

**Working Paper**

# **CUPESSE WORKING PAPER N° 3**

# ***Desperate Entrepreneurs: No Opportunities, No Skills***

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January 2016

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This Working Paper is published in the Working Paper Series of the international research project “Cultural Pathways to Economic Self-Sufficiency and Entrepreneurship: Family Values and Youth Unemployment in Europe” (acronym CUPESSE) to reflect state of the art results of the research still in progress.

The project involves researchers from eight EU Member States and two Associated Countries: Austria, Czech Republic, Denmark, Germany, Hungary, Italy, Spain, Switzerland, Turkey and the United Kingdom.

Further information on the project is available online <http://cupesse.eu/>

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CUPESSE has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no. 613257.

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## Abstract

Promoting entrepreneurship has become an important policy strategy in Europe in the hope to stimulate the crisis-shaken economy. In this paper, we caution against undue expectations. Using data from the Global Entrepreneurship Monitor, we find that a considerable proportion of the new entrepreneurs start a business despite a negative perception of business opportunities as well as lack of confidence in their own entrepreneurial skills. We extend existing entrepreneurship theories to account for this phenomenon. Testing the hypotheses derived from our model, we find that these people turn to entrepreneurship due to lack of other options to enter the labour market.

## 1 Introduction

With the outbreak of the economic crisis, promoting entrepreneurship has become an increasingly important labor market policy in many European countries. Various political programs foster and support small-scale business start-ups in expectancy of multifaceted benefits, ranging from the end of unemployment for the new entrepreneur on the individual level to job creation through successful businesses and economic development on the macro level. As part of the 2020 Action Strategy, the European Commission launched different measures for bringing Europe back to growth and higher levels of employment. Fostering entrepreneurial activity is one of the core instruments of this strategy. There are high hopes that this approach will help to create new jobs and stimulate the economy.

Although overall entrepreneurial activity figures seem to prove a positive development of individual involvement in enterprising efforts, we caution against undue expectations. Extrapolated data from the Global Entrepreneurship Monitor (GEM) indicate that in the 17 European countries analysed in our study, there are 22.2 million working-age individuals actively involved in starting or running a new business activity, compared to 15.8 million individuals in 2006, just before the recent economic crisis. This seemingly indicates a desirable trend. However, a closer look at this set of entrepreneurial starters reveals that a considerable number of these individuals became involved in starting-up a business despite a negative perception of business opportunities as well as a lack of self-confidence in their own entrepreneurial skills. We call such individuals “nons-entrepreneurs” (no opportunities, no skills). Table 2 in the appendix displays the shares of early stage entrepreneurs in 2006 and in 2012 who see either no opportunities, or do not believe in their own skills, or both – the latter being “nons-entrepreneurs”.

In 2012, almost every tenth early-stage entrepreneur in our sample was a “nons-entrepreneur”. Translated to real numbers using extrapolation to national populations, this would mean that about 2.1 million individuals in the 17 countries under review may be involved in entrepreneurial activity without actually seeing opportunities or believing in own skills. Compared to 2006, this number has almost doubled (from 1.1 million).

In order to achieve sustainable growth and higher levels of employment, this phenomenon may be counterproductive, as the quality of business ventures performed by “nons-entrepreneurs” is questionable. Usually, such individuals are less likely to engage in more sophisticated and higher value-added activities, do not plan market expansion outside their surroundings, and their job-creation ambitions remain at the level of solo-employment. Moreover, “nons-entrepreneurs” might be more likely to encounter a failure (Block & Sandner, 2009; Block & Wagner, 2010; Caliendo & Kritikos, 2010), which may not only discourage them from future activity, but also provide a negative role model for others.

The existence of nons-entrepreneurs presents not only a potential economic problem, but also a theoretical puzzle. The Krueger-Brzeal-Model (Krueger & Brzeal, 1994; Krueger et al., 2000) posits

that perceived feasibility (i.e. the perception of opportunities and the belief in one's own skills) is a necessary condition for the development of entrepreneurial intentions. Yet, if this is the case, how is it possible that people actually start a business without having optimistic perceptions concerning opportunities and skills?

We argue that these people are “desperate entrepreneurs”, who act out of necessity. Lacking any other options to succeed on the labour market, they are pushed into entrepreneurship – especially in times of economic crisis. We test this hypothesis based on data from GEM's Adult Population Surveys in 2006 and 2012, thereby comparing the situation before the crisis with the situation at the peak of the crisis. Our analysis confirms that while necessity has not been of much influence in 2006, it has indeed become a driving factor behind “nons-entrepreneurship” in 2012.

The rest of the paper proceeds as follows. First, we outline important theoretical and empirical accounts concerning entrepreneurship. Then, we turn to potential theoretical explanations behind the phenomenon of “nons-entrepreneurs”. In the analysis section, we offer empirical evidence of the existence and the distribution of nons-entrepreneurship and test our hypotheses concerning the causes of this phenomenon. We conclude with a discussion of the implications of our findings and options for future research.

## 2 The Who, When and Why of Entrepreneurship

Results of research on the factors influencing the decision to engage in entrepreneurial activity by setting up a venture are heterogeneous (Rocha, 2012).

The traditional entrepreneurship literature has analysed entrepreneurship as a specific profession that certain types of people adopt. Based on Schumpeter (1935), who drew on psychological concepts, the aim of this approach was to identify the stereotypical entrepreneur. The main psychological characteristics that are associated with entrepreneurial activity are internal locus of control, propensity to take risk, self-confidence, need for achievement, innovativeness and self-efficacy (Bandura, 1977, 1993, 1997; Brandstätter, 2011; Brockhaus, 1980; Ferreira et al., 2012; Krueger et al., 2000; Liñán, 2008; Locke & Baum, 2007; Rauch & Frese, 2007; Sagie & Elizur, 1999; Shane et al., 2003; Tucker, 1988). Especially the entrepreneurial risk perception was analysed extensively. Still, there are no conclusive results, as recent findings contradict the “conventional wisdom” that risk is a main characteristic of entrepreneurship and that therefore an individual's risk attitude is one of the crucial variables when it comes to choosing between entrepreneurship and a salaried job (Caliendo et al., 2009). Concerning more objective attributes like age, gender, and formal education, research showed that all these indicators influence entrepreneurial activity. Data indicate that men are more likely to start a business than women (Blanchflower, 2004; Langowitz & Minniti, 2007), and that the highest share of newly self-employed individuals can be found in the age group between 30 and 40 years (Caliendo & Kritikos, 2010; Pfeiffer & Reize, 2000). Founders of start-ups are generally higher educated (Hinz & Jungbauer-Gans, 1999). Yet, it is not primarily the objective skill level of an individual that affects the propensity to become an entrepreneur – even more important is the individual's perception of own skills (Forbes, 2005), with entrepreneurs often having higher confidence in their skills than warranted by their actual economic success (Koellinger et al., 2007).

Besides individual characteristics, external factors such as institutional and economic circumstances influence individual decisions and serve as push or pull factors for entrepreneurship (Begley et al., 2005; Dawson & Henley, 2012). Push factors often have negative connotations (e.g. job loss). Alternatively, pull factors draw people to start a business (business opportunity) (Kirkwood, 2009). Important institutional aspects that may act as pull factors (or boost the effect of push factors) are, for example, the nature of rules adopted and their enforcement and the influence of regulations on the

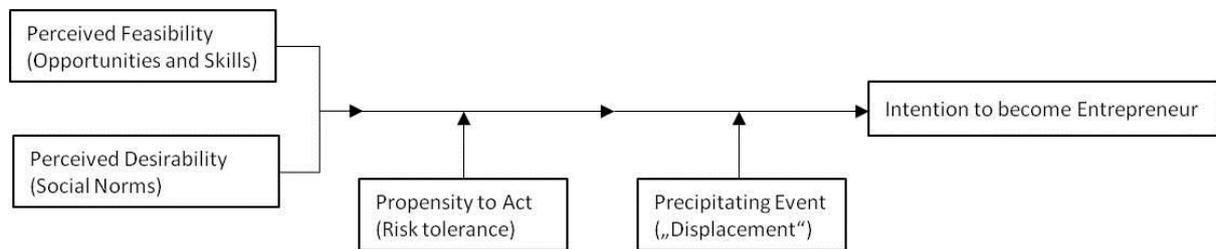
level of risk involved in business formation and start (Baumol and Strom, 2007). Empirical work suggests that the small-business sector is larger in countries in which the costs for business start-ups are lower (Ayyagari et al., 2007; Stenholm et al., 2013). Moreover, the access to resources, especially the availability of financial means, is a core condition for successful venture creation (Andersson & Wadensjö, 2006; Åstebro & Bernhardt, 2003; Busenitz et al., 2000; Caliendo et al., 2013; Evans & Leighton, 1989).

Two macro-economic factors are also considered to be of special importance for entrepreneurship, the general economic development of a country and, more specifically, the national or regional unemployment rate (Carrasco, 1999; Deli, 2011). Favourable economic conditions may act as pull factors, because prospects for both successful business creation and job search in case of venture failure are better (Carrasco, 1999). Bad conditions, in contrast, may be push-factors, forcing individuals into self-employment due to lack of other opportunities (Carrasco, 1999; Parker, 2004). Yet, the actual effect of macro-economic conditions remains unclear: while economic downturns may increase the number of people entering entrepreneurship out of reasons such as involuntary job loss or scarcity of vacancies, at the same time, people may also be discouraged because economic downturns reduce the profitability expectations (Thompson, 2011). Evidence provided by Fairlie (2013) suggests that the push-effects of bad labour market conditions outweigh the discouragement-effects, finally resulting in higher levels of business creation. Nevertheless, the relationship between unemployment and entrepreneurship is still ambiguous as empirical evidence as well as theoretical considerations come to positive and negative results (Audretsch et al., 2005; Carrasco, 1999; Cowling & Mitchell, 1997; Meager, 1992; Thurik et al., 2008). Especially regarding the effects of the national or local unemployment rate, theoretical predictions are ambiguous (Carrasco, 1999; Dawson & Henley, 2012). Empiric results are likewise inconclusive (Parker, 2004) and vary between micro and macro level.

Instead of identifying those who are most likely to become entrepreneurs or analysing favourable and unfavourable conditions for the development of entrepreneurial intentions, another prominent strand of the literature draws on behavioural approaches (Ajzen, 1991; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975; Krueger et al., 2000; Lüthje & Franke, 2003; Schlaegel & Koenig, 2014) in order to better understand why individuals decide to start their own business. One of the most influential micro-founded models of entrepreneurial activity is the model on entrepreneurial intent elaborated by Krueger and Brazeal (1994). This model is based on the Theory of Planned Behaviour by Izek Ajzen and Martin Fishbein (Ajzen, 1991; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), which is a general approach to explain individual intention formation and behaviour.

The Krueger-Brazeal model suggests that two factors are antecedents of the intention to start a business: the perceived desirability and the perceived feasibility of being an entrepreneur. Beyond that, two further factors influence the final formation of entrepreneurial intentions, the propensity to act and a precipitating event like a displacement (Krueger & Brazeal, 1994; Lucas, 2008). In the following paragraphs, we will shortly describe the individual components of the model, which is depicted in Figure 1.

Figure 1: The Krueger-Brazeal Model



Source 1: simplified version of Krueger and Brazeal (1994, p. 95)

Perceived feasibility constitutes of opportunity and skill perception (Koellinger et al., 2007) and is often equated with perceived self-efficacy (e.g. Bandura, 1977, 1997; Boyd & Vozikis, 1994). Perceived self-efficacy refers to a person's confidence in his or her own capacities to successfully execute a target behaviour (e.g. Bandura, 1977, 1997; Boyd & Vozikis, 1994). This concept is an important component of the theory of planned behaviour as well as of more specific models of entrepreneurial behaviour. Self-efficacy accounts for the fact that an intended behaviour will only be carried out if a person has the perception of being in the possession of the necessary skills, abilities and further internal resources (Fishbein & Ajzen, 2010, p. 336). Task-specific self-efficacy and broadly defined perceived feasibility in the context of entrepreneurial behaviour is primarily influenced by two factors that mutually affect each other, perception of individual skills and knowledge to start a business as well as venture opportunity perceptions (Krueger & Dickson, 1994, p. 396).

Perceived desirability is conceptualised as subjective norms and individual attitudes. Attitudes towards the act define whether a person positively or negatively appraises a specific behaviour. In respect of venture creation, this appraisal can be conceptualized as a person's motivation to engage in entrepreneurial activities. Subjective norms are defined as a person's belief that significant others think that certain behaviours are desirable (Ajzen & Fishbein, 1980, p. 73). The theory thus implies that people develop their subjective norms by evaluating the perception of other important people or the society as a whole in respect of a specific behaviour in question (Ajzen & Fishbein, 1980). Subjective norms can therefore enhance an individual's desire to become self-employed by influencing the desirability in a positive way. Empirical studies confirm the positive effect of subjective norms, for example in form of role modelling or if entrepreneurship and entrepreneurial values such as responsibility and personal action are highly valued within a society (Bosma et al., 2011; Davidsson & Honig, 2003; Dunn & Holtz-Eakin, 2000; Holienka et al., 2013; Liñán et al., 2012; Obschonka et al., 2011; Scherer et al., 1989; Schmitt-Rodermund, 2004; Van Auken et al., 2006).

An individual's propensity to act refers to its desire to gain control over adversity and uncertainty by taking action (Krueger et al., 2000, p. 419). In this respect, the task-specific propensity to act is mirrored in an individual's propensity to take risks. A precipitating event, such as job loss or other changes in the personal situation, finally triggers the formation of the intention to become an entrepreneur. The intention, in turn, is the best predictor of actual behaviour (Krueger & Brazeal, 1994; Krueger et al., 2000).

Although the Krueger-Brazeal model is well established in the entrepreneurship literature, it has been criticised for its overly positive perception of entrepreneurship (Lucas et al., 2008; Veciana, 2007; Zali et al., 2013), where entrepreneurial activity is the desirable outcome and people become entrepreneurs because they are capable and desire it. Yet, this is not necessarily the case. Thus, based on the macro-level concept of push and pull factors, a more recent approach distinguishes between

necessity entrepreneurship (push) and opportunity entrepreneurship (pull) (Reynolds et al., 2002; Sheehan & Mc Namara, 2015; Verheul et al., 2010; Williams, 2008). Opportunity-driven entrepreneurs are defined as those who are positively motivated to become self-employed. This group constitutes the “classical case” of the prior entrepreneurship literature. The choice to become self-employed is made freely, based on considerations that entrepreneurial behaviour is socially and individually desirable. Besides, the opportunity-driven entrepreneur is characterised by individual characteristics such as risk-propensity, locus of control, as well as a strong need for achievement (Brockhaus, 1980; Shane et al., 2003). Necessity-driven entrepreneurship refers to individuals who become self-employment because of personal or external factors that constrain the individual’s freedom. Hence, the primary distinction between opportunity- and necessity-driven entrepreneurship is based on the dichotomization of external and internal factors. While opportunity-driven entrepreneurs are motivated by internal personal objectives and goals, necessity-driven entrepreneurs are motivated by external opportunities or constraints (Dawson & Henley, 2012). These may be personal or situational factors and individual circumstances of life, like caring responsibilities, unemployment or belonging to the “working poor” (Haas, 2013; Newman, 1999), or environmental influences that are not person-specific but refer to macro-environmental factors, such as funding schemes, interest rates, or welfare state regimes (Haas, 2013). Necessity driven entrepreneurship is not necessarily a desired outcome. Being pushed into self-employment bears the risk of not being well prepared before engaging in entrepreneurial activities (Andersson & Wadensjö, 2006; Carrasco, 1999; Pfeiffer & Reize, 2000). Although the formal education level might be similar between all business founders, people that start a business out of unemployment have less employment and industry-specific experience and less spillovers from intergenerational transmission (Caliendo et al., 2013). The probability that these endeavours are successful in the long run is thus limited. Furthermore, previous studies have shown that necessity entrepreneurship is associated with smaller growth expectations and less innovation (Block & Wagner, 2010; Caliendo & Kritikos, 2010; Reynolds et al., 2002; Zali et al., 2013). As a consequence, necessity-driven entrepreneurship may not only fail to be the desired outcome from the point of view of the respective entrepreneur, but also from a macro-economic perspective.

In the following, we will combine the Krueger-Brazeal model with the necessity/opportunity approach, thereby incorporating micro- and macro-level explanations for the development of entrepreneurial intentions, and, more specifically, allow for the existence of “nons-entrepreneurs”.

### 3 The Possibility of “Nons-Entrepreneurship”

Within the field of entrepreneurship studies, the model by Krueger and Brazeal (1994) is well established. Yet, the model explicitly precludes the existence of “nons-entrepreneurs”. As one of the necessary conditions for entrepreneurial intentions, perceived feasibility, is not fulfilled if people neither believe in their own skills nor in good business opportunities, it should be impossible that those individuals develop the intention to start their own business, let alone to become entrepreneurs. Hence, to account for the possibility of “nons-entrepreneurs”, we extend the original model to include the important motivational distinction between necessity and opportunity driven entrepreneurship. We propose four adaptations to the original model:

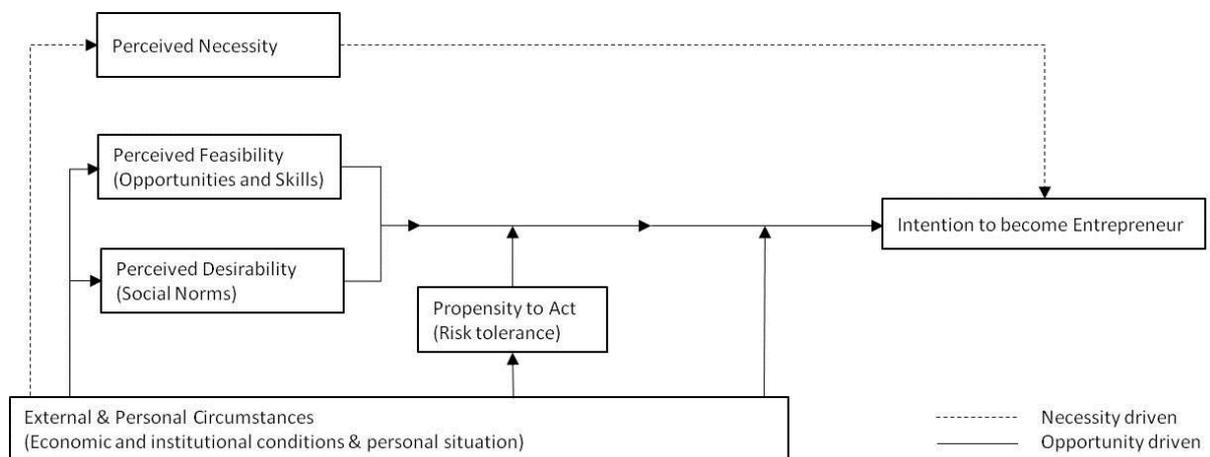
First, in line with the differentiation between opportunity and necessity driven entrepreneurship, we refine the Krueger-Brazeal model by including necessity as an additional antecedent of entrepreneurial intentions. This allows for the fact that the intention to become an entrepreneur may not be due to the wish to seize a business opportunity, but may instead be caused by the feeling that there are no other options to (re-)enter the labour market than to become self-employed.

Second, we assume that not all antecedents (desirability, feasibility and necessity) have to be present for entrepreneurial intentions to form. Instead, we replace the original principle of complementarity between desirability and feasibility (and necessity) by the principle of substitution. This adaptation is crucial to properly anchor the motivational distinction between necessity and opportunity in the model. It expands the explanatory potential of the theory, as “nons-entrepreneurship” becomes theoretically explicable instead of being regarded as an empirical artefact or mere decision error.

Third, we argue that the original chronology of the model does not adequately reflect the individual intention formation process. Contrary, we suggest that the formation of entrepreneurial intentions is a dynamic process over time (Gartner, 1985, 1989; Sarasvathy et al., 2010; Smallbone & Welter, 2004), where personal circumstances do not only act as precipitating events and thus final triggers for the formation of intentions, but already influence the perceptions of feasibility, desirability, and necessity, as well as the propensity to act.

Finally, it is not only the personal circumstances, but also general institutional and economic conditions that influence this process (Lucas, 2008, p. 11). By incorporating external circumstances, the model by Krueger and Brazeal, which is micro-founded and explains the individual decision making process as a function of personal characteristics and perceptions, becomes accessible for macro-level determinants (such as national regulations concerning entrepreneurship, unemployment rate, etc.). The adapted model is presented in Figure 2.

**Figure 2: The adapted Krueger-Brazeal Model:**



**Source 2: Own adaptation from Krueger and Brazeal (1994, p. 95)**

According to the adapted model, “nons-entrepreneurship” should be observed if the lack of perceived feasibility is substituted by necessity. If no other options are available to enter or remain in the labour market than to become self-employed, people may be pushed into entrepreneurship. Additionally, the lack of perceived feasibility could also be substituted by perceived desirability. If social norms are favourable towards entrepreneurship, for example when entrepreneurs enjoy a high reputation in society, even those individuals may be attracted who are not confident that they have the necessary skills and opportunities to start their own business. As a result, people who feel that entrepreneurship is highly valued by others may be more likely to enter entrepreneurship, even as “nons-entrepreneurs”. This may be especially true for people with high risk tolerance. People who are not afraid of risking a potential business failure should be more likely to become “nons-entrepreneurs”.

In addition to the above-mentioned micro-level factors, macro-level economic and institutional conditions may influence not only the propensity to start a business, but also the propensity to do so without believing in the feasibility of the endeavour. However, the direction of such effects is difficult to predict. On the one hand, a poor economic situation and tight labour market conditions may increase the rate of “nons-entrepreneurs”, as more people may turn to entrepreneurship out of necessity and regardless of feasibility perception. On the other hand, if chances of business success are extremely low, entrepreneurship may not even be considered as an option. Likewise, institutional factors may have diverse effects. If institutional regulations enhance business freedom by facilitating the foundation of new enterprises or dealing with business failures, this may increase the share of “nons-entrepreneurs” because the hurdles that have to be overcome are smaller and individuals may easier be pushed into entrepreneurship.

We thus expect that three individual-level factors enhance the probability of “nons-entrepreneurship” – first and foremost, perceived necessity, second, perceived desirability, particularly in combination with, third, high risk tolerance. For macro-level indicators, the predictions are less clear. A bad economic situation and a high unemployment rate may increase (but at a certain level also decrease) the rate of “nons-entrepreneurs”. Business freedom may increase the rate of “nons-entrepreneurs”. In the next section, we will test these expectations. Before doing so, however, we will present some descriptive evidence concerning the existence of the phenomenon of “nons-entrepreneurs”.

## 4 Analysis

We use data from the Global Entrepreneurship Monitor’s (GEM) Adult Population Surveys 2006 and 2012 to compare the incidence and determinants of “nons-entrepreneurship” before the outbreak of the European economic crisis with the situation at the peak of the crisis.<sup>1</sup> We include all EU member states for which GEM-data is available for both years (Croatia, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Netherlands, Slovenia, Spain, Sweden, and the United Kingdom) and two associated countries (Norway and Turkey) for reference. Our data is restricted to early stage entrepreneurs, i.e. those people who are about to start a business as well as those who have started one at most 3.5 years earlier.<sup>2</sup>

Figure 3 displays the share of nons-entrepreneurs among the total population of early stage entrepreneurs in each of the 17 countries in our dataset in both 2006 and 2012. As can be seen, there is quite some variation between countries and between years. In 2006, France had by far the greatest share of nons-entrepreneurs (about 17.6% of all early stage entrepreneurs).<sup>3</sup> Finland, Germany, Greece, Italy and Sweden had between 5% and 10% nons-entrepreneurs, while the rest of the countries ranged below 5%. In 2012, in most countries, the share of nons-entrepreneurs has risen considerably compared to 2006, with values above 15% in Greece, Hungary and Italy, and values between 10% and 15% in France and Latvia. The other countries mostly range between 5% and 10%; only Ireland, the Netherlands, Slovenia and Sweden display values just below 5%.

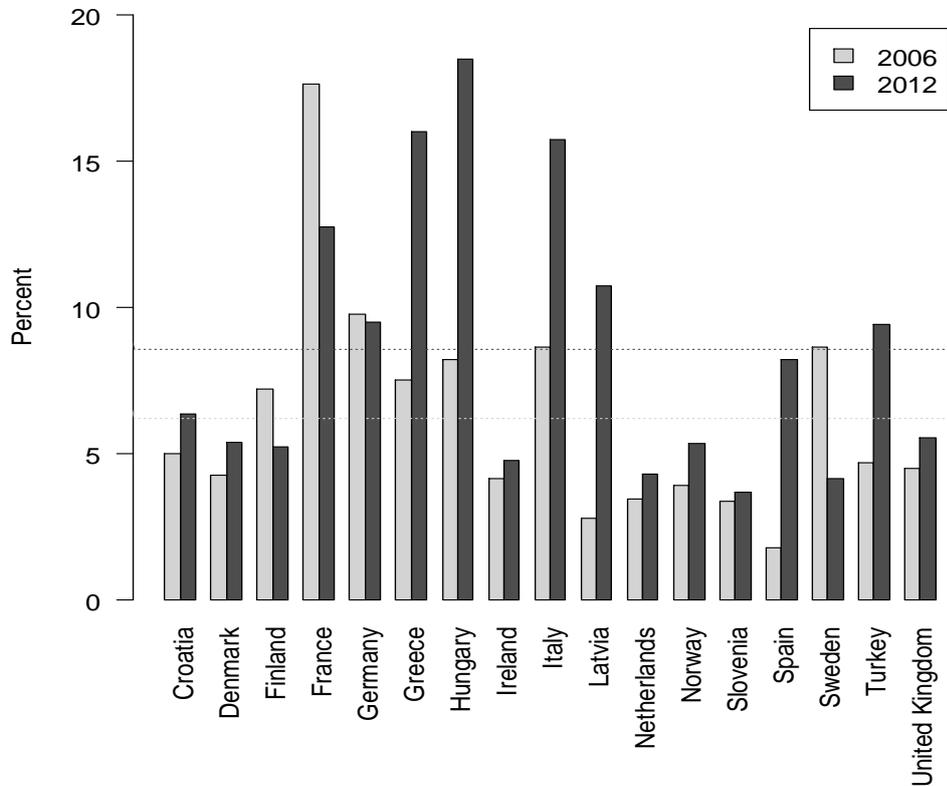
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<sup>1</sup> Started in 1999, GEM is a large-scale study with various partner universities conducting surveys in a large number of countries (69 in 2012) each year.

<sup>2</sup> More precisely, early-stage entrepreneurs are defined as individuals aged 18-64 who are either currently actively involved in setting up a business they will own or co-own, or have already started a business but this business has not paid any wages or salaries etc. for more than 42 months. This is the definition used in the GEM project.

<sup>3</sup> This may be explained by the fact that already before the outbreak of the economic crisis, in France, a comparably high unemployment rate was mixed with unfavorable institutional conditions for business start-ups (Gohmann, 2012) and low trust in own capabilities to start a business among French (Boissin et al., 2009).

Figure 3: Percent of nons-entrepreneurs among early stage entrepreneurs



Source 3: GEM data for 2006 and 2012; own calculations. Demographic weights applied. Dotted lines indicate means for 2006 and 2012

The figure illustrates the rising prominence of nons-entrepreneurship in most countries during the economic crisis, with on average 8.6% of the early stage entrepreneurs in a country neither believing in business opportunities nor in their own skills in 2012 (compared to 6.2% in 2006). Furthermore, in many of the countries that were most affected by the crisis (Greece, Hungary, Italy and Spain), this increase has been particularly high.

To test which factors influence the probability to become a nons-entrepreneur, we run separate logistic regression models for the years 2006 and the year 2012 on individual-level data. The dependent variable thereby takes the value 1 if an early stage entrepreneur is a nons-entrepreneur and 0 otherwise. We include individual-level indicators for perceived *Necessity*, perceived *Desirability*, and *Risk tolerance*, as well as an interaction effect between *Desirability* and *Risk tolerance*, to account for the fact that the lack of perceived feasibility might be substituted by high desirability in combination with high risk tolerance according to our adapted theoretical model. In addition, we include controls for gender, age and the level of formal education as well as the fact whether the business has already been started. To account for country-level differences, we either use country dummies, or include

indicators for the state of the economy (*GDP per capita*, *GDP per capita growth*, and the *Unemployment rate*) and institutional factors (*Business freedom*).<sup>4</sup>

Table 1 presents the results of regressing nons-entrepreneurship on the individual and macro-level determinants for the 2006 and 2012 data. We control for the nested structure of the data by using country-clustered standard errors.<sup>5</sup> As can be seen from the models, *Necessity* has a positive, yet not statistically significant effect on nons-entrepreneurship in 2006. The coefficient of *Desirability* is not significant either. At the same time, and contrary to the original expectation, *Risk tolerance*, has a significant negative effect on becoming a nons-entrepreneur.

**Table 1: Logistic regression of nons-entrepreneurship for 2006 and 2012**

	(1)		(2)	
	2006		2012	
<i>Individual-level Variables</i>				
Gender (1=female)	0.506*	(0.243)	-0.010	(0.175)
Age	-0.184***	(0.049)	-0.080	(0.056)
Age <sup>2</sup>	0.002***	(0.001)	0.001	(0.001)
Education (1=high)	-0.228	(0.170)	-0.512**	(0.171)
Desirability	-0.229	(0.259)	0.071	(0.230)
Risk tolerance (1=high)	-0.845**	(0.305)	-0.690**	(0.262)
Desirability x Risk tolerance	0.109	(0.354)	-0.231	(0.226)
Necessity	0.444	(0.274)	0.709***	(0.185)
Business already started	-0.722**	(0.229)	-0.207	(0.230)
<i>Macro Variables</i>				
Unemployment rate	0.090	(0.054)	-0.000	(0.016)
GDP per capita / 1000	-0.003	(0.007)	-0.025*	(0.011)
GDP per capita growth	-0.104	(0.053)	-0.038	(0.027)
Business freedom	0.024***	(0.007)	0.031	(0.018)
Constant	-0.971	(1.140)	-2.552*	(1.173)
Observations	5099		3157	
McFadden's Pseudo R <sup>2</sup>	0.076		0.067	

Standard errors in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Notes: demographic weights applied; the variable *Desirability* is not available for two countries, Denmark and Sweden, in 2012. Thus, these two countries were omitted from the 2012 analysis. However, a separate model (not reported) without *Desirability*, but including the two countries provides the same results.

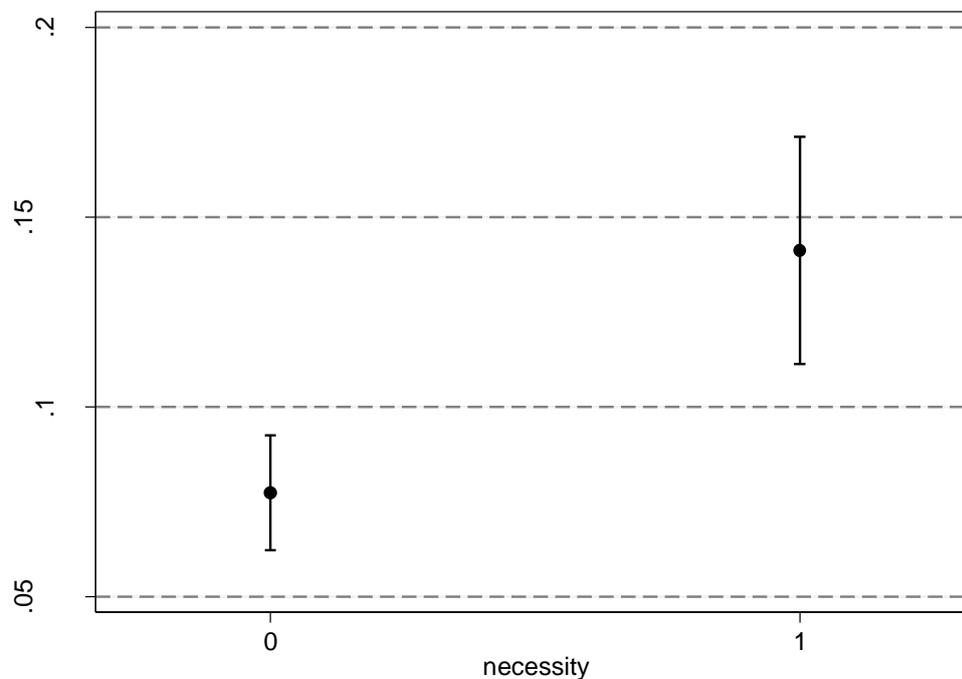
<sup>4</sup> More specific information concerning the computation of the dependent and the independent variables, as well as some descriptive statistics can be found in the appendix (Table 3).

<sup>5</sup> Similar results from a model replacing the macro-level variables by country dummies (Table 4) and a multi-level model (Table 5) are provided in the appendix. However, a likelihood-ratio test demonstrates that a multi-level specification is not necessary in our case. It may also be flawed due to the low number of observations on level-2 and their non-random selection (see Möhring (2012) for the advantage of fixed effects models over multi-level approaches in such cases).

This means that contrary to the assumption, it is not the people with high risk tolerance who tried to start or started a business despite seeing not much potential in doing so. Instead, people with higher risk aversion were more likely to do so. In addition, we find that women were more likely to become nons-entrepreneurs than men. Age has a non-linear effect: all other things equal, for people aged 39 and less, the probability of nons-entrepreneurship is predicted to decline with increased age, while for people of 40 years or older, the probability of non-entrepreneurship increases again the older they become. People who had already started their business were significantly less likely to be nons-entrepreneurs than nascent entrepreneurs. Concerning the country-level effects, *Business freedom* has a positive effect, indicating that the easier it is to start or to close a business, the more likely it is that people become entrepreneurs despite failing to believe in their skills or in good opportunities. Neither GDP nor GDP growth nor the unemployment rate seem to influence nons-entrepreneurship.

The results based on the data for 2012 differ slightly from those for 2006 concerning the country-level effects (e.g. differences between countries became larger, potentially due to differences in economic development) and differ considerably from those for 2006 in regard to the individual-level effects. Most importantly, *Necessity* turns out to have a significantly positive effect on nons-entrepreneurship. The size of the effect is illustrated in Figure 4, displaying the average marginal effects of *Necessity* (cf. Williams, 2012). As can be seen, the predicted probability to be a nons-entrepreneur raises from about 8% to about 14% once someone acts out of necessity. This corroborates our hypothesis that if people lack other choices on the labour market and turn to entrepreneurship out of necessity, they are more likely to become entrepreneurs who neither perceive that they have the necessary skills for running a business, nor that there are generally good opportunities for new businesses in their region.

Figure 4: Predicted probability of nons-entrepreneurship in 2012 depending on whether someone is motivated by necessity or not



Note: Average marginal effects (Williams, 2012) based on model 2 in Table 1.

The fact that these relationships cannot be found to such an extent in the data for 2006 is in line with the assumption that nons-entrepreneurship among entrepreneurs aggravates in times of economic crisis. At the same time, *Gender* and *Age* have no significant effect in 2012. Instead, we find that in 2012, people with a low level of formal education are significantly more likely to become nons-entrepreneurs than people with higher education. Like in 2006, high *Risk tolerance* again leads to a lower probability of nons-entrepreneurship, hence furthermore undermining the original hypothesis that nons-entrepreneurs may be individuals that are simply not afraid to risk a potential business failure. At the same time, this further strengthens the argument that nons-entrepreneurs are necessity driven and will even try to start a business if they are risk averse. As they have no other options on the labour market, trying to become self-employed is less risky for them than for individuals who are already in well paid employment, especially if they are simply aiming for solo-employment, thus creating a job for themselves but without the need for high ex ante investments. Hence, even if they are risk averse, perceived necessity leads them to become nons-entrepreneurs – they are, so to say, “desperate entrepreneurs”.

## 5 Conclusion

Classical theories of entrepreneurship like the Krueger-Brazeal model (Krueger & Brazeal, 1994; Krueger et al., 2000) assume that individuals start their own business because they deem it both desirable and feasible, due to good business opportunities and a firm belief in their own capabilities and skills. In this paper, we argued that especially in light of the current economic crisis, these theories need to be expanded to be able to address the phenomenon of “nons-entrepreneurship” – individuals who try to start a business without the perception of opportunities and skills. Based on data from the Global Entrepreneurship Monitor for 17 European countries, we find that there is a considerable share of such individuals among early stage entrepreneurs, which increased since the outbreak of the crisis. Therefore, the phenomenon should not be ignored.

We thus incorporate the distinction between necessity and opportunity driven entrepreneurship into the Krueger-Brazeal model, hypothesizing that “nons-entrepreneurs” are likely to be motivated by the fact that they have no opportunities to (re-)enter the labour market other than being self-employed. Our empirical analysis supports this hypothesis. Individuals that are driven by necessity and individuals with a low level of formal education are more likely to become nons-entrepreneurs. Moreover, it is not a low risk aversion that leads them to start their own business without being convinced to succeed. Rather, they are afraid of failure but still turn to entrepreneurship. Thus, we conclude that nons-entrepreneurs are in fact *desperate* entrepreneurs, without opportunities, skills, or better options.

However, our analysis also indicates that the phenomenon of nons-entrepreneurs is by far not fully explained by necessity. Furthermore, while there is reason to believe that “nons-entrepreneurs” may be less successful and, as a result, less beneficial for the economy than “classical” opportunity driven entrepreneurs, this hypothesis still needs to be confirmed by empirical analysis.

Yet, if enterprises of nons-entrepreneurs are indeed found to be unlikely to sustain, this would imply that for such individuals, entrepreneurship leads to further disappointment and increased debt, while offering little more than a short-term break from unemployment. In this case, recent labour market policies encouraging entrepreneurship should be rethought and adapted, in order not to encourage nons-entrepreneurship – or better, in order to provide potential nons-entrepreneurs with the necessary skills (and belief in these skills) to sustain a business and to break the cycle of unemployment and failure.

**Acknowledgement:**

Work on the paper has been carried out as part of the CUPESSE Project, which received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n° 613257. Data for the analysis has been provided by the Global Entrepreneurship Monitor (GEM).

## Appendix

**Table 2: Perception of own skills and perception of opportunities to start a business**

2006				2012			
	Perceived Opportunities				Perceived Opportunities		
	No	Yes	Total		No	Yes	Total
<b>Perceived Skills</b>				<b>Perceived Skills</b>			
No	323	276	599	No	320	277	597
Yes	2,487	2,559	5,046	Yes	1,696	1,413	3,109
Total	2,810	2,835	5,645	Total	2,016	1,690	3,706

Note: demographic weights applied.

### Measurement of variables:

Our dependent variable, whether an early stage entrepreneur is a “nons-entrepreneur”, is calculated from two GEM-items, the perception of one’s own skills and the perception of opportunities for starting a business. If an early-stage entrepreneur neither perceives him or herself to have the skills required for starting a business, nor thinks that there are currently good opportunities for starting a business, this variable takes the value 1, otherwise it is set to 0.<sup>6</sup> The main independent variable, *Necessity*, indicates whether someone becomes an entrepreneur out of opportunity (0) or out of necessity (1) and is also based on two items from GEM.<sup>7</sup> As an indicator for perceived *Desirability* of entrepreneurship, we use one of the GEM questions related to subjective norms, i.e. whether a person agrees with the statement “In your country, most people consider starting a new business a desirable career choice.” To measure *Risk tolerance*, we draw on the question “Would fear of failure prevent you from starting a business?”, with the answer “yes” indicating low, and the answer “no” indicating high risk tolerance. On the individual level, we also use further variables to control for gender, age, level of education, and the fact whether someone is a nascent entrepreneur (i.e. in the course of setting up a new business) or has already started a business (i.e. the business pays salaries or wages for more than three months).

On the country level, we include measures for the unemployment rate<sup>8</sup>, GDP per capita<sup>9</sup> and GDP per capita growth<sup>10</sup> in the respective years in our dataset. The variable *Business freedom* indicates the amount of procedures, time and cost involved both in starting and closing a business due to the overall

<sup>6</sup> Questions: “Do you have the knowledge, skill and experience required to start a new business?” and “In the next six months, will there be good opportunities for starting a business in the area where you live?”

<sup>7</sup> Questions: „Are you involved in this start-up to take advantage of a business opportunity or because you have no better choices for work?” and “Which one of the following, do you feel, is the most important motive for pursuing this opportunity? - to have greater independence and freedom in your working life; to increase your personal income; just to maintain your personal income; none of these”

<sup>8</sup> Eurostat, Unemployment rate by sex and age groups - quarterly average, % [une\_rt\_q]

<sup>9</sup> World Bank, GDP per capita (constant 2005 US\$), <http://data.worldbank.org/indicator/NY.GDP.PCAP.KD>

<sup>10</sup> World Bank, GDP per capita growth (annual %), <http://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG>

burden of government regulations on entrepreneurial activities (cf. Stenholm et al. 2013), as measured by the index of economic freedom (IEF) on a score from 1-100 (Holmes et al., 2008).

**Table 3: Descriptive statistics of variables**

	2006				2012			
	mean	sd	min	max	mean	sd	min	max
Nons-entrepreneurship	0.06	-	0	1	0.09	-	0	1
Gender (1=female)	0.32	-	0	1	0.32	-	0	1
Age	37.71	11.02	18	64	38.24	11.29	18	64
Education (1=high)	0.45	-	0	1	0.50	-	0	1
Desirability	0.62	-	0	1	0.55	-	0	1
Risk tolerance (1=high)	0.22	-	0	1	0.29	-	0	1
Necessity	0.18	-	0	1	0.21	-	0	1
Business already started	0.43	-	0	1	0.41	-	0	1
Unemployment rate	7.27	2.42	3.7	12.2	11.06	5.64	3.1	24.5
GDP per capita / 1000	32.13	18.10	7.52	66.74	28.86	17.21	8.43	65.62
GDP per capita growth	4.76	2.35	2.01	12.20	0.00	2.65	-6.37	5.00
Business freedom	78.72	12.32	53.80	95.30	81.94	9.82	63.00	98.40

Note: demographic weights applied.

Table 4: Logistic regression of nons-entrepreneurship for 2006 and 2012 including country fixed effects

	(1)	(2)
	2006	2012
Gender (1=female)	0.537* (0.233)	-0.027 (0.172)
Age	-0.198** (0.061)	-0.085 (0.049)
Age <sup>2</sup>	0.002** (0.001)	0.001 (0.001)
Education (1=high)	0.323 (0.259)	0.494** (0.173)
Desirability	-0.202 (0.384)	0.061 (0.258)
Risk tolerance (1=high)	-0.818* (0.361)	-0.604* (0.253)
Desirability x Risk tolerance	0.112 (0.473)	-0.218 (0.334)
Necessity	0.368 (0.258)	0.688*** (0.199)
Business already started	-0.603* (0.237)	-0.206 (0.166)
Croatia	-ref-	-ref-
Denmark	0.294 (0.509)	na
Finland	0.784 (0.593)	0.160 (0.552)
France	1.514** (0.551)	1.096* (0.494)
Germany	0.531 (0.548)	0.974 (0.685)
Greece	0.465 (0.563)	1.230** (0.450)
Hungary	0.499 (0.558)	1.318** (0.413)
Ireland	0.354 (0.610)	-0.063 (0.548)
Italy	0.605 (0.676)	0.964* (0.486)
Latvia	-0.306 (0.738)	0.724 (0.422)
Netherlands	-0.070 (0.611)	0.030 (0.493)
Norway	0.055 (0.738)	0.290 (0.537)
Slovenia	0.088 (0.658)	-0.021 (0.632)
Spain	-0.745 (0.447)	0.520 (0.392)
Sweden	0.905 (0.635)	na
Turkey	0.112 (0.614)	0.721 (0.413)
United Kingdom	0.262 (0.442)	0.330 (0.636)
Constant	0.817 (1.286)	-1.275 (1.047)
Observations	5099	3157
McFadden's Pseudo R <sup>2</sup>	0.094	0.085

Standard errors in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Notes: demographic weights applied; the variable Desirability is not available for two countries, Denmark and Sweden, in 2012. Thus, these two countries were omitted from the 2012 analysis. However, a separate model (not reported) without Desirability, but including the two countries provides the same results.

**Table 5: Multi-level logistic regression of nons-entrepreneurship in 2006 and 2012**

	(1)		(2)	
	2006		2012	
Gender (1=female)	0.513*	(0.218)	0.106	(0.160)
Age	-0.180**	(0.059)	-0.107*	(0.045)
Age <sup>2</sup>	0.002**	(0.001)	0.001*	(0.001)
Education (1=high)	0.252	(0.233)	0.458**	(0.159)
Desirability	-0.425	(0.384)	-0.011	(0.228)
Risk tolerance (1=high)	-0.914**	(0.354)	-0.748**	(0.230)
Desirability x Risk tolerance	0.417	(0.465)	-0.052	(0.307)
Necessity	0.641**	(0.247)	0.648***	(0.164)
Business already started	-0.544*	(0.230)	-0.083	(0.155)
Unemployment rate	0.075	(0.063)	0.020	(0.019)
GDP per capita /1000	-0.004	(0.014)	-0.019	(0.011)
GDP per capita growth	-0.078	(0.075)	-0.022	(0.037)
Business freedom	0.022	(0.013)	0.019	(0.018)
Constant	-0.883	(1.681)	-1.517	(1.561)
<b>Random intercepts (Countries)</b>				
Standard Deviation	1.04e-06	(.367)	0.197	(0.131)
Observations	1820		2234	

Standard errors in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Note: Using multilevel models for GEM data is problematic, as no weights can be applied and sample sizes vary greatly between countries. E.g. Spain in 2006 and 2012 and UK in 2006 had 10 times the sample size of the other countries. Instead of weighting the data, the mean number of observations of the other countries was randomly drawn from the data of the countries with overlarge sample sizes to ensure that observations from these countries were not driving the results.

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## Executive Summary of the CUPESSE Project

The CUPESSE project is dedicated to the comparative analysis of youth unemployment in Europe. By taking issues related both to the demand and supply sides into consideration, the project aims to obtain a comprehensive picture of the causes and consequences of unemployment among young people as well as formulate strategies and recommendations for addressing this ever-growing issue. Eight EU Member States and two Associated Countries (Austria, Czech Republic, Denmark, Germany, Hungary, Italy, Spain, Switzerland, Turkey and the United Kingdom) represent the primary empirical focus of the project; however, attempts will be made to include all European states whenever possible. Kicking off in early 2014, the project brings together a broad network of researchers and practitioners from the fields of economics, political science, psychology, and sociology.

**In examining young adults' pathways to economic self-sufficiency and entrepreneurship, CUPESSE pursues the following main objectives:**

- Obtaining a comprehensive understanding of the supply side of youth unemployment by focussing on the intergenerational transmission of social capital and its influences on economic self-sufficiency and entrepreneurial behaviour
- Investigating how both supply and demand side factors affect unemployment among young adults and the extent to which young people's attitudes and skills align with employer demands
- Analysing the long-term consequences of youth unemployment, both with regard to the unemployed as well as for society as a whole
- Studying the effects of labour market policies (such as flexicurity, measures to promote business start-ups and entrepreneurship) and how they have been embraced by European states to combat youth unemployment
- Formulating policy ideas and strategies for addressing unemployment among young people in Europe

### Relevance and background information

Scholars and the media alike have noted an increase in the amount of time today's young people need to successfully transition to adulthood; in other words, to become economically self-sufficient. More specifically, unemployment, especially among young adults (persons age 18 to 35), is a particularly vexing and persistent problem within Europe, despite the numerous efforts that have been made by national governments and the EU to encourage young people's labour market participation. At the same time, we are confronted by the reality that youth unemployment is by no means equally severe across Europe. In some countries young people encounter higher barriers to entering the labour market or may face different hurdles despite having attained a university degree. Entrepreneurship, moreover, is an equally important yet oft-overlooked component of youth employment and aids job creation and the overall economic climate. And although the European Commission has highlighted entrepreneurship as an indispensable tool for economic growth, we know very little about what drives or impedes entrepreneurship, particularly among young people

In analysing the complex and interrelated socio-economic challenges associated with youth unemployment, five complementary research objectives are pursued within the CUPESSE project. These objectives can be assigned to two dimensions: First, the causes and effects of youth unemployment are investigated. The second research dimension seeks to employ these insights to assess the effects and effectiveness of existing policy measures; that is, to sort out the factors and measures that make the greatest difference in order to improve existing programmes and to propose more effective policy responses to help overcoming youth unemployment in Europe.

The first dimension encompasses three objectives. First, the supply-side of youth unemployment, with an eye to the ways in which the values and norms that shape young people's economic self-sufficiency and entrepreneurship are handed down through the generations. Comprehensive surveys, completed by in-depth interviews of families will probe the question of intergenerational transmission, thereby examining the ways in which attitudes towards economic self-sufficiency and entrepreneurship are formed and transmitted as well as their overall impact on employability. The second objective brings together the supply and demand side of unemployment among young adults. More specifically, this objective examines the interaction between what employers are looking for when hiring young people and young people's awareness of employer expectations. Taking a broader view, the third objective seeks to uncover the consequences of youth unemployment over the long-term, looking both to the implications for individuals and for society as a whole.

Zooming out from more individual-centred perspectives, the fourth objective aims to assess the impact of labour market policies on young people's employment situation as well as the extent to which EU member states have embraced such measures. Flexicurity policies, policies supporting business start-ups and self-employment as well as policies promoting education and training platforms are examined with regard to their effects as well as effectiveness in achieving economic self-sufficiency and entrepreneurship among young people. Closely related is the fifth and final objective, which will draw on the insights from the other objectives to propose recommendations for new policy measures and strategies to encourage the labour market integration of young people in Europe.

CUPESSE, as an innovative project connecting a diverse group of actors and institutions from all over the globe, will make a substantive contribution to understanding the complex processes regarding the employment situation of youth in Europe. With its multi-method, multidisciplinary and encompassing perspective, CUPESSE stands to make a significant impact not only in terms of the ways in which we comprehend the multifaceted concepts of economic self-sufficiency and entrepreneurship, but the project will also be able to draw on these findings to draft policy recommendations which will be relevant for meeting the goals of the Europe 2020 strategy.

### **CUPESSE Beneficiaries and Team Leaders**

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