## **Discussion. Polemics**

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## WORLD-CLASS UNIVERSITY MARKET: RETHINKING GEOPOLITICAL AND NATIONAL STEREOTYPES

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**Abstract.** The article considers the results of the third wave of identification of worldclass universities in 2021, obtained on the basis of the authors' methodology. The comparison of the new results with the data for the 2017 and 2019 allowed us to examine in more detail some well-established mental stereotypes of a geopolitical and national character. In particular, the role of the North American university center is declining, but the universities of the United States and Canada are still models for the rest of the world, both in terms of the breadth of scientific diversification and in terms of the research results obtained. The seemingly self-evident "decline of Europe" concerning the market of advanced universities is not confirmed. Moreover, there is reason to talk about the growing activity of the European geopolitical center, whose universities not only hold their positions but also rapidly increase the number of highly specialized institutions and are at the forefront of training personnel for post- industrial society. Contrary to many expectations, the Asian university market is still far from becoming a distinctive authentic phenomenon and is still only an example of a relatively successful "copying model" of Western models. Quite unexpected was the alarming conclusion about the superiority of advanced universities in Latin America over universities in the post-soviet space in general and in Russia in particular. It is shown that the recognition of "new" world-class universities by international rating agencies, such as the National Autonomous University of Mexico, is very late. The internal Russian mental archetype concerning the model of development of the Lomonosov Moscow State University is recognized as untenable, whose tenure as a member of world-class universities is extremely unstable. Additional proof of this is the fact that this university has already lost the competition in the direction of "political science"

**Ключевые слова:** world-class university  $\bullet$  global university rankings  $\bullet$  competitiveness  $\bullet$  geopolitical inversion

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**Introduction.** The world is currently undergoing a process defined as *global geopolitical inversion* (GGI) [Balatsky, 2014]. This phenomenon is linked to the so-called G. Arrighi cycles, the outflow of global capital to a different geographical jurisdiction, with a corresponding change in the world's leading state. This period of transition has many characteristics, not least of which is the breakdown of established attitudes. In doing so, a huge number of illusions and mistakes are created. The global market for leading universities is no exception.

During the GGI period, the socio-cultural phenomenon of fake emerged with particular force [Lebedeva, 2013]. This has led to talk of fake science and fake economics [Kirdina-Chandler, 2017] and, in some cases, of a fake industry [Stepanova, Manokhina, 2019]. We can speak of the emergence of a sustained evolutionary trend consisting of the deliberate and unintentional formation of fake mental stereotypes by distorting information about social reality<sup>1</sup>.

In contrast to the popular view that a country's advanced universities are the engines of its economic development [Valero et al., 2019], we take the opposite and no less popular view, according to which universities are a phenomenon "of secondary importance", emerging as a result of many years of successful development of society [Taleb, 2014; Hamdan et al., 2020]. The university market is therefore a delayed but very informative indicator of what is going on in the depths of the various states. The processing of new statistical data on higher education in the form of international university rankings allows us to quickly obtain portraits of national education systems and draw conclusions about the course of global competition between different geopolitical segments of the world.

The purpose of this article is to examine public mental stereotypes about the dominant features of the global marketplace of advanced universities (MAU) and to assess their relevance and continued viability in a changing world order.

**Methodology and statistical basis for the study.** This article is a follow-up to the work started in 2017 on the identification of *world-class universities* (WCU), which has resulted in two dedicated international top lists – the WCU Ranking and the National University System Ranking<sup>2</sup>; data for 2017, 2019 and 2021 are now available.

Hereinafter, we will use the previously introduced classification and codification of national universities: U-1, U-2 and U-3 [Balatsky, Ekimova, 2019]. The U-1 group is made up of WCU<sup>3</sup> that: a) are in the top 100 in at least one of the available set of World University Rankings (WUR) and b) are in the top 50 in at least 5 QS World University Rankings by Subject. The U-2 group includes universities claiming to be a WCU: condition a is fulfilled but condition b is not. The U-3 group consists of narrowly profiled WCUs, for which condition a is not fullfilled and condition a is not fully fulfilled. Each advanced university gets a quantitative assessment of its achievements in the global market, summation of which gives an integral assessment of national university systems; the algorithm of calculations and ranking is disclosed in: [Balatsky, Ekimova, 2018]. This classification makes it possible to identify the range of key players in MAU and to provide a quantitative measure of their quality.

<sup>&</sup>lt;sup>1</sup> A mental stereotype is understood to be a stable perception held by many people about an emerging situation in a particular area; this perception is massive and sometimes dominant, and appears in various forms in public discourse. Often such stereotypes are either inherently wrong or become so due to obsolescence and changing realities. Mental stereotypes themselves are formed under conditions of a lack of objective information, which generates their inconsistency with the real state of affairs.

<sup>&</sup>lt;sup>2</sup> On the methodology of the ratings, see: URL: http://nonerg-econ.ru/cat/16/201/ and URL: http://nonerg-econ.ru/cat/16/203/ (accessed on 01/06/2021).

<sup>&</sup>lt;sup>3</sup> We emphasise that the size of university is not directly linked to its success, hence to the status of the WCU. The study [Balatsky, 2017: 36] shows that the boundary of the effective number of WCU students is between 8 and 22 thousand. While the size of university contributes to many of their indicators, this is not at all sufficient to turn them into a WCU. Thus, many Russian universities have exceeded the upper limit (RANEPA – over 180,000 students, Financial University – about 45,000, Ural Federal University – 57,000, etc.), but they are still far from joining the WCUs.

Applied calculations used data from the most authoritative WUR's – Quacquarelli Symonds (QS), Times Higher Education (THE), Academic Ranking of World Universities (ARWU), Center for World University Rankings (CWUR) and National Taiwan University Ranking (NTU)<sup>4</sup>. The main indicators of the calculations are the number of universities in each group and the "strength" indices of particular universities (H) and whole countries (W)<sup>5</sup>.

The point of the study is to test the validity of several mental stereotypes about the world university system. It will be shown below that some "self-evident" perceptions need at least serious clarification. In a more specific formulation, the aim of the study is to draw unexpected conclusions that refute existing stereotypes in public discourse about the existing world and Russian university systems. The intrigue of the study lies in the *duality of the GGI period*, and in particular 2017–2021. On the one hand, there is a turbulence of development during this period without clear (incipient) trends; on the other hand, the trends can develop with incredible speed (e.g. an initially insignificant difference in the value of two indicators in 2–3 years can become fundamental). This means that the four-year period in question brings with it a great potential for social and economic surprises, which are yet to be identified. **Old and new geopolitical centres of the market for advanced universities.** Three interconnected mental stereotypes are emerging in public consciousness today, amid intense debate about the weakening of US hegemony [Lundestad, 2012]: virtually all human intellectual potential is concentrated in the US<sup>6</sup>; the gradual transfer of that potential to Asia<sup>7</sup>; the decline of European intellectual achievement has either already happened or is now a foregone conclusion<sup>8</sup>.

The identification of the elements of MAU for the enlarged regions of the world allows the above theses to be considered more precisely (see Table 1). In particular, the distribution of the WCU in the world is extremely uneven. Africa and the Middle East, for example, are a kind of scientific and educational desert that cannot be transformed into an oasis in the foreseeable future. Two more centres – Australia and New Zealand, Latin America – will not play a decisive role because the former is exemplary but unpromising due to its distance from the world's main economic contacts and the latter, while fairly promising, is too young, weak and undynamic to realise its potential, even in the medium term. The example of these two centres shows the high "sensitivity" of the WCU market: an inherent geographical disadvantage and a historically late start in development put an end to the intellectual dominance of certain

<sup>&</sup>lt;sup>4</sup> The geopolitical sympathies and antipathies of the various WUR's are discussed in [Balatsky, Ekimova, 2020]. The WURs used in this study are politically relatively neutral. In addition, the use of multiple rankings levels out possible subjective deviations of rankers.

<sup>&</sup>lt;sup>5</sup> For more details on the methodology of identification of NMC and the H parameter, see: URL: http://nonerg-econ.ru/methodology/81/ (accessed on 02/06/2021), and methodology for assessing the capacity of national university systems and parameter W: URL: http://nonerg-econ.ru/methodology/82/ (accessed on 02/06/2021). A detailed rationale and discussion of the methodologies can be found in [Balatsky, Ekimova, 2018].

<sup>&</sup>lt;sup>6</sup> On US intellectual leadership, see: On US Intellectual Leadership // EXRUS.eu. 2014. 4 December. URL: https://ru.exrus.eu/K-voprosu-ob-intellektualnom-liderstve-SShA-SShA- privlekli-umy-so-vsego-id-5480bfc8ae20151f0f130747 (accessed 02.06.2021); 25 countries with the most powerful intellectual potential // Mixstuff.ru. 2013. 28 October. URL: http://mixstuff.ru/archives/38918 (accessed on 02/06/2021).

<sup>&</sup>lt;sup>7</sup> On the spillover of intellectual potential, see: *Voda K.R.* Asian think tanks: Position in the World and Influence on Foreign Policy // Comparative Politics. 2018. № 3. Pp. 5–13. DOI: 10.18611/2221–3279–2018–9–3–5–13; *Dunayevskiy I.* Beijing is catching up: China is taking the lead from the US in science // Rossiyskaya Gazeta – Federal Edition. 2018. 17 September. № 207(7670). URL: https://rg.ru/2018/09/17/kitaj-otberet-u-ssha-liderstvo-v-nauchnyh-issledovaniiah.html (accessed on 02/06/2021); Is China taking global leadership away from the United States? // Medium. 2017. June 21. URL: https://medium.com/fairbank-center/is-china-taking-global-leadership-away-from-the-united-states-3b2c77d2d960 (accessed on 02/06/2021).

<sup>&</sup>lt;sup>8</sup> On the intellectual degradation of Europe, see: Falling into oblivion: Europe is losing its national and cultural integrity // Business Online. 2018. 28 August. URL: https://www.business-gazeta.ru/article/393152 (accessed on 02/06/2021); Eric Zemmour: "The Virus Showed the Power of Asia and Underlined the Degradation of Europe" (Le Figaro, France) // InoSMI.RU. 2020. 28 March. URL: https://inosmi.ru/politic/20200328/247149396.html (accessed on 02/06/2021).

2021 Country 2017 2019 U-2 W U-1 U-2 U-3 W U-1 U-2 U-3 W U-1 U-3 USA and Canada 42 18 403.0 379.1 15 370.5 44 41 15 56 41 65 230.6 159 Europe and Russia 37 22 118 205.6 42 18 143 41 14 230.0 19 4 75.9 17 35 77.3 48 84.0 Asia 39 8 19 8 Australia and New Zealand 8 0 25 33.0 8 0 18 31.7 8 0 21 31.6 1 1 9 5.3 2 1 9 6.8 Latin America 10 6.1 1 1 2 Middle East 0 2 1 1.6 0 1 1.1 0 1 5 1.5 Africa 0 0 0 3 0 5 4 0.6 0 0.4 0 0.6

Geopolitical centres of the MAU

regions of the world. The three geopolitical centres of greatest interest in this regard are North America, United Europe and Asia.

Thus, established WCU centres are very conservative and do not tend to change their location quickly. The rapid economic development of the Asian region does not imply a rapid change of intellectual centre. While it is true that the potential of the North American market for WCU is diminishing (32.5 points on W for 4 years), the main beneficiary is the European university market (24.4 points or 75% of redistributed bonuses) and not the Asian one (8.1 points or 25% of redistributed effect).

We can see another attempt by Europe to seize the intellectual initiative from the US. So, while in 2017 Europe had 5 fewer WCUs than the North American centre, in 2019 it already had an advantage of 1 university, and in 2021 the potential of the two leaders has become equal. The gap in the quality capacity of the university systems (W) of the two centres narrowed from 2.0 to 1.6 times. If only the US (excluding Canada) and Europe (excluding Russia) are considered, the ratio of WCU in 2021 is in favour of the latter – 36 versus 40. The number of Asian WCUs has remained unchanged over the four years.

Table 2 shows the top scores of different countries in two areas – the WCU ranking and the level of scientific diversification<sup>9</sup>. The latter point is particularly important in relation to the very phenomenon of the WCU: it involves the creation of a teaching and research centre where world-class developments in many scientific fields are taking place. It turns out that we can talk about the limit of scientific diversification in 40 positions, above which we can speak about the great concentration of intellectual resources: entering the top 50 universities in 41–46 subject rankings means a successful research activity in 80–90% of the currently available range of scientific disciplines (there have been 51 *QS* rankings by subject in 2021). Only North American and European universities have crossed the limit; Asian universities have approached it, but are not yet able to exceed it. This fact once again proves the catch-up model of the Asian geopolitical centre of the WCU.

As for the vanguard positions in the WCU Rankings, only North American and European universities made the top 20 list. The *National University of Singapore* "broke through" in 2021, moving up to 19th place in the past two years, but this university, like the state of Singapore itself, is of British heritage and embraces a western rather than eastern university tradition.

Going back to the original mental stereotypes, there is a discrepancy with reality: a large part of human intellectual capacity is still concentrated in Europe and tends to grow, and there is a higher number of WCUs in European countries than in the US; there is not yet a strong migration of this capacity to Asia. Consequently, there are distorted perceptions and expectations

<sup>&</sup>lt;sup>9</sup> Hereinafter, we will use the English names of all universities, including Russian universities, in order not to deviate from the standard set by WUR and to avoid their ambiguous identification; the English names of Russian universities, in our view, do not cause problems of understanding.

Table 2 The highest achievements of the world's leading national science systems in 2021

Country	Parameters of the highest achievements on the MAU								
	Max number of QS rankings by subject of which the WCU is in the top 50	Place of the best university in the WCU Ranking							
USA	43	2							
	(University of California, Los Angeles)	(Harvard University)							
Canada	46	21							
	(University of Toronto)	(University of Toronto)							
Japan	36	22							
	(University of Tokyo)	(University of Tokyo)							
China	34	25							
	(Peking University)	(Tsinghua University)							
Singapore	37	19							
	(National University of Singapore)	(National University of Singapore)							
United Kingdom	41	1							
	(University of Cambridge)	(University of Oxford)							
Switzerland	23	12							
	(Swiss Federal Institute of Technology in	(Swiss Federal Institute							
	Zurich)	of Technology in Zurich)							
Germany	16	53							
	(Ludwig Maximilians University of Munich)	(Ludwig Maximilians University of Munich)							

in public discourse regarding the true balance of intellectual resources of the world's leading geopolitical centres.

A dramatic reshuffle in the Asian university market. It is hardly an exaggeration to say that the Asian region is characterised by the following perception: Japan has traditionally been the intellectual vanguard of Asia.

The "Chinese dragon" has awakened and its intellectual power is gaining momentum; Asia's cumulative intellectual prowess will surpass that of America and Europe in the near future.

The data in Table 3 illustrate important lines of development for the Asian MAU segment. Firstly, it is strengthening its position, but not as dynamically as it may appear. The number of WCUs in Asia has not changed in 6 years – the available reshuffle of universities is predominantly within the Asian region. The Asian region's share of the slightly growing WCU market from 2017 to 2021 declined slightly from 17.8% to 17.1%. Thus intellectual resources have not yet migrated actively to the Asian continent. It is worth noting that G. Arrighi was quite right in

Comparing Asian university systems

Country		20	17			20	19		2021				
	U-1	U-2	U-3	W	U-1	U-2	U-3	W	U-1	U-2	U-3	W	
China	9	1	16	31.6	8	3	15	31.9	10	2	20	39.0	
Singapore	2	0	0	13.4	2	0	1	14.5	2	0	1	14.7	
Japan	5	2	2	18.7	3	2	6	16.4	3	2	4	14.5	
South Korea	3	1	6	10.8	3	2	6	10.5	3	3	3	10.8	
Taiwan	1	0	3	3.5	1	0	2	2.5	1	0	2	1.6	
Malaysia	0	0	4	1.2	0	1	1	0.9	0	1	5	1.7	
India	0	0	4	0.4	0	0	3	0.3	0	0	4	0.4	
Total	19	4	39	75.9	17	8	35	77.3	19	8	48	84.0	

predicting the shift of the centre of global capital to Asia [Arrighi, 1994], and S. Kirdina-Chandler showed empirical evidence of a "shift of growth poles", i.e. the cycle of economic activity of Western countries in favour of non-Western countries [Kirdina-Chandler, 2019]. However, contrary to these global shifts, there has not yet been an increase in the concentration of intellectual capital in the global university sphere in Asia.

Secondly, the Asian region is strengthening its position in the MAU not *globally*, but *locally*. This means that all achievements on this market affect a very limited number of countries. Considering Taiwan as part of China, the successes of Asia's university system are concentrated in four states – China, Singapore, Japan and South Korea (22.6% of the continent). The rest of Asia is not yet active in this field. Consequently, large-scale diffusion of knowledge and human capital in Asia is still absent, and the WCU sector in 77.4% of the Asian continent is still "asleep" with uncertain prospects for recovery. It is noteworthy that G. Arrighi was careful not to be specific when talking about the Asian centre of capital [Arrighi, 2007], but today it can be stated that we should talk about China and not about Asia in general.

Thirdly, competition between countries on the MAU within the Asian region is taking a very dramatic form. Japan, for example, was firmly in 1st place in the region in 2017. However, four years later, the situation has changed dramatically: China has increased the number of WCUs to six and carried out the final integration of Hong Kong, giving it four more WCUs, which has enabled it to occupy the first position and to pull away markedly from its competitors. Over the years, Japan has also passed Singapore in terms of university capacity W, struggling to maintain a slight advantage over South Korea. At the same time, we can see

the "transformation" of Japanese WCUs into a narrowly focused U-3 type universities. The traditional view of the absolute superiority of the Japanese university system in Asia is thus gradually losing its validity.

Japan is currently undergoing a profound socio-cultural crisis, which becomes even clearer when looking at the dynamics of its ranking in the National University System Ranking <sup>10</sup>. For example, in 2017 it was ranked 5th and in 2021 it has dropped to 10th, while China has moved from 8th to 3rd over the same time (see Table 2). It is logical to assume that such reshuffle is dramatic for Japan.

As for the prospects of China's intellectual leadership, it is appropriate to recall A. Zinoviev's concept that any social system has a lower and an *upper evolutionary boundary*, within which the system retains its qualitative identity [Zinoviev, 2004]. Chinese society is fully subject to this rule and has its own upper evolutionary boundary. The intrigue lies in answering the question: is its boundary higher or lower than that of Europe and North America?

It is worth remembering that the Celestial Empire was formed with the direct participation and influence of the USSR. And China's amazing technological breakthrough came after the United States established a special trade regime for it, pumped capital and modern manufacturing into its economy, and partially copied American economic institutions and borrowed foreign technology through industrial espionage and widespread patent law violations. If you add to this the fact that 40% of China's current WCU is a legacy from Hong Kong, which in turn is more of an Anglo-American creation, the second nature of China's current intellectual tradition becomes clearer.

Returning to the original thesis of this section, it can be summed up as follows: Japan's unrivalled intellectual and technological leadership in the Asian region is almost over and is today more a historical memory than a reality; China has shown impressive intellectual achievement, but its lack of authentic breakthrough technologies makes it impossible to make any clear predictions about future development; top-level intellectual achievement in the form of WCU is only common to 23% of the Asian continent, which rules out its intellectual expansion in the foreseeable future.

<sup>&</sup>lt;sup>10</sup> Ranking of National University Systems // Nonergodic Economics. 2017. 21 May. URL: http://nonerg-econ.ru/cat/16/203/ (accessed on 24/08/2021).

Parameters of European university systems

Country		20	17			20	19		2021			
	U-1	U-2	U-3	W	U-1	U-2	U-3	W	U-1	U-2	U-3	W
England	17	1	39	126.5	18	0	41	138.4	15	3	42	134.2
Switzerland	2	3	9	16.9	3	2	16	17.9	3	2	17	21.0
Germany	6	2	8	13.5	6	4	14	17.7	5	2	12	16.0
Netherlands	5	4	5	14.6	4	6	5	15.5	6	3	8	15.1
France	0	2	10	5.0	2	1	14	8.2	2	1	15	10.5
Sweden	2	3	6	7.1	3	1	8	6.9	4	1	8	7.7
Denmark	2	0	5	6.0	2	0	4	6.4	2	0	5	6.2
Belgium	1	1	2	3.8	1	1	2	4.6	1	1	1	4.3
Italy	0	3	5	3.4	0	2	10	4.7	0	0	13	3.2
Spain	0	1	8	2.2	0	1	9	2.7	0	1	9	2.8
Norway	0	1	3	1.4	1	0	3	1.8	1	0	4	2.3
Finland	1	0	4	1.8	1	0	2	1.8	1	0	5	2.1
Austria	0	0	3	0.3	0	0	6	0.8	0	0	6	1.1
Ireland	0	1	1	0.8	0	0	2	1.2	0	0	3	0.9
Portugal	0	0	2	0.2	_	_	_	_	0	0	2	0.2
Hungary	0	0	1	0.1	0	0	1	0.3	0	0	1	0.2
Greece	0	0	1	0.1	0	0	3	0.3	0	0	1	0.1
Poland	0	0	2	0.2	0	0	1	0.1	_	_	_	_
Russia	1	0	4	1.7	1	0	2	1.3	1	0	7	2.1
Total	37	22	118	205.6	42	18	143	230.6	41	14	159	230.0

The diversity and unpredictability of Europe. In Europe, an extremely persistent stereotype is the belief in Germany's absolute technological and intellectual leadership. At first glance, such a view of the world seems quite natural and justified. To verify this, let's look at the data in Table 4.

As it turns out, Germany's position is quite ambiguous. For example, among continental European countries, it was the clear leader in terms of the number of WCUs in 2017 and has further strengthened its position in 2019. However, in 2021 Germany "loses" one WCU and Holland, on the other hand, adds two WCUs and becomes continental champion. Note that in terms of aggregate university capacity W Germany moves from fourth place in 2017 quite confidently to third place in 2019, almost on a par with Switzerland, but in 2021 it falls sharply behind. Between 2017 and 2021, the UK added 7.7 points on the W indicator, Switzerland – 4.1, France – 5.5 and Germany – only 2.5.

Thus, Germany can, with a high degree of convention, be regarded as the leader in the European segment of the MAU. Moreover, an analogy is inevitably suggested: Germany in Europe is like Japan in Asia. The post-war restrictions on these two countries and the current global geopolitical turbulence expose their development challenges.

Europe as a whole is a seething cauldron, with different states exhibiting different trends and unexpected surprises. For example, Sweden has increased the number of WCUs from 2 to 4 in four years. Norway, Austria and Finland have all performed at their best. However, countries such as Spain, Italy, Portugal and Ireland, which have a rich university tradition, are clearly in a doldrums and do not show themselves in any way on the MAU. This situation suggests that the WCU market in Europe is in a state of bifurcation – in the coming years, the region is just as likely to grow sharply stronger as it is to weaken sharply.

In favour of a positive development, there is quite a variety of sources of growth in Europe for WCUs, and the passive countries have the cultural potential to "wake up" quickly. In

Asia, for example, there are currently four countries (Taiwan is conventionally considered part of China) supplying WCUs to the global market, while there are 11 such countries in Europe (including Russia).

Thus, a closer look at the European university market shows that the UK and Switzerland are the country drivers, while Germany is not yet in a position to set the agenda. In general, however, it is too early to write off Europe because of the unique experience of combining competition and cooperation mechanisms that, on the one hand, allow universities from all countries in the region to act as a single entity and, on the other hand, not to become a homogeneous mass and not to lose individual activity [Balatsky, Ekimova, 2019]. Table 2 also shows that Europe has a significant advantage in the number of universities in the U-3 group. Of these, 25 per cent are narrowly focused universities specialising in the arts, culture, architecture and tourism. The same figure for universities in the US and Canada does not exceed 17%.

In an era of emerging "robotomics" – an economy based on mass automation and robotics – and the concomitant rise in technological unemployment, the employment focus is shifting towards creation and creativity. It is therefore essential that a new cohort of specialists is formed today, and that universities readjust and retrain in this direction, as many professions may not be in demand in the next decade. European universities are the first-movers and drivers of this process.

Latin America and the post-Soviet space: who has the future? In addition to the three defining geopolitical centres of WCUs on the world map, there is Africa and the Middle East, where such structures do not exist, and Latin America and the post-Soviet space, where there are sporadic sprouts of the phenomenon. In this section we will look at these peripheral zones of the MAU, which have potential and can show themselves in very unexpected ways.

The low and late start of the Latin American countries and, conversely, the relatively recent scientific and technological power of the ex-USSR predetermine the second

territory to have a more impressive intellectual potential than the first. To verify this mental stereotype, let us turn to Table 5.

Already in 2017 the MAU in Latin America was more developed than in the post-Soviet space, where only Russia had a presence. As a result, after the collapse of the USSR, almost 24% of its territory was excluded from the market of WCUs in principle. This fact is not surprising, as the holders of the WCUs are either territorially large countries or small states with unique historical and geopolitical advantages. The republics of the former USSR (except Russia) did not have such initial conditions, which is why they have become a scientific and educational desert.

The following facts give evidence of Latin America's superiority over the post-Soviet space. Firstly, there are many indications that the market prospects for WCUs in Latin America are better than in the post-Soviet space. For example, five countries from the first region have entered the international university rankings, and only one country from the second region. However, Colombia, which has been quite aggressive on the MAU, has a larger population

Parameters of Latin American university systems

Country		20	17			20	19		2021			
	U-1	U-2	U-3	W	U-1	U-2	U-3	W	U-1	U-2	U-3	W
Brazil	1	0	4	2.4	1	0	2	2.1	1	0	2	2.7
Mexico	0	0	2	1.4	0	0	1	1.3	1	0	1	1.8
Argentina	0	1	1	1.1	0	1	1	1.1	0	1	0	1.2
Chile	0	0	3	1.2	0	0	3	0.7	0	0	3	0.7
Colombia	_	_	_	_	0	0	2	0.2	0	0	3	0.4
Total	1	1	10	6.1	1	1	9	5.3	2	1	9	6.8
Russia	1	0	4	1.7	1	0	2	1.3	1	0	7	2.1

107

6

Table 6

101

University

Lomonosov Moscow State University (LMSU)

2017 2021 2019 R Ν R Ν R Ν University of Sao Paulo (USP) 9 74 9 79 13 67 National Autonomous University of Mexico (UNAM) 12 13 12 84

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99

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Parameters of the Latin American and Russian WCUs

than any country in the former USSR; the same is true of Argentina. There is reason to believe that in the next 7 to 10 years, these two Latin American states will be able to create their own WCUs, which no post-Soviet state (except Russia) can do.

Secondly, if there is any prospect of building a WCU market in the post-Soviet space, it is in Russia. It has objective – territorial, demographic, historical and cultural – factors, unlike other countries of the former USSR, which have neither the necessary human capital nor the historical and geographical prerequisites.

Examining the cases from the inside makes it clear why the social label for the two regions is outdated and needs to be corrected. For this purpose, let us refer to the data in Table 6, which compares the key characteristics of WCUs in Brazil, Mexico and Russia and uses the following notations: R is the number of subject rankings of the QS system in which the university appears in the top 50 list (scientific diversification coefficient); N is the order number of the university in the WCU Ranking<sup>11</sup>.

Table 6 shows the following. Firstly, the scientific diversification of the Mexican and Brazilian WCUs is twice as high as that of the Russian ones. In these countries, the concentration of diverse scientific disciplines and high-level researchers in one place is immeasurably more successful than in Russia. This conclusion is not just unpleasant, but also very "dangerous" for our country. Thus, the "cut-off point" in the WCU identification algorithm was taken to be R=5. On this basis, LMSU has a very weak position in the tournament list in question and risks losing its high status at any time. The Brazilian USP and the Mexican UNAM, on the other hand, are crossing the diversification boundary by a wide margin, which makes their position in the ranking guite secure.

Secondly, the dynamism of promotion in the WCU Rankings of Latin American USP and UNAM is immeasurably higher than that of LMSU. The Brazilian USP, for example, now ranks 67th, which is an important symptom. A comparison of the WCU rankings for 2017, 2019 and 2021 allowed the entire top list to be divided by some empirical "reliability boundary" - the top 70 universities and the rest. The first group of universities is characterised by relatively low volatility of ranking changes and is virtually guaranteed to remain in the WCU Ranking; the rest demonstrate high volatility of their achievements and act as contenders for displacement from the list and replacement by other universities. Against this background, LMSU's fluctuations in the 99–107 range are an indication of its lack of internal reserves for meaningful advancement in the rankings.

Thirdly, international rankers sometimes give highly skewed estimates that take a considerable amount of time to correct. The history of Mexican UNAM, which, as shown in Table 7, already in 2017 had a level of diversification greater than some of the first half-hundred universities of WUR, and yet was systematically ignored by the main ranking players, is typical in this respect. It was only in 2021 that the QS WUR ranked it at the closing 100th position and thus enabled it to enter the category of WCUs. The above shows that the subject rankings of global rankers are more immediate, while the WUR is a more conservative marker. The case of the Mexican UNAM itself is significant: on the one hand, it shows a two-step strategy for universities to join the ranks of leaders (through subject rankings in WUR) and, on the other hand, it sets a precedent and changes the attitude of the international expert community towards

<sup>&</sup>lt;sup>11</sup> Ranking of World-Class Universities // Nonergodic Economics. 2017. 19 May. URL: http://nonerg-econ.ru/cat/16/201/ (accessed on 24/08/2021).

Dynamics of ranking parameters of Russia's leading universities

Scientific areas												
rs)												
Universities of Russia (years)	Modern languages	Linguistics	Performing arts	Philosophy	Mining engineering	Petroleum engineering	Mathematics	Physics and astronomy	Politics and international relations	Sociology	Computer science and information technology	Management in the hospitality and leisure industry
					onosov	Moscow	State	University	(LMSU)			
2017	44	13		51–100		-	33	21			48	43
2019	33	23		51–100		-	34	26			48	-
2021	36	24		41		32	34	29			58	51–100
2017		1	// 1		ioscow I	r.i. Icha	IKOVSK	y Conserv	atory	Ι		Τ
2017 2019			41									
2019			34									
2021			J-7		Tom	sk Polyt	echnic	University				
2017						-						
2019						_						
2021						23						
					Nov	osibirsk	State	University				
2017								50				
2019								51–100				
2021				Moscow	Institut	e of Phy	sics ar	90 nd Techno	l logy (MIPT	<u> </u>		<u> </u>
2017				1 1030011	Institut		Jaca di	42				T
2019								51–100				
2021								50				
		•		National	Univers	ity of So	ience	and Techr	nology MIS	IS		
2017					31							
2019					19							
2021					42 St. Dot	orch	Missir	g Universi	<u> </u>			
2017					3t. Pet	.ersburg	i rumin)	y Oniversi	Ly			
2017					42							
2013					12							
				1		HSE (	Jnivers	ity	l	l		
2017									51–100	51–100		
2019	]								51–100	51–100		
2021									45	50		
				1	Ι	MGIMC	) Unive	ersity	I	ı	ı	
2017									51–100			
2019									51–100			
2021						1			41			

the Latin American region. It can be expected that, with the notable successes of the leading universities in Argentina and Colombia, they will be recognised more quickly than the one in Mexico's capital city.

We emphasise that perceptions of Latin America's backwardness and the essential superiority of post-Soviet countries are no longer so incontrovertible and unambiguous.

Intra-Russian prejudices and misconceptions. The final touch that remains to be made to the overall picture of the MAU concerns the Russian university system and its potential. There is also an entrenched stereotype that there are latent opportunities in the country that can manifest themselves with some stimulus from the authorities. This vision is also supported by initiatives of the Russian government, which is launching programmes to support domestic universities (Project 5–100, Priority 2030).

To verify these public expectations, let's consider the data in Table 7. Modern WCUs are facilities that concentrate research at the highest, global level in many scientific fields. This is an important and challenging property of the WCU. High-level, narrowly focused institutes can be found in many countries, while the integration of many different scientific disciplines into one institution is rare. The stability of a university's position in international rankings suggests that its success is natural and not accidental; otherwise, questions arise about the reasons for the failures in the dynamics. Not surprisingly, attempts to create a WCU from scratch are rarely successful, as it is difficult to compensate for the lengthy process of organising the work of creative teams.

It can be stated that the only WCU in Russia, the *LMSU*, does not have any of these qualities. The university is consistently ranked in the top 50 in only four subject areas – modern languages, linguistics, mathematics and physics. The other directions are unsustainable. In 2017, for example, *LMSU* had a good position in the leisure industry, but then lost it, compensating for the loss with a decent place in philosophy. Similarly, the university held good positions in computer science in 2017–2019, but dropped out of the top 50 in that field in 2021, compensating this by a top spot in petroleum engineering. This alternation of successes and failures against the very narrow range of disciplines in which LMSU steadily dominates makes its position very precarious. At any moment, the country's only WCU could lose its status, and it would be extremely difficult to regain it, given the insistence of competitors.

We should also note the sheer scale of the academic diversification of the Russian WCU: in 2021 it loses 7.7 times to Canada's *University of Toronto* (6 subject rankings against 46) and 2 times to Mexico's UNAM (6 against 12).

Apart from *LMSU*, there are eight other universities in Russia that have marked their presence in the top 50 subject rankings, but none of them can yet pretend to be a WCU in the foreseeable future. Of all these institutions, only *HSE University* steadily improved its position, finishing in the top 50 in two subjects – political science and sociology. However, even this success has not yet passed the sustainability test, let alone the need to increase the number of such items by at least 3 times.

The Moscow P.I. Tchaikovsky Conservatory, the St. Petersburg Mining University and the National University of Science and Technology MISIS show a certain stability in their fields, but they were originally established as narrowly focused institutions and cannot be expected to diversify further. The success of the other four universities cannot be assessed for sustainability due to a lack of data.

Notably, until 2020, LSMU, HSE University and MGIMO University, which joined them in 2018, were in the homogeneous 51–100 group for political science. The publication in the QS rankings of the ranked universities in alphabetical order gave the illusion of LSMU dominating its competitors. However, a detailed analysis of the ranking parameters and the calculation of the final score according to the QS methodology showed that as of 2018 HSE University was not only the clear leader among the three universities in question, but also steadily increased its lead over its closest competitors, which ultimately enabled the institution to break the top 50 barrier in 2020 and become one of the world leaders. The year 2021 saw another landmark reshuffle: MGIMO University entered the top 50, ranking 41st and ahead of HSE University in 45th place.

Thus, the examination of the Russian university system within the framework of the Government's Project 5–100 initiative against the WUR criteria revealed its extremely low international competitiveness. This forces us to rethink the thesis that Russia has serious scientific and intellectual reserves.

Conclusion: Towards the rejection of false stereotypes. The facts reviewed regarding the development of MAU have shown that outdated perceptions of a changing world need to be re-examined. For example, North American universities in the US and Canada remain the benchmark for academic diversification and productivity; no country in the world has yet managed to surpass the best North American universities, although the region's former dominance is diminishing. The proverbial "Decline of the West" which to many seems self-evident, has been postponed indefinitely; indeed, it is European universities that are in the vanguard of training for a post-industrial society. The Asian WCUs market is still far from becoming a distinctive authentic phenomenon, being only the result of a successfully implemented "copycat" model of Western models, although individual achievements in the region cannot fail to be impressive.

The conclusion about the superiority of Latin American MAU over post-Soviet countries is unexpected and unpleasant. The former USSR gave only one player in the WCU market, Russia. However, the latter is by no means at its peak, with only one recognised WCU (*LMSU*), which does not have a sustainable scientific record. A further eight universities in the country have so far only marked their presence in the subject rankings. The experience of Mexico, whose metropolitan university has long been unrecognised by the international expert community, despite its more than impressive success in the preliminaries, shows that even under the best of circumstances the same fate awaits Russian universities, which would further delay their entry to the leaders.

Despite these circumstances, it would be wrong to think that Russia has suffered a complete and utter fiasco in the struggle for a place in the world university market. Firstly, it is important to take into account the fact that Russia has joined the global trend of building a WCU since the end of the last century: public financing of special programmes in Canada began in 1989, Denmark – in 1991, Finland – in 1995, China – in 1996, Japan – in 2002, Australia and Norway – in 2003, Germany – in 2006. Russia joined the initiative only in 2008 [Salmi, Frumin, 2013]. Secondly, despite the fact that the goals of the Project 5–100 have not been achieved, it has made it possible to conduct a global inventory of the Russian university system, revise approaches to the development of Russian universities, and make itself known on the international arena. This is the first time in a quarter of a century that Russia's best universities have ceased to be "invisible" to the international information space. Thirdly, Russia, consciously or not, follows a staggered strategy in shaping the WCU, which first aims to get into a less ambitious pool of advanced universities (top-50 subject rankings) and then, through gradual scientific diversification, moves to the lower boundary of the top-100 WUR and finally passes through it and enters the category of truly advanced universities in the world. So far Russia has implemented only the first part of the way, preparing the ground for further achievements. The reality of this is demonstrated by China, which has passed relatively quickly through all stages of the "road to WCU" and is now well positioned on the MAU.

Another important aspect of the competitive university race cannot be overlooked. The world is divided into two groups of countries – those that have entered the race and those that, for various reasons, ignore it. Russia falls into the first group, with the tradition of a command economy leading to a rapid bureaucratisation and imitation of all good deeds. In these conditions, positive reports from universities and officials to higher authorities about their outstanding achievements prevail, making it difficult to diagnose the true state of affairs, to identify organisational errors and to correct them in a timely manner. The real potential of Russian universities remains unclear: either it is very low (even compared with Latin American countries) or it is not so low, but its inept organisation by the current bureaucracy does not allow it to be realised in full. In our view, Russia still has a chance for a scientific breakthrough, but time is not working for it.

## REFERENCES

- Arrighi G. (1994) The Long Twentieth Century: Money, Power, and the Origins of our Times. London; New York: Verso.
- Arrighi G. (2007) Adam Smith in Beijing: Lineages of the Twenty-First Century. London; New York: Verso. Balatsky E.V. (2014) Prerequisites for Global Geopolitical Inversion. Ekonomicheskie i sotsialnye peremeny:
- fakty, tendentsii, prognoz [Economic and Social Changes: Facts, Trends, Forecast]. No. 2(32): 28–42. DOI: 10.15838/esc/2014.2.32.4. (In Russ.)
- Balatsky E.V. (2017) University Endowments and Competitiveness of Russian Universities. Moscow: Buki Vedi. (In Russ.)
- Balatsky E.V., Ekimova N.A. (2019) Geopolitical Meridians of World-Class Universities. *Vestnik Rossiyskoy akademii nauk* [Herald of the Russian Academy of Sciences]. Vol. 89. No. 10: 1012–1023. DOI: 10.31857/S0869-587389101012-1023. (In Russ.)
- Balatsky E.V., Ekimova N.A. (2020) Global Competition of Universities in the Mirror of International Rankings. Herald of the Russian Academy of Sciences. Vol. 90. No. 4: 417–427. DOI: 10.1134/S1019331620040073.
- Balatsky E.V., Ekimova N.A. (2018) World Class Universities: Experience of Identification. *Mirovaya ekonomika i mezhdunarodnye otnosheniya* [World Economy and International Relations]. Vol. 62. No. 1: 104–113. DOI: 10.20542/0131–2227–2018–62–1–104–113. (In Russ.)
- Hamdan A., Sarea A., Khamis R., Anasweh M. (2020) A Causality Analysis of the Link between Higher Education and Economic Development: Empirical Evidence. *Heliyon*. Vol. 6. No. 6. Article 04046. DOI: 10.1016/j.heliyon.2020.e04046.
- Kirdina-Chandler S.G. (2017) Radical Institutional Economics and Fakery for the 21<sup>st</sup> Century. *Journal of Institutional Studies*. Vol. 9. No. 4: 6–15. DOI: 10.17835/2076–6297.2017.9.4.006–015. (In Russ.)
- Kirdina-Chandler S.G. (2019) Western and non-Western Economic Institutional Models in Time and Geographical Space. Terra Economicus. Vol. 17. No. 1: 8–23. DOI: 10.23683/2073-6606-2019-17-1-8-23.
- Lebedeva I.V. (2013). Fake as a Sociocultural Phenomenon of a Modern Society. *Gumanitarnye issledovaniya* [Humanitarian Researches]. No. 2(46): 157–164. (In Russ.)
- Lundestad G. (2012). The Rise and Decline of American "Empire": Power and its Limits in Comparative Perspective. New York: Oxford Univ. Press.
- Salmi D., Frumin I.D. (2013). Excellence Initiatives to Establish World-Class Universities: Evaluation of Recent Experiences. *Voprosy obrazovaniya* [Educational Studies Moscow]. No. 1: 25–68. (In Russ.)
- Stepanova T.E., Manokhina N.V. (2019) The Fake Economy: The Truth is out There. *Kreativnaya ekonomika* [Journal of Creative Economy]. Vol. 13. No. 3: 433–448. DOI: 10.18334/ce.13.3.40101. (In Russ.) Taleb N. (2014) *Antifragile: Things that Gain from Disorder.* Moscow: KoLibri. (In Russ.)
- Valero A., Reenen J.V. (2019) The Economic Impact of Universities: Evidence from Across the Globe. *Economic of Education Review.* Vol. 68. Iss. C: 53–67. DOI: 10.1016/j.econedurev.2018.09.001.
- Zinoviev A.A. (2004) On the Way to Super-Society. St. Petersburg: Neva. (In Russ.)