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# BRICs Nations Growing Impact on the Global Health Sector

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The most notable feature of the past five centuries of global economic history dating back from Colonial Age until the present accelerated globalization is the persistence of «North – South» division between the global rich and poor. This ground pattern has been falling apart over the last three decades with the rise of BRICs emerging economies (Brazil, Russia, India, China). The Chinese Belt and Road Initiative fosters further rapid growth and synergy among these large nations. This ambitious and historically unprecedented infrastructural project if successful can lead to a formation by 2049 of a huge common economic zone bringing opportunities for multilateral development to the BRICs. These profound changes have deep implications for the global health care sector. Previous research on health and pharmaceutical spending has clearly documented that low- and middle-income economies (LMICs), led by these emerging markets, have doubled their share in global health spending from roughly 20% up to approximately 40% in purchasing power parity terms. Alongside with these global developments, a decade ago, some of the leading Western academic centers, confirm new era of rising world's geo-economic and geopolitical multipolarity. The world witnesses this process being accelerated today and seek deeper understanding how it will reflect on long term health and pharmaceutical expenditure trends, particularly in the leading BRICs emerging markets being a front runner of such evolution.

**Key words:** BRICs, Emerging Markets, OBOR, BRI, New Silk Road, Health, Expenditure, Pharmaceutical, Medical Care, China, Russia, India, Brazil.

## Colonial Age Inherited Patterns in Global Economic History and their Demise

Over the past several centuries of global economic history a certain visible pattern has been established in geographical distribution of development. Rich industrialized nations dwell mostly in the northern hemisphere while most of the developing nations remain in the southern one. Manufacturing goods and services

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travel usually from the North to the South in search of skillful, educated and cheap labor force. High-quality and expensive goods or services produced there are mostly either exported back to the North or consumed by customers coming from there. Throughout the most of 19th and 20th centuries the only real competitor challenging the worldwide economic dominion of Western Europe and its colonial descendant countries was Imperial Russia and later USSR. Soviet five-year development plans based on entirely different economic model were exceptionally successful in terms of economic output. If we assume the GDP growth rate to be the core indicator of economic development, USSR then heavily outperforms most of world's rapidly developing economies in 1928-1970[1] (Allen 2005: 315-332). These same five-year plans were later embraced by People's Republic of China and become one of the corner stones of its success. From 1940's until early 1980's the USSR was ranked the second global economy after the USA in purchasing power parity terms according to the Bretton Woods financial institutions such as International Monetary Fund and the World Bank[2]. Soviet achievements in industrial development, space exploration, military and medical innovations became well known globally. The country had tremendous geopolitical outreach and served as a hub for socialist societies across approximately half of the world. However, it never managed to overcome economic output of the United States given the diversity of its economy and variety of advantages ranging from the Hollywood Dream Factory to the Silicon Valley breakthrough discoveries in microchip technologies.

Shortly after the American Civil War of 1861-1865 approximately around 1875, according to Agnus Madison's historical estimates[3], the USA overtook the crown of the richest nation in terms of real national GDP from the Chinese Empire under Qing dynasty[4]. Given its beneficial geographical position in both world wars outside major war theatres and essentially without war taking place on its soil, this gap extended tremendously in early post WWII decades. Cold War Era lasted approximately from 1945 to 1991 and was followed by the accelerated Globalization Era. Again, unchallenged by major competitors, Western powerhouses got a strong impetus to boost their economic growth, spreading mostly Western- and Japan-based multinational businesses globally across dozens of former socialist state-planned economies. At the peak of its power at the crossroads of millennia, these large multinationals were successfully operating at the expense of national legislations, removing large amounts of national wealth accumulated over multiple generations of development. One of the striking examples is small upper-middle income Serbia that entered so called Eastern European "transition" from the state-planned to the free-market economy with a one decade delay due

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[1] The Soviet Union: From farm to factory. Stalin's Industrial Revolution. Nintil. 04.02.2017. URL: https://nintil.com/2017/02/04/the-soviet-series-from-farm-to-factory-stalins-industrial-revolution/

[2] Angus Maddison statistics of the ten largest economies by GDP (PPP). URL: https://ipfs.io/ipfs/QmXoypizjW3WknFiJnKLwHCnL72vedxjQkDDP1mXWo6uco/wiki/Angus_Maddison_statistics_of_the_ten_largest_economies_by_GDP_(PPP).html (accessed 10.12.2019)

[3] Ibid.

[4] Maddison Historical Statistics. Groningen Growth and Development Centre. URL: https://www.rug.nl/ggdc/historicaldevelopment/maddison/ (accessed 10.12.2019)

to civil wars in former Yugoslavia (Jakovljević, Jovanović at al. 2011: 161-163; Jakovljevic 2013: 153; Jakovljevic, Lazarevic et al. 2016). It is estimated by a variety of sources, including OECD academic literature, that in a short time span from 2000 to 2013 the country suffered losses of around US$ 51 billion due to multinational businesses, that was publicly admitted by the major mainstream media[5]. It is meaningless to point out the effect of similar business processes and rapid privatizations of large state-owned enterprises in far richer and larger countries in Europe, Asia and Latin America.

One significant change, however, remained unnoticed. Global share of so called "Collective West", led by the US, within the world's entire economic output measured either in nominal or purchase power parity terms, major convertible or local currencies, continued to shrink and decrease over the most of seven and a half post-WWII decades[6]. This hidden change was not covered by mainstream media but, at the same time, was recognized in prominent anti-globalist academic sources. In fact, back in 1960 the USA had contributed with almost 40% to the global economy of that time[7]. Given the fact that its population was never larger than 4% of mankind we may understand the scale of such advantage. Historically such a successful rate was overrun only by achievements of ancient Imperial China under Tang Dynasty (唐朝 618-907 AD) whose estimated annual GDP per capita was around $480 ($US as of 1990 used for comparison[8]) and it accounted for some 58% of world output of that time[9]. Even more impressive is the peak of Song Dynasty (宋朝 960-1279 AD) whose estimated GDP per capita was around US$ 2,280 contributing with 80% to the global economy of the time.

Here we come up to the point: the crucial change of our days. Hidden underlying changes were taking place gradually even before the end of Cold War while accelerating tremendously since the late 1990's. This was gradual but steady and irreversible movement of world's geo-economic epicenter from the West towards the East, dominantly Far East Asia[10].

The US contribution to the world economy was contracting further in the long run, throughout all the upsides and downs of previous decades, today reaching a level

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[5] Hadson: Iz Srbije je izneta 51 milijarda dolara od privatizacijske pljačke. Radio Svobodna Evropa. URL: https://www.slobodnaevropa.org/a/hadson-kako-je-iz-srbije-izvuena-51-milijarda-dolara/25126407.html (accessed 10.12.2019); Majkl Hadson za „Novosti": Iz Srbije izneta 51 milijarda dolara. URL: http://www.novosti.rs/vesti/naslovna/ekonomija/aktuelno.239.html:458538-Majkl-Hadson-za-Novosti-Iz-Srbije-izneta-51-milijarda-dolara (accessed 10.12.2019)

[6] Maddison Angus. Measuring and interpreting world economic performance 1500-2001. URL: https://crawford.anu.edu.au/pdf/edges/Maddison.pdf (accessed 10.12.2019)

[7] Patton Mike. U.S. role in global economy declines nearly 50%. Forbes. URL: https://www.forbes.com/sites/mikepatton/2016/02/29/u-s-role-in-global-economy-declines-nearly-50/#688965255e9e (accessed 10.12.2019)

[8] Angus Maddison statistics of the ten largest economies by GDP (PPP). URL: https://ipfs.io/ipfs/QmXoypizjW3WknFiJnKLwHCnL72vedxjQkDDP1mXWo6uco/wiki/Angus_Maddison_statistics_of_the_ten_largest_economies_by_GDP_(PPP).html (accessed 10.12.2019)

[9] China's Historical GDP Share in The World. China Whisper. URL: http://www.chinawhisper.com/chinas-historical-gdp-share-in-the-world/ (accessed 10.12.2019)

[10] Milanovic Branko. The end of a long era. World Bank Blogs. URL: http://blogs.worldbank.org/developmenttalk/end-long-era (accessed 10.12.2019)

of exactly 15.11% in GDP in PPP terms according to the latest data release of 2019[11]. According to the International Monetary Fund's "World Economic Outlook", this value is going to be at 13.71% in 2024[12]. As a comparison, USSR share in world economy in the same terms during the peak of its power was around 16.5%[13]. Furthermore, if we anticipate that 28 countries comprising the European Union (as of May 2019) were coupled together back in 1989, their overall participation in world economy would be around 33%. This is hypothetical scenario since geopolitical maps has changed and many of these states did not exist at the time, with Europe divided by the Iron Curtain, EU15 were capitalist free-market economies while EU-post-2004 were mostly centrally planned socialist ones except for small island states of Malta and Cyprus. In 2019 all these EU nations contribute with 16.02%[14]. This is going to decrease heavily[15] for most of reliable long-term forecasts predict that they will have joint economic output approximately of 9% in 2050[16].

Macroeconomic global recession, originated with 2007 bankruptcy of Lehman Brothers, resulted in years of either stagnant or weak real GDP growth in most high-income OECD nations. Ultimately deep vulnerabilities of the US-led neoliberal globalization became obvious even to its most well-known apologetics.

As a crown event of this, in autumn 2014 the International Monetary officially recognized the People's Republic of China the richest nation and largest economy in purchasing power parity terms. There are still minor discussions around methodological issues related to the International Comparison Program price surveys conducted in 1990 and 2005 and being the benchmark for PPP conversion[17]. This refers mostly to the exclusion of nominal monetary terms as reliable way to compare inherently different economic establishments at the first place. The second argument is that different authors disagree mostly around momentum when China actually surpassed the US in size with most assessments ranging from 2009 to 2017. To those less aware of economic history the Asian rise appears like surprise sudden swift in global tectonic geopolitical movements. However, even superficial insight into the historical archives

[11] United States' share of global gross domestic product (GDP) adjusted for purchasing power parity (PPP) from 2014 to 2024. Statista. URL: https://www.statista.com/statistics/270267/united-states-share-of-global-gross-domestic-product-gdp/ (accessed 10.12.2019)

[12] GDP based on PPP, share of world. IMF. URL: https://www.imf.org/external/datamapper/PPPSH@WEO/OEMDC/ADVEC/WEOWORLD/USA/RUS (accessed 10.12.2019)

[13] The Soviet Union: GDP growth. Nintil. URL: https://nintil.com/2016/03/26/the-soviet-union-gdp-growth/ (accessed 10.12.2019)

[14] European Union: share in global gross domestic product based on purchasing-power-parity from 2014 to 2024. Statista. URL: https://www.statista.com/statistics/253512/share-of-the-eu-in-the-inflation-adjusted-global-gross-domestic-product/ (accessed 10.12.2019)

[15] Budiman Abby. Few see EU as world's top economic power despite its relative might. Pew Research Center. URL: https://www.pewresearch.org/fact-tank/2017/08/09/few-see-eu-as-worlds-top-economic-power-despite-its-relative-might/ (accessed 10.12.2019)

[16] The EU has shrunk as a percentage of the world economy. URL: https://fullfact.org/europe/eu-has-shrunk-percentage-world-economy/ (accessed 10.12.2019); A Collection Of Maps Illustrated Estimates Of GDP Going Back 2000 Years. Visualizing Economics. URL: http://visualizingeconomics.com/the-wealth-of-nations (accessed 10.12.2019)

[17] Milanovic Branko. The end of a long era. World Bank Blogs. URL: http://blogs.worldbank.org/developmenttalk/end-long-era (accessed 10.12.2019)

reveals that the roots of today's world economic order can traced back to where it was a century and a half ago.

## Rise of the Emerging Markets led by the BRICs Nations

In this brief insight into the world economic history we clearly recognize the so called "Rich North – Poor South" pattern of the Colonial Period trade and investment flows. Bipolarity of the Cold War put an end to the imperial legacies of Western Europe: the role of the Non-Aligned Movement led by India, Egypt and Yugoslavia remains disputable but a contributing factor accelerating the process. However, policies of the Third World nations leaders, such as Mahatma Gandi, Nelson Mandela, Fidel Castro and Patris Lubumba, led to the destruction of classic European colonialism.

However even since the 1980's with Perestroika in the USSR and Deng Xiaoping reforms in China, introduced in 1978 but bringing first fruits only in1989, early signs of new profound changes were looming on the horizon. They were largely overseen by academic centres and analytical houses during the 1990's covered by other prevailing mainstream events of that time. Finally, when the rise of "newly established" economies became obviously visible and impossible to hide, Goldman Sachs analysts marked them as the Emerging Markets[18] – a group of rapidly developing world economies, sharing several common features. They had inherited variety of different economic systems and inner governing practices but developed outside the Collective West and club of traditional high-income, welfare economies of the 1960's[19]. Several acronyms have been introduced to group them, such as EM7 (Brazil, China, India, Indonesia, Mexico, Russia and Turkey), MIST (Mexico, Indonesia, South Korea and Turkey), Next Eleven (Bangladesh, Egypt, Indonesia, Iran, Mexico, Nigeria, Pakistan, Philippines, South Korea, Turkey and Vietnam) and others (Reshetnikov, Arsentyev et al. 2019: 22-26). They were all developing at much faster pace than the most of time before during and after the latest world economic recession of 2008-2016. The measured and forecasted contribution of EM7 to real GDP growth worldwide on a 2017-2020 horizon was vastly exceeding the one of G7 (USA, Japan, Germany, UK, France, Italy, Canada) at the ratio of 50% to 25% of world's GDP[20]. This fastest developing group of nations, known as BRICs (Brazil, Russia, India, China, later to be joined by South Africa)[21], ultimately joined together[22] putting a challenge to the order existing at the

[18] Reddy Sanjay G. The BRICS and a Changing World. URL: https://reddytoread.com/2017/09/19/the-brics-and-a-changing-world/ (accessed 10.12.2019)
[19] Civil BRICS. URL: http://civilbrics.ru/en/gr-brics/ (accessed 10.12.2019)
[20] Ayhan Kose. Big emerging market economies versus the G-7: Which group will drive the upswing in global growth? URL: https://www.brookings.edu/blog/up-front/2017/07/14/big-emerging-market-economies-versus-the-g-7-which-group-will-drive-the-upswing-in-global-growth/ (accessed 10.12.2019); World Bank Documents: How Important are Spillovers from Major Emerging Markets? URL: http://documents.worldbank.org/curated/en/786391496863791206/How-important-are-spillovers-from-major-emerging-markets released on 2017/06/07 (accessed 10.12.2019)
[21] The BRICS Post. URL: http://www.thebricspost.com/about-us/#.XfTjo_zgrcd (accessed 10.12.2019)
[22] Interviewees, columnists, authors and pundits of BRICS Business Magazine. BRICS Magazine. URL: https://www.brics-magazine.com/en/people (accessed 10.12.2019)

beginning of 21st century. Initially, in 2001, the acronym was coined by Jim O'Neil[23], whose remarks were followed by a great variety of reports and market estimates of future development pathways of these nations up to 2050.

In a diversity of scenarios, mathematical modelling approaches and geopolitical calculations there is broad consensus among academia, major industry sectors and political elites, that BRICs nations are about to play a crucial role in the establishment of the 21st century world order. The year 2008 was marked by establishment of BRIC as a multilateral association. BRICs leaders might have seriously considered the ancient wisdom, that if you compete with another geopolitical challenger, such as the West, you would probably have to be more like them[24], or at least embrace some of the core features of this different development model. How much emerging nations were successful in embracing this wisdom can be noticed in the fact of their far higher resilience and much faster recovery rates before, during and after the global economic crisis of 2007-2008[25]. Real Gross Domestic Product rates among EM7 have on average outpaced the ones in leading OECD G7 nations since the beginning of 21st century, according to the International Monetary Fund[26]. Whatever were the underlying reasons driving BRICs initiative, it was destined to become one of the crucial factors in geopolitics and geoeconomics of the century.

There are also other influential tendencies. The One Belt One Road initiative of People's Republic of China (now Belt and Road Initiative – BRI), announced in 2013, also widely known as the new Silk Road is probably the largest milestone event of the decade. Alongside with it there were several core developments triggering significant changes in international geo-economic landscape ultimately leading to the rise of multipolarity. There happened a chain reaction of sudden loss of global confidence into the neoliberal economic model as the most successful one, after its last disastrous recession following the previous ones in 1930's and 1970's. Surprisingly this is the case even in Western academic circles, with some prominent centers of economic thought in Chicago, Canada, France or Israel, far outside non-Western competitor nations. The outcomes of recent proxy wars and attempted or realized colored revolutions in Middle East, Eastern Europe and Latin America triggered the split. Epilogues of many of these conflicts at the contemporary geopolitical moment are increasingly being perceived worldwide by the low-and-middle-income nations (LMICs) as the increasing influence and strength of the Russian Federation and People's Republic of China and theirs, to a large extent, mutually complementary policies (Jakovljevic, Getzen 2016; Школьников 2019). The last but not the least change occurred inside the Western

[23] Building Better Global Economic BRICs. Goldman Sachs Report. URL: https://www.goldmansachs.com/insights/archive/archive-pdfs/build-better-brics.pdf (accessed 10.12.2019)

[24] BRICS represents a vital force bolstering global economy: experts. Hellenic Shipping News. URL: https://www.hellenicshippingnews.com/brics-represents-a-vital-force-bolstering-global-economy-experts/ (accessed 10.12.2019)

[25] BRICS Chamber of Commerce and Industry. URL: http://www.bricscci.com/ (accessed 10.12.2019)

[26] Asia and Pacific Regional Economic Outlook. IMF. URL: https://data.imf.org/?sk=388DFA60-1D26-4ADE-B505-A05A558D9A42&sId=1479329132316 (accessed 10.12.2019)

democracies, namely the populism movements and their firm grip on power in many countries including the rich and most influential ones (Gusterson 2017: 209-214).

## Global Health Sector in Rising World's Multipolarity of the 2020's

All these changes inevitably influence the global health care sector - global multinational pharmaceutical industry, also known as "Big Pharma", alongside with medical device industry which have yielded their profits for the long post-WWII decades almost exclusively inside the US, Japanese and EU5 Western Europe markets (Germany, France, UK, Italy, Spain) (Jakovljevic, Groot, Souliotis 2016). But the landscape began to change substantially. Since the end of the Cold War there happened a continuous and profound fall of purchasing power in the Western middle class[27]. On the opposite, after the Russian recession reached its bottom in 1998 the recovery began suddenly and at the bold pace. Similarly, Chinese milestone event on Tiananmen Square in 1989 marked the threshold year for rapid further development. Rise of India[28] and Brazil also changed the traditional North-South polarity in world economic order. The latest global economic crises was far better sustained among the emerging economies compared to G7 (Jakovljevic 2016: 70-76). This means that both real GDP growth and employment rates remained continuously higher among the EM7. Furthermore, middle class continues to grow among the BRICs states (Kravets, Sandikci 2014). This trend is entering its third decade now in BRICs, with China being the overachiever lifting 800+ million people from poverty (Jakovljevic 2015). Also, the purchasing power of this middle class is growing rapidly as well, particularly in rich coastal and industrial areas surrounding capitals and megacities[29]. The world witness the blossoming of medical tourism in Russia and Asian economies driven largely by growing demand for medical care and affordability line. The 11$^{th}$ formal meetings of BRICS heads of state took place in Brasilia in March 2019 with a strong emphasis on coordination of health policies among them[30].

Pharmaceutical prescribing and dispensing as the most dynamic sector of medical services market is probably the best landmark presenting the peak of an iceberg of what happens "beneath the surface" of these socioeconomic phenomena. Share of drug acquisition expenses in developed free market OECD economics rarely exceeds 15%-25% with the tendency to the bottom value. Unlike this, domestic pharmaceutical sector of China accounted few years ago for up to 44% of entire health expenditure on hospital care. There is a peculiarity of traditional Asian medicine across China, Japan, Korea and nations of Indochina that medicines prescribing and dispensing are

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[27] In rich countries, the middle class is getting smaller and smaller, generation by generation. Quartz. URL: https://qz.com/1592826/the-middle-class-is-shrinking-generation-by-generation/ (accessed 10.12.2019)

[28] Raja Mandala: Rearranging the BRICS. Carnegie India, 09.05.2017. URL: https://carnegieindia.org/2017/09/05/raja-mandala-rearranging-brics-pub-73000 (accessed 10.12.2019)

[29] The rise of Asia's middle class. Asia's emerging middle class: past, present, and future. URL: https://www.adb.org/sites/default/files/publication/27726/special-chapter-02.pdf (accessed 10.12.2019)

[30] BRICS Brazil 2019. URL: http://brics2019.itamaraty.gov.br/ (accessed 10.12.2019)

not separated like in the European tradition and its colonial descendant cultures. Both steps are being done at the doctor's office; in China roughly 50% of all drugs are being dispensed to inpatients during hospital admission and additional 34% to outpatients again in clinic-associated pharmacies. These historical differences are driving the current change and patterns. Among the rich, so-called highly-regulated markets such as Japan, Switzerland, France and Benelux countries in Europe sales of expensive brand drugs have been dominated against affordable generic (copycat) medicines for decades. Such order is determined by multinational "Big Pharma" presence which harvested its profits but also led to cutting edge innovations in pharmacology.

Among the leading BRICs nations it was traditionally the opposite case. These rapidly developing economies had their domestic generic manufacturing sector satisfying local needs with a rather limited export capacities to surrounding dependent markets. The USSR was historically much ahead of India and China in these industries. Over the course of time all of these traditional patterns were put to the test of time. India has gradually developed globally the most competitive generic drugs manufacturing sector. Its large companies such as *Ranbax®* and many others adapted to the business environment in roughly 200 countries and political entities across the world including those with most stringent pharmaceutical technology standards such as Japan. In the meantime, financial burden of slowing economy in the West and ageing population in their societies have raised sustainability issues with long run health expenditure. This is largely attributable to the prevalence of chronic lifetime expensive to treat noncommunicable diseases (NCDs) in the West and the East alike (Jakovljevic, Milovanovic 2015; Jakovljevic, Jakab et al. 2019: 727).

One of the core adaptive strategies was shifting mass consumption from original, branded to copycat drugs (generic) medicines and from novel biological to the so-called biosimilar medicines. This has resulted in a wave of legislation changes leading to rapid market uptake of generic medicines following brand patent expiry primarily in the USA in late 1980's and Canada during 1990's. Today this trend is even prevailing in a traditionally conservative brand-dominated Japanese market. In the meantime, China has achieved to overrun a hurdle, long thought to be far away – one year ago it became the world second largest pharmaceutical market with the clear potential of becoming the second largest health care market[31]. So far the US supremacy in terms of value brand turnover remains undisputed and medicinal device market of Japan still surpasses Chinese one for a substantial margin.

[31] Fast growth in China's pharmaceutical market to benefit foreign firms: report. China Daily. URL: https://www.chinadaily.com.cn/a/201909/29/WS5d901f4ca310cf3e3556e1cc.html (accessed 10.12.2019); Tan, H. China's pharmaceutical industry is poised for major growth. CNBC. URL: https://www.cnbc.com/2018/04/19/chinas-pharmaceutical-industry-is-poised-for-major-growth.html (accessed 10.12.2019); China's pharmaceuticals industry is growing up. Economist. URL: https://www.economist.com/business/2019/09/28/chinas-pharmaceuticals-industry-is-growing-up (accessed 10.12.2019); Wong, J. China's Drug Market Is Opening Up. The Wall Street Journal. URL: https://www.wsj.com/articles/chinas-drug-market-is-opening-up-11573468202 (accessed 10.12.2019); Characterising Eastern China's pharmaceutical manufacturing market: Shandong and Jiangsu. URL: https://www.pharmaceutical-technology.com/comment/china-pharmaceutical-industry-2019/ (accessed 10.12.2019)

Belt and Road Initiative appears to be probably the largest scale infrastructural investment project in a written history of mankind. Tradition of Chinese Imperial legacy as "the Middle Kingdom" is actually filled with prominent examples of large scale coordinated efforts of huge number of people (Rossabi 1983).

Probably among the most well-known ones are the Great Wall legacy of early statehood of the 7th century BC and the build-up of a large naval fleet for early Ming dynasty treasure voyages (1405-1433 AD) exploring the shores of Indian Ocean and Africa[32]. Yet contemporary China differs in several core aspects with its historically preceding statehoods in sense it has been long absorbing the dominantly foreign-born knowledge and technologies. This is actually not a unique case in Far East Asia. Following Meiji reforms of 1868 Imperial Japan caught up approximately four centuries of European colonial development since Renaissance Era in roughly four decades. It culminated with a conquest of the Korean Peninsula, Russo-Japanese War or 1905 and consecutive 1930 conquest of Chinese heartland. People's Republic of China in a different international circumstances followed Japanese example in the similar footsteps beginning from Deng Xiaoping reforms in mid-1970's (Vogel 2011). Rapid developments were actually visible worldwide mostly after 1989. The less impressive but also difficultly achieved peculiarities of modern Chinese development refer to the successful delivery of social justice in many spheres of life and controlling the gap between the rich and the poor as measured via Gini index (Xie, Zhou 2014). Core characteristics of socialism with Chinese characteristics are now well-known as a mega scale industrialisation, unseen urbanization and birth of megacities with Shanghai conurbation recently becoming the largest city on Earth. Probably the most glorious recent examples are satellite landing on a dark side of the Moon and essential technological breakthroughs in 5G cell phone networks.

Therefore, Chinese society, academia and industry sector alike, have clearly developed their ability not only to absorb the knowledge and reproduce industrial techniques patented by other nations but as well to move the cutting edge of science creating new authentic knowledge and technologies (Tang, Hussler 2011). Once again this might be a surprise only for those with superficial awareness of Asian history. Silk bug breeding, paper invention, dynamite and porcelain manufacturing, early insights into the military and state strategy and introduction of first vaccines in history of medicine are only few notable examples.

Capability to establish large-scale economy, deliver high degree of welfare to its citizens and become a global hub for export industries and trade are not new in the long Chinese history. Both previously mentioned Tang Dynasty (唐朝 618-907 AD) and Song Dynasty (宋朝 960-1279 AD) presented long lasting imperial statehoods during whom Chinese civilization served in even more dominant role in world economy of

[32] Viviano F. China's Great Armada. Six Hundred Years ago China's Admiral Zheng He Led a Mighty Fleet on the First of Seven Voyages that Reshaped an Empire. *National Geographic,* 2005. URL: http://sdaworldhistory.edublogs.org/files/2017/08/Zheng-He-National-Geographic-oz6it6-1lznt3x.pdf (accessed 10.12.2019)

its time, compared to 21st century (Wittfogel 1935). Notably its share and participation in global economic output, observing the best accessible methodological framework, was even far larger compared to the one the world witnesses in 2019. However, there is something really brand new today in Chinese geoeconomic behaviour. That is a new policy of opening to the world as a society that traditionally perceived itself as the Middle Kingdom and had no essential drive to civilize barbarian tribes across its frontiers like most other imperial civilizations did throughout religious or colonial missionaries through the Old World and the Americas. This new strategy of building bridges in spirit of mutual benefit and confidence among primarily the nations of Asia, Africa and Europe is indeed a new one. Chinese accumulated wealth, given the new circumstances in world trade affairs needs foreign investment to consolidate its export-oriented economy. National industrial capacities by far exceed domestic needs and such an engagement primarily in surrounding foreign countries and later in Eastern Europe beyond Russia, Middle East and Eastern Africa appear to be justified from the economic point of view. Chinese model of economic growth, given the gradual decrease of real GDP growth rate is now entering a transition period. This year's national GDP is entering its lowest value over the past 27 years which is largely driven by the ongoing trade war between the USA and China. Internal market reforms are underway to transform China into a mature competitive economy driven by domestic consumption instead of export alone: the process is likely to take years to consolidate. Yet in the meantime the accumulated wealth and abundance of foreign currency and gold reserves serve as a guarantee of China's ability to push hard for timely delivery of more than ambitious architectural plans alongside many of the New Silk Road high-speed railway routes, airport terminals and large naval capacities intended to serve core ports of Indo-Pacific maritime trade.

These efforts could be hardly achieved without its core counterpart in foreign policy – the Russian Federation also initiates the reunification and expansion of Great Eurasia. This is taking place through the Eurasian Economic Union and visible consolidation of the Post-Soviet ethnic geography under the new geopolitical circumstances[33] (Фатыхова 2019). India is sceptical and careful about participation in BRI projects. Inclusion of a variety of core traditional statehoods alongside the old Silk Road routes such as Persia - Islamic Republic of Iran, Ottoman Empire - Turkey, Pakistan and shared interests by other large or nodal states in Middle East, Eastern Europe and Africa, BRI continues to gather momentum. Visibly there is a variety of anticipated and unintended obstacles ranging from huge diversity of ethnicities, religions and traditions each with its own perception of newly re-established Chinese confidence and capabilities in the international arena. Others come in ways of spontaneous or ignited crisis, instability, civil unrests and conflicts taking place right at the core branches and neuralgic spots of this huge Chinese project. Yet, how its architects and funders such as

[33] Пут према Великој Евроазији. Нови Стандард. URL: https://www.standard.rs/2019/11/29/put-prema-velikoj-evroaziji/ (accessed 10.12.2019)

the New Development Bank and Asian Investment Bank, the BRICS[34] and associated emerging markets governments will strive to their goals, remains to be seen.

What obviously stands in place as a visible consequence of such connectivity among Asian, Russian, Persian, Turkish and other nations is a build-up of mutual interdependence and deepening economic ties. Collaborative fruits are not only visible in giant energy projects, high speed railways and trade volume but also in ramifications outsourcing from accelerated access to the 4.0 industries, advanced robotics and artificial intelligence.

## Conclusive Remarks

Overlooking the three decades long horizon since the end of the Cold War we are witnessing gradual but profound weakening of purchasing power of middle class in the traditionally rich OECD nations. Indeed, there were quite positive socioeconomic trends affecting health care affordability and equity in a beneficial way, but mostly prevailing during the 1990's. Although Western European, North American and Japanese health spending still remains much higher than the that in the emerging ones' in per capita nominal terms, these statistics is beginning to change (Jakovljevic, Fernandes et al. 2019: 3043). The purchasing power of medical care services and drugs in such countries is gradually decreasing, and insurance premiums are becoming much more restrictive (Schoen, Collins 2008). The epicentre of biomedical innovations traditionally led by the US, EU5 and Japan is steadily moving toward Asia. Most of innovative targeted biological medicines, personalized as per pharmacogenetic requirements to treat cancer and autoimmune diseases are being produced in these traditional high-income societies (Friedman 2010: 835). However, given the gaps in insurance coverage, they remain largely out of reach for the most patients even in the richest of nations. Thus, "Big Pharma" seeks its return on research and development expenses presenting an array of market access strategies to launch these products to rich citizen elites in the emerging and Western nations alike (Kumar, Juluru et al. 2014). Providing ageing population with the medicines is almost unbearable burden; it is clear that current health and social support systems, created in the era of demographic growth, are not financially sustainable today (Ogura, Jakovljevic 2014). Given the strong drive to the rapid Western rise in health spending, twice exceeding the pace of their economy growth, it is obvious that the line of medical care affordability is contracting in the West and expanding in the East.

There are several core inefficiency factors in the BRICs development models: uneven rural-urban development and deepening social inequalities between their rich elites and the poor suburban peripheries are among them (Ivins 2013). China and Russia have probably the most elaborate and long-term strategies to cope with poverty

[34] Expert Group "Public economic disputes and international taxation, international mediation & ad hoc arbitration". BRICS Law Institute. URL: http://bricslawinstitute.com/en/expert-group-on-economics.html (accessed 10.12.2019)

and socioeconomic inequalities ultimately affecting the affordability of medical care (Reshetnikov, Arsentyev et al. 2019; Marten, McIntyre 2014).

Over the course of the three analyzed decades we may observe few core milestone events for the BRICs nations and their respective health sectors. Some of them were the Russian Federation's turn over from aid recipient into an international donor country long ago in 2007 and Russia's threshold reaching the high-income country status in August 2013[35] (De Cordier 2016), Chinese success in delivering rapid growth of living standards and growing middle class in Brazil and India alike[36]. Four out of five BRICS states have significantly expanded their GDP share of health spending including the Republic of South Africa with a notable exception of India fixed at 4% (Jakovljevic, Timofeyev 2019). Yet its health expenditures in absolute per capita terms were also growing rapidly given the increasing national wealth. This is crucial health economics indicator since it depicts the long-term devotion of BRICs governments to assign significant share of national real gross domestic product resources to the medical care instead of many other areas. This means, that in contrast to the Cold War period, their contemporary authorities have clearly realized the feedback loop of healthy population with decent life expectancy towards the overall national economic productivity (Давыдова 2015; Караваева 2004; Арсентьев, Решетников 2018; Loeppke, Nicholson 2008). Over the course of time, BRICs has begun to stand at the core of multinational pharmaceutical manufacturers ("Big Pharma") long term investment plans. This means both local build-up of research and development capacities for molecular development of innovative pharmaceuticals and their further development through clinical trials (Jakovljevic 2014).

Compound annual growth rates (CAGR) of developing markets, including to a lesser extent Indonesia, Mexico and Turkey, are far exceeding those in established mature OECD markets[37]. These same underlying trends are depicted in re-thinking of pharmaceutical manufacturers start-ups and market strategies is affecting the medicinal device and lab equipment industries but slower and at a delayed pace. The striking example is that China has ultimately managed, after decades of struggle, to become the second world's pharmaceutical market, while Japan is still holding firm grip on its strong second position in imaging diagnostics and medical devices[38]. The big change is upcoming, but it shall take more time to happen to an extent that will be clearly visible to all the stakeholders in global health sector's arena. We anticipate that brand new reshaping of world's economic landscape and competitiveness of health industries connected to it is about to lead to far more affordable and accessible medical care for the hundreds of millions of people in the Third World that traditionally lived at the verge of poverty.

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[35] Global: Russia Moves Into High-Income. Global Finance. 09.03.2013. URL: https://www.gfmag.com/magazine/september-2013/milestones-world-bank-lifts-russia-into-high-income-category (accessed 10.12.2019)

[36] Rigolini J., Seshasayee H., Tobón N. 2012. Latin America's Middle Class in Global Perspective. *Americas Quarterly.* 6(4). URL: https://www.americasquarterly.org/Latin-Americas-Middle-Class-in-Global-Perspective (accessed 10.12.2019)

[37] Ural, A. & Sözer, J.O. Key success factors for global pharmaceutical companies in emerging markets. PhD Thesis. URL: https://katalog.marmara.edu.tr/eyayin/tez/eTez024218.pdf (accessed 10.12.2019)

[38] Torsekar M.P. 2018. China's Changing Medical Device Exports. *Journal of International Commerce and Economics.* 1. URL: https://heinonline.org/HOL/LandingPage?handle=hein.journals/jice2018&div=2&id=&page= (accessed 10.12.2019)

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# Растущее влияние стран БРИКС на глобальный сектор здравоохранения

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**Аннотация.** За последние пять веков сменилось несколько основных вех мировой экономической истории. Отличительной особенностью всех этих периодов, включая период холодной войны и последующую ускоренную глобализацию, сохранялось разделение мира по оси – «богатый (промышленно развитый) Север и бедный глобальный Юг». За последние три десятилетия эта основополагающая модель внезапно разрушилась с возвышением новых экономик стран БРИК (Бразилия, Россия, Индия, Китай), которые часто называют лидерами развивающегося мира. Китайская инициатива «Пояса и пути» даёт мощный импульс дальнейшему быстрому росту и взаимодействию между этими крупными странами. Эта амбициозная, крупнейшая в своем роде в истории человечества инфраструктурная инициатива, при условии успешной реализации в значительной степени до 2049 г. вероятно создаст объединённую экономическую зону огромного масштаба, открывающую возможности для многостороннего развития стран БРИКС. Кроме того, подобные значительные изменения имеют серьезные последствия для глобального сектора здравоохранения. Предыдущие исследования авторов, посвященные изучению расходов на здравоохранение и фармацевтическую индустрию, продемонстрировали, что мировые экономики с низким и средним уровнем дохода во главе с развивающимися рынками БРИК удвоили свою долю в глобальных расходах на здравоохранение примерно с 20% до 40% (в расчётах по ППС). Наряду с этими глобальными событиями десятилетие назад некоторые ведущие западные научные центры подтвердили начало новой эры геоэкономической и геополитической многополярности. Авторы анализируют, как данные трансформации отразятся на долгосрочных тенденциях расходов на здравоохранение и фармацевтическую индустрию, особенно в развивающихся рынках БРИК.

**Ключевые слова:** БРИКС, развивающиеся рынки, один пояс – один путь, инициатива пояса и пути, Новый Шелковый путь, здравоохранение, расходы, фармацевтическая индустрия, медицинское обслуживание, Китай, Россия, Индия, Бразилия.

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## References:

De Cordier B. 2016. Russia's International Aid Donorship: from Diplomatic Status Symbol to “Frontline Aid”? *Global Affairs.* 2(1). P. 21-34.

Friedman Y. 2010. Location of Pharmaceutical Innovation: 2000-2009. *Nature Review. Drug Discovey.* 9(11). P. 835-836. DOI: 10.1038/nrd3298

Gusterson H. 2017. From Brexit to Trump: Anthropology and the Rise of Nationalist Populism. *American Ethnologist.* 44(2). DOI: 10.1111/amet.12469

Ivins C. 2013. Inequality Matters: BRICS Inequalities Fact Sheet. *Oxfam Policy and Practice: Climate Change and Resilience.* 9(1). P. 39-50.

Jakovljevic M., Fernandes P.O., Teixeira J.P., Rancic N., Timofeyev Y., Reshetnikov V. 2019. Underlying Differences in Health Spending within the World Health Organization Europe Region — Comparing EU15, EU post-2004, CIS, EU Candidate, and CARINFONET Countries. *International Journal of Environmental Research and Public Health.* 16(17). DOI: 10.3390/ijerph16173043

Jakovljevic M., Getzen T.E. 2016. Growth of Global Health Spending Share in Low and Middle Income Countries. *Frontiers of Pharmacology.* 7(21). DOI: 10.3389/fphar.2016.00021

Jakovljevic M., Groot W., Souliotis K. 2016. Health Care Financing and Affordability in the Emerging Global Markets. *Frontiers in Public Health.* 4(2). DOI: 10.3389/fpubh.2016.00002

Jakovljević M., Jovanović M., Lazić Z., Jakovljević V., Đukić A., Velicković R., Antunović M. 2011. Current Efforts and Proposals to Reduce Healthcare Costs in Serbia. *Serbian Journal of Experimental and Clinical Research.* 12(4). P. 161-163.

Jakovljevic M., Lazarevic M., Milovanovic O., Kanjevac T. 2016. The New and Old Europe: East-West Split in Pharmaceutical Spending. *Frontiers in Pharmacology.* 7(18). DOI: 10.3389/fphar.2016.00018

Jakovljevic M., Timofeyev Y., Ekkert N.V., Fedorova J.V., Skvirskaya G., Bolevich S., Reshetnikov V.A. 2019. The Impact of Health Expenditures on Public Health in BRICS Nations. *Journal of Sport and Health Science.* 8(6): P. 516-519.

Jakovljevic M.B. 2013. Resource Allocation Strategies in Southeastern European Health Policy. *European Journal of Health Economics.* 14. P. 153-159. DOI: 10.1007/s10198-012-0439-y

Jakovljevic M.B. 2014. The Key Role of the Leading Emerging BRIC Markets in the Future of Global Health Care. *Serbian Journal of Experimental and Clinical Research.* 15(3). P. 139-143. DOI: 10.2478/sjecr-2014-0018

Jakovljevic M.B. 2015. BRIC's Growing Share of Global Health Spending and Their Diverging Pathways. *Frontiers in Public Health.* 3: 135. DOI: 10.3389/fpubh.2015.00135

Jakovljevic M.B., Milovanovic O. 2015. Growing Burden of Non-Communicable Diseases in the Emerging Health Markets: the Case of BRICS. *Frontiers of Public Health.* 3: 65. DOI: 10.3389/fpubh.2015.00065

Jakovljevic M.M. 2016. Comparison of Historical Medical Spending Patterns among the BRICS and G7. *Journal of medical economics.* 19(1). P. 70-76. DOI: 10.3111/13696998.2015.1093493

Kravets O., Sandikci O. 2014. Competently Ordinary: New Middle Class Consumers in the Emerging Markets. *Journal of Marketing.* 78(4). P. 125-140. DOI: 10.1509/jm.12.0190

Kumar A., Juluru K., Thimmaraju P.K., Reddy J., Patil A. 2014. Pharmaceutical Market Access in Emerging Markets: Concepts, Components, and Future. *Journal of Market Access & Health Policy.* 2(1). 25302. DOI: 10.3402/jmahp.v2.25302

Loeppke R., Nicholson S., Taitel M., Sweeney M., Haufle V., Kessler R.C. 2008. The Impact of an Integrated Population Health Enhancement and Disease Management Program on Employee Health Risk, Health Conditions, and Productivity. *Population Health Management.* 11(6). P. 287-296. DOI: 10.1089/pop.2008.0006

Marten R., McIntyre D., Travassos C., Shishkin S., Longde W., Reddy S., Vega J. 2014. An Assessment of Progress towards Universal Health Coverage in Brazil, Russia, India, China, and South Africa (BRICS). *The Lancet.* 384(9960). P. 2164-2171. DOI: 10.1016/S0140-6736(14)60075-1

Ogura S., Jakovljevic M. 2014. Health Financing Constrained by Population Aging-An Opportunity to Learn from Japanese Experience. *Serbian Journal of Experimental and Clinical Research.* 15(4). P. 175-181. DOI: 10.2478/sjecr-2014-0022

Rancic N., Jakovljevic M.M. 2016. Long Term Health Spending alongside Population Aging in N-11 Emerging Nations. *East Eur Bus Economic Journal.* 2(1). P. 2-26.

Reshetnikov V., Arsentyev E., Boljevic S., Timofeyev Y., Jakovljević M. 2019. Analysis of the Financing of Russian Health Care over the Past 100 Years. *International Journal of Environmental Research and Public Health.* 16(10). DOI: 10.3390/ijerph16101848

Roberts P.C. 2013. *The Failure of Laissez Faire Capitalism and Economic Dissolution of the West: towards a New Economics for a Full World.* Atwell Publishing. 190 p.

Rossabi M. (Ed.). 1983. *China among Equals: the Middle Kingdom and Its Neighbors,* 10th 14th centuries. University of California Press. 400 p.

Schoen C., Collins S.R., Kriss J.L., Doty M.M. 2008. How Many Are Underinsured? Trends Among US Adults, 2003 And 2007: Growing Numbers of Adults with Insurance Find that They Are not Adequately Protected from the Rising Cost of Health Care. *Health Affairs.* 27(4). P. 298-309. DOI: 10.1377/hlthaff.27.4.w298

Tang M., Hussler C. 2011. Betting on Indigenous Innovation or Relying on FDI: The Chinese Strategy for Catching-up. *Technology in Society.* 33(1-2). P. 23-35. DOI: 10.1016/j.techsoc.2011.03.001

Vogel E.F. 2011. Deng Xiaoping and the Transformation of China. Belknap Press of Harvard University Press. 928 p.

Wittfogel K.A. 1935. The Foundations and Stages of Chinese Economic History. *Zeitschrift für Sozialforschung.* 4(26). P. 26-60.

Allen R.C. 2005. A Reassessment of the Soviet Industrial Revolution. *Comparative Economic Studies.* 47 (2). P. 315-332. DOI: 10.1057/palgrave.ces.8100101

Arsentiev E.V., Reshetnikov V.A. 2018. K biografii N.A. Semashko: deyatel'nost' pervogo narkoma zdravookhraneniya v 1920-1925 gg. [On the Biography of N. Semashko: the Activities of the First People's Commissar of Health in 1920-1925]. *Istoriya Meditsiny.* 5(3). P. 217-229. DOI: 10.17720/2409-5583.t5.4.2018.05e (in Russian)

Davydova T.V. 2015. Reformirovaniye sovetskogo zdravookhraneniya v poslevoyennyye gody: istoricheskiy analiz [Reform of Soviet Healthcare in the Postwar Years: a Historical Analysis]. *Bulletin of the Tambov University. Series: Humanities.* 8(148). P. 164-170. (In Russian)

Fatykhova V.M. 2019. Yevraziyskoye sotrudnichestvo v oblasti nauki i vysshego obrazovaniya: perspektivy neofunktsional'nogo «peretekaniya» [Eurasian Cooperation in the Field of Science and Higher Education: Perspectives of Unofficial "Flowing"]. *MGIMO Review of International Relations,* 2(65). P. 159-175. DOI: 10.24833/2071-8160-2019-2-65-159-175 (In Russian)

Jakovljevic M., Jakab M., Gerdtham U., McDaid D., Ogura S., Varavikova E., . Getzen T.E. 2019. Comparative Financing Analysis and Political Economy of Noncommunicable Diseases. *Journal of Medical Economics.* 22(8). P.722-727. DOI: 10.1080/13696998.2019.1600523

Karavaeva E.I. 2004. Zakonodatel'stvo Rossiyskoy Federatsii o zdravookhranenii (istoriya, sovremennoye sostoyaniye, tendentsii razvitiya) [The Legislation of the Russian Federation on Health Care (History, Current Status, Development Trends)]. *Siberian Law Journal.* 2. P. 24-28. (In Russian)

Shkolnikov A.Yu. 2019. Geostrategicheskiy vzglyad na budushcheye Rossii [Geostrategic View of the Future of Russia]. *Svobodnaya Mysl'.* 2. P. 5-34. (In Russian)

Xie Y., Zhou X. 2014. Income Inequality in Today's China. *Proceedings of the National Academy of Sciences.* 111(19). P. 6928-6933. DOI: 10.1073/pnas.1403158111

## Список литературы на русском языке:

Арсентьев Е.В., Решетников В.А. 2018. К биографии Н.А. Семашко: деятельность первого наркома здравоохранения в 1920-1925 гг. *История медицины.* 2018. 5(3). С. 217-229. DOI: 10.17720/2409-5583.t5.4.2018.05e

Давыдова Т.В. 2015. Реформирование советского здравоохранения в послевоенные годы: исторический анализ. *Вестник Тамбовского университета. Серия: Гуманитарные науки.* 8(148). С. 164-170.

Караваева Е.И. 2004. Законодательство Российской Федерации о здравоохранении (история, современное состояние, тенденции развития). *Сибирский юридический вестник.* 2. С. 24-28.

Фатыхова В.М. 2019. Евразийское сотрудничество в области науки и высшего образования: перспективы неофункционального «перетекания». *Вестник МГИМО Университета.* 2(65). С. 159-175. DOI: 10.24833/2071-8160-2019-2-65-159-175

Школьников, А.Ю. 2019. Геостратегический взгляд на будущее России. *Свободная мысль.* (2). С. 5-34.