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Institutional determinants of entrepreneurship conditions in Central European countries and the "old" EU. Comparative perspective based on multiple-criteria analysis tools

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Agenda

Part 1: Theoretical framework

The institutional determinants for managerial decision-making

1. Formal regulations influencing entrepreneurship
2. Effectiveness/efficiency of juridical system in keeping a low level of transaction costs and supporting the effectiveness of market mechanism
3. Regulations affecting competitive pressure
4. Regulations affecting the level of labour market's transaction costs
5. Financial markets institutions as a stimulation of development of enterprises with high growth

Part 2: Empirical contribution

Quality of institutions in the European Union

1. The methodology
2. Results
3. Conclusions

Part 1: The aim

The main objective of this presentation is to discuss the relations between institutional aspects, which determine the managerial decision-making processes in business

- **in developed/relatively developed countries;**
- **in the reality of transformation towards knowledge-based economy;**
- **formal institutional aspects that are of crucial importance for the process of reallocation of resources.**

First institutional aspect: Formal regulations influencing entrepreneurship

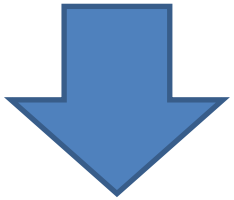
The interactions among institutions, entrepreneurship, effective decision-making and managerial processes in **enterprises and whole sectors** :

- **the influence of the institutional aspects on the organization and managerial processes influencing effectiveness of utilization of productive factors,**

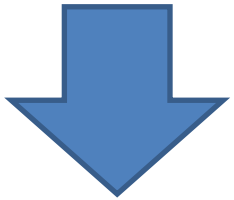
- **it starts at the level of single enterprise and in the cumulative process can transfer to higher aggregation level.**

First institutional aspect: Formal regulations influencing entrepreneurship

indirect influence of institutions on incentives and decision-making processes in business



institutional order provides less or more suitable environment for entrepreneurs



entrepreneurs/(internal) entrepreneurship

a conduit for knowledge and innovation in technology and better organization in the companies.

First institutional aspect: Formal regulations influencing entrepreneurship

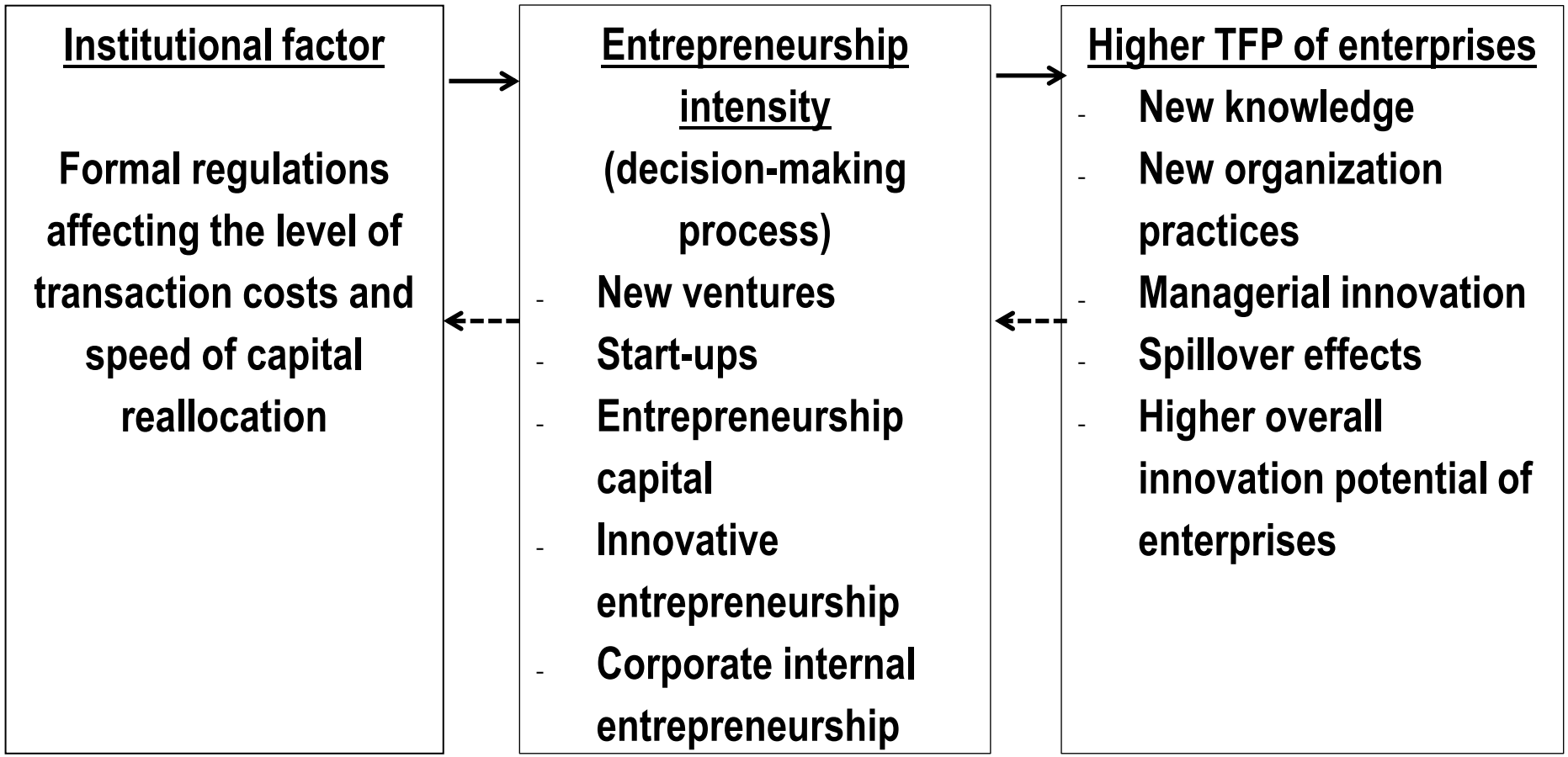


Figure 1. Relations between formal regulations, entrepreneurship (internal entrepreneurship), innovation potential of enterprises and higher TFP of enterprises

First institutional aspect: Formal regulations influencing entrepreneurship

The influence of institutional factors on productive entrepreneurship – innovative start-ups, spread of good organizational practices – Swedish case study (Davidsson, Henrekson, 2002).

- **the key industries and sectors of the economy must be available for entrepreneurial exploitation,**
- **entrepreneurship is negatively affected by the barriers – the policies supporting public production or monopolies,**
- **barriers push out start-ups and discourages emergence of high-growth firms,**
- **negatively affect the spread new ideas and more productive managerial and organizational practices.**

First institutional aspect: Formal regulations influencing entrepreneurship

- new firms (old enterprises but with new management and new organisation) are the main vehicle for the diffusion of new general purpose technologies,

- new firms are the base for new organization of enterprises and whole sectors.

- opportunity cost of switching from old to new technologies are much higher for incumbents than new entrants.

entry barriers => diffusion of new technologies => mergers (hostile takeovers), new managers tend to substitute the old ones in the process of rearranging enterprises' comparative advantages.

Second institutional aspect: Effectiveness/efficiency of juridical system in keeping a low level of transaction costs and supporting the effectiveness of market mechanism

Quality of juridical system → **managerial decision-making (enterprise TFP growth)**

The quality of judicial system determines protection of property rights and transaction cost in contracts enforcement:

- **Investments decisions;**
- **Organization decisions;**
- **The scale of enterprises.**

Second institutional aspect: Effectiveness/efficiency of juridical system in keeping a low level of transaction costs and supporting the effectiveness of market mechanism

Lorizio, Currieri (2014) – the case study for Italy, the quality of legal system impacts optimal decisions in firms with respect to allocation of resources.

The juridical system and fragility of production systems, which affects international competitiveness of enterprises:

- **the internal factors:**
- **small sizes of enterprises,**
- **managerial inefficiencies relating to dominance of familial management models,**

- **the external factors:**
- **complex and uncertain legal framework – inadequacy of a protection of contracts (higher business uncertainty during decision-making).**

Second institutional aspect: Effectiveness/efficiency of juridical system in keeping a low level of transaction costs and supporting the effectiveness of market mechanism

Disincentives in decision making due to failure of justice:

- **ineffective choices of economic agents, contraction of start-ups due to discouragement effects,**
- **preference for keeping small-size enterprises affects negatively their competitiveness and productivity.**
- **business combinations – contracts are protected by different forms of punishment than civil justice – preferring and sharing suppliers/technologies belonging to the same chain.**
- **management inefficiency – the tendency to integrate vertically, which can translate into additional costs and a lower level of investments (freezing capital).**

Third institutional aspect: Regulations affecting competitive pressure

The competitive intensity is dependent on regulations influencing transaction costs and barriers to entry.

Incentives to invest in new, more productive technological and organizational solutions.

Decisions on private sector' expenditures on R&D

- **improvement in innovation,**
- **spillover effects,**
- **TFP growth.**

Third institutional aspect: Regulations affecting competitive pressure

Managers decide to invest in R&D, to do organizational changes to reduce costs, to reach return on investments for stakeholders.

- benefits form R&D are not automatic,
- the technological and organizational innovations are characterized by above-average risk level.

Third institutional aspect: Regulations affecting competitive pressure

The most important factor encouraging managers to innovate => high competitive pressure and high organizational flexibility.

- **effective managers are able to obtain above-average productivity in the industry and to increase their sectorial market share.**
- **less active managers are forced to make the same innovative efforts.**
- **organizations that are not able or willing to innovate are eliminated.**

Third institutional aspect: Regulations affecting competitive pressure

McKinsey Global Institute (2002) – the growing sectorial productivity gap between the US and EU companies:

- **European managers were discouraged from investing in the latest technological and organizational innovations.**

Beardsley, Farrell (2005) – structural lower productivity in many sectors in Europe:

- **regulations discouraging managers from acquisition and consolidation processes.**

Fourth institutional aspect: Regulations affecting the level of labour market's transaction costs

Labour market's elasticity and transaction costs are of special significance to decision-making in new start-ups and form overall entrepreneurial propensity.

- strict regulations as a burden for managerial decision-making in small, highly entrepreneurial and fast-growing enterprises,
- labour market inflexibility is inconsistent with the flexibility, non-hierarchical structures, networking and mobility typical for entrepreneurial business cultures in sectors on technological frontiers.

Fourth institutional aspect: Regulations affecting the level of labour market's transaction costs

Black, Lynch (2004) – investments in ICT and the relations between workplace practices, technology, human capital investments and productivity of firms – the role of labour markets regulations:

- the role of labour market flexibility for obtaining the positive feedback between these factors,
- high effectiveness of ICT investment depends mainly on the organization changes.
- the higher productivity was not the direct result of investment in IT, it was the result of growing importance of organization and work changes, which lead to increased participation of non-managerial staff in creative problem solving.
- enterprises benefiting from investment in new technologies were going through a process of profound organizational restructuring.

Fourth institutional aspect: Regulations affecting the level of labour market's transaction costs

- The ICT is a part of an innovation cluster, which consists of complementary elements:
  - ICT investments and its utilization,
  - fundamental changes in organizational practices.
  - modifications to the manufactured products and services.

- The decision-making and the possibilities of implementing organizational changes are significantly affected by elasticity of labour markets.

Fifth institutional aspect: Financial markets institutions as a stimulation of development of enterprises with high growth

The relationship between financial development, managerial decision-making and productivity is related to efficient capital reallocation:

- **Company level – reallocation from stagnating enterprises to the ones with better growth potential,**
- **Sectorial perspective – transfer from declining industries to those with high growth perspectives.**

Fifth institutional aspect: Financial markets institutions as a stimulation of development of enterprises with high growth

Financial markets within decision-making process – the problems of asymmetric information and presence of market transaction costs.

They enable to expand resources researching projects, scrutinize managers and help to design arrangements to ease risk management:

- **Facilitate the trading, hedging, diversifying, and pooling of risk;**
- **Allocate resources;**
- **Monitor managers and exert corporate control**
- **Mobilize savings;**
- **Facilitate the exchange of goods, services and specialisation.**

Fifth institutional aspect: Financial markets institutions as a stimulation of development of enterprises with high growth

- Decision-making under financial frictions influence misallocation of resources and inefficient allocation of resources.
- The availability of equity financing is of crucial importance for entrepreneurs, start-ups and expansions of smaller firms.
- Special role in more technologically advanced sectors with high-growth potential (higher risk level).

Conclusons to Part 1

The institutional framework and managerial decision-making in developed/relatively developed countries in the reality of transformation towards knowledge-based economy within the context of productivity:

- **crucial importance of entrepreneurs, start-ups and expansions of smaller existing firms,**
- **more technologically advanced sectors with high-growth potential, which are usually characterised by a higher risk level,**
- **influence of institutions on the process of reallocation of resources,**
- **the role of minimization of transaction costs within the postulates of keeping good governance standards.**

Multiple-criteria analysis: quality of institutions in the European Union in the years 2000-2015

1. The methodology
2. Results
3. Conclusions

The main objective

- The main objective of the current research is to analyse the quality of institutions influencing entrepreneurship in the EU in the years 2000-2015, within special attention devoted to the heterogeneity between "old" and "new" EU members.

- Concentration on the institutional aspects that are of crucial importance for the process of reallocation of resources
  - in the case of relatively developed countries,
  - in the reality of the knowledge-based economy,
  - and which can be modified in a relatively short time.
- Thus, they can be considered mostly as formal institutions.

- The definition of the quality of institutions is based on the postulates of the transaction cost theory and the objective of minimising transaction costs.

The methods/tools/data

– **The multiple-criteria analysis approach**

$$DGDM_{s,it}^{P} = \frac{1}{2} - \frac{\sum_{j=1}^{m}(z_{ijt} - P_{kj})(P_{kj} - z_{ijt}) + \sum_{j=1}^{m}\sum_{\substack{l=1 \\ l\neq i,k}}^{n}(z_{ijt} - z_{ljt})(P_{kj} - z_{ljt})}{2\left[\sum_{j=1}^{m}\sum_{l=1}^{n}(z_{ijt} - z_{ljt})^2 \cdot \sum_{j=1}^{m}\sum_{l=1}^{n}(P_{kj} - z_{ljt})^2\right]^{\frac{1}{2}}},$$

– **Application of the modified TOPSIS method based on GDM distance measure**

$$DGDM_{s,it}^{N} = \frac{1}{2} - \frac{\sum_{j=1}^{m}(z_{ijt} - AP_{kj})(AP_{kj} - z_{ijt}) + \sum_{j=1}^{m}\sum_{\substack{l=1 \\ l\neq i,k}}^{n}(z_{ijt} - z_{ljt})(AP_{kj} - z_{ljt})}{2\left[\sum_{j=1}^{m}\sum_{l=1}^{n}(z_{ijt} - z_{ljt})^2 \cdot \sum_{j=1}^{m}\sum_{l=1}^{n}(AP_{kj} - z_{ljt})^2\right]^{\frac{1}{2}}},$$

where:

$DGDM_{s,it}^{P}$ – a distance of the object from the positive ideal solution,

$DGDM_{s,it}^{N}$ – a distance of the object from negative ideal solution,

z_{ijt} – the value of j-th diagnostic variable for i-th country in the years t,

P_{kj} – the positive ideal solution,

The methods/tools/data

- It enabled to verify the differences with respect to quality of institutions in the analysed countries within two analytical levels:
  - overall (given in current presentation)
  - and specific research on individual aspects,

- to group them into relatively homogenous groups.

The methods/tools/data

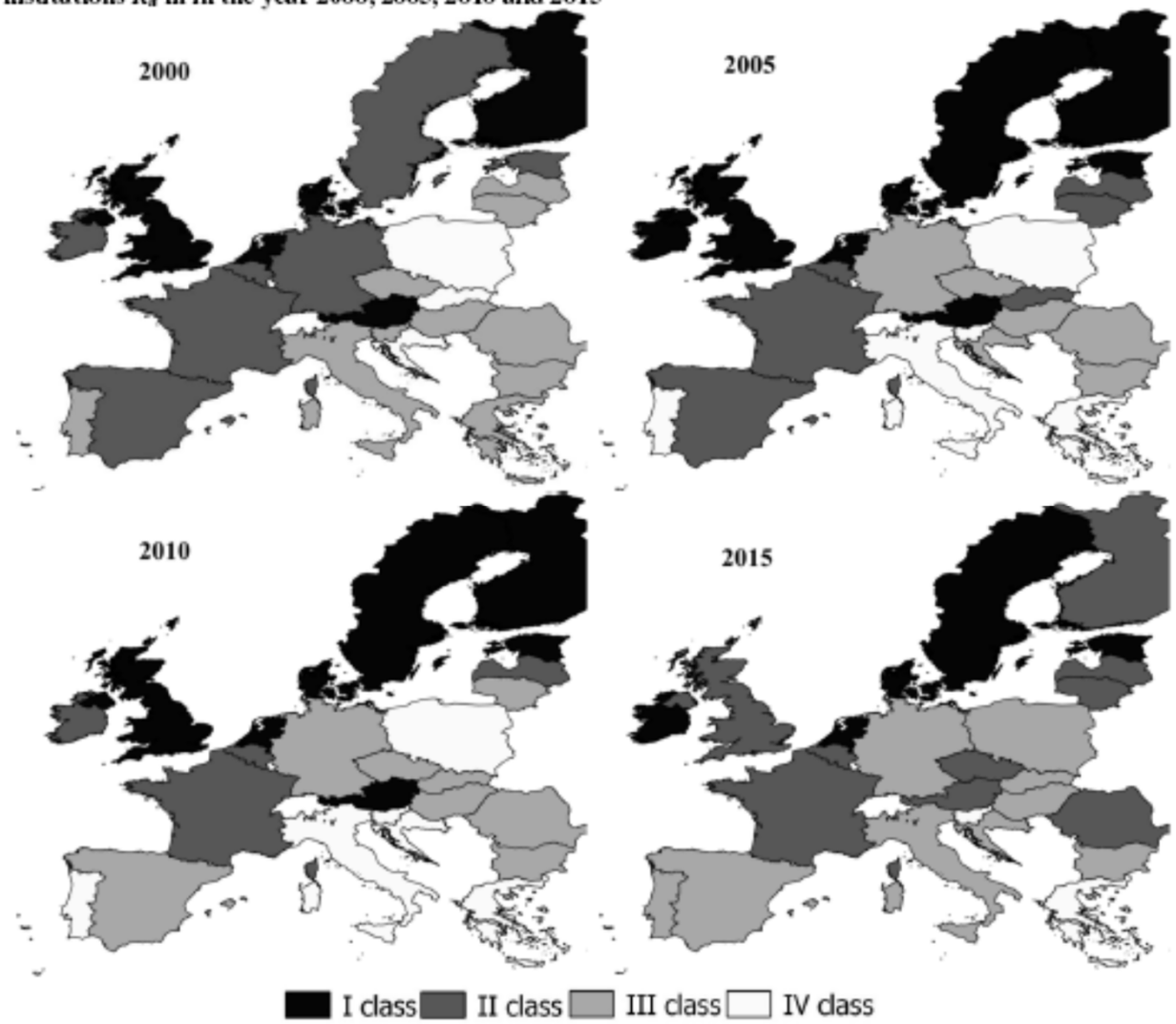
- **5 aspects discussed in Part 1, based on 28 potential diagnostic variables**

- **Detailed presentation and discussion concerning the diagnostic variables see:**

Balcerzak, A.P. (2020). Quality of institutions in the European Union countries. Application of TOPSIS based on entropy measure for objective weighting. *Acta Polytechnica Hungarica*, 17(1), 101-122. doi: https://doi.org/10.12700/APH.17.1.2020.1.6.

The results

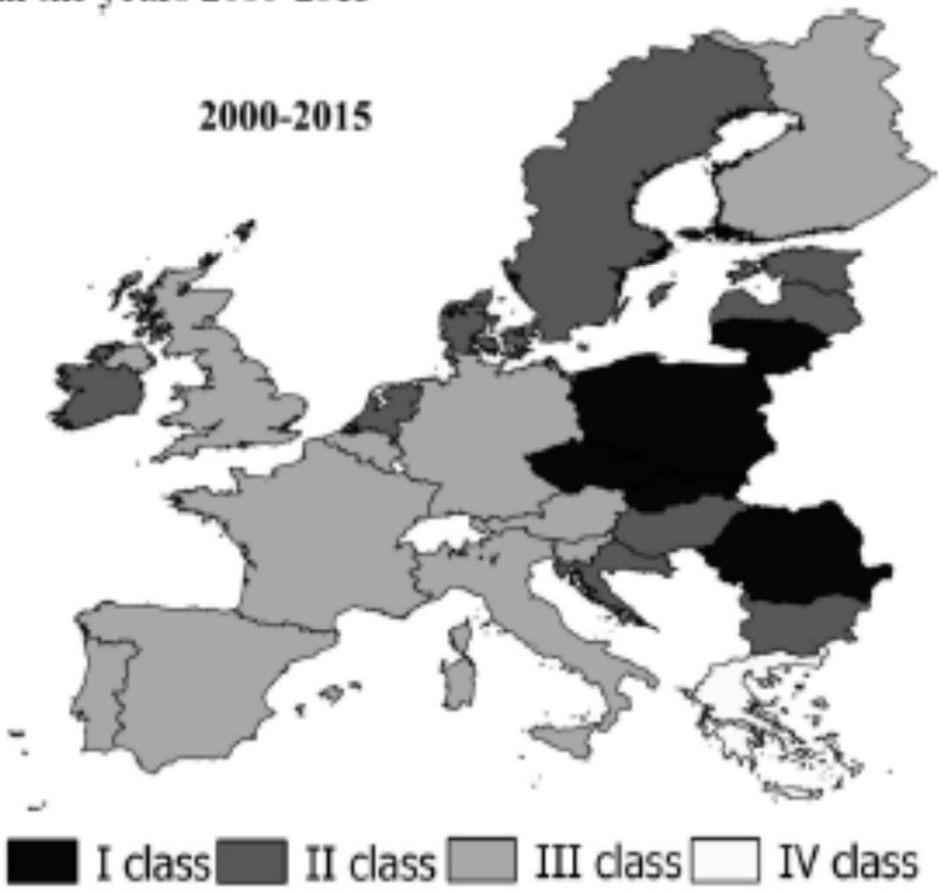
Figure 1. Grouping of the EU economies based on synthetic measure of development of quality of institutions R_i in in the year 2000, 2005, 2010 and 2015



Source: own estimation based on data base from Fraser Institute. Economic Freedom Dataset (2018).

The results

Figure 2. Grouping of the EU economies based on dynamics of synthetic measure of development of quality of institutions R_i in the years 2000-2015



Source: own estimation based on data base from Fraser Institute. Economic Freedom Dataset (2018).

Conclusions

- The existence the two spacial regimes attributed to the institutional differences between so called “old” and “new” EU members.
  - In the year 2000, with the exception of Estonia, all the remaining Central European countries were classified in the class III and IV => generally lower level of quality of institutions and overall entrepreneurship conditions in the region.
- This result must be placed in the 20th century historical perspective and the transformation process of Central European countries form centrally planned to market economies.

Conclusions

- **The dynamics of the institutional changes and improvements => the whole Central European region is classified within the first two classes grouping the countries with high positive dynamics.**

  - **From the statistical perspective, it can be to some extent attributed to the statistical low base effect,**

  - **But it still translates into significant improvements of relative positions of some Central European countries in the ranking - Baltic Countries, Poland, the Czech Republic, but also Bulgaria.**

Conclusions

- The process of institutional convergence and convergence of quality of overall entrepreneurship conditions within the EU attributed mosty to the institutional reforms in Central Europe.

- Lack of improvements with respect to quality of institutions in the case of old EU countries including southern ineffective economies.

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