УДК 339.137.2

DYNAMICS OF NATIONAL COMPETITIVENESS IN GLOBAL INDEXES: CHINA AND BELARUS (2013–2024)

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Diagnostics of national competitiveness dynamics is discussed concerning Global Competitiveness Index. New approach with Global Sustainable Competitiveness Index (GSCE) and Legatum Prosperity Index (LPI) subindexes dynamics in application to China and Belarus is used to determine major obstacles for national competitiveness and its sustainability. Major conclusions from latest rankings in GSCI, LPI and their dynamics in 2013–2024 are that: China has currently higher than average competitiveness and its competitiveness is very sustainable; Chinese competitiveness and its sustainability is on the rise; Belarus currently has average competitiveness and its sustainability above average; Belarusian competitiveness is increasing, but its sustainability is decreasing.

Keywords: national competitiveness dynamics; global competitiveness indexes and subindexes; institutions; macroeconomic stability.

ДИНАМИКА НАЦИОНАЛЬНОЙ КОНКУРЕНТОСПОСОБНОСТИ В ГЛОБАЛЬНЫХ ИНДЕКСАХ: КИТАЙ И БЕЛАРУСЬ (2013–2024)

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Диагностика динамики национальной конкурентоспособности обсуждается на примере Индекса глобальной конкурентоспособности. Новый подход к динамике субиндексов Global Sustainable Competitiveness Index (GSCE) и Legatum Prosperity Index (LPI) применительно к Китаю и Беларуси используется для определения основных препятствий на пути национальной конкурентоспособности и ее устойчивости. Основные выводы из последних рейтингов GSCI, LPI и их динамики в 2013–2024 годах заключаются в следующем: конкурентоспособность Китая в настоящее время выше среднего, и его конкурентоспособность очень устойчива; конкурентоспособность Китая и ее устойчивость находятся на подъеме; в настоящее время Беларусь имеет среднюю конкурентоспособность и ее устойчивость выше среднего; конкурентоспособность Беларуси растет, но ее устойчивость снижается.

Ключевые слова: динамика национальной конкурентоспособности; индексы и субиндексы глобальной конкурентоспособности; институты; макроэкономическая стабильность.

Theoretical Foundation of National Competitiveness. National competitiveness reflects a nation's capacity to create an environment supporting long-term development and productivity. The World Economic Forum (WEF) defines national competitiveness as «The set of institutions, policies, and factors that determine the level of productivity of a country» [1]. This definition emphasizes the need of structural economic conditions that let companies grow, so raising living standards.

National competitiveness should, however, be seen as a catalyst interacting with production elements such as capital, labor, and technology while itself remains structurally stable rather than as the result of productivity [2].

While conventional economic models stress output-driven measures, competitiveness frameworks concentrate on institutional efficiency, infrastructure, and macroeconomic stability as main determinants of long-term development. Considered in a multi-dimensional perspective as national competitiveness is institutional, infrastructure, and social competitiveness. These aspects especially help a nation to keep its capacity for economic development. Strong institutions improve market efficiency, infrastructure supports economic activity, and social competitiveness-measured by education and workforce quality-helps invention and industrial development [3].

The Structure of the Global Competitiveness Index (GCI) by the WEF [1]. The WEF created the generally used ranking system known as the Global Competitiveness Index (GCI) to evaluate national competitiveness. It is set around three main sub-indices: Basic Requirements, Efficiency Enhancers, and Innovation and Sophistication Factors-which taken together define the economic conditions required for sustainable development. Every sub-index consists of several pillars evaluating particular economic functions, so offering a detailed picture of the strengths and shortcomings of a nation.

The Basic Requirements sub-index assesses the essential prerequisites for development and stability of the economy. It covers institutions, which gauge the efficiency of governance, infrastructure, which evaluates the quality of transport and energy networks, macroeconomic stability, which looks at inflation control and fiscal management, and health and primary education, so guaranteeing workforce productivity. Early stage of development economies depends on this sub-index since it forms the basis of future economic growth.

The Efficiency Enhancers sub-index targets elements influencing production in more developed nations. Higher education and training, which evaluate workforce skills and knowledge, goods and labor market efficiency, which gauges competitiveness and workforce adaptability, financial market development, which evaluates the accessibility and stability of financial institutions, technological readiness, which assesses digital adoption, and market size, which considers both domestic and international economic potential. These components enable nations to move from efficiency-driven to innovation-driven systems [4].

Emphasizing business sophistication and innovation, the Innovation and Sophistication Factors sub-index measures advanced economic development.

The GCI approach aggregates qualitative survey responses from corporate leaders with hard data – e.g., GDP per capita, infrastructure expenditure. This hybrid approach introduces possible discrepancies in data dependability across many countries while yet allowing for an overall evaluation of national competitiveness. Countries are categorized according to their degree of economic development, which sets the weighting of the sub-indices to guarantee that the GCI accurately depicts the competitiveness issues pertinent to various economic situations.

Critical Observations on the GCI. Although the GCI offers insightful analysis of national competitiveness, several methodological issues have to be taken under account. The great reliance on survey-based data, which makes about 70 % of the indicators used in the index, is a main problem. Particularly in nations with centralized economic models or limited openness in corporate operations, this dependence on subjective assessments raises possible biases.

The difficulty of guaranteeing significant cross-country comparisons adds still another constraint to the GCI. Although the index uses a consistent approach across many nations, structural variances sometimes skew rankings

The inclusion of output-based indicators inside a framework meant to evaluate input elements in the GCI exposes a major methodological error. Empirical study shows that GDP-related elements account for about 60 % of the variance in GCI rankings, implying that the index might unfairly benefit richer countries.

The weighting and aggregation process in the GCI also affects rankings in ways that might not fairly represent economic reality. The WEF gives each of its three sub-indices different weights depending on the income classification of a nation.

Limitations of the GCI. Methodological Flaws: The GCR has faced criticism for methodological issues, including the use of subjective data from business leaders' opinions, which can introduce cultural bias and ideological preferences. The report's structure and weights have been challenged as not fully reflecting real economic conditions.

Environmental Dimensions: Despite growing environmental concerns, the GCI does not directly incorporate environmental indicators into its scoring algorithm. This omission overlooks critical sustainability factors such as energy security and climate risks.

Subjective Data Dominance: A significant portion of the indicators rely on subjective data, particularly in areas like labor market conditions. This reliance can lead to inconsistent assessments across different countries and over time.

Comparability Issues: The report's components vary significantly across countries and over time, making longitudinal comparisons challenging. Additionally, it may not adequately capture political integration or recent economic crises affecting competitiveness. China in GCI ranking is not even possible to compare historically because of different number of countries in report e.g. #26 of 142 in 2011–2012, #29 of 144 in 2013–2014, #28 of 141 in 2017–2019 [1; 5].

Focus on Business Perspectives: The GCI primarily reflects business leaders' views rather than those of other stakeholders like workers or consumers. This narrow focus might skew policy priorities towards business interests rather than broader societal needs.

Coverage is different for different countries and Belarus was never in CGI, so it is impossible to use it for any comparison which would include Belarus (though there were estimates that Belarus would have risen from 61st in the 2012/2013 to 55th in 2013/2014 in case it would be included full in WEF GCI) [6].

In conclusion, while useful for specific purposes, the GCI was not a perfect measure of national competitiveness due to its methodological constraints and limited scope regarding broader societal factors like environmental sustainability, and it was discontinued in 2020.

Indexes to diagnose national competitiveness with current coverage. Dynamics in foundations of national competitiveness as a signal is much more useful for businesses and policymakers rather than passive observation of change in general rank which mostly bring a status demonstration.

In other words, change in rank/score of critical pillars with explanatory details to bring down descending country’s rank and/or hold down ascending country’s rank, preferably based more on hard data rather than polls of selected experts, are much more important guide to actions.

For this purpose, to compare national competitiveness dynamics of China and Belarus we compare Global Sustainable Competitiveness Index and Legatum Prosperity Index dynamics.

The indicators of the GSCI are grouped into 6 sub-indexes. Taken together, these pillars define a national performance and future outlook:

1. Natural Capital: the given natural environment, including the availability of resources, and the level of the depletion of those resources; agriculture efficiency; biodiversity; water; energy and minerals; pollution.

2. Resource Management: the efficiency of using available resources as a measurement of operational competitiveness – energy, water and raw materials.

3. Social Capital: health, security, freedom, equality and life satisfaction within a country.

4. Intellectual Capital: education; R&D; hi-tech manufacturing.

5. Business Sustainability: business environment; business competitiveness; female participation; financial markets; output indicators.

6. Governance Efficiency: government cohesion; infrastructure; ease of doing business; corruption; financial stability.

7. Drastic decrease in Governance Efficiency subindex in Belarus could be explained by anomalies in its component of Corruption (Corruption Perception by Transparency International) when country in 5 years from 2012 to 2020 improved from #123 to #63, and then sunk again to #114

in 2024. Even more impressive fall in Governance Efficiency subindex ranking in China from #11 in 2017 to #61 in 2024 is explained mostly by the worsening financial stability (tab. 1).

Table 1

Dynamics in GSCI and Subindexes Ranking in 2017–2024, % change

Country	GSCI	Natural capital	Resource Management	Social capital	Intellectual capital	Governance Efficiency
Belarus	-82	-77	-61	23	-17	-211
China	13	8	33	-16	50	-455

Based on: [7].

Table 2

Dynamics in GSCI and Subindexes Ranking in 2022–2024, % change

Country	GSCI	Natural capital	Resource Management	Social capital	Intellectual capital	Business Sustainability	Governance Efficiency
Belarus	-19	-117	-12	-3	-21	32	-56
China	10	-2	30	-16	33%	50	-49

Based on: [7].

After GSCI methodology improvement in 2022 by adding new subindex of Business (economic) sustainability we can see that hard data included here cannot be politically biased unlike some expert polls.

Legatum Prosperity Index (LPI) is more detailed and it is using hard data more. LPI 12 subindexes include:

1. Safety and Security (War and Civil Conflict; Terrorism; Politically Related Terror and Violence; Violent Crime; Property Crime).

2. Personal Freedom (Agency; Freedom of Assembly and Association; Freedom of Speech and Access to Information; Absence of Legal Discrimination).

3. Governance (Executive Constraints; Political Accountability; Rule of Law; Government Integrity; Government Effectiveness; Regulatory Quality; Institutional Trust).

4. Social Capital (Personal and Family Relationships; Social Networks; Interpersonal Trust; Civic and Social Participation; Social Tolerance).

5. Investment Environment (Property Rights; Investor Protection; Contract Enforcement; Financing Ecosystem; Restrictions on International Investment).

6. Enterprise Conditions (Domestic Market Contestability; Environment for Business Creation; Burden of Regulation; Labor Market Flexibility; Price Distortions).

7. Market Access and Infrastructure (Communications; Energy; Water; Transport; Border Administration; Open Market Scale; Import Tariff Barriers; Market Distortions).

8. Economic Quality (Fiscal Sustainability; Macroeconomic Stability; Productivity and Competitiveness; Dynamism; Labor Force Engagement).

9. Living Conditions (Material Resources; Nutrition; Basic Services; Shelter; Connectedness; Protection from Harm).

10. Health (Behavioral Risk Factors; Preventative Interventions; Care Systems; Mental Health; Physical Health; Longevity).

11. Education (Pre-Primary Education; Primary Education; Secondary Education; Tertiary Education; Adult Skills).

12. Natural Environment (Emissions; Exposure to Air Pollution; Forest, Land and Soil; Freshwater; Oceans (Insufficient Data for Belarus); Preservation Efforts).

LPI shows significant improvement in terms of ranking Natural Environment for Belarus with slight deterioration for China (tab. 3) in comparison with Natural Capital in GSCI (tab. 1), given basically coverage of the same issues.

But some more important issues are the same and clear for both countries in both GSCI and LPI (e.g., in LPI for Belarus it is quality of economic institutions in the pillar Inclusive Societies, for China it is macroeconomic sustainability in the pillar Open Economies (subindex Economic Quality, sub-subindexes Fiscal Sustainability and Macroeconomic Stability (see tab. 4).

Table 3

Dynamics in Legatum Prosperity Index and Subindexes Ranking in 2017–2023, % change

	LPI	Economic Quality	Investment Environment	Governance	Personal Freedom	Social Capital	Safety and Security	Education	Health	Natural Environment
BY	18	-7	-5	-1	-8	-4	-38	33	28	57
CN	40	25	-31	39	-17	78	-37	-47	89	-3

Based on: [8].

Table 4

Dynamics in Legatum Prosperity Index and Subindexes Score in 2013–2023, % change

	Belarus	China
PROSPERITY SCORE	**5**	**8**
Inclusive Societies	**-1**	**13**
1. Safety and Security	10	12
2. Personal Freedom	-12	-20
3. Governance	-8	4
4. Social Capital	-2	44
Open Economies	**9**	**6**
1. Investment Environment	1	9
2. Enterprise Conditions	12	3
3. Infrastructure and Market Access	17	16
4. Economic Quality	5	-4
Empowered People	**6**	**7**
1. Living Conditions	7	13
2. Health	9	2
3. Education	2	4
4. Natural Environment	7	7

Based on: [8].

Latest LPI (2023) ranks – China #54 and Belarus #78 out of 167, and latest GSCI (2024) ranks – China #28 and Belarus #62 out of 191 and their dynamics (tab. 1 and tab. 3) in short show us that: China has currently higher than average competitiveness and its competitiveness is very sustainable; Chinese competitiveness and its sustainability is on the rise; Belarus currently has average

competitiveness and its sustainability above average; Belarusian competitiveness is increasing, but its sustainability is decreasing.

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