explanation for this influence is formulated in this Chapter.

8.1 Definitions in the research

In this research entrepreneurship is defined as *'the manifest ability and willingness of individuals, on their own, in teams, within and outside existing organizations, to:*

- *perceive and create new economic opportunities (new products, new production methods, new organizational schemes and new product-market combinations) and to*
- *introduce their ideas in the market, in the face of uncertainty and other obstacles, by making decisions on location, form and the use of resources and institutions.'* (Wennekers and Thurik, 1999 p.46-47).

Entrepreneurship can be perceived from a rational and occupational perspective. The core idea of rational choice theory is that behavioral patterns in society reflect the choices made by individuals as they maximize their benefits and minimize their costs (Allingham, 2002; Moll and Hoque, 2006). Occupational choice describes the individual's preference for self-employment or wage-employment. The factors that affect occupational choice depend broadly on the individual's entrepreneurial potential, the returns to entrepreneurship, but also capital constraints (Evans and Jovanovic, 1989), regulations (Fonseca et al., 2001) and factors that influence the opportunity costs of becoming self-employed (of Banerjee and Duflo, 2007).

The above definitions are used to formulate a definition for entrepreneurial attitude and entrepreneurial behavior. An individual is said to have an EA when he or she possesses the right skills, but also recognizes opportunities and has no fear of failure to become entrepreneurial active. He or she can value these skills and make a rational choice. Entrepreneurial behavior is an individual act that indicates the occupational choice of that individual. As such entrepreneurial behavior is the result of the different occupational choices that an individual has.

8.2 The approach of the research

The key in this research is to provide an advice to Macedonia on how to anticipate on changes in EA and EB when gaining accession to the EU. Hungary and Slovenia are used as an example for the Macedonian case, because they share a similar socialist history with Macedonia, have joined the EU in 2004 and their data availability. The first step is a quantitative study of how EU membership affected EA and EB in Hungary and Slovenia. For this purpose data from the Global Entrepreneurship Monitor (GEM) and the World Bank are used. In Hungary and Slovenia the pre and post-EU influence and direction of personal and regional characteristics is analyzed. The influence of EU membership on EA and EB, after controlling for personal and regional characteristics, is important in the next step of this research.

The second step in the research is to approach entrepreneurship experts from Hungary and Slovenia. They are asked in a questionnaire to respond to the observed influence of EU membership on EA and EB in their country. The outcomes of the Hungarian and Slovenian data analysis and the responses of the experts lead to the third step, when Macedonian experts are asked to reflect on the Hungarian and Slovenia outcome from a Macedonian perspective.

This approach makes the research unique, because it combines a data analysis with a questionnaire among Hungarian and Slovenian experts, which in turn is reflected by a questionnaire among experts from Macedonia.

8.3 Literature study

Before turning to the outcomes of the data analysis the first two sub questions need to be answered. This is done in a literature study.

8.3.1 Effect of EU accession on entrepreneurship

Regarding the influence of EU accession on entrepreneurship the following can be concluded. Entering the EU as a country means that it gains access to a single market where capital and labour can move freely. On the one hand, for entrepreneurs this provides an opportunity to gain access to new markets, additional sources of supply, capital and labour and technology. On the other hand they will experience increased competition. Businesses from former socialist countries like Hungary and Slovenia, have limited experiences in dealing with competition in a market economy, which limits their chances in competing with businesses in old EU member states (Narula and Bellak, 2009). New EU member states have the advantage of lower wages, which could benefit their competitive position. Pfaffermayr et al. (2004) find that new member states see an increase in the wages paid, which is due to the big market potential of the EU. Older industries that performed well in a secluded market will most likely face the toughest period after EU accession. On the whole EU membership is expected to boost entrepreneurs to pursue their business idea (Pfaffermayr et al.; 2004), which means that the opportunity recognition of individuals increases.

The answer to the second sub question can be found by considering institutional influences, personal characteristics and regional characteristics and their influence on entrepreneurship.

8.3.2 Institutional influences on entrepreneurship

One institutional influence to consider is the influence of corruption. Desai et al (2003) show that firm entry rates are not significantly affected by corruption in their overall sample, however corruption does reduce firm entry in Central and Eastern European countries. Ovaks and Sobel (2004) find that corruption significantly reduces the number of new firms established per 1000 inhabitants. Dreher and Gassebner (2007) find that, in case of a highly regulated system, corruption can be beneficial and increases the entrepreneurial activity.

It is also important to consider institutional change. EU membership results in new rules and regulations that candidate member states have to apply to. The implementation of these regulations can take place according to the big bang theory or the gradual reform. One finding shared by several researchers points out that a big bang transition is favourable over the gradual reform because of the high credibility and time related benefits that are directly visible for the public and also for businesses (Roland and Verdier, 1994; Lipton and Sachs, 1990a, 1990b; Martinelli and Tommasi, 1995). A pitfall of a big bang transition is that it might trigger a parallel economy. This parallel economy is a normal functioning market that operates according to the old set of rules under the old institutions and thus has not changed towards the new institutional setting.

Dewatripont and Roland, (1992a, 1992b), Nielsen, (1993) and Wang (1992) point out that a gradual reform avoids excessive costs for the government and reduces the chance of a drop in living standard for people. Another important benefit is the increased credibility of the government when they handle reforms in a gradual way (Fang, 1992). Here also lies a pitfall as some reforms might take too long according to the public opinion. Nevertheless, according to Wei (1997), a gradual reform is more politically sustainable and should therefore be prioritized over a big bang transition.

8.3.3 The influence of personal characteristics on entrepreneurship

There are several studies in which personal characteristics of individuals and their relation to EA and EB are studied. These variables include age, gender, education level, workstatus and household income (Delmar and Davidson, 2000; Storey, 1994; Reynolds, 1997; Reynolds et al, 2003; Grilo and Thurik, 2008; Langowitz and Minniti, 2005; Blanchflower, 2004; Kan and Tsai, 2006). The five bullets below consider the five variables in the order mentioned above.

- Blanchflower et al. (2001) showed that the probability of preferring self-employment over wage-employment decreases with age, while the likelihood of owning a business increases with age. In other words, the EA decreases while getting older and the chance of engaging in EB increases.
- Delmar and Davidsson (2000) conclude that men are more likely to become an entrepreneur. The difference in human (e.g. competences and knowledge), and social capital (social networks) between men and women is suggested to be an explanation for this disparity (Greene, 2000).
- Uhlaner et al (2002) showed that a higher level of education of the population leads to a lower level of entrepreneurs. Arenius and Minitti (2005) and Davidson and Honig (2003) are uncertain about the relations between education and business start-ups. They state that education creates a better EA and question whether this might create a basis for higher EB. Blanchflower (2004) did find a positive effect of post graduate training on start-up rates in the high-tech sector.
- Workstatus, being employed or unemployed, has an effect on the EA of individuals (Blanchflower, 2004). The employed value their skills more positively and thus have a higher chance of EA. The GEM 2008 executive report shows that when an individual is employed, the higher the level of social security that he/she has, the less they are inclined to become an entrepreneur (Bosma et al, 2009).
- Kihlstrom and Laffont (1979), Evans and Jovanovic (1989), Kan and Tsai (2006) and Weber and Milliman (1997) all showed that a higher household income leads to a higher chance to become an entrepreneur.

8.3.4 The influence of regional characteristics on entrepreneurship

To understand differences in entrepreneurship, the sub-national level is equally important as the national level (Sternberg 2000, Fritsch and Mueller, 2006; Tamásy, 2006). Reynolds et al (1994; 1995) and Bosma (2009) showed that there are several regional characteristics that have influence on EB in addition to cultural, institutional and national effects. The two most important regional characteristics for this research are shown, namely unemployment and Gross Regional Product (GRP).

Bosma (2009) shows that the level of regional unemployment also affects start-up rates and thus EB, because for unemployed, the opportunity costs of self-employment are relatively low. Johansson (2000) and Hurst and Lusardi (2004) indicate that those who are unemployed tend to have lower human capital and entrepreneurial talent, which are needed to start a business. Being unemployed means lower personal wealth, which would also reduce the likelihood of being self-employed.

Beugelsdijk (2007) concludes in a regional study that regions that have experienced higher economic growth rates have a culture that can be characterized as entrepreneurial.

8.4 Entrepreneurship policy in Hungary, Slovenia and Macedonia

The third sub question considers the change in entrepreneurial policy and regulation in Hungary and Slovenia leading up to EU accession and thereafter.

Hungary and Slovenia both followed the EU Charter for Small Enterprises (European Commission, 2002) prior to EU accession. This EU policy document describes areas that need to be addressed in order to develop a good environment for SMEs to work in. The Charter has been supplemented to make it more directed towards entrepreneurship. In addition to the EU Charter Hungary and Slovenia both have policies to improve entrepreneurship on national and regional level.

Macedonia is also following the EU Charter for SMEs as the most important guidance for improving SME and entrepreneurship policy. They are performing well on the registration time for new businesses, but are relatively weak in the areas of supporting SME competitiveness and export promotion (OECD, 2009).

8.5 Entrepreneurial attitude and entrepreneurial behavior in Macedonia

This paragraph provides the answer to the sub question what the data shows for Macedonia in terms of their entrepreneurial attitude and entrepreneurial behavior? Also the some regional characteristics of Macedonia will be shown. This is done to provide some background information for Macedonia.

For Macedonia only one year of GEM data is available, because 2008 is the first year of their participation. The Total Early-stage Entrepreneurial Activity (TEA) in Macedonia ranks the highest among the participating GEM countries in Europe. The TEA index for Macedonia is 14.5%, meaning that 14.5% of the respondents engage in early stage entrepreneurial activity. Half of this group can be considered nascent entrepreneurs (actively committing time to becoming entrepreneurial active). The other half are new business owners, who are involved in businesses up to 3.5 years. Half of the Macedonian entrepreneurs are necessity driven whereas the other half is motivated by opportunity. When the established business owners (managers/owners of businesses over 3.5 years of age) are added then the total entrepreneurial activity in Macedonia is 24.8%. The typical entrepreneur in Macedonia is most likely to be a man, aged 25 to 34 with a relatively high education and income.

The inflation rate in Macedonia shows a downwards trend from 2000 until 2005 to a point of almost deflation. The years 2006 until 2008 showed a steep increase in the inflation up to 7% in 2008. In 2009 the inflation drops again to a point of deflation (World Bank, 2011). The GDP increases from 2000 until 2008, from less than \$2000 to nearly \$5000 per person per year. In 2009 the GDP drops to a level close to \$4500 (World Bank, 2011). The unemployment level is at a very high level. From 2000 until 2009 it never was less than 30% and reaches as high as 37.3% in 2005 (World Bank, 2011).

8.6 Hungarian and Slovenian data analysis

This paragraph provides the answer to the sub question To what extent the data shows changes in Hungary and Slovenia in terms of entrepreneurial attitude and entrepreneurial behavior after EU accession? The data for Hungary covers the years 2001, 2002, 2004 and 2006. For Slovenia the years 2002 until 2006 are available. The year 2004 belongs to the post-EU data for both countries.

8.6.1 The influence of EU membership on entrepreneurial attitude

The influence of EU membership on entrepreneurial attitude is negative for both Hungary and Slovenia when controlling for personal and regional characteristics. The influence of personal and regional characteristics on EA hardly changes when EU membership is not included. The only change in Hungary is that the middle household income group get a higher chance to have an EA than the lowest household income group. This means that household income becomes more important in explaining EA when not considering EU membership. Kan and Tsai (2006) indicated that a higher household income is important in explaining EA. In Slovenia the influence of personal and regional characteristics on EA does not change when not considering EU membership.

Some determinants of personal and regional characteristics change after EU accession. In Hungary the workstatus of individuals is no longer of influence on entrepreneurial attitude in post-EU times. This is not according to expectation. Blanchflower (2004) stated that the employed value their skills more positively and thus have a higher chance of EA. This does not seem to hold for the workstatus in Hungary. Education also becomes less important in explaining EA and EB after EU accession. Only those with a post secondary degree remain to have a higher chance to have an EA, although the indicator is three times as small compared to pre-EU. The influence of education on EA remains positive, following Arenius and Minitti (2005) and Davidson and Honig (2003).

The regional characteristics of unemployment and GRP both see their indicator sign become negative post-EU. This means that a higher unemployment and a higher GRP no longer lead to a higher chance of an entrepreneurial attitude. This in parts follows the finding of Beugelsdijk (2007), who concludes in a regional study, that regions that have experienced higher economic growth rates have a culture that can be characterized as entrepreneurial.

In Slovenia there are also changes that can be observed after EU accession, but only for the personal characteristics. After EU accession a higher age results in a lower chance to have an

entrepreneurial attitude. This follows the finding of Blanchflower et al (2001). Those who are retired or a student have a lower chance to have an EA than the working population after EU accession. According to Blanchflower (2004), the employed value their skills more positively and thus have a higher chance of EA. On the one hand, the strength of the education indicator is only half as positive in strength after EU accession. This means that a higher education explains less of the chance to have an entrepreneurial attitude. Education still is of positive influence on EA, which is according expectation of Arenius and Minitti (2005) and Davidson and Honig (2003) . On the other hand, a higher household income becomes more important in explaining the chance of an entrepreneurial attitude in Slovenia. This is expected following Kan and Tsai (2006) and Weber and Milliman (1997).

8.6.2 The influence of EU membership on entrepreneurial behavior

In addition to the personal characteristics described before there is also the influence entrepreneurial attitude on entrepreneurial behavior. Therefore EA is also included as a variable.

The influence of EU membership on entrepreneurial behavior is negative in Hungary when controlling for personal and regional characteristics. The influence of EU membership on entrepreneurial behavior is positive in Slovenia when controlling for personal and regional characteristics. The expectation that EU membership would boost entrepreneurs to pursue their business idea (Pfaffermayr et al, 2004) does not seem to hold for Hungary.

Including EA might give a bias because while gathering the data individuals are asked to state if they engage in entrepreneurial behavior and think they possess an entrepreneurial attitude in one and the same questionnaire of GEM. Therefore EA is omitted. The influence of EU membership on EB in Hungary becomes more negative in the absence of EA. Age has a lower positive importance in explaining the chance to engage in EB. Education becomes of a stronger positive influence on EB in Hungary. This does not follow the finding of Uhlaner et al (2002), who showed that a higher level of education of the population leads to a lower level of entrepreneurs. However, it does follow Blanchflower (2004) who did find a positive effect of post graduate training on start-up rates.

The influence of regional characteristics like unemployment, the development of unemployment and the level of GRP all become of positive influence or of stronger positive influence in explaining the chance to engage in entrepreneurial behavior in Hungary. In Slovenia the indicator sign of the influence of EU membership on EB becomes negative when omitting EA as an indicator for EB. However, the influence is not statistically significant, meaning that the negative influence of EU membership on EB in Slovenia cannot be stated with certainty. The omitting of EA does lead to a lower positive influence of age in explaining EB. According to Blanchflower et al (2001) a higher age should lower EB. A higher level of education becomes of greater positive influence in explaining the chance for EB, which follows Blanchflower (2004). The regional characteristics do not show a change in explaining the chance for EB when omitting EA.

Next to omitting EA also EU membership was omitted. This shows the influence of EU membership on the remaining personal and regional characteristics. In Hungary there are no important changes that take place except for an increase of positive influence that age has in explaining the chance for EB, which again is the opposite of what Blanchflower et al (2001) found. EU membership only has a limited interaction with the influence of personal and regional characteristics on EB in Hungary, In Slovenia the influence of EU membership on EB also turns out to be limited. Only the highest age group becomes of positive influence after omitting EU membership. The other variables remain the same.

The influence of personal and regional characteristics on the chance to engage in EB is different for some variables after EU accession.

In Hungary the influence of being unemployed no longer results in a lower chance to engage in EB after EU accession. However, the retired or student population have a significant lower chance to engage in EB after EU accession compared to the working population. Bosma et al (2009) found that a higher social security for employed leads to a lower chance of EB. If unemployed would not have the safety of good social security, you would expect that they have a higher chance to engage in EB. A higher education becomes more important after EU accession in explaining EB, following Blanchflower (2004). The positive influence of EA on EB is almost four times as small after EU accession. This means that an entrepreneurial attitude is less important in explaining the chance for entrepreneurial behavior in Hungary after EU accession. The development of unemployment becomes of influence on EB. A higher development of unemployment means a higher chance for EB. Omitting EA results in few changes in the pre and post-EU influence of personal and regional characteristics on EB.

In pre-EU times, only a higher level of education seems to be more important in explaining EB and a higher regional unemployment level is of positive influence on EB. In Slovenia a higher age becomes of greater positive influence when explaining EB after EU accession. Those who are unemployed have a lower chance for EB after EU accession. Education becomes of little positive influence. The presence of an entrepreneurial attitude becomes a two times more positive indicator for explaining the chance to engage in EB after EU accession. When omitting entrepreneurial attitude this results in a rather similar influence of a higher age on EB in pre and post-EU. However, a higher education becomes of positive influence when explaining EB.

8.7 Hungarian expert responses to the influence of EU membership on EA and EB

This paragraph uses the outcomes of the questionnaire to answer what the expert opinions are on the data outcomes for Hungary and Slovenia. In doing so it answers the first part of sub question six. It also shows what entrepreneurship experts think are important factors to consider to improve EA and EB when joining the EU.

The questionnaires were sent to entrepreneurship experts from Hungary and Slovenia because they possess the knowledge to answer questions related to the influence of EU membership on

EA and EB in their respected country. Unfortunately, no Slovenian expert filled in the questionnaire. Three Hungarian experts returned a filled out questionnaire.

One policy instrument to improve EA and EB in Hungary was the EU Charter for Small Businesses. The respondents indicate that in theory this policy was followed, but there was no entrepreneurship policy in practice. Regional policy in Hungary is said to be too similar to national policy and failed to level out differences that are present between regions. The increased focus on entrepreneurship education in the policy documents is seen as a good aspect of EU regulation on EA and EB.

The expectations of the Hungarian population regarding EU membership were completely inaccurate. They expected to receive huge amounts of money that would increase their wellbeing within a short time. This expected raise in household income never materialized and thus EU membership did not bring what Hungarians expected. Kan and Tsai (2006) and Weber and Milliman (1997) showed that a higher household income leads to a higher chance to become an entrepreneur. Since the great improvement of wellbeing did not occur the influence of EU membership on EA can therefore be negative.

Those engaged in entrepreneurial behavior were not prepared sufficiently for EU membership. The government did too little to prepare the Hungarian entrepreneurs to compete on the single market. This follows the conclusion of Narula and Bellak (2009), who showed that businesses from former socialist countries like Hungary and Slovenia have limited experiences in dealing with competition in a market economy, which limits their chances in competing with businesses in old EU member states.

Two of the respondents indicate that Hungarians were prepared for EU membership, but that Hungary itself was too small to compete on the single market and had limited knowledge in competing internationally, a conclusion shared by Narula and Bellak (2009). This resulted in negative influence of EU membership on EA and EB. Some respondents indicate that it is difficult to tell in hindsight if earlier preparation would have improved the influence of EU membership on EA and EB. Other respondents point towards general economic trends and national politics, which influence EA and EB rather than EU membership. Fonseca et al (2001) describes the negative influence of many rules and regulations on EA and EB.

The respondents state that policies that aim to decrease entry barriers were most important in improving EA and EB during the EU accession period. The influence of corruption and lack of power by the government also negatively influenced EA and EB. This outcome of the questionnaire follows Desai et al (2003), who showed that corruption does reduce firm entry in Central and Eastern European countries.

The Hungarian experts state that opportunity recognition is very important in Macedonia to improve EA and EB, however this is hard to influence. Pfaffermayr et al (2004) expected that EU membership would boost entrepreneurs to pursue their business idea, due to an increase in opportunity recognition of individuals. One way to improve opportunity recognition is to start

with entrepreneurship education from a young age onwards, preferably in primary school already. A good government support system to businesses is also important when gaining access to the EU and a stable government and financial institutions contribute to this. This requires a long horizon for implementation and acceptance.

8.8 Macedonian experts responses to the influence of EU membership on EA and EB

This paragraph shows the important outcomes of the Macedonian experts regarding the influence of EU membership on EA and EB. This way it answers the latter part of sub question six.

After completing the Hungarian questionnaire the outcomes were analyzed and served as the input for a Macedonian questionnaire. This allows Macedonia to learn from Hungary, but also to critically look at their own undertakings in the field of EA and EB promotion in the face of EU accession. Five Macedonian entrepreneurship experts replied a filled out questionnaire.

The Macedonian entrepreneurship experts indicated that regional differences in EA and EB are present in Macedonia, which are primarily caused by socio-economic differences, hence the different nationalities (large Albanian minority in the West) that are present in Macedonia. Culture and the institutional setting are hard to change, even in the long run (Arenius and Minitti, 2005) and therefore differences in EA and EB between regions in Macedonia are likely to remain. Uhlaner et al (2002) even showed that a higher level of education of the population leads to a lower level of entrepreneurs.

The Macedonian experts all recognize the importance of entrepreneurship education and would like to see an even wider inclusion of entrepreneurship education in the schooling system. This means would mean that even in primary school students receive entrepreneurship related courses. Hungarian and Slovenia data showed that education is important in post-EU in explaining EA and EB. This is also supported by the Hungarian experts. However, other literature is not certain about the influence of education on EA and EB (Arenius and Minitti, 2005 and Davidson and Honig, 2003). They state that education creates a better EA and question whether this might create a basis for higher EB.

The variety of policies related to entrepreneurship in Macedonia and the bureaucracy could lower the number of individuals who take to step to actually start a business and engage in entrepreneurial behavior. This relates to the finding of Ovaksa and Sobel (2004) who state that corruption significantly reduces the number of new firms established per 1000 inhabitants.

According to the experts, the Macedonian entrepreneurs need support of the government to prepare for EU accession. This can consist of financial start-up aid, but should also focus on non monetary assistance like assistance in understanding the opportunities and threats of the EU. The experts state that the older entrepreneurs in Macedonia will experience difficulties when Macedonia would join the EU and join the single European market. Their inability to speak English and skepticism regarding advice puts them behind the younger generation, who

are more Western orientated. The assistance from the government should not stop after a business is established. Lastly the experts state that existing businesses should be supported to prepare for the opportunities and threats of EU membership. Decreasing bureaucracy and simplifying the existing policies for entrepreneurs would be of great help. Just like the Hungarian experts indicated, also the Macedonian experts point out the long time horizon that is needed for the successful implementation of new policy and the acceptance from the Macedonian population. A long horizon would mean a gradual reform, which is beneficial because it avoids a drop in living standard and is politically sustainable (Dewatripont and Roland, 1992a, 1992b; Nielsen, 1993; Wang, 1992)

8.9 Answering the research question, policy advice and discussion

8.9.1 Answer to the research question

The previous paragraphs answered the six sub questions that were formulated based on the main research question:

To what extent does EU accession relate to subsequent changes in both attitude towards entrepreneurship and entrepreneurial behavior and how can entrepreneurship policy in Macedonia, as a candidate EU member, anticipate on this?

First of all, it shows that EU accession has a negative influence on entrepreneurial attitude in Hungary and Slovenia and that in post-EU times the importance of education in explaining EA increases significantly. Those who receive a higher education have a higher chance to have an entrepreneurial attitude than those who receive a low level of education.

Secondly it shows that EU accession has a negative influence on entrepreneurial behavior in Hungary both with and without entrepreneurial attitude as an explaining variable. EU accession has a positive influence on entrepreneurial behavior in Slovenia even after controlling for both individual and regional determinants, but not when EA is excluded. Both for Hungary and Slovenia, education becomes more important in post-EU times in explaining entrepreneurial behavior. The higher educated have a higher chance to engage in entrepreneurial behavior compared to the lower educated.

This negative influence of EU membership on EA and EB is not what was hypothesized. The EU was expected to have a positive influence on EA and EB.

The best way for the Macedonian government to anticipate to the changes that EU accession will bring is the inclusion of entrepreneurship education from a younger age onwards, starting in primary school. The importance of education was shown in the Hungarian and the Slovenian data and the Hungarian experts emphasized its importance. Furthermore, the government should assist existing entrepreneurs better. They need preparation to deal with the opportunities and threats of EU membership. The government can take a first step by limiting the variety of policies and the level of bureaucracy. Lastly, the Macedonian government should provide a wider range of financial start-up aid to starting entrepreneurs. This broadly relates to the occupational choice theory. The occupational choice theory recognizes capital

constraints as a limiting factor on entrepreneurial behavior (Evans and Jovanovic, 1989). Also excessive regulations (Fonseca et al, 2001) affect EB negatively.

8.9.2 Policy advice to the Macedonian government

The policy advice to the Macedonian government is quite well included in answering the latter part of the research question. In sum the government should look at education, look at itself and look into financial support. With regards to education, the government should focus to include entrepreneurship education from a young age onwards and assist entrepreneurs to educate them on the opportunities and threats of EU membership. The government should lower the variety of policies and bureaucracy that entrepreneurs face by looking at their own set of rules and regulations. Lastly the government should consider financial aid to start-ups activities. It is important to consider the time that implementation takes and therefore a long time horizon is needed.

8.9.3 Discussion

The main focus of this research was the influence of EU membership on EA and EB. The literature focuses more on the personal and regional characteristics that influence EA and EB. This research could have been stronger when more literature was included on the influence of EU membership on EA and EB and on the influence of EU membership on the personal and regional characteristics. However, the effects of a single market on entrepreneurs and examples of how other countries dealt with this situation were shown. Also the gradual reform and big bang transition are considered that can take place when new institutions are introduced. Furthermore the influence of corruption was shown with specific research examples for Eastern European countries. The literature base for institutional characteristics could have been larger and may have indicated other interest insights, but used approach in this research does touch upon the important factors.

The possible bias in the data, due to the inclusion of EA an EB related questions in one GEM questionnaire might have influenced the data. It would be better to regard the entrepreneurial attitude as a regional characteristic for analyzing its influence on EB. By omitting the variable in the data analysis this thesis shows the influence of personal and regional characteristics on EB in the absence of EA.

In addition to Hungary and Slovenia another country could have been selected that was already a member of the EU for a long period. This country could have acted as a control country. In this research the changes in personal and regional characteristics are linked to becoming an EU member. However, the control country could show that changes in personal and regional characteristics may have occurred anyways, which could mean that other factors than EU membership play a role.

The observed years in the data are all very close to 2004, which is the year of EU accession. The respondents indicated that a long time horizon is needed for implementing and accepting new regulation. Therefore a longer time horizon, starting earlier before EU accession and ending later, could better show the influence of EU accession on EA and EB. In the absence

of sufficient data this research only considered a shorter time period. Maybe in a later stage more data on more countries for a longer time period is available and a similar research can be done.

With regards to the expert questionnaire it was unfortunate that no responses from Slovenia were received. This resulted in a situation where the Hungarian questionnaire gained importance in formulating a questionnaire for Macedonia. Ideally all the respondents from both Hungary and Slovenia would have filled out the questionnaire, however the three respondents from Hungary already show conflicting answers and thus a interesting result. The same applies for the Macedonian questionnaire where it would probably have better if more experts filled out the questionnaire, but with the five respondents this research shows some interesting insights already. EU accession requires to move mountains before you can reap the mountains of gold.

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Appendix 1: Statistical tests

It is important to establish that the data meets several assumptions. Field (2009) showed that there are assumption that must hold when performing a binary logistic regression as this research targets to do. Field (2009) provides an overview of the assumptions. The important assumptions to consider are:

- Independence of errors: Independent variables should not be related. To check for the independence of errors a Durbin-Watson test has been performed on the data. The test provides a number between 0 and 4, where 2 means that the residuals are uncorrelated. Any value above 2 indicates a negative correlation and below 2 means that there is a positive correlation. Generally accepted is that values between 1 and 3 indicate that the assumption is met. This situation also holds for the data used in this thesis and therefore the assumption is met.

- No perfect multicollinearity: The independent variables should not correlate too highly because there should not be a perfect linear relation between the independent variables. Field (2009) suggest a correlation matrix to identify possible cases of multicollinearity. High correlation of 0.8 or 0.9 should be a cause for concern. The correlation matrixes for Hungary and Slovenia, considering the entire period, pre-EU and post-EU) show no cause for concern. The only variables that have a high correlation (close to 0.8 or a little higher) are the regional GRP in the startyear and the regional unemployment in the startyear. Another high correlation (close to 0.8 r a little higher) appears at the variables regional GRP in the startyear and the development of the regional GRP. Another test to see if there is a chance of multicollinearity is performed to find the VIF and the tolerance level. This test reveals that there is little difficulty with multicollinearity for Hungary. The regional GRP in the starting year in Hungary has a VIF higher than 10 and a tolerance level below 0.1, which might indicate multicollinearity. For Slovenia the level of regional unemployment in the starting year, the level of regional GRP in the starting year and the development of regional GRP have a VIF that is higher than 10 and a tolerance level lower than 0.1. The Slovenian data shows greater chance of multicollinearity. However, the regional variables that might show multicollinearity are included in the regression.

Appendix 2: The data analysis of Slovenia without 2004

Following the response that was received from the Slovenian respondent this paragraph shows the regression for Slovenia without the year 2004. This means that now only the years 2002, 2003, 2005 and 2006 are available for analysis of which the latter two represent post-EU times. The approach is similar to Chapter 5. This means that first an analysis is done (one with entrepreneurial attitude as the dependent variable and one with entrepreneurial behavior as the dependent variable) where all the data is included as well as a dummy for EU membership to establish if there is any significance of EU membership on entrepreneurial attitude and entrepreneurial behavior. Then an analysis is done where pre and post-EU data are split to see how independent variables might have between the two periods of time. Naturally, the outcomes from the analysis is compared (see Table 16) to the earlier analysis in chapter 5 that included 2004 as well to establish if there are any differences without 2004. There are no differences in the pre-EU data because only changes appeared in the post-EU data.

Table 15 shows the new analysis for Slovenia where the entire period is included. This analysis covers the years 2002, 2003, 2005 and 2006. The personal indicators in the old analysis and new analysis are similar in some parts. The changes that can be observed are mainly a change in strength of the indicator, but never any of the indicators switches from negative to positive or vice versa. The regional characteristics remain insignificant in the new analysis. The most important change can be observed at EU membership and entrepreneurial attitude. EU membership is no longer negatively significant, but has become a non-significant positive indicator. This means that EU membership no longer has a significant negative influence on entrepreneurial attitude in Slovenia. When considering entrepreneurial behavior the influence of EU membership is remains significantly positive.

Table 16 shows the new analysis for Slovenia where there has been made a split between the pre and post-EU data. The analyses in chapter 5 were separated in two parts. One with only personal characteristics included and one with personal and regional characteristics included. The influence of the regional characteristics did cause for any significant change in the personal characteristics. Therefore with the new analysis only one regression is showed, which includes personal and regional characteristics. When considering entrepreneurial attitude the indicators of the post-EU data do not change. Some variables do lose their significance in the new analysis. The regional data remain insignificant. When considering entrepreneurial behavior the personal characteristics do not change a whole lot either. The indicator remains the same. In the new analysis education is no longer significant, whereas one group was (at 10%) in the old analysis that did include the year 2004. The regional characteristics do not change either.

The way the GEM questionnaire is set up result in a situation where respondents are first asked if they engage in entrepreneurial behavior and then are questioned whether they think they possess the skills that make up an entrepreneurial attitude. Those who already indicated that they engage in entrepreneurial behavior are more inclined to state they then also possess the entrepreneurial skills. This causes for a possible bias in entrepreneurial attitude. Entrepreneurial attitude serves as one of the personal indicators when analyzing entrepreneurial behavior. When looking at the before last column of table 16, leaving out EA

when EB is the dependent variable does not change the significance or a whole lot in the strength of the remaining variables in pre-EU times. The post-EU analysis without EA, showed in the last column of table 16, does see many changes. Age is now almost completely insignificant, whereas education becomes positively significant. This means that when leaving out entrepreneurial attitude in post-EU analysis, the higher the education an individual receives, the higher the change is that they engage in entrepreneurial behavior, regardless of their age. The Nagelkerke R^2 is a lot lower when omitting EA from the analysis. This shows the importance EA has in explaining EB, which is possibly stronger due to the bias that was described earlier.

Table 15: EU membership and Slovenian entrepreneurial attitude and entrepreneurial behavior

Dependent variable: EA		Entire period	Entire period
		Entrepreneurial attitude	Entrepreneurial behavior
Countries in regression		Slovenia	Slovenia
Number of observations		4909	4909
Nagelkerke R^2		0.104	0.277
		Beta	
Personal characteristics	Female	-,668***	-,672***
	Age (15-34)		
	Age (35-54)	-,119*	,355***
	Age (55+)	-,152*	,387**
	Workstatus (fulltime/parttime)		
	Workstatus (unemployed)	-,075	-,617**
	Workstatus (retired/student)	-,110	-1,725***
	Education (Some secondary)		
	Education (Secondary degree)	,640***	,250*
	Education (Post secondary)	,883***	,167
	Household income (lower 33%)		
	Household income (middle 33%)	,041	,542***
	Household income (upper 33%)	,478	,840***
	Entrepreneurial attitude		1,802***
Regional characteristics	Regional unemployment 2001(H), 2002(SI)	,074	,038
	Regional development unemployment till 2006 from starting year	-,003	-,005
	Regional GRP 2001(H), 2002(SI) (x1000)	,081	,045
	Regional development GRP till 2006 from starting year	-,030	-,031
EU membership		,034	,447***
Constant		-1,270	-3,711

***significant at 1% level, ** significant at 5% level, *significant at 10% level

Table 16: Entrepreneurial attitude and entrepreneurial behavior in Slovenia

Dependent variable		Pre-EU	Post-EU	Pre-EU	Post-EU	Pre-EU	Post-EU
Countries in regression		Entrepreneurial Attitude		Entrepreneurial Behavior			
Number of observations		1861	3048	1861	3048	1861	3048
Nagelkerke R ²		0.147	0.084	0.254	0.285	0.198	0.132
		Beta					
Personal Characteristics	Female	-.821***	-.569***	-.920***	-.601***	-1,147***	-.842***
	Age (15-34)						
	Age (35-54)	,063	-.215**	,206	,443***	,228	,228*
	Age (55+)	-.156	-.157	,258	,470**	,262	,280
	Workstatus (fulltime/parttime)						
	Workstatus (unemployed)	-.189	-.035	-.048	-.855***	-.125	-.764***
	Workstatus (retired/student)	-.028	-.149	-2,022***	-1,560***	-2,019***	-1,513***
	Education (Some secondary)						
	Education (Secondary degree)	,836***	,481***	,113	,332	,322	,496***
	Education (Post secondary)	1,177***	,668***	,098	,250	,387	,508***
	Household income (lower 33%)						
	Household income (middle 33%) (1)	,008	,091	,771***	,445***	,765***	,489***
	Household income (upper 33%)	,371***	,589***	1,042***	,734***	1,134***	,969***
	Entrepreneurial attitude			1,382***	1,990***		
Reginal Characteristics	Regional unemployment 2001(H), 2002(SI)	,165	,009	,031	,057	,038	,080
	Regional development unemployment till 2006 from starting year	-.015	,004	-.005	-.004	-.011	,000
	Regional GRP 2001(H), 2002(SI) (x1000)	,219	-.012	-.039	,102	-.011	,108
	Regional development GRP till 2006 from starting year	-.099	,018	,030	-.069	,020	-.074
Constant		-2,019	104 -5,69	-3,752	-3,343	-3,242	-2,721

***significant at 1% level, ** significant at 5% level, *significant at 10% level

