

Exploration of the Relationship between Cultural-Socio-Economic Determinants and Entrepreneurship

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Abstract

There has been relatively little empirical analysis of the role played by cultural-social-economic policies to promote entrepreneurship. Governments, for instance, conduct different entrepreneurship promotion policies. Financial assistance and easing of bureaucratic rules are provided to improve the entrepreneurship process in a country. Entrepreneurs benefit from education and skills, which are planned and subsidized by governments to provide an appropriate environment for business. So, it seems government policies on education promotion and human development, for instance, are important factors affecting entrepreneurship. Additionally, growth in total investment and savings expand economic capacity for further activities by entrepreneurs. The objective of this paper is to explore a causal relationship between entrepreneurship and its main determinants through regression analysis. We employ data on education, human development, property rights, the rule of law and some economic variables in 123 selected countries over the period 2000-2005 to estimate the entrepreneurship regression model by the panel data approach. The implication is that education, economic growth and optimal government policies can encourage entrepreneurship.

JEL Classification: C23, L26

Key words: Entrepreneurship, education, human development index, economic indicators, panel data

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Introduction

Today, entrepreneurship has become a growing and important field of practice. The term of entrepreneurship is presently very popular and there is a tendency to regard entrepreneurship as something inherently good, something firms should always strive for (Dess, et al. 1997). The literature suggests that entrepreneurship is a key ingredient for organizational success. In addition to its contribution to organizational success and firm performance, research shows that entrepreneurial activity encourages general economic growth (Covin and Slevien, 1989), and plays a crucial role in the diffusion of technology and the creation of new jobs. A large number of empirical studies have shown that entrepreneurial orientation differs significantly across countries and can impact the economy. One example is Germany, where the lack of entrepreneurial culture was one of the main factors that delayed the development of Germany's information technology industry.

As such, entrepreneurship is considered to be a prime mover in the development of nations. Nations, regions, and communities that actively promote entrepreneurship development demonstrate much higher growth rates and consequently higher levels of development than those whose institutions, politics and culture hinder entrepreneurship. An entrepreneurial economy, whether on the national, regional, or community level, differs significantly from a non-entrepreneurial economy in many respects, not only by its economic structure and its economic vigorousness, but also by the cultural and social vitality and quality of life. Entrepreneurial economy is promoted by dynamic entrepreneurs. Dynamic entrepreneurs look for growth; they do not only have a vision but also are capable of making it happen. They think and act globally, look for expansion, rely on external resources, seek professional advice or work with professional teams. They challenge competitors instead of avoiding them and take and share risks in a way that leads to success. Hence, entrepreneurs act as a catalyst of economic activity and growth, and entrepreneurs are able to enhance the production capability of the economy (Holcombe, 1997). In this way, we can state that economic vitality of a country largely depends on the overall level of entrepreneurial capacity and that entrepreneurial activity is one of the most important elements for attaining a competitive advantage and greater economic and financial results.

The role of government policy in influencing entrepreneurship has been one of the most extensively discussed issues by both academics and policy-makers. Despite this, we know surprisingly very little about the effects of government policy on entrepreneurship. This paper uses a panel approach to examine the effect that the cultural socio-economic factors have

on the level of entrepreneurship for a sample of 123 countries over the period 2000-2005.

The remainder of this paper is structured as follows. In Section 2 we briefly discuss the concept of entrepreneurship. An empirical model of entrepreneurship is specified in section 3, the estimation results are analyzed in section 4. Conclusion and policy implications are drawn in Section 5.

1. The Concept of Entrepreneurship

The literature presents several interpretations of what entrepreneurship is. Schumpeter (1934) defines it as the process that introduces new combinations in the market. These combinations are considered as innovations that are new to the market. In Schumpeter's view, entrepreneurship exists when innovation is present in the new combination. Imitations or recombination of existing resources in the market that do not provide improvements or innovation does not constitute an entrepreneurial event. In contrast, Kirzner (1973) views entrepreneurship as having the alertness to exploit profitable opportunities. This view does not necessarily imply that profitable opportunities exist only on innovating activities. Kirzner (1973) argues that entrepreneurial opportunities may exist when individuals are alerted to unnoticed chances to make a profit due to price differentials. As a result, Kirzner (1973) provides an expanded interpretation of what can be constituted as entrepreneurship. In that way, entrepreneurship not only implies actions that bring innovation to the market but also actions that pursue the exploitation of profitable opportunities in the market.

Gartner (1988) defines entrepreneurship as the creation of new ventures. This implies that entrepreneurial activities involve the formation of new firms in a particular region. This definition is more inclusive as it considers both Schumpeter's and Kirzner's approaches to entrepreneurship. In the arguments developed above, Kirzner states that new ventures are created not only to exploit innovations, in the Schumpeterian terms, but also to exploit profitable opportunities that may not result from innovations. As a result, this definition of entrepreneurship implies that innovation may be necessary but not essential to create a new organization. Furthermore, the process of creating a new venture can be undertaken by an individual, a group of individuals, or an existing organization. In terms of the latter, an entrepreneurial activity may occur when an existing organization chooses to open a new venture that resides outside the organization's boundaries. This implies that a new organization is added to the population of existing businesses. Moreover, a particular owner, either individual (s) or an established organization, may create different organizations over time.

Another term to be defined is the entrepreneurial activity that occurs in a particular region. This term has also been used as the variation in firm births in a region over a period of time (Reynolds et al., 1995). In this case,

entrepreneurial activity represents net changes in the number of operating entities in a particular region. It can be expected that a region will experience a higher level of entrepreneurial activities when there is a significant number of new firms created over time that not only substitute for the firms that cease operations but also increase the number of operating firms in a region.

1-1- Development of Entrepreneurship Thought

In the development of entrepreneurship definition, the idea of entrepreneurship as working for oneself, thus, has been supplemented by the concept of risk-taking, innovativeness and proactiveness. Miller (1983) suggests that a firm's degree of entrepreneurship could be seen as the extent to which it takes risks, innovates, and acts proactively. These were the three entrepreneurial dimensions of strategy. Some studies argue that the three dimensions of entrepreneurship are not necessary conditions. For instance, Brockhaus (1980) suggests that some entrepreneurs may avoid risk under certain circumstances.

Zahra (1993) explains that to treat all firm-level entrepreneurial activities as requiring the same skills is misleading. He noted that to engage in entrepreneurial activity a firm need not exhibit high levels in all entrepreneurship dimensions, innovativeness, risk-taking and proactiveness. For instance, a firm that introduces an existing product to a new market need not be innovative, but is exhibiting high levels of proactiveness. Petrin (1991) believes that entrepreneurship needs not involve anything new from a global or even national perspective, but rather the adoption of new forms of business organizations, new technologies and new enterprises producing goods not previously available at a location.

Lumpkin and Dess (1996) view entrepreneurship as the act of new entry and the offering of existing products or services to new markets. Drucker (1993) explains that entrepreneurs turn innovative ideas into commercial outcomes in two ways: 1) they recognize opportunities to take ideas or technologies and apply them, creating a new product, process, or services; 2) They simultaneously recognize a specific opportunity to connect these innovations to the marketplace. In this regard, an entrepreneur is someone who demonstrates initiative and creative thinking, is able to organize social and economic mechanism to turn resources and situations to practical account, and accepts risk and failure. Bygrave and Minniti (2000) also agreed that entrepreneurs have the skills to identify and undertake previously unexploited opportunities. The authors, described an entrepreneur as a proactive who takes a significant amount of risk. A number of researchers have found empirical evidence in support of the view of an entrepreneur as a risk-taker. Begley and Boyd (1987), for example, find that business founders scored significantly higher than non-founders on risk

taking propensity and tolerance of ambiguity. Thus, entrepreneurs are typically described as having high energy levels, working the long hours associated with the founding and management of new businesses.

1-2- The Measurement of Entrepreneurship

A series of research studies have been published in which entrepreneurship is conceptualized and measured. Miller and Friesen (1983) developed a 13-item scale to empirically measure the dimensions of entrepreneurship. Their measure asks respondents to indicate on a 5-point scale their agreement or disagreement with a series of statements that characterize company philosophy and managerial decision-making. The measurement instrument has subsequently been further developed by Covin and Slevin (1989). Wiklund (1998) identified more than twelve studies based on Covin and Slevin instrument. The sheer number of studies using this measure suggests it is a viable instrument for measuring important aspects of entrepreneurship.

Another proposed methodology to measure entrepreneurship in a country is by using the ratio of new venture capital to GDP, and assuming that the higher the ratio the more there is an entrepreneurial spirit in the country. Blanchflower and Oswald (2000) used data on 25000 randomly sampled people in 23 nations. These individuals are interviewed and asked whether they would prefer to be self-employed or an employee. The proportion of people who favor self-employment ranged from 80% to less than 30%. However, disentangling cause and effect is not possible in a simple analysis like this.

Not only did researchers fail to agree on one definition of entrepreneurship, but also researchers failed to reach a common ground in measuring entrepreneurship dimension. What does innovation mean and what is considered innovative? Unfortunately research in the field of entrepreneurship has been hampered by the lack of a clear paradigm of research and a common definition of the topic. In fact there is growing concern that the debate over the central definition of entrepreneurship has directed research efforts away from the development of a distinctive theory of entrepreneurship. Therefore, most existing definition of entrepreneurship is based on the outcome of entrepreneurial activity or process based on the creation of new enterprises or organizations (Zhao, 2002). Finally, according to Low and MacMillan (1988), researchers should define entrepreneurship as the creation of new organizations, and the purpose of entrepreneurship research should be to facilitate and explain the role of new organizations in furthering economic progress.

2- The Model: Determinants of Entrepreneurship

Most studies in entrepreneurship have often focused on the entrepreneur's personality and psychological traits. For example, Shaver and Scott (1991)

developed a model that included the need for achievement, internal locus of control, and tolerance for ambiguity. But, Low and MacMillan (1988) criticized the psychological trait approach stating that this focus proved unsatisfactory. The alternative was to focus on modern psychological theory and behavioral aspects of entrepreneurs (e.g. Lumpkin and Dess, 1996).

Entrepreneurship determinants need not be psychological. Gartner (1988) argued that the behavior of creating new venture, not the personality of the founder, should be the central focus of entrepreneurial studies. In the process leading to the creation of new business, opportunity recognition is often described and treated as a key ingredient (Shaver and Scott, 1991). Spotting an opportunity, entrepreneurs see ways to put resources and information together in new combinations. Hence, the process of transforming an idea into an organization requires that entrepreneurs acquire knowledge resources (Chandler and Hanks, 1994; Aldrich and Martinez, 2001). Greene and Brown (1997) noted that the fate of a new venture is determined and affected by its resources profile. Fritsch and Falck (2003) empirically found a positive relationship between capital intensity and firm formation; Chandler and Hank (1994) found that ventures with higher level of resources tend to grow faster. Although resources and personal characteristics are crucial in explaining the process of entrepreneurship, they are not sufficient. Van de Ven (1993) argued that the study of entrepreneurship is not complete if it focuses solely on the personal characteristics of entrepreneurs and other micro-factors. Van de Ven pointed out that the social, economic and cultural factors should not be considered as externalities since they play a major role in entrepreneurial activity. Hence, entrepreneurship is assumed to be related to economic-social and culture determinants such as economic variables (economic growth and trade), education (human capital) and human development index, property rights and rule of law in political process.

Government policies are also related to entrepreneurial development. Aldrich and Martinez (2001) found that government actions and political events create new institutional structures for entrepreneurial actions. Government regulations affect the fate of organizations. In countries with highly regulated markets, private entrepreneurship tend to be inhibited and firm formation tend to focus on industries and regions where state involvement is least (Zhao, 2002).

Focusing particularly on economic indicators, it is assumed that there are two kinds of activities in an economy: manufacturing activities and R&D and Innovative activities. An increase in R&D output enhances the level of manufacturing technology and thus increases the demand for capital and labor in the manufacturing activities (Dias, 2006). Also, an increase in the number of entrepreneurs leads human capital to accumulate, because

entrepreneurs hire the workers who possess human capital to participate in the R&D and innovative activities. Without the help of entrepreneurs; those workers will only participate in the manufacturing activities. To transfer workers from the manufacturing activities to the R&D and innovative activities, education investment is needed so as to accumulate the human capital. Entrepreneurs participate in such activities and receive a certain amount of profits. According to the above basic setup, the profit of the R&D and innovative activities is given by:

$$\pi_R = \theta K_R^\beta + A_R z^\varepsilon - W_R z - \rho_R K_R \quad (1)$$

where θ is constant, K_R denotes R&D capital, A_R is the technological level of human capital, z is the total human capital hired by a representative enterprise, w_R is the wage per unit of human capital, and ρ_R is the rate of return to R&D capital.

To maximize the profit of the R&D and innovative activities, we set $\frac{d\pi_R}{dK_R} = 0$, which gives:

$$\rho_R = \beta \theta K_R^{\beta-1} \quad (2)$$

The profit of the manufacturing activities (π_p) is defined as follows:

$$\pi_p = AK_p^{1-\alpha} L_p^\alpha - w_p L_p - \rho_p K_p \quad (3)$$

where K_p and L_p are capital and labor inputs used in the manufacturing activities, L_p and W_p and ρ_p are the prices of these inputs, respectively.

According to the first order condition $\frac{d\pi_p}{dK_p} = 0$, it satisfies:

$$\rho_p = (1 - \alpha) A \left(\frac{K_p}{L_p} \right)^{-\alpha} \quad (4)$$

Entrepreneurs should reallocate inputs into the R&D and innovative activities if the net profit in the later activities is higher than that of the former ones. Thus a transition situation occurs if the following inequality holds:

$$\int_t^{+\infty} \rho_R e^{-r(x-t)} dx > \int_t^{+\infty} \rho_P e^{-r(x-t)} dx \quad (5)$$

where r is the rate of discount. It concludes that entrepreneur activities depend on wage, interest rate and human capital.

More specifically, before workers flow from the manufacturing activities to the R&D activities, they need to acquire a certain amount of human capital which can be gained from labor education. Hence education investment is needed an accordance with entrepreneurial activities (R&D and innovative activities).

In reality, governments can control a lot of economic resources in the process of industrial development, such as land, taxation and finance (Dias, 2006). When performing their functions, entrepreneurs inevitably have to make their efforts to dealing with governments, or even demonstrate a rent-seeking behavior. When governments control economic resources on a relatively large scale and scope, entrepreneurs may lose their opportunities to discover or make productive profits (i.e. innovation), and just become rent-seekers. This is harmful for economic development. Thus, in order to help entrepreneurs more engage in innovation, it requires governments to relax their control and reduce the cost of organizing resources by entrepreneurs. One of the simplest solutions is a cut in taxation. Therefore, there is an adverse relationship between entrepreneurship and tax rate; the lower tax rate, the higher rate of innovative activities. In addition, entrepreneurship is composed of two parts: the ability to seek rents, denoted by R , and the ability to produce, denoted by E , while entrepreneurial ability can be embodied by innovative activities.

In practice, these innovative activities can be accomplished by establishing new firms, or changing the way to implement strategies. It is assumed that all of activities lead to an increase in the number of entrepreneurs. The condition to transform entrepreneurship is the rate of return to the productive ability should be larger than that of the rent-seeking ability. However, the transfer between these two types of ability requires a cost (C_T), which can be proxied by inflation. In the inflationary condition, the possibility of the rent-seeking activity is more provided rather than innovative one.

Hence, the condition to get entrepreneurs more involved in production can be expressed as:

$$\int_0^{+\infty} (1-t)(\pi_P + \pi_R) e^{-rt} dt - C_T \geq \int_t^{+\infty} (1-t) \frac{(\pi_P + \pi_R)E}{R+E} e^{-rt} dt + \int_t^{+\infty} t \frac{(\pi_P + \pi_R)R}{R+E} e^{-rt} dt \quad (6)$$

Profits arising from manufacturing and R&D activities rely on capital (K_P, K_R), labor (L_P, L_R), human capital (h), tax rate (Tr) and inflation. The demand for entrepreneurial abilities (Ent) can thus be written as:

$$Ent = Ent(K_P, L_P, K_R, L_R, h, Tr, Inflation) \quad (7)$$

Interest rate, wage and economic growth (y) may be proxied obviously for capital and labor variables:

$$Ent = Ent(y, Interest\ rate, Wage, h, Tr, Inflation) \quad (8)$$

So far, the theoretical discussion by this paper has been developed in a closed economy setting. According to Grossman (1984), who has modeled firm formation in an open economy, it is necessary to analyze the impact of foreign trade on the formation of domestic entrepreneurs. Grossman shows that import competition and foreign direct investment cause the number of local entrepreneurs to fall as the result of lower prices on the product market which reduce the entrepreneurial income more than the wage income. As only differences in entrepreneurial skills are taken into account in this model, the most capable individuals become entrepreneurs. While foreign direct investment is similar to import competition with respect to product market competition, the entry of foreign firms generates however an additional effect on domestic entrepreneurship since these firms also crowd out domestic firms on the labor market. This crowding out effect does not only result in a lower number of domestic entrepreneurs, but also may give rise to a situation where the best entrepreneurs may become workers in the affiliates of foreign based multinational enterprises (Backer and Sleuwaegen 2003).

In addition to the above discussion, spillovers of international trade provide local firms potentially with adequate technology and foreign R&D affecting positively entrepreneurship. Hence, Equation (8) is re-defined as below with the entry of trade variable:

$$Ent = Ent(y, Interest\ rate, Wage, h, Tr, Inflation, Trade) \quad (9)$$

An empirical framework is thus specified to test the effects of cultural and social factors entrepreneurship. That is, a linear regression of entrepreneurship can be summarized as follow as:

$$\begin{aligned}
Ent_{it} = & \alpha_0 + \alpha_1 y_{it} + \alpha_2 Open_{it} + \alpha_3 Inflation_{it} \\
& + \alpha_4 Interestrate_{it} + \alpha_5 Wage_{it} + \alpha_6 Tr_{it} + \varepsilon_{it}
\end{aligned} \tag{10}$$

where i and t stands respectively for country and year, while other variables are defined as below:

Ent = Entrepreneurship

y = Economic growth

Interest rate = rate of lending

Inflation = inflation: most recent year

Open = Size of the trade sector relative to GDP

Wage = Minimum Wage

Tr = Tax rate

Meanwhile, Equation (1) can be extended by a set of non-economic variables (Z_j) so that the equation is re-specified as follows:

$$\begin{aligned}
Ent_{it} = & \alpha_0 + \alpha_1 y_{it} + \alpha_2 Open_{it} + \alpha_3 Inflation_{it} \\
& + \alpha_4 Interestrate_{it} + \alpha_5 Wage_{it} + \\
& \alpha_6 Tr_{it} + \sum \alpha_7 Z_{jit} + \varepsilon_{it}
\end{aligned} \tag{11}$$

where Z_{jit} ($j=1, \dots, 4$) includes four cultural and social indicators: education (*Edu*), human development index (*HDI*), protection of property rights (*PPR*) and rule of law in the political process (*MI*).

We now specify an estimation method to investigate effects of cultural-social and economic determinants on entrepreneurship for selected countries around the world over the period 2000-2005. This can be done by different ways of the panel data approach. Any attempt for estimating Equation (2), which assuming intercept (α_0) is homogeneous for entrepreneurship, yields biased results, since countries are often different in historical, cultural as well as political structures. It is evident that the crucial source of the bias is a failure to deal with the heterogeneity among individuals (countries). We will implement this through F_{Leamer} . One of the solutions to control for heterogeneity is the use of *Panel Data* procedure, which allows intercepts of the model to be specific to individual countries. The entrepreneurship model in Panel Data form is defined as follows:

$$ENT_{i,t} = \alpha_0 + \alpha_i + \alpha_i + \sum_m \beta_m Z_{m,t} + U_{i,t} \quad t=1, 2, \dots, T \tag{12}$$

where $ENT_{i,t}$ is the entrepreneurship variable for country i in year t , and $Z'_{m,t}$ ($m = 1, 2, \dots, 10$) is the $1 \times m$ row vector of explanatory variables (including economic and non-economic variables) in year t . In this model, intercept contains three parts; the first one is the same to all years and individuals including country pairs, α_0 . The second is specific to year t and the same to all individuals, α_t , while the third refers to specific individuals (countries), but the same to all years, α_j . The estimation results obtained by OLS, therefore, show serious problems of biasness due to the restriction that country pair intercept terms equal zero (Baltagi, 2005).

The Panel Data procedure consists of three estimation sets; first, between groups (BG) that captures differences between individuals, but ignores information within them. Second, fixed effects (FE) estimates in which it is assumed the slope of the entrepreneurship model is the same for all countries, but there are specific intercepts for each of them (individual effects) that would be correlated or uncorrelated with explanatory variables (Hsiao, 2003). The third estimation set relies on random effects (RE) estimates where there exist intercepts ($\alpha_{i,s}$), affiliating the same distribution function with average α and variance $\sigma^2\alpha$, that are uncorrelated with the explanatory variables. Since individual effects (α_i) are included in the regressions, we decide whether they are treated effectively as fixed or random effects. In order to distinguish between the FE and RE method, the Hausman test is applicable for the null hypothesis in which the explanatory variables and individual effects are uncorrelated. The fixed effects estimates are consistent with both the null and alternative hypotheses, whereas the random effects estimates are only compatible with the null hypothesis.

3- Empirical Results

To estimate equations (1) and (2), we consider a proxy for entrepreneurship that is a measure of starting a new business within the period under consideration (2000-2005). Also the panel data are used in the estimation process consisting of the observations of the cultural-social-economic variables for 123 countries around the world (due to data availability) over the period 2000-2005. The data have been collected from of the websites Human development Reports (<http://hdr.undp.org>), World Bank (www.worldbank.org), and Fraser institute (www.freetheworld.com).

Table (1) reports the results of equations (1) and (2) estimations which are obtained by the random effects (RE) method using F_{Leamer} , Hausman and the Brucsh Pagan Lagrange Multiplier tests. The estimates are classified into five cases. Case I seen in the table, stands for equation (1), in which only macroeconomic variables explain entrepreneurship. Other cases stand for equation (2), in which additional cultural-social variables (as previously explained) explain entrepreneurship.

According to Case I, the estimated coefficient of economic growth is positive and statistically significant. This indicates that a higher rate of growth affects significantly entrepreneurship in all countries worldwide. More specifically, growth provides the economies with further opportunities for investment leading to entrepreneurial activities.

Openness of economies affects significantly and directly entrepreneurship. This is also true and expected for the real wage, which has a significant and positive effect on entrepreneurship. However, the rates of taxes and interest rates affect entrepreneurship negatively and significantly. The empirical results shown in Case I of Table (1) confirm that inflation has no significant effect on entrepreneurship progress.

Table (1) also represents further results in the forms of Cases II to V. These results rely on the impacts of some cultural and social variables (*Edu*, *HDI*, *PPR* and *MI*), which have been the core of attention in this study. Case II finds the effect of education on entrepreneurship significant. A positive estimated coefficient of education index reveals the fact that the promotion of entrepreneurial activities is highly correlated to all levels of education. In addition, Case III confirms the role of human development playing significantly in the entrepreneurship progress. This variable includes higher qualities of health and standard of living which can affect entrepreneurship.

Finally, the coefficient of both PPR (Protection of Property Rights) and MI (Rule of Law in the Political Process) variables are significant and positive. They are indeed important signs of social and political factors that take part in the development of entrepreneurial activities.

5- Conclusion

In this study, entrepreneurship is explained by a number of cultural, socio and economic variables. The methods used were based upon fixed effects (*FE*) and random effects (*RE*) of the panel data approach.

The empirical results reveal the fact that some macroeconomic variables such as growth and openness have positive effects on entrepreneurial activities. Countries with higher rates of growth are able to promote such activities. Also the higher the level of international trade, the further opportunities are provided for entrepreneurial activities. However, changes in real wages and interest rate have a negative effect on entrepreneurship activities. Furthermore, education and human development play significant role in the entrepreneurial activities. All levels of education form human capital, which can provide efficient and trained human resources for the entrepreneurship progress. Development of other indexes, such as health, is also a major factor for promoting entrepreneurship. Moreover the rule of law and protection of property rights, which are components of social capital contribute significantly to entrepreneurship promotion.

Table (1): Empirical Results of Entrepreneurship Model

Variables	Case I	Case II	Case III	Case IV	Case V
Economic Growth (Y)	.349918 (0.014)	.2821274 (0.158)	-.3367729 (0.211)	.9427475 (0.000)	.0914834 (0.591)
Openness (Open)	.4430791 (0.036)	.4405414 (0.041)	.4412106 (0.041)	.320635 (0.049)	.3629168 (0.077)
Tax rate (Tax)	-.0522628 (0.027)	-.0598561 (0.031)	-.0345744 (0.019)	-.0477928 (0.025)	-.0398507 (0.006)
Wage	.3305031 (0.000)	.3294397 (0.000)	.2520222 (0.000)	.2352187 (0.000)	.3354972 (0.000)
Interest rate	-1.34333 (0.003)	-1.364605 (0.003)	-3.203215 (0.002)	-1.055957 (0.003)	-1.37443 (0.003)
Inflation	.0490897 (0.473)	.0423295 (0.540)	.0442583 (0.592)	.0101956 (0.850)	.0411379 (0.543)
Education (Edu)	-	.6873684 (0.028)	-	-	-
Human Development index (HDI)	-	-	4.732181 (0.005)	-	-
Property Rights (PPR)	-	-	-	.8730832 (0.000)	-
Rule of law in the political process (MI)	-	-	-	-	.1602399 (0.009)
Relevant Tests	F=3.28 , Pr>F=0.000 H: $\chi^2 = 17.66$, Pr> $\chi^2 = 0.007$ H: $\chi^2 = 61.54$ Pr> $\chi^2 = 0.00$	F=3.36, Pr>F=0.000 H: $\chi^2 = 22.69$ Pr> $\chi^2 = 0.001$ H: $\chi^2 = 59.11$ Prob> $\chi^2 = 0.0$	F=3.14, Pr>F=0.000 H: $\chi^2 = 20.37$ Pr> $\chi^2 = 0.004$ H: $\chi^2 = 42.28$ Pr> $\chi^2 = 0.0$	F=3.17, Pr>F=0.000 H: $\chi^2 = 23.86$ Prob> $\chi^2 = 0.001$ H: $\chi^2 = 41.93$ Prob> $\chi^2 = 0.0$	F=3.18, Pr>F=0.000 H: $\chi^2 = 19.67$ Pr> $\chi^2 = 0.006$ H: $\chi^2 = 60.92$ Pr> $\chi^2 = 0.0$

The figures in the brackets are the probabilities of the acceptance of the zero null-hypotheses.

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