

Long-Term Sustainable Econo-Mix*

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Barnabás Virág (editor):

Long-term sustainable econo-mix

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The latest publication of the book series of the Magyar Nemzeti Bank was presented at the Pre-Forum Session of the Eurasia Forum held in Budapest. This year, the book – edited by Barnabás Virág – entitled “Long-term sustainable econo-mix”, was published, which examines the issues of sustainable, long-term economic growth and development. The purpose of the book, containing novel ideas, is to walk the Reader through the topics that most strongly determine our future in the pivotal times of our age. The book also aims to contribute to the renewal of economic thinking, which commenced after the crisis of 2008/2009, but is proceeding slowly for the time being.

The present economic prosperity comes at an increasingly high price, which calls for an overhaul of our thinking related to the economy. The book intends to highlight the fact that we are in the 24th hour, and thus it is high time to think differently about the functioning of our economies. The global economy experienced enormous development after World War Two. Hundreds of millions people emerged from extreme poverty and became part of the global middle class. However, the price of this development is that the Earth is no longer capable of absorbing the environmental burdens of the global economy. Everyone feels the drastic changes in the biosphere and the climate also in their own environment, while economic development takes place in conjunction with unprecedented debt and massive wealth inequalities. Growth in its previous form can no longer be maintained, not only in the long run, but in the short run either.

Meanwhile the digital revolution has commenced. According to some opinions, this may result in changes to our life in the next one hundred years that were experienced over the entire history of mankind to date. In order to ensure that

* The papers in this issue contain the views of the authors which are not necessarily the same as the official views of the Magyar Nemzeti Bank.

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– under these circumstances – the world develops on a path that is sustainable in ecological, social and financial terms as well, we must think fundamentally differently than in past centuries. In this renewal process it became unavoidable to reform economics as well, which – in its capacity as a science dealing with the functioning of economies – must play a central role.

The book also mentions a few specific examples of this problem. One of the core theses of the economic courses is that economic output is created, under the use of proper raw materials, as a result of some sort of optimal interaction of human and physical capital. It is mentioned only as a side note that this production process has unfavourable effects on the natural environment (known as negative externalities). By contrast, in real life we see that these side-effects may ruin the whole world, burying under itself everything we have referred to until now as Planet Earth or the global economy. The very first lectures should start by stating that natural capital is one of the main pillars of the functioning of the economy, and that the preservation and development of this capital is as important as everything that is learned about human and physical capital.

The mystification of GDP, as the number one economic indicator, is a similar problem. Starting from the economic policy classes through the statements of politicians to financial analyses, the realisation of as high GDP growth as possible appears as an objective overshadowing everything else. Meanwhile, GDP – as a statistical indicator – provides no information whatsoever on the changes in the financing processes underlying the functioning of the economy, the change in social inequalities or on the effects exerted on the natural environment. The world uses, as the most important target variable, an indicator that is not really suitable for surveying and assessing long-term sustainability and the welfare of a country.

According to the authors of the book, in the future we will face at least five large, global sustainability challenges. These include the unsustainable ecological consequences of our economic and social life, the demographic transformation, the impact of the extremely fast technological progress, geopolitical challenges and the process of the digitalisation of currencies.

The first key challenge, i.e. the exhaustion of the natural assets and overpopulation, leads to problems that question the *sustainability* of earlier *growth models and scenarios*. Management of these problems calls for urgent changes in a number of areas from the organisation of the economy through financial investments and tax regimes to social attitudes. The book presents the framework for green growth. Within the production and consumption chain, organic cooperation must be achieved, which includes the alteration of the energy mix, the changes in consumer habits, the targeted incentives for investments and innovations, as well as conscious and comprehensive waste treatment and recycling. A fundamental transformation of

incentives must be achieved, in the course of which the real costs of environmental burdens must be integrated into economic decisions. One opportunity for this is a strong regulatory intervention, the planning of which, however, will represent a major challenge, since abrupt intervention in the functioning of the economy may generally entail short-term growth sacrifice.

Green taxation is expected to spread widely, which will contribute to containment of the activities polluting the environment, observed globally. In the future, green taxes – which make environmentally harmful activities more expensive and encourage the implementation and development of solutions replacing polluting activities – may account for an increasingly large part of fiscal revenues. Green funding is a distinctive element of the green economy, the importance of which is well reflected by the fact that – according to the World Bank’s estimate – in the next decades infrastructure investments in the amount of USD 89,000 billion should be implemented to attain the goal set forth in the Paris Climate Agreement, i.e. that the rise in the average temperature should not exceed two degrees Celsius. The answer to the fundamental question as to who and how will finance all this urgently needs to be found. The majority of the governments traditionally active in infrastructure development are already struggling with the problem of high debts, while private agents have never been too keen on financing projects which involve high risks and only generate returns over the long run.

In terms of *demography* we face different challenges by regions. In 1950, the population of the world was only 2.5 billion. This figure was three times as high by 2015 and by 2050 the number of inhabitants on Earth may come close to 10 billion. According to the UN’s forecast, the population of Earth will continue to rise until 2100, peaking at 11 billion. However, the demographic trends by far not will be distributed evenly. In Europe and in a large part of the developed world, it is the decrease in population and the ageing of societies that will generate challenges, while the population may increase to the largest degree in Africa, and dynamic growth may also continue in certain regions of South America and Asia. Meanwhile, it will become an even more general phenomenon that an ever higher ratio of the population will live in urban areas. The age of megacities will set in, where a stronger and more complex ecosystem of economic and social life, innovations, high quality education and transport systems will be formed around the cities. Demographic changes may have major economic and several other consequences both in the developed and less developed areas: they may increase environmental burdens, alter tax regimes and the labour market, may impact labour productivity, change consumption and saving rates, the structure of growth, and long-term effects may also appear even in inflation and through that in monetary policy as well.

One of the important questions of the future is whether average people will be able to keep pace with the astonishingly rapid transformation of *technology* and manage

the significant social and economic impact of this. The penetration of robotisation and artificial intelligence reduces labour demand and shortens production chains. The digitalisation of services facilitates accessing such services from increasingly remote locations and presumably in this case as well the larger part of the services will be rendered by emerging countries with lower wage costs. Theoretically, as a result of technological progress, mankind may find a solution to a number of problems it has been trying to resolve for decades (think for example of cures for formerly incurable diseases, significantly increasing healthy life years, space research or environmental protection). However, if we lose control it can easily happen that processes undermining the existing social and economic foundations will commence.

The periods of technological revolutions were most often characterised by an increase in *social inequality*. In much of the world, there are significant wealth and income inequalities at present as well. Continuously renewing education and training systems adjusted to economic needs should play a central role in the resolution of the problem. The jobs of the future will increasingly require creativity, critical thinking and advanced social skills, and thus, in addition to mastering basic IT skills, the development of education should focus on these skills.

Information will become the new commodity of our world, while data will become the “new oil”. An increasingly large slice of our economic and social relations will move to the virtual space. Both corporations and consumers may benefit from the collection of data, but the risks related to the ownership, generation and storage of data will also increase. Proper responses to the protection and sustainable usage of data and the attainment of inclusive digitalisation should be found both at corporate and regulatory level.

One of the main chapters of the book is about the *future of money*, to which a central bank obviously pays special attention. One reason for this is that – presumably after the IT sector – financial intermediation may be the first sector where digital changeover will be implemented the fastest. The currency of the future – in the longer run – no doubt will be fully digital. However, as regards implementation, there are several competing solutions on policymakers’ desks. It has not yet been decided whether digital currency will only represent the transformation of the physical form of the currency or we shall move to a fully new financial system also in terms of content. The process has already commenced. We may not notice that even today we already “pay” for many services with information instead of cash.

The book dedicates a separate chapter to analysing the role of the financial system in sustainable development. In the past centuries of financial intermediation the key role of physical collaterals was a general phenomenon. Until the 1970s, even

currencies could be exchanged for gold, while loans secured by physical collateral (e.g. a house or production lines) account for a major part of lending even today. In the future information will serve to an increasing degree as collateral. This will represent great opportunity for BigTech companies, which already have huge databases and may become serious competitors to traditional banks.

The next great challenge appears in the area of *geopolitics*. Following hyperglobalisation, which lasted until the financial and economic crisis commenced in 2007, the most important geopolitical trend may be the move from the unipolar world order to multipolarisation. New cooperation, new forms of thinking, new solutions and new values will develop. Eurasia, created through the deepening relations between Europe and Asia, may become the most important new cooperation. In this process the Central and Eastern European region, and particularly Hungary, may serve as a gateway to the Eurasian continent, gaining increasing geopolitical importance. In the 21st century, we will live in the interconnected world of networks and fusions, where holistic approaches will bear the utmost importance.

The form of globalisation, as known until now, will also change. While in the 1980s and 1990s globalisation primarily meant the accelerating and widening flow of goods and capital, in the first decades of the 2000s we learnt that the labour force had also become more mobile. Our age is about the globalisation of the services sector, while the fierce and global competition for the commodity of the future, i.e. information, is already taking shape. As an increasingly larger slice of the financial and economic life moves to the virtual space, the obtainable information becomes an ever more important “product”. Meanwhile, new forms of employment will also appear on the labour market. The camp of digital nomads – performing their work in the digital space, not tied physically to a specific country or city – is becoming larger and larger. Countries that are able to win these new types of employees the fastest will secure a significant competitive advantage.

Last but not least, the book also touches upon the *fundamental reform of economics*, in the form of a summary. In the disputes about sustainable development the renewal process of economics, which has already started, must continue. As part of the reform of economics, a new measurement framework will be necessary. The present economic indicators, e.g. GDP, do not measure welfare accurately, since they are not able to quantify subjective factors, such as a sense of happiness, for instance. In addition, they ignore – among other things – the role of limited natural resources and the issue of ecological sustainability. The development of indices eliminating the aforementioned shortcomings has already commenced. It follows from the foregoing that the system of national accounts should be also placed on entirely new foundations, which necessitates the creation of a multidisciplinary welfare and sustainability science, speaking a common language, which integrates

the results of psychology, sociology, game theory, network research, geosciences and political science. Already in the near future vast, real time databases and much larger and faster computing capacities than the current ones may be at our disposal. The authors of the book belong to the camp of optimists and believe that the development of measurement science and the integration of the results of related branches of sciences may as well bring a new golden age for economics.

Finally, it should be noted that it is a great value of the book that in addition to the interesting analyses, the questions raised by it makes the Reader think deeply, encouraging us to find our own answers. Among other things, this is one reason why it can be recommended to all Readers for whom it is important to shape our sustainable future.