

How can Europe Protect Growth and Prosperity in a Fragmented World?

Thieß Petersen

I Introduction

Economic progress is a central precondition for improving people's living conditions. Furnishing citizens with wide-ranging goods and services is the basis for high levels of health, life expectancy and education, as well as for comprehensive opportunities to participate in political, social and cultural life. To date, economic progress for Europe has been tied to Europe's integration in the international division of labor. The key element of this integration is multilateral free trade with a rule-based organization of the world trading system under the World Trade Organization (WTO). This key element is increasingly coming under pressure – and with it, the prosperity of the citizens of Europe.

The following text describes the drawbacks that growing fragmentation of the economy may hold for the prosperity of the citizens of Europe and what measures the EU could take to maintain Europe's prosperity and social progress despite the increasing trend toward disintegration in the world economy.

II Growth and Prosperity through International Division of Labor

The international division of labor contributes to increasing the material prosperity of all participating national economies. Within the scope of this division of labor, each country is able to focus on manufacturing the products where it holds the greatest cost advantages. For the world as a whole, this results in availability of a greater volume of consumer goods at lower prices for consumers. This improves the supply of goods and services to the general public. In developing countries, the improved supply situation manifests itself in a decline in absolute poverty. In addition, the import of goods and services increases product diversity for consumers. Plus, for countries poor in raw materials such as Germany, international trade is the central precondition for obtaining these raw materials in the first place.

Moreover, domestic companies are able to obtain some of the intermediate inputs they require for their own production at lower prices from abroad. This reduces their production costs and the price. Domestic consumers, in turn, benefit from the declining prices. The reduction of production costs also improves the international competitiveness of a nation's companies. These companies can increase their exports to the rest of the world. The associated increase in production can in turn have a positive effect on domestic employment and income levels.

The outlined developments improve the average material living conditions of the citizens of the participating nations. Higher material prosperity also has a positive effect on non-material living conditions: Healthcare and the health status of the people improve, child mortality rates fall, and life expectancy increases. There is a reduced economic necessity for children to be involved in the economic production process as laborers in order to secure the livelihoods of their families. With this, the opportunity cost for education drops and the level of education rises. Specialization in products with cost advantages ultimately ensures that the hours required for work become lower for the society and the people have more time for doing things they want to do. The time prosperity of the people grows.

This positive correlation between material prosperity as expressed by per capita gross domestic product (GDP) and non-material living conditions can be demonstrated using countries selected as examples (see Table “Correlation between Material Prosperity and Selected Indicators for Non-material Living Conditions in Countries with Differing Economic Development Status”).

Correlation between Material Prosperity and Selected Indicators for Non-material Living Conditions in Countries with Differing Economic Development Status

Data for 2019

	USA	Germany	Bulgaria	China	Burundi
GDP per capita (purchasing power parity, international dollars)	65,254	56,226	24,333	16,659	783
Under-five mortality (deaths under age five years per 1,000 live births)	7	4	7	12	63
Life expectancy at birth (years)	78.9	81.3	75.1	76.9	61.6
Mean years of schooling (average number of years of education received by people ages 25 and older)	13.4	14.2	11.4	8.1	3.3
Expected years of schooling (number of years of schooling that a child of school entrance age can expect to receive)	16.3	17.0	14.4	14.0	11.1

Source: Based on data from IMF 2021, UN 2019: pp. 14-23 and UNDP 2020: pp. 343-346.

| BertelsmannStiftung

III Protectionism Gaining Ground

The integration of Eastern European and post-Soviet societies into the world economy after the end of the Cold War and China’s admission to the WTO in 2001 noticeably increased the volume of global trade. The dismantling of trade restrictions combined with technological advances that significantly reduced communication and transportation costs triggered an additional surge in globalization.

This faltered with the outbreak of the global financial and economic crisis in 2008/09. The reason for this – in addition to the global economic slump, which also had a negative impact on the cross-border exchange of goods and services – was the increase in protectionist measures. These include not only tariffs, which make it more expensive to import products from abroad, but also non-tariff trade barriers such as bureaucratic requirements, technical quality requirements, quantity restrictions and even subsidies for domestic companies because they give them a competitive advantage over foreign competitors. A growing trend toward trade restrictions has been observed worldwide since 2009.¹ Highly developed industrialized nations like the United States in particular are seeking to protect themselves in this way from competition with low-wage countries.

The coronavirus pandemic further accelerated global protectionism. Many countries adopted measures during the pandemic to protect domestic companies and their employees. International trade was further strained as governments imposed export restrictions on essential medicines, respirators, personal protective equipment, and food to prevent supply shortages at home.² The disruptions to global supply chains during the pandemic and the associated temporary loss of important products and intermediate inputs are also likely to lead to a reassessment in many companies of previous supply relationships. As a result, there are increasing calls in the sociopolitical debate to reduce dependence on imports of especially important products – such as medicines, medical devices, and other vital products.³ There are various measures for this,

¹ See Rupprecht, Manuel. *Strafzölle, Handelskriege und die (ungeahnten) Folgen für die Welt.*, 2021, p. 53 ff.

² Draper, Peter. *Globale Handelskooperation nach COVID-19 und die Zukunft der WTO.* Stiftung Entwicklung und Frieden (ed). Bonn, 2020, p. 14.

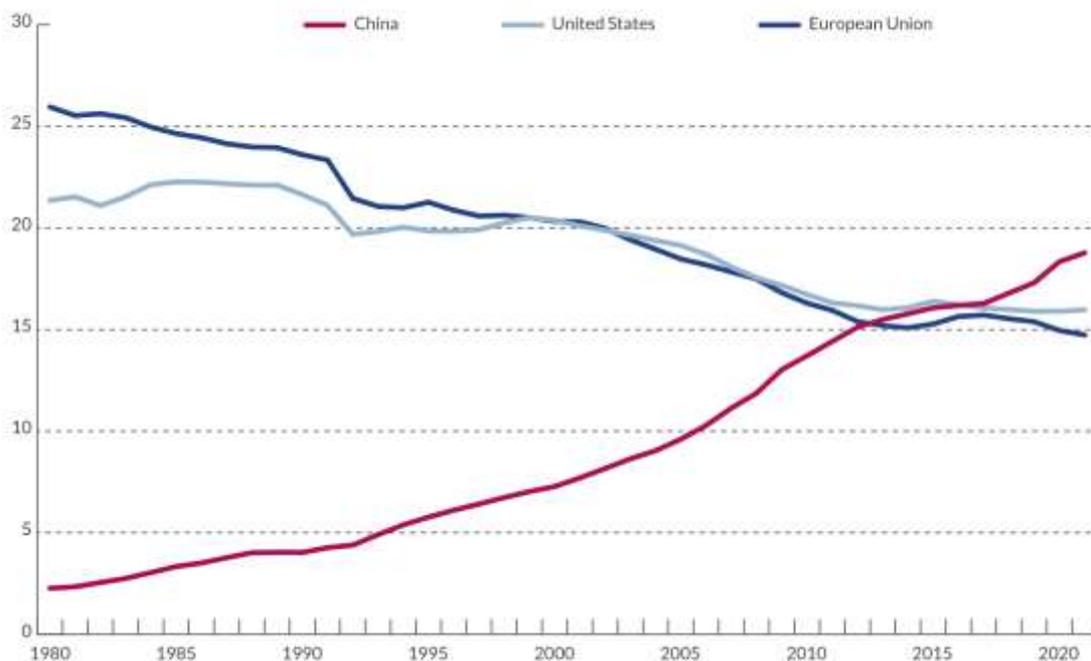
³ See Flach, Lisandra and Marina Steininger. *Globalisierung nach COVID-19: Die Folgen der Pandemie für die deutsche Wirtschaft.* In: ifo Schnelldienst, 2020, Vol. 73, No. 7, p. 17.

including the relocation of production from low-wage countries back to Germany or Europe. Such a relocation results in a reduction in the international division of labor.

Another central cause of reduction in the international division of labor is economic, technological and political competition between the United States and China. China's economic rise and exports have significantly accelerated structural change in developed economies. In Western industrialized nations, traditional industrial sectors and the people employed in them have come under considerable pressure. This is particularly true for America's Rust Belt – the nation's largest industrial region that stretches from Chicago along the Great Lakes to the East Coast.⁴ To reduce further job losses and the associated social upheaval, the United States is responding with trade barriers primarily directed against China. Aside from this economic dimension, the Sino-American conflict also has a technological dimension – and this aspect is even more important than the economic one: Technological leadership means global economic competitive advantages, and these in turn are the material basis for military superiority.⁵ China's growing share of global GDP in recent decades (see Figure "Gross Domestic Product Based on Purchasing-Power-Parity") strengthens its position as a geopolitical power – and with that, the potential for conflict between the United States and China. This conflict is being further fueled by the "Made in China 2025" industrial policy strategy, which China aims to follow to achieve global market leadership in ten promising industrial sectors.

Gross Domestic Product Based on Purchasing-Power-Parity (PPP)

Share of World Total Percent



Figures are Percentages. Values for 2021: Forecast.
Source: IMF 2021.

| BertelsmannStiftung

Added to this is a political-conflict dimension being fed by the economic and technological competition described above as well as by the ideological contradictions between the two states. As a result of China's rise the United States finds itself confronted for the first time since the end of the Cold War with a power-political challenger that calls into question American hegemony and the

⁴ Hilpert, Hanns Günther. Handel, Wirtschaft, Finanzen: Rivalitäten, Konflikte, Eskalationsrisiken. p. 27.

⁵ Rudolf, Peter (2020). „Der sino-amerikanische Weltkonflikt“, p. 11.

international world order based on it. Alongside multilateralism based on liberal norms with Western-dominated institutions like the WTO, the International Monetary Fund (IMF) and the World Bank, China is growing increasingly assertive in positioning complementary or even rival regional institutions such as the Asian Infrastructure Investment Bank (AIIB) as well as its own supraregional initiatives like the Belt and Road Initiative in particular, to expand its trade partnerships. China has been able to expand its own interests and values through these interdependencies, especially in Asian and African countries, at the expense of the United States. This rivalry is all the more serious due to the competition between the two countries' internal political systems. While the United States under President Biden is increasingly returning to making liberal and democratic norms the benchmark for its foreign policy actions, the autocratic regime in Beijing is insisting on the principle of non-interference at home and is strengthening many political forces that stand in the way of democratic or constitutional transformation in other countries.

One of the ways the conflict between the two geopolitical rivals, the United States and China, manifests itself is in punitive tariffs and sanctions, which will continue under Joe Biden. Both parties are failing to settle these disputes within the rules and regulatory framework of the WTO – on the contrary, core principles such as non-discrimination and foregoing punitive tariffs not approved by the WTO are weakening the trade framework of the WTO. The possibility that this conflict will develop into trade blocs cannot be ruled out.⁶ “The result could be a world divided into Chinese and American standards and systems. That would be the end of the international economic order and globalization as we still know it today”.⁷

The result of the economic disintegration processes described above – including the United Kingdom's withdrawal from the EU, Russia's increasingly aggressive pursuit of national interests, intensifying political disputes between China and its East Asian neighbors, and Turkey's growing distance from the EU – is a fragmented global economy. This has negative consequences for all economies, and thus for the material basis of social progress.

IV Consequences of the Fragmented World Economy for Europe

If progressing international division of labor as described above means an increase in material prosperity, a decrease of this division of labor leads to a decline in material prosperity – with negative consequences for the non-material living conditions closely linked to it. This involves both declining exports and lower imports: If domestic companies can sell fewer products abroad – meaning that exports decline – this means losses of jobs and income. Declining imports mean that consumers are forced to switch to the more expensive products of domestic companies. This reduces consumer purchasing power.

Rising protectionism therefore harms the prosperity of European citizens not only through declining exports but also due to lower imports. With regard to imports, the greater Europe's dependence on imported products, the greater the resulting decline in welfare. The degree of dependence in turn depends on whether there are substitutes for these imports and what prices have to be paid for them. Here are just three examples.

A first example of European dependence is the market for generic medicines. Production of generic medicines has come to an almost complete standstill in Germany and Europe. The reason is low

⁶ Rudolf, Peter (2020). „Der sino-amerikanische Weltkonflikt“, p. 12.

⁷ Braml, Josef. Biden's Geo-Economics Forces De-Globalization. Blog Post auf Future of Globalisation. <https://blogs.die-gdi.de/2021/05/06/bidens-geo-economics-forces-de-globalization/>, [retrieved July 17, 2021].

production costs in Asia, especially in China. In China, low labor costs, low environmental and safety requirements, and government subsidies provide enormous cost advantages and therefore price advantages. Even the Indian pharmaceutical industry now sources about 80 percent of its input materials from China.⁸ As a result, Asian suppliers are currently able to offer generic prices of around 0.06 euro cents for a daily dose.⁹ Production of these medicines in Germany is not competitive at this price. Depending on the medicine, a price from a German producer that would cover the cost would have to be around 0.50 euro cents.¹⁰ Although switching to European products would reduce supply risks and environmental damage, it is only possible in this area at considerably higher economic costs.

A second example involves technology dependency. Patents play an important role here because they regulate the right to use inventions. Attention must also be paid here to the quality of the patents. Bertelsmann Stiftung published a study in 2020 that examined world-class patents in cutting-edge technologies. These are patents that, first, are located in industries with high long-term economic growth prospects, and second, are cited particularly often in other patent applications and have thus been registered in many markets. These patents are particularly strong indicators of the innovative strength of countries and regions (see Bertelsmann Stiftung 2020: 9). Looking at 58 key future technologies and the period from 2000 to 2019, the following developments become apparent:¹¹ The United States was still the world's undisputed "patent superpower" in 2019. It holds the most world-class patents in 50 of the 58 cutting edge technologies studied. China has caught up quickly since 2000: The country ranked among the top three countries in 2019 with the most top patents in 42 of the 58 technologies studied. For comparison, China did not have a single ranking in the top three in 2010, and in 2000, it did not have a single ranking in the top five. Viewed in isolation, European countries fare poorly: No single European country had the most world-class patents in any of the 58 technologies. The EU-27 together achieved two top positions. If these trends continue, Europe risks losing its international competitiveness in the markets of the future – with negative consequences for employment, income and prosperity.

The dependence of resource-poor countries on imported raw materials is highly problematic. This is illustrated by the third example of rare earths, essential for use in many key technologies including wind turbines and electric motors: In 2018 the global production volume of rare earths, which include a total of 17 elements, was around 170,000 tons. 70 percent of this came from China, followed by Australia (12 percent) and the United States (nine percent). Europe cannot turn to substitutes here. The only option left is therefore to reduce the content of rare earths in products through technological advancement, which has already been achieved in part, for example in the case of heavy rare earths in magnets.¹² But because such innovations are time-consuming as well as not possible everywhere, this results in a high dependence on China. And indeed, during the

⁸ See Hosseini, Morris and Michael Baur. Marktversagen bei der Arzneimittelversorgung am Beispiel von Antibiotika – COVID-19 wirft Schlaglicht auf das Problem – ist aber nicht dessen Ursache. In: ifo Schnelldienst, 2020, Vol. 73, No. 5, pp. 27ff.

⁹ See Joachimsen, Kai (2020). Worauf es jetzt ankommt. In: ifo Schnelldienst, 2020, Vol. 73, No. 5., p. 29.

¹⁰ See Hosseini, Morris and Michael Baur. Marktversagen bei der Arzneimittelversorgung am Beispiel von Antibiotika – COVID-19 wirft Schlaglicht auf das Problem – ist aber nicht dessen Ursache. In: ifo Schnelldienst, 2020, Vol. 73, No. 5, pp. 28.

¹¹ See Bertelsmann Stiftung (ed.). Weltklassepatente in Zukunftstechnologien – Die Innovationskraft Ostasiens, Nordamerikas und Europas. Gütersloh: Bertelsmann Stiftung 2020, pp. 6–7.

¹² See Prognos AG and Öko-Institut. Rohstoffbedarf im Bereich der erneuerbaren Energien. Without Location, 2019, p. 14.

conflict with the United States, the Chinese government considered imposing an export embargo on rare earths.¹³

A fragmented global economy would thus significantly impair the material and non-material prosperity of the people of Europe. Progress – in the sense of a better life with higher life expectancy and improved opportunities for societal participation – would then become increasingly difficult. Even the status quo that has been achieved will come under pressure.

¹³ See Hilpert, Hanns Günther. Handel, Wirtschaft, Finanzen: Rivalitäten, Konflikte, Eskalationsrisiken, p. 30.

V Five Proposals for Europe

To maintain prosperity and social progress in Europe despite increasing global economic disintegration tendencies, five key measures appear prudent.

First: Strengthen and support international and multilateral organizations. With regard to the international division of labor, this primarily concerns the World Trade Organization (WTO) and an adherence to multilateral principles of international trade such as non-discrimination and a rule-based trading system.¹⁴ Where multilateral ideas cannot be implemented, closer cooperation between Europe and countries that share European or Western values (guarantee of civil and human rights, rule of law, democracy and separation of powers, individual liberties, freedom of the press and religion to name but a few) would be conducive. In addition to the United States, these include Japan, Australia, New Zealand, and a number of Asian states including Japan, India, and the ASEAN states¹⁵. With an intensification of trade relations with these countries, the economic dependence on China and the United States – with regard to both European exports and the import of intermediate inputs and raw materials – is declining.

Second: Intensify cooperation with Europe's neighboring countries, including those in Africa. This will open up new sales opportunities for Europe's companies. In addition, fair cooperation in the extraction of some raw materials that are mined in Africa should be considered. For example, in 2018, around 64 percent of global cobalt production came from Congo.¹⁶ This raw material is needed for battery production for smartphones, tablets and electric cars. Cooperation between Europe and Africa also lends itself to the area of climate protection. For example, the Clean Development Mechanism should be considered here:¹⁷ This mechanism was established in December 1997 in the Kyoto Protocol, which entered into force in February 2005. Industrialized countries can finance projects in developing countries to reduce greenhouse gas emissions and receive credit for the resulting emission reductions. For example, if Germany invests in the construction of a solar plant in Algeria, which generates electricity that without this investment would be provided by a coal-fired power plant, this investment reduces greenhouse gas emissions in Algeria. Certificates are issued for the emission reductions achieved in Algeria. These emission credits are transferred to the investor in Germany and can be used by them as emission rights or sold. Private capital can be mobilized in this way for efficient global climate protection. This instrument makes good business sense for companies if emission avoidance costs in their own country are higher than in a developing country. At the same time, this mechanism contributes to sustainable development in developing countries that consequently obtain access to highly advanced and climate-friendly technologies and expertise. Greater use of this instrument by European emitters can thus increase prosperity in Europe and the participating developing countries while also mitigating climate change.

¹⁴ See Hilpert, Hanns Günther. *Handel, Wirtschaft, Finanzen: Rivalitäten, Konflikte, Eskalationsrisiken*, p. 31.

¹⁵ ASEAN stands for the Association of Southeast Asian Nations. This organization, founded in 1967, currently comprises ten countries, including Indonesia, Thailand, the Philippines, and Singapore.

See Winkler, Heinrich August. *Was heißt westliche Wertegemeinschaft?*. In: *Internationale Politik*, Vol. 62, No. 4, pp. 66.

See also: Graf Lambsdorff, Alexander. *Liberale Leitlinien für eine deutsche Außen-, Sicherheits- und Entwicklungspolitik aus einem Guss*. In: *Zeitschrift für Außen- und Sicherheitspolitik*.

¹⁶ See Prognos AG and Öko-Institut. *Rohstoffbedarf im Bereich der erneuerbaren Energien*. Without Location, 2019, p. 13.

¹⁷ See for the following remarks: *Deutscher Bundestag. Clean Development Mechanism als Instrument der Entwicklungspolitik. Ausarbeitung der Wissenschaftlichen Dienste des Deutschen Bundestages*. Berlin 2006. pp. 3–8.

Third: Reduce Europe's dependence on imported fossil fuels by promoting renewable energy. Deglobalization is problematic for European economies not only due to diminished export opportunities. Because most European regions lack raw materials, they are dependent on imported raw materials – first and foremost being energy imports. If these fail due to trade disputes, sanctions or export restrictions on the part of the energy-producing countries, there is a threat of impaired production and mobility. Funding renewable energies on a pan-European level, e.g., by expanding financing instruments through the European Investment Bank (EIB), is one way to reduce this dependence while advancing climate protection.

Fourth: Reduce import dependence on intermediate inputs. Helpful in this context is a European industrial policy that provides production capacities for critical intermediate inputs and promotes future-relevant technologies. This enables production in Europe. It must be noted, however, that a shift of production back to Europe is associated with higher production costs. These will have to be paid by consumers. Whether they are prepared to do so or will prefer to switch to inexpensive foreign products is open to question. If higher prices cannot be implemented on the market and production is nevertheless to take place in Europe, this will require government support. Various measures can be considered for this. For example, the state could pay suppliers of products manufactured in Europe a subsidy corresponding to the competitive price advantage of the foreign suppliers. It could offer intermediate inputs at competitive prices through a state-owned company and assume the losses incurred at this price. However, these types of measures must then be financed by taxpayers – reduced import dependence comes at a price.¹⁸

Fifth: With a view to climate change, which poses the greatest long-term threat to the global prosperity, Europe should try to promote the formation of a Climate Club. This idea originated from Nobel Prize-winning economist William Nordhaus:¹⁹ A group of countries that have a similar position on the pricing of greenhouse gas emissions form a “coalition of the willing.” These countries agree on a common emissions price, forming a Climate Club. Other countries could join this club, provided they are willing to abide by the agreed price. To make club membership more attractive, the Climate Club would offer its members an incentive that non-members do not receive: Club members can freely exchange goods and services among themselves. Countries that don't join the club can trade with the Climate Club only if they pay a tariff. The import tariff increases the cost to non-members of their decision not to apply an emissions price. The Climate Club would thus penalize non-cooperative behavior by reducing the benefits of the international division of labor for a non-member. The described Climate Club could reduce global greenhouse gas emissions, but this solution requires a certain critical mass of countries. To achieve an effective minimum size, the EU and the United States could establish such a Climate Club as a first step.²⁰

VI Conclusion

The last example in particular underscores how important international cooperation is for improving living conditions. Aside from climate change, many of the world's other major problems, such as dealing with global migration, combating international terrorism, containing pandemics and controlling weapons of mass destruction, can ultimately only be resolved within a framework of multilateral cooperation. Progress in terms of improving people's living conditions therefore

¹⁸ See Haucap, Justus, Thieß Petersen and Torben Stühmeier. Resilienz internationaler Lieferketten. Policy Brief Zukunft Soziale Marktwirtschaft # 2020/05, Bertelsmann Stiftung. Gütersloh.

¹⁹ See Nordhaus, William. Climate Clubs: Overcoming Free-riding in International Climate Policy. In: American Economic Review, 2015, Vol. 105, pp. 1339–1370.

²⁰ See Wolff, Guntram B. Europe should promote a Climate Club after the US election.

requires strengthening multilateralism. Where this fails, Europe should promote coalitions with other countries and regions that share European values in the economic, social and political spheres.

It will not be possible to manage the global problems described above without strengthening international cooperation, which is under pressure. Added to this is another danger: Economic growth, even beyond the associated improvements in material and non-material living conditions, is a central precondition for social innovation and structural change. Many structural changes, such as those brought about by globalization and technological progress, mean a loss of income for some groups of people within a country. For example, imports from low-wage countries into industrialized countries lead to diminishment of employment and income opportunities for low-skilled people. Compensation payments are usually required to keep these population groups from adopting an attitude of political obstructionism – the losers in the structural change receive money, which reduces their resistance to structural change. These payments are financed from growing GDP, but without GDP growth it is difficult to make the payments that make structural change possible in the first place. Europe is thus threatened by a vicious circle: Declining competitiveness in comparison to economies with young and growing populations diminishes economic growth. Pushing technological progress therefore becomes increasingly important as a means to increase competitiveness. This necessary progress cannot be achieved, however, because those who fear income disadvantages from the associated structural change resist technological progress. As a result, the prosperity that has been achieved – not to mention social progress – comes under increasing pressure.

VII References

- Bertelsmann Stiftung (ed.). *Weltklassepatente in Zukunftstechnologien – Die Innovationskraft Ostasiens, Nordamerikas und Europas*. Gütersloh: Bertelsmann Stiftung 2020.
- Braml, Josef. Biden's Geo-Economics Forces De-Globalization. Blog Post auf Future of Globalisation. <https://blogs.die-gdi.de/2021/05/06/bidens-geo-economics-forces-de-globalization/>, [retrieved July 17, 2021].
- Deutscher Bundestag. *Clean Development Mechanism als Instrument der Entwicklungspolitik*. Ausarbeitung der Wissenschaftlichen Dienste des Deutschen Bundestages. Berlin 2006.
- Draper, Peter. *Globale Handelskooperation nach COVID-19 und die Zukunft der WTO*. Stiftung Entwicklung und Frieden (ed). Bonn, 2020.
- Flach, Lisandra and Marina Steininger. *Globalisierung nach Covid-19: Die Folgen der Pandemie für die deutsche Wirtschaft*. In: ifo Schnelldienst, 2020, Vol. 73, No. 7, pp. 17–23.
- Graf Lambsdorff, Alexander. *Liberale Leitlinien für eine deutsche Außen-, Sicherheits- und Entwicklungspolitik aus einem Guss*. In: *Zeitschrift für Außen- und Sicherheitspolitik*. Published 17 May 2021. <https://doi.org/10.1007/s12399-021-00850-z>, [retrieved July 12, 2021]
- Haucap, Justus, Thieß Petersen and Torben Stühmeier. *Resilienz internationaler Lieferketten*. Policy Brief Zukunft Soziale Marktwirtschaft # 2020/05, Bertelsmann Stiftung. Gütersloh.
- Hilpert, Hanns Günther. *Handel, Wirtschaft, Finanzen: Rivalitäten, Konflikte, Eskalationsrisiken*. In: Lippert, Barbara and Volker Perthes (ed.). *Strategische Rivalität zwischen USA und China*. Berlin: SWP-Studie 1, Febr. 2021, pp. 27–31.
- Hosseini, Morris and Michael Baur. *Marktversagen bei der Arzneimittelversorgung am Beispiel von Antibiotika – Covid-19 wirft Schlaglicht auf das Problem – ist aber nicht dessen Ursache*. In: ifo Schnelldienst, 2020, Vol. 73, No. 5, pp. 26–29.
- IMF (International Monetary Fund). *World Economic Outlook Database*, April 2021. Washington, DC, 2021.
- Joachimsen, Kai. *Worauf es jetzt ankommt*. In: ifo Schnelldienst, 2020, Vol. 73, No. 5., pp. 29–31.
- Nordhaus, William. *Climate Clubs: Overcoming Free-riding in International Climate Policy*. In: *American Economic Review*, 2015, Vol. 105, pp. 1339–1370.
- Prognos AG and Öko-Institut. *Rohstoffbedarf im Bereich der erneuerbaren Energien*. Without Location, 2019.
- Rudolf, Peter. „Der sino-amerikanische Weltkonflikt“. In: Lippert, Barbara and Volker Perthes (ed.). *Strategische Rivalität zwischen USA und China*. Berlin: SWP-Studie 1, Febr. 2020, pp. 10–12.
- Rupprecht, Manuel. *Strafzölle, Handelskriege und die (ungeahnten) Folgen für die Welt*. In: Rupprecht, Manuel (ed.). *Wirtschaft am Scheideweg – Corona, Brexit, Handelskriege und mehr*. Stuttgart: W. Kohlhammer, 2021, p. 49–73.
- UN (United Nations). *World Population Prospects 2019: Data Booklet*. New York, 2019.
- UNDP (United Nations Development Programme). *Human Development Report 2020. The Next Frontier: Human Development and the Anthropocene*. New York, 2020.

Winkler, Heinrich August. Was heißt westliche Wertegemeinschaft?. In: Internationale Politik, 2007, Vol. 62, No. 4, pp. 66–85.

Wolff, Guntram B. Europe should promote a Climate Club after the US election. Available at: www.bruegel.org/2020/12/europe-should-promote-a-climate-club-after-the-us-elections/, [retrieved July 12, 2021].