



Long-Term Economic and Geopolitical Cycles: A Compass to Multilateral Cooperation in Our Age

Original Paper

György H Matolcsy¹

1 Governor of the Magyar Nemzeti Bank (MNB), the Central Bank of Hungary

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Abstract

The birth of modern economics was strongly related to the study of cycles. Economists tried to establish historical cycles, then business cycles and to model even very short-term fluctuations. In the 2000s, the “great moderation” brought about a temporary decline in the interest for longer-term cyclical issues. This was also related to the unipolar moment of US power after the fall of the Soviet Union. The 2008 great financial crisis and the rise of China, however, proved that cycles had not ceased to affect us. The contrary is true: just now, we are witnessing (at least) a rerun of the 1970s with all the implications of energy shocks and geopolitical tensions. Several authors again try to understand cycles; nevertheless, there is a scarcity of studies merging cultural, economic and geopolitical knowledge in this regard. The paper aims to fill this gap by discussing possible interpretations of the current great power dynamics. A complex analysis shows that downward spirals of hegemonic cycles can be escaped. Eurasia as a deep-rooted concept can further catalyse global development and the much-needed cooperative policies towards long-term sustainable growth. The East and the West should be focused on benchmarking the best solutions in the fields of technology, money and the green transition so that a fusion of megatrends benefits each community.

Keywords

business cycles • long-term economic cycles • cycles in history • geopolitics • Eurasia • multilateralism

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1 Introduction

The analysis of cycles is reclaiming its well-deserved place in economic theory and practice, taking centre stage in policy discussions again. The most obvious part of this dialogue is the recent realization that high inflation, energy shocks and supply-side constraints observed today have much in common with the 1970s, and honestly, with the 1940s, too. This has clearly renewed global interest in business cycles which was once a hot topic for Keynes, Kaldor, Kalecki and many other outstanding economists in the 20th century. Although the contribution of these scholars remained a vast chapter in macroeconomic textbooks, a decline in the relevance of cyclicalities was a typical perception in the two decades leading up to the 2008 great financial crisis (GFC). Bernard et al. (2014) point to the 1990s when the quick waves of computerization gave rise to the idea of “permanently accelerated productivity growth”, and this seemed to fade the relevance of fluctuations over the business cycle (ibid., p. 100; see also Stiroh 1999 for a detailed discussion of the contemporary arguments suggesting a “new economy”). Then we all remember the “great moderation”, the first half of the 2000s when central bankers, together with other policy makers and the academia, usually declared victory over the waves of economic activity. It was argued that well-established policy tools – and especially monetary policy – would be able to prevent or ease the burden of ups and downs in the economy. Since then, it has turned out that this was not the case. Several authors (e.g., Borio 2012) have turned to uncover the background of this old/new conclusion in the aftermath of the GFC and even since then (for a very recent example, see Lucke 2022). In the past couple of years, we can witness again that business fluctuations keep returning, with each episode having something new in it. Interest should not only be renewed in short or medium-term cycles, but in long-term historic cycles, too. Such cycles are certainly not only about history. They are about geopolitics, or more precisely, the fusion of geopolitics, economy, technology, environment and all aspects of human development. I usually put this phenomenon as the “fusion of megatrends”. Csizmadia

* E-mail: elnok@mnb.hu

(2017, 2023) labels it as “geofusion”, which is a very excellent notion capturing the interdependence between geography, geopolitics, economics and other scientific fields necessary to understand the recurring and new patterns of the 21st century. The term “geoeconomics” (as a kind of a sub-concept of “geofusion”) is also increasingly used and alerts us to get interested in Kondratieff and Kuznets cycles again. We must complement and advance such earlier approaches to make them fit for our age when no discipline in itself is enough to explain our world.

I am delighted to see that this work has already begun. When I published a collection of my short reflections on the post-pandemic period and the future (under the title *“On the Edge of Times”*, see Matolcsy 2022), I already pointed to the new angles of this thinking. In this paper, my aim is to produce a brief, but comprehensive guide about how cycles could be thought about from a holistic point of view. Put the question otherwise: how could we integrate our cultural, economic and other kinds of scientific knowledge about cyclicity, which mankind has been accumulating since the ancient times? This is not a question of a theorist only. I firmly believe that such an understanding is also necessary to formulate better policies at domestic and international levels. Moreover, I think these insights deliver solid arguments for the advocates of multilateral cooperation (including myself). The paper is structured as follows. In Section 2, I dig deeper into the cultural layer of thinking about cycles. Then, Section 3 provides an overview of how cycles were interpreted in economics in the last century and how we can interpret them now in the current geopolitical context. To this end, I follow in the footsteps of earlier and more recent geopolitical thinkers and offer my views about the unfolding age of Eurasia (Section 4). Section 5 finally summarizes the implications for the future model of sustainable growth and multilateral cooperation.

2 The origins of cycles in nature and human cultures

The origins of cyclicity can be traced back to nature, i.e., the recurrence of the seasons, some permanent patterns of life cycles and so on. In several cases, economic and social cycles still have direct or indirect links to changes in nature: we must remember the basic rules of life even in our postmodern era (Matolcsy 2021). These rules rest on the so-called “life principle” (Bauer principle, “principle of the permanent non-equilibrium of living systems”), which states that living systems strive to exhibit the highest possible amount of energy for the longest time possible. As a consequence of these continuous efforts, forces always act and interact, making it difficult to achieve or maintain equilibrium.

In simple terms, change is an inherent characteristic of nature, and here, I wish to emphasize the impact this had on our early ancestors. The sequence of day and night, the seasons and the perception of the changing sky, oceans and wildlife fundamentally affected the basic livelihoods of people. As a consequence, the patterns of nature gave rise to the observation/belief that human societies are also prone to periodic changes. One of the presidents of the renowned American Sociological Association, Pitirim A. Sorokin (1927) published a very informative overview of how ancient cultures and religions embraced cycles. To me, his account highlights a very interesting distinction, namely whether a cultural approach is of a pure cyclical nature, or it also includes a kind of an objective (convergence). As a possible example of the previous view, Sorokin discussed the ancient Hindu thought. Its tenets are the progress or regress through successive births, as well as the dissolution and re-instatement of the material world, which are all part of an endless process. Let us note here that Buddhism was born exactly to set an ultimate spiritual goal to this eternal circulation. To illustrate such a “target-oriented” approach, Sorokin chooses the ancient Persian thought as a key example. In what is considered to be one of the oldest, still practiced religions (Zoroastrianism, e.g., in Iran, India), there is a recurring fight between the evil and the good, with the ultimate victory of the latter.

Without going further into the details of different religions and cultures, it needs to be stressed that the vast majority of them endorse cyclicity, which is consequently a very embedded concept in human minds. Do not forget either about Christianity or Confucianism. Two quite representative citations can be taken from both:

- “To everything there is a season, and a time to every purpose” (Bible, Old Testament, Ecclesiastes 3:1).
- “The five elements in their movements alternately displace and exhaust one another. Each one of them, in the revolving course of the twelve months of the four seasons, comes to be in its turn the fundamental one for the time. (...) The origin of all things being found in heaven and earth, they could be taken in hand, one after the other. The commencement of these being found in the two forces (of nature), their character and tendencies could be observed” (Book of Rites or with traditional romanization: Li Ki, Volume 1, Book VII; English translation by Legge 1885).

I find it very remarkable that the Confucian tradition emphasizes the observability of tendencies if one has a good grasp of the underlying forces. This is exactly what economists were getting enthusiastic about from at least the late 19th century.

3 Overlapping cycles in economics and geopolitics – Same, but different?

3.1 *Cycles in economic thinking*

In 1927, Sorokin mentioned his perception of a shift in how social scientists were interpreting history. He recalled that in the second half of the 19th century, change had mainly been depicted as linear. Each society had been supposed to gradually move from early developmental stages towards a final destination of some systemic outcome. This concept then started to change, partly due to the discovery of several past civilizations. Economists, for their part, turned to “an increasingly close study of business cycles, fluctuations and oscillations” (Sorokin 1927, p. 28).

For a brief overview of the most relevant ideas, it is worth making a distinction between short and long term. Short or very short-term fluctuations have been drawing almost continuous attention, especially since the last decades of the 20th century when financial transactions became very fast and large-scale thanks to information technology and the liberalization of the global financial landscape. Analysts increasingly turned to mathematics and physics for “hard” tools to extract patterns. Such a borrowed concept is fractals, “complex configurations having scale-free characteristics or self-similar properties” (Takayasu–Takayasu 2009, p. 444). The Japanese researchers quoted here identified many economic datasets featuring fractals, for instance, foreign exchange markets, companies’ income distribution, personal income, money flows in the banking system, etc. While fractal characteristics could even hold for very long periods, mathematical identification gets more and more difficult over longer horizons. Other interesting quantitative approaches – like the relatively new application of wavelets in economics – also tend to be focused on short intervals around exact dates.

This brings us to the idea that in many sense, long-term cycles pose extraordinary intellectual challenges (which are hard to translate into quantitative terms). “Business cycles” can refer to different lengths, depending on different authors and empirical approaches, but in general, they cover some years while an economic boom and then a bust occurs. Applied macroeconomics and econometrics still have some quantitative tools to identify such periods. These are usually based on theories of Keynes, Kaldor, Kalecki, just to name a few. These models focus on the role of demand and its components, notably investment, as well as its relationship with savings. This literature has been enriched by important contributions about the role of the financial system and financial cycles. Bernard et al. (2014) point to the relevance of Minsky’s work. In the second half of the 20th century, Hyman P. Minsky offered important insights into how financial markets explicitly drive business cycles. This is due to the mechanisms of market optimism, cheap credit, excessive risk-taking, increased leverage and overvalued assets, which at some point lead to a bust. Moreover, Bernard et al. (2014) prove that Minsky’s framework does not only include short cycles (basic cycles), but also implies long cycles. “Super cycles” span over several economic cycles as they involve a change in the attitude of regulatory institutions. Periods of deregulation and stricter rules follow each other, and rare, full-fledged financial crashes only happen after a period long enough to accumulate the side effects of lax financial policies and oversight.

So here we have really arrived at very long, hard-to-capture underlying processes driven by institutional, technological, demographic and other kinds of complex changes. This was the primary focus of the early attempts to identify patterns in Western economic data stretching back to 1790. The famous – but later kind of forgotten – scholar, Kondratieff identified approximately 48- to 60-year cycles (“Kondratieff cycles”) when he examined economic output of the USA, Britain, France and Germany between 1790-1920. Flint and Zhang (2019) provide a remarkable account of the Kondratieff waves which can be recognized from the 19th century up to the recent years. Kondratieff cycles have two phases: an upswing and a downswing, each consuming about 25-30 years. From an economic point of view, an upswing is characterized by the accumulation of wealth through improvements in productivity. So, among other factors, Kondratieff already acknowledged the role of innovation and technology in driving this endogenous process. A downturn then comes when constraints of such growth (e.g., exhaustion of natural resources, market saturation, rising prices and interest rates) kick in (see also Bernard et al. 2014).

Let us mention two further familiar names of scholars enthusiastic about patterns. One of them is Kuznets, the recipient of the 1971 Nobel Prize in Economics, who had extensive findings related to demography, infrastructure investments and inequality. His work is interesting here first of all because it can be interpreted “as a mixture of cycle theory (...) and stages of economic growth theory” (Bernard et al. 2014, p. 93). This is really the modern version of the cyclical vs. linear question which I raised in Section 2 in relation to ancient cultures. Apparently, Kuznets endorsed both the development trend and the cyclical waves around it. (His cycles usually cover 15-25 years, which is not independent of the sequence of new generations.) The other name I do not want to miss is Schumpeter and his popular idea of “creative destruction”. His main hint is that long-term economic cycles are driven by innovation, and it takes much time for the society to fully absorb it.

Whatever made economists forget the concept of very long waves or discount their relevance after the 1980s, now we can see that cycles are “back”. For a large part, this is a tough realization as our decade has much in common with the 1970s and the 1940s. I usually stress the 50- and 80-year cycles and even their least common multiple, 400 years. A list of similarities to the 1970s and 1940 is striking:

- The magnitude and nature of the external shocks are quite analogous, namely energy crisis (supply side shocks) and geopolitical conflicts, as well as the direct link between the two. The parallel is most clear in terms of the 1970s oil crises when energy price shocks resulted in high inflation, raised inflation expectations and threatened with chronic stagflation.
- Just as then, pressure from the energy sector is again setting the stage for technological innovation (energy efficiency, new inventions), and at the same time, competition for the energy of the future is at the core of geopolitics.
- The monetary system was experiencing tectonic shifts in the 1940s (1944 – Bretton Woods) and 1971 (abolition of USD–gold convertibility). A change is happening now due to the revolution of digital money and the emergence of potential challengers to the USD.

Furthermore, 400 years have passed since the Thirty Years' War (1618-1648), which was considered a watershed in modern diplomacy. Such a turn is not promising tranquil times in international relations. 400-year cycles clearly hint at the great power shifts in history, which are further discussed in the next part.

However, let us do not close this section thinking that identical cycles repeat themselves and that is all. On the contrary, no cycles repeat themselves in the same way. Same, but different – this is my concise phrase to label this phenomenon. This thought is just as ancient as cyclical itself. Remember the two prominent examples of Heraclitus and Confucius who even expressed it similarly: “No man ever steps in the same river twice” (Heraclitus). “By a river, Confucius said, «What has passed has passed, like this »” (Lunyu IX.16).

Thus, we need to be very attentive to the brand-new characteristics of our age, which can be best understood through the lenses of new sustainable economics. I will sketch this alternative framework of thinking in the concluding remarks, but before that, the relationship of economic cycles and geopolitics needs further spotlight.

3.2 Shifts in the economic centre of gravity and the distribution of world power

Danny Quah, the renowned Singaporean professor proposed a good representation of the shift in economic power throughout history by calculating the economic centre of gravity (Quah 2011). The notion makes it possible to follow the rise of the West from the 16th century (the so-called Atlantic age) and also the turnaround towards the East in the second half of the 20th century. Quah suggests that by 2050, the centre of gravity will be located between India and China.

Some parts of this story are well-known, some are not. The geopolitical aspects of Kondratieff cycles might help us understand the underlying processes, although the identification of K-waves is certainly not the only approach to conduct such an analysis. (For instance, George Modelski and William Thompson [1988] put forward arguments about long-term cycles in politics which do not rely on a Kondratieff-type framework.) Still, considering the significant impact of Kondratieff waves in the history of economic thinking, I keep this theory as a basic framework in this paper. It can namely offer useful insights into the geopolitics of the last 50-80 years, which saw the economic centre of gravity moving closer to the East (where it had stayed once, before the Atlantic age).

The relationship between Kondratieff-like long cycles and geopolitical dynamics is already demonstrated by a significant body of literature. Since the second half of the 20th century, Immanuel Wallerstein, Giovanni Arrighi and Peter Taylor have been among the pioneers who discussed the possible implications of Kondratieff cycles for world power settings (Agnew 2020 offers an extensive review on their contributions).

More recently, Flint and Zhang (2019) have offered a remarkable geopolitical interpretation of the 20th and 21st-century Kondratieff cycles. In general, they argue that upswing (“A”) phases offer the chance for a hegemon to leverage the core economic processes of that age and dominate the world economy. However, in downswing (“B”) phases, new core processes emerge, and players start to compete to attract and develop these new activities in their own territory. So not just the economic centre of gravity will shift, but also the balance of power. Flint and Zhang provide a possible interpretation of the past 80 years as follows (for each case, the latest possible end year is selected):

- 1945–1971, Kondratieff “A” phase: U.S. hegemony when the United States was able to construct global rules and institutions like the IMF and the World Bank. Although the Cold War posed an extraordinary challenge, the U.S. dominance of world trade, finance and technology was maintained.
- 1971–2008, Kondratieff “B” phase: a relative decline in U.S. hegemony. I would interject here that the moment of the Soviet Union’s collapse brought a feeling of universal U.S. power and a strong sense of a unipolar world. (We all know the “end of history” suggestion by Fukuyama.) Nonetheless, Flint and Zhang are right that apart from that moment, the USA was gradually challenged by emerging economic powerhouses like Japan, and to some extent, Germany. Certainly, the rising star towards the end of this phase was China.
- 2008 – 2035 (?), Kondratieff “A” phase with “new innovations, new markets, new free-trade regimes” (ibid., p. 24). Chinese initiatives like the Belt and Road Initiative (BRI), the Asian Infrastructure Investment Bank (AIIB) and Asian innovation policies might rightly be mentioned here (see also Section 4).

Of course, the question is open who the new hegemon(s) of the current decades will be, or whether hegemons in the traditional sense keep existing at all. Others would perhaps interpret the most recent Kondratieff phases a bit differently. Anyway, a sequence of the rise of the U.S., Japan and China is so far well-known. George Friedman, the well-known contemporary American geopolitical thinker identified two kinds of cycles in U.S. history: an “institutional” one spanning over 80 years and a “socio-economic” cycle lasting for 50 years (Friedman, 2020). When one cycle comes to its end, crises tend to erupt, which induce new kind of knowledge and new models in the economy. (400-year periods as least common multiples are even more special in this respect.) In a short article (Friedman, 2021), he explains the 50-year socio-economic turnarounds by splitting them into 40+10 years. Over the past 150 years or so, three periods of 40 years saw a particular nation leading the way in producing cheap industrial goods (and emerging as a complex economy thereafter):

- 1890-1930: the U.S. successfully created its own industrial revolution, and its cheap products were bought by Europe.
- 1950-1990: Japan became the new, very efficient low-cost manufacturer, and its goods flooded the U.S. market.
- 1980-2020: China assumed the role of “the world’s factory”.

The key message of Friedman’s 40+10-year idea is that nations might emerge on the basis of cost-effective production and finding export markets. But when their customers cannot increase demand anymore, a break in the export-led growth pattern is inevitable. The low-cost manufacturer will then be able to reorganize its economy and achieve welfare later, in about 10 years. In the meantime, a new cheap manufacturer will emerge. “This process seems to be built into modern capitalism” (Friedman 2021, n. p.). Transitions might fuel tensions, for example because developed markets (importers of cheap goods) may become frustrated by accumulating trade balance issues. Let us just think of the most recent example, Donald Trump’s “trade war” against China.

Friedman’s periods do not mean that the USA or Japan collapsed after 1930 or 1990. On the contrary, they – and especially the U.S. – managed to maintain a decisive role in the world. They had, however, rebuild their economies to replace a primarily export-led model. This might hold lessons for China, which has arrived at a turning point when transition to high-quality development is necessary. In this logic, new low-cost manufacturers are already on the horizon, including Southeast Asia.

Even though China might be in its 10 years of rearrangement, it is still on the stage. It is even getting more important as a high-tech, assertive power centre. In that capacity, the course of its strategic relationship with the West will determine the DNA of the 21st century.

4 The age of Eurasia and the imperative for multilateral cooperation

Will that DNA be a spiral of cooperation or rivalry? It largely depends on how the U.S., the European Union, China and other emerging power hubs in Eurasia and elsewhere can agree on the rules, systems and resource allocation of the new markets in our current Kondratieff “A” phase-like decades. At present, the world is already being shaped by the revolution in digital technology and artificial intelligence (AI), nano- and biotechnology, as well as the rise of digital currencies and the transition towards a green, carbon neutral, circular economy. It is nothing new in the fact that the United States, China and smaller “heavyweights” like Korea, Singapore, Japan, Israel, the United Arab Emirates are at the forefront of such innovations – we all know that. The real question is which alliances, cooperative formations and mega-clusters will be decisive in determining the future path of mankind? The good news is that such a mega-cluster or joint framework can have all the key players onboard, let them be the East and the West, the global North and South, the incumbent and the emerging powers. Sachs (2023) argues that this belief is not necessarily idealistic or over-optimistic. Popular hegemonic theories and even realism tend to “underestimate the potential for cooperation in practice” (ibid., p. 20). Honestly, if this potential is not acknowledged, we are right to be concerned that rivalry in the fields of technology, resources and ideology might again activate a downward spiral like many times in history so far. Long-term cycles are here to warn us to be more conscious this time.

Against this background, I would like to argue that an upward spiral could be based on the concept of Eurasia. “Eurasia” is not used in an exclusive sense here: it is not defined by separating it from America and other continents. On the contrary, I think the natural unity of the Eurasian supercontinent is a very deep source of cooperative dynamics. It is a vast backbone of many different networks, which do not stop at land borders, but stretch into the neighbouring regions. The map of “geo-fusion” introduced by Csizmadia (2021, p. 158, Figure 1) provides an instant visual understanding. This single map merges many depictions of connectivity, especially networks of physical and digital infrastructure, as well as transport and knowledge with their nodes (hubs). This way, the picture convincingly illustrates the central role of Eurasia as a crossroad, bridge and mainstay of those networks.

In his latest book, Csizmadia (2023) explicitly argues that our age is an era of “geofusion” and geoeconomics. Geopolitics, economics, science and other fields of human thinking cannot and should not be separated any more. Interestingly enough, “geoeconomics is the antithesis and the biggest victory of globalization, both at the same time” (ibid., p. 11). The incredibly

Fig 1. Geo-fusion map of the 21st century



Source: Csizmadia (2021), p. 158

complex networks created in the past decades are both the source of extreme interdependence and tensions. Any plan or attempt to exclude any significant player from this interconnected framework would threaten with immediate disruption and a spiral of conflict. Therefore, again, the geo-economic realities of Eurasia cannot be dismissed. On the contrary, scholars should dig deeper and uncover its manifold geographical, historical and cultural layers.

Horváth et al. (2021) summarize the roots of the concept of Eurasia and its embeddedness in several nations' thinking. Although the name "Eurasia" was first suggested by Austrian geographer Eduard Suess in the early 1880s, its meaning stretches back to ancient times. Apart from geology and geography (Eurasian plate and the world's largest landmass), connections were manifold between Europe, the Middle East and East Asia thanks to the Silk Road in trade, culture and science. The Silk Road was not just about exchanging gold and the famous products of the East (silk, porcelain, spices, etc.), but about exchanging ideas and spreading inventions, too. Although the rise of the Atlantic and other sea routes eclipsed land connections for some time, at the start of the 20th century, Sir Halford Mackinder argued that the Eurasian landmass was the centre of world power. This was the first time when Eurasia appeared as a geopolitical concept. Its core territory was labelled as "heartland" by the British geographer. Later, around the 1940s, the American political scientist Nicholas J. Spykman added the concept of "rimland" to this framework. "Rimlands" are located around the Eurasian "heartland" and the two regions might engage in a competition and power game. This notion remained important primarily in the American geopolitical thinking. Key U.S. strategists like Zbigniew Brzezinski (1997) suggested that U.S. influence must be maintained over the Eurasian supercontinent by preventing the rise of a major Eurasian power.

The framework of "heartland" and "rimland" as proposed by Mackinder and Spykman have certainly become obsolete in many sense and attracted much criticism throughout the past decades. This kind of thinking namely puts too much emphasis on power games and conflict. At the same time, it misses many important opportunities which arise from land-sea cooperation and interconnectivity. For such critiques, see among others Chen and Zhang (2021), as well as Flint and Zhang (2016). These papers make many valid arguments about the constraints of the "heartland-rimland" view of the world. Still, in the context of this study, I considered it important to refer to the "heartland" theory. The reason is that it shows how even early thinkers of modern geopolitics realized the relevance of Eurasia as a supercontinent. Although more recent frameworks of geopolitical analysis have rightly refined and transformed the early concepts, I think the role of the great landmass of Eurasia can hardly be ignored when we are about to forge new international relations, new physical and digital infrastructure spanning different regions of the world.

This understanding is also supported by the fact that since the 1990s, the concept of Eurasia has revived in several nations. It found its way to political decision-making and foreign policy in Kazakhstan, Russia and Turkey, among others. A "Eurasian"

identity had long been present in these nations although it often carries different meanings and ambitions (see Horváth et al. 2021 for a detailed discussion). The similarity seems to be that these old/new concepts are usually more of an integrative nature than that expressed by Brzezinski (or Mackinder).

Finally, in the 2010s, mostly in the wake of the GFC and the sense of a less omnipotent West, a new wave of the Eurasian vision emerged. It appeared on a global scale, driving new academic interest and new international initiatives. The ancient roots of the Silk Road have been “rediscovered”, for example by British historian Peter Frankopan (*“Silk Roads: A New History of the World”*, 2015) and former Portuguese minister Bruno Maçães (*“The Dawn of Eurasia”*, 2018). This was also the decade of China inaugurating and expanding the Belt and Road Initiative, which celebrates its 10th anniversary this year. With a direct reference to the ancient Silk Road, the BRI has been aiming to rebuild the Eurasian land corridors, adding not only physical, but modern digital infrastructure, as well as policy coordination (health, digital, space) and soft elements (knowledge sharing, people-to-people ties) to the network.

This new line of thinking and policies have put emphasis on the integrative nature of Eurasia and the huge potential in Eurasian cooperation for advancing *global* development. A visible proof is that even Latin-American, African and Pacific countries joined the BRI, and most recently, the concept has been extended under the Global Development Initiative and Global Security Initiative. (GDI and GSI have been endorsed by Chinese President Xi Jinping since 2022.) There is also academic literature pointing to the underlying win-win motive of the BRI, including for instance, Horváth (2022) and Chen–Zhang (2021). The work of Chen and Zhang is interesting to me primarily because it points to the shortcomings of the “heartland” and “rimland” approach in modern diplomacy. Albeit it might offer useful strategic insights for land and sea powers, its application as a framework risks putting too much emphasis on counter-productive competition and missing the benefits of land-sea connections. Chen and Zhang argue that the focus of the BRI is exactly to create a “functional zone” by integrating land and sea infrastructure (*ibid.*, p. 183). For sure, the BRI is not the only scheme of international importance, and one should mention other connectivity projects (Build Back Better World Initiative – USA, Global Gateway – EU), as well as regional cooperation formats and free trade agreements. Ugródsy (2021) must be given great credit for an informative analysis of the role and prospects of the latter, including the Shanghai Cooperation Organization (SCO), the Organization of Turkic States and the Regional Comprehensive Economic Partnership (RCEP). I would underline the relevance of the RCEP here because it is a very visible manifestation of a China-centric economic powerhouse (although it is certainly not a unilateral Chinese arrangement).

So how a cooperative, multilateral Kondratieff upswing would look like now? What about the long cycle which seems to be started in the 2020s? To answer this question, I suggest the concept of “the fusion of megatrends” as it links the three most important areas of our age in a geopolitical context: technology, money and sustainability. All these aspects prove that the East and West have both valuable achievements that could be capitalized on in a mutually beneficial way. Let me very briefly highlight here the key Eastern results as such a list might be less frequent among Western scholars.

- Technology: According to a recent Australian report, China has already surpassed the U.S. in terms of research performance in 37 fields of critical technologies (out of 44 involved in the study; ASPI 2023). The most remarkable Chinese successes are ranging from robotics, AI, biotechnology and advanced materials to quantum computing and beyond. They also set the base for China to become number one in future industries, which we are not yet even aware of. Other Asian countries, such as the Republic of Korea, have also critical skills in certain segments (e.g., chip industry), which make them irreplaceable in building our high-tech future.
- Money: As the future of money is also digital, it is striking that multilateral cross-border testing of central bank digital currencies (CBDCs) is more widespread in Asia. Mainland China and Hong Kong SAR, as well as Thailand, Singapore, Malaysia, the United Arab Emirates, Saudi Arabia have all been participating in such exercises. As for more conventional instant payments systems, Singapore and India have just linked up their respective architectures. Although the USD and the EUR have their own strengths, too, cutting-edge financial innovation seems to gravitate towards the East.
- Green transition: In the wake of the current energy crisis and the hunger for renewable energy, China is “getting noticed” as the world’s largest supplier of clean energy equipment. Last year, the International Energy Agency stated that the share of Chinese inputs in the global supply chain of solar panels is above 80%, with a prospect for reaching 95% by 2025 (IEA 2022). China is reported to be the sole manufacturer of large wafers for solar panels which are becoming more and more vital to the efficient use of the sun’s power (WSJ 2023). But it is not just solar energy and not just the export of equipment. The green transition of China itself is inevitable to prevent the further acceleration of climate change. Meanwhile, Singapore is betting big on green finance and business models based on trading carbon credits. All in all, many Asian countries are sources of benchmarks when it comes to sustainable ways of human development.

Even this very concise list should convince anybody that the DNA of the 21st century ought to be cooperation. Not simply because the East is catching up fast, but rather because it has valuable contributions to address global challenges – which everybody knows cannot be solved unilaterally. Still, many aspects of the recent great power dynamics suggest that the world is edging closer to repeating the patterns of past hegemonic cycles, which mostly involved conflicts and serious losses. The

ultimate sense of analysing cycles is to draw every stakeholders' attention to the downsides of floating the "decoupling" idea, i.e., decoupling the U.S. and China, the West and the East. The protection of justified interests, such as economic resilience, security and sovereignty, must be balanced against the importance of jointly achieving sustainable growth, global peace and mutual trust. Let us start a new chapter in history when inevitable cyclical shifts do fuel global wellbeing, not rivalries.

5 Conclusions: Steps towards a knowledge-based model of long-term sustainable growth

A new approach to cycles sets the stage for bridges - and not blocs; for dialogue - not dictates, and the propensity to respect each other's viewpoints and legitimate interests. Of course, this is much easier said than done because each party faces a delicate task to uphold values while being pragmatic and solution-oriented. If economists can be of any help to handle this general dilemma in our specific turbulent age, I think their efforts should be centred on developing a new framework of thinking which I call "new long-term sustainable economics". Today, economists really have a myriad reasons for creating such a concept – just think of the systemic problems of climate change and other environmental issues, increasing inequality or the role of future technologies. However, this paper aimed to highlight that there is also a strong geopolitical motivation for renewing economics. This imperative is getting stronger each day due to the endogenous dynamics of accumulating tensions and conflict.

The Magyar Nemzeti Bank (the Central Bank of Hungary) has already accepted this intellectual challenge. Last year, we published a discussion paper about the foundations of the new long-term sustainable economics (see Matolcsy et al. 2022). Our key theses rest on the principle that the age of knowledge economies has arrived (ibid., p. 10-19). This time, the single most important resource (knowledge) is different from the traditional drivers of economic activity.

- Knowledge expands exponentially when it is transferred. This creates a general abundance.
- However, physical constraints eventually still set limits to growth, at least growth in the conventional sense. Mankind has already reached this point, so new technologies must be directed towards creating a new sustainable model of the economy.
- In such a model, access comes before ownership; circular and network operations are emphasized. Increasing returns should replace diminishing returns by unleashing knowledge and expanding the reach of talent and creativity.
- The new economics needs interoperability, as well as the fusion of economics and culture (values, behaviour, community intellectual capital). The analysis of human relationships gets just as important as the relationship between humans and the means of production.

These directly entail the benefits of multilateral cooperation. Eurasia as a deep-rooted concept and strong physical reality continues to be a trigger of collaboration as it still resonates well with the long-term objectives of many Asian and European nations. Long-term cycles teach us that we should not abandon such overarching concepts even if conflicts start to erode their layers. If the global community is mindful enough it will not let bad dynamics hurt the core idea, and Eurasia can continue to catalyse the much-needed change in our policies towards long-term sustainable growth.

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