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## FOREIGN DIRECT INVESTMENT TRENDS

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**Abstract:** *The beginning of this century is characterized by deepening globalization and one of the main features of this process is global foreign direct investment flows. The relevance of foreign direct investment as a source of economic growth is inevitable and it has sound theoretical foundation. Despite this fact, many forces shaping the global economy receive a significant amount of attention, but foreign direct investment is often overlooked. Technological progress, trade and foreign direct investment are interrelated. Namely, foreign direct investment has greatly accelerated the spread of innovation and technology, while the technological advances especially in the era of Industry 4.0 have been driving the dynamics of foreign direct investment. Due to expected positive impacts, many countries are continuing policy efforts aimed at attracting foreign direct investment. However, foreign direct investment is experiencing new trends. Over the last few decades the global map of inward and outward foreign direct investment has changed significantly. There are new players with increasing roles in the global foreign direct investment area which are reshaping the world economy. Global foreign direct investment is undergoing a shift as emerging markets countries both inflows and outflows rise dramatically. For example, China's outbound foreign direct investment has been growing dramatically in recent years, and impacted significant shifts in the global economy. Motives for foreign direct investment, as well as the type are changing due to globalization and new trends, especially high liberalization of trade. The proliferation of global value chains also influenced foreign direct investment trends. One of the examples is necessity of rethinking the framework on motives of foreign direct investment when analyzing emerging market multinational enterprises and their interdependent relationships within global value chains. The contribution of the paper is three-fold. Firstly, the paper gives an overview of key global and regional foreign direct investment trends. Secondly, key factors, as well as potential impacts of these changes are explored. Thirdly, paper offers recommendations for new investment policies.*

**Key words:** *foreign direct investment, global trends, global value chains, Industry 4.0*

**JEL classification:** *F2*

## INTRODUCTION

According to John H. Dunning (1998) there are four types of foreign direct investment (FDI), depending on the motive for investment: (1) resource seeking, (2) market seeking, (3) efficiency seeking and (4) strategic asset seeking. Also, there are three main determinants of international involvement: (1) ownership advantages, (2) location advantages and (3) internalization advantages (Dunning, 1980). However, Chiara Franco et al. (2010) distinguished three main motives for foreign direct investment: (1) resource seeking, (2) market seeking and (3) non-marketable asset seeking. Maria – Ramona Sârbu and Iuliana Mazur Gavrea (2014) conclude their study on motive for foreign direct investment with the conclusion that the decision to invest in particular location is based on the analysis of various economic, political and social factors and the weight of each factor depends upon the motivation of foreign investor.

Industry 4.0 term, although has its origins in Germany, is commonly used to refer to the Fourth industrial revolution. Industry 4.0 refers to new technologies such as Internet of Things (IoT), big data, robotics, additive manufacturing, artificial intelligence, 3D printing, blockchain, etc.

The Fourth industrial revolution differs in speed, scale, complexity and transformative power in comparison to previous revolutions (Min Xu, et al., 2018).

By the development of Industry 4.0 policy focus changes from specialisation and increase of productivity to the industrial ecosystem development. Key elements of the industrial policies in the Fourth industrial revolution are considered to be technical capabilities development, innovation in production, learning economy, focus on sustainable development goals, public-private collaboration and transfer of knowledge and enabling entrepreneurship environment (A.T. Kearney, 2018).

Impacts of Industry 4.0 range from the way that individual organizations are organized over macro-economic challenges to private life and shouldn't be underestimated (Filip de Beule and Ysabel Nauwelaerts, 2018). The Fourth industrial revolution have obstacles such as income inequality, cybersecurity and ethical dilemmas (Min et al., 2018) that should be tackled by relevant policies. Of special importance is digital economy which can be defined as the application of internet-based technologies to the production and trade of goods and services (Bruno Casella and Lorenzo Formenti, 2018).

The paper consists of four parts. After the introduction follows the literature view on the issues of the Industry 4.0 and global value chains with special emphasis on the impact on foreign direct investment, while the third part gives an overview and discusses the global foreign direct investments flows. The fourth part of the paper is the conclusion.

## **ERA OF THE INDUSTRY 4.0 AND GLOBAL VALUE CHAINS**

The Fourth industrial revolution could improve the lives of people, but at the same time generates challenges and risks, that may harm inclusive growth (Lilla Sarolta Balogh, 2017).

Min et al. (2018) define main opportunities that the Fourth industrial revolution brings: lower barriers between inventors and markets; more active role for the artificial intelligence; integration of different technics and domains; improved quality of our lives, for example using robotics and more connected life via Internet.

The Fourth industrial revolution will disrupt global value chains, meaning the transformation of production, distribution, design, consumption, reuse, etc. (A.T. Kearney, 2018). Industry 4.0 is definitely changing business landscape and will impact on the location as well as the extent of FDI as the need for global flows of FDI (de Beule and Nauwelaerts, 2018). Min et al. (2018) claim that changes introduced by the Fourth industrial revolution will influence also shifts in power, wealth and knowledge.

According to de Beule and Nauwelaerts (2018), other indicators for investment decisions will become more relevant and the level of labour costs might become less important compared to the openness of the economy, stimulation for innovation, availability of adequate infrastructure, etc. For example, advantages of less developed countries gained through cheaper labour can vanish due to artificial intelligence exploitation in more developed countries and substitution of labour. Also, digital aspect became extremely important. However, these changes will influence in less demand for lower-skilled labour, but increase in demand for higher-skilled labour who can also monitor and drive further innovation and development. Consequently, low labour cost may become less important from an FDI perspective. Since the great potential of technological improvements to cut costs, FDI may increase in locations with higher technological and agglomeration capabilities (de Beule and Nauwelaerts, 2018).

Digital economy has important implications for foreign direct investment (Casella and Formenti, 2018). Study conducted by Casella and Formenti (2018) showed that multinational companies in highly digitalized industries tend to invest less than traditional multinational companies. According to their findings, these companies concentrate their operations in a few highly developed countries. Not of less importance, this study showed that investment patterns of multinational companies in highly digitalized industries are determined by fiscal and financial motives than those of traditional multinational companies.

One of the most interesting findings of A.T. Kearney (2019) is that investors do not consider country level any more for their potential investment, but regional, or even city level. So, investors changed their focus of evaluation of possible investment destination. A.T. Kearney (2019) explains it is because of the multi-localism. According to A.T. Kearney (2018) multi-localism is characterized by the preference for local cultures, communities, goods, services, customs, etc. So, one-size-fits all business model is not applicable any more, companies need to locally integrate. A.T. Kearney (2019) showed that the five most important factors for investment decision are: (1) tax rates and ease of tax payment, (2) technological and innovation capabilities, (3) general security environment, (4) regulatory transparency and lack of corruption and (5) strength of investor and property rights. Following are factors like labour costs, ease of moving capital, government incentives for investors, quality of digital infrastructure, etc.

Global value chains have sharpened the interdependencies between trade and FDI (Andrea Andrenelli et al., 2019). As OECD states, foreign direct investment are, with international trade, the main defining feature and key driver of global value chains (GVCs). Federico Carril-Caccia and Elena Pavlova (2018) provided evidence that GVCs play a relevant role for explaining FDI. They found that following factors are important for explaining bilateral mergers and acquisitions: exports (imports) in intermediate and final goods destinations countries heterogeneity; domestic value added embedded in exports and global value chains position and participation. Also, study conducted by Christian Buelens and Marcel Tirpák (2017) showed that policies that attract FDI would constitute an indirect way to deepen a GVC participation. It is due to the fact that foreign investors play an active role in shaping host economies' export structure and their participation in GVCs. Pavida Pananond (2015) claims that emerging multinational companies do not take independently decisions in the global value chain, but, on the contrary, these decisions are dependent on the relationship with the lead company. The main goal of emerging multinational companies is to climb over

the global value chain, while it may not be of the interest of the lead company. So, FDI decisions will be highly dependable on these relationships. Vito Amendolagine et al. (2017) found that more intense GVC participation and upstream specialization are associated to a higher share of inputs sourced locally by foreign investors which in fact, according to their findings, represents the main channel for FDI spillovers. Roger Strange and Antonella Zucchella (2017) concluded also that new digital technologies have considerable potential to disrupt how and where activities are located and organized within GVCs.

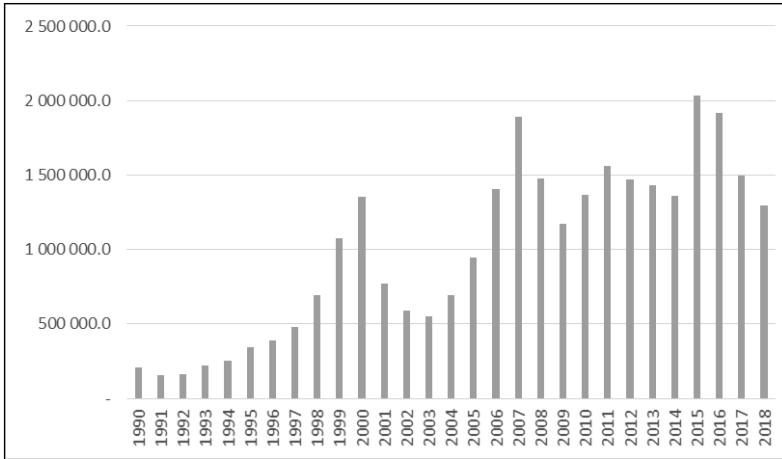
## **GLOBAL FOREIGN DIRECT INVESTMENTS FLOWS**

The relevance of foreign direct investment as a source of economic growth is inevitable and it has sound theoretical foundation. Eduardo Borensztein et al. (1995) proved that FDI represents important way for the transfer of technology and it contributes to the economic growth more than domestic investment. Also, according to the results of their study, these effects will occur only in host countries which have necessary human capital to absorb the benefits and attract FDI. James R. Markusen and Anthony J. Venables (1997) state that effects of the FDI on the host country can operate through different channels and proved that FDI can serve as a catalyst, leading to the development of local industry. Sasi Iamsiraroj and Mehmet Ali Ulubaşoğlu (2015) on a sample of 140 countries in the period 1970-2009 proved that FDI positively affects economic growth. This finding holds globally, not only for developing countries. As many researchers prior, they stressed the importance of absorptive capacity and identified trade openness and financial development to be appropriate indicators of absorptive capacity.

According to the United Nations Conference on Trade and Development (UNCTAD) (2019) data, global foreign direct investment decreased by 13% in 2018 (estimated to 1.3 trillion USD), compared to 2017 (Figure 1). On the contrary, the projection was that global FDI flows are going to increase by about 5% in 2018 (UNCTAD, 2018). Very interesting are the facts that this decrease was mainly in developed countries, where foreign direct investment inflows decreased for 27% and that decrease in Europe was 55%. Explanation provided by the United Nations Conference on Trade and Development (2019) is in repatriation of accumulated foreign earnings by the United States of America. On the other side, according to World Investment Report 2019, developing countries experienced increase in the FDI inflow for 2% in 2018, compared to 2017. Analysing regionally, only Africa (11%) and developing Asia (4%) experienced

increase in the FDI inflow in 2018, compared to 2017.

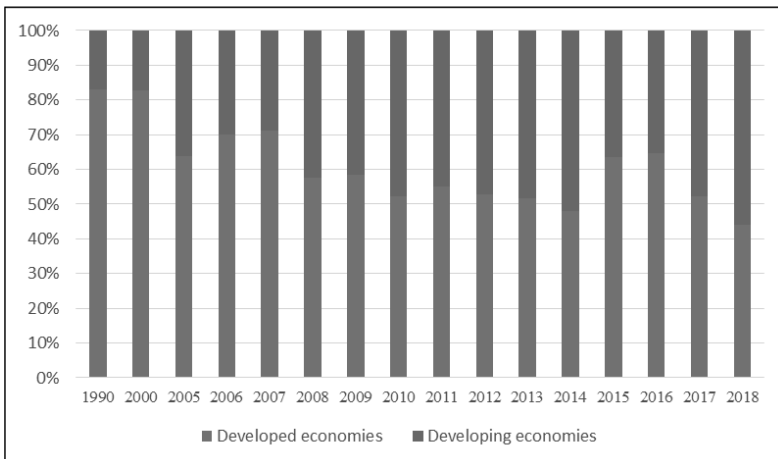
**Figure 1.** World FDI inflows 1990-2018 (millions USD)



**Source:** UNCTAD, FDI/MNE database.

Analysis of the data in the period 1990-2018 showed that shares of developed and developing economies in world FDI inflow changed over the period (Figure 2). For example, in 1990 83% of world FDI inflow went to developed economies, and 13% in developing economies. In year 2000 these shares remained similar. However in next years, shares changed. The latest available data, for 2018, show that most of the world FDI inflow went to developing countries.

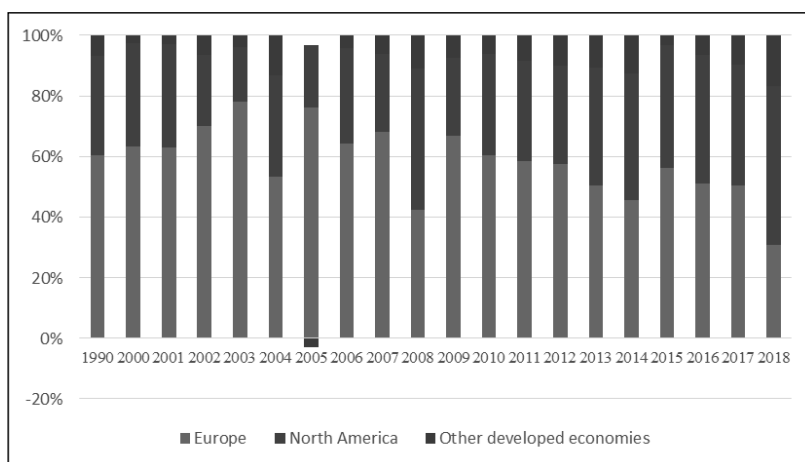
**Figure 2.** Shares of developed and developing economies in world FDI inflow 1990-2018 (%)



**Source:** UNCTAD, FDI/MNE database, authors calculation.

Analysis of the distribution of FDI inflow among developed countries by regions in the same period, 1990-2018, showed also changes in the distribution (Figure 3). In 1990 more than 60% of FDI inflow in developed countries went to Europe. The share of Europe was highest in 2005 when it exceeded 80%. However, after 2005 decreasing trend of Europe's share is visible. The smallest share is achieved in 2018, only 31%, while North America reached 52% at the same time.

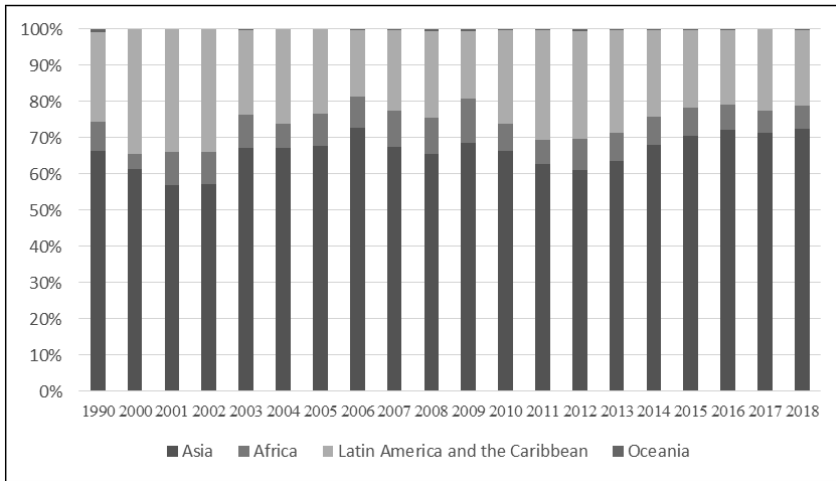
**Figure 3.** Shares of developed countries in world FDI inflow 1990-2018 by region (%)



**Source:** UNCTAD, FDI/MNE database, authors calculation.

However, analysis of the distribution of FDI inflow among developing countries by regions in the same period, 1990-2018, showed no changes in region rankings, only shares (Figure 4). For the whole observed period Asia had the highest share in world FDI inflow. It was 66% in 1990, while in 2019 it reached the highest share in the observed period of 73%. On the other side, shares of Africa and Latin America and the Caribbean in the FDI inflow decreased in the observed period.

**Figure 4.** Shares of developing countries in world FDI inflow 1990-2018 by region (%)



**Source:** UNCTAD, FDI/MNE database, authors calculation.

Share of the developed countries in global FDI outflow decreased on 55%, which is the lowest ever recorded (UNCTAD, 2019). Also, World Investment Report 2019 revealed that in 2018, the values of net cross-border mergers and acquisitions (M&As) increased for 18%, after the 22% fall in 2017. Also, the value of announced greenfield projects increased for 41%. However, investment activity measured by the number of projects increased by only 7%.

In top ten FDI host and home countries in 2018, the best positioned is China, second in both rankings (Table 1). Over 10% of world total FDI inflow in 2018 went to China which experienced growth of 4% in 2018, compared to 2017. On the other side, China reduced its outflows for the second year in a row (decrease of 18%). Balogh (2017) concluded that China is already world leader in industries based on consumer-focused, efficiency-driven innovation, and that it is only the matter of time when will it emerge as world leader in high-tech sectors, based upon the trends. Peter J. Buckley et al. (2007) found that Chinese FDI outflow was natural resources seeking FDI, and associated with high levels of political risk in, and cultural proximity to, host countries throughout, and with host market size and geographic proximity.

Also, in both rankings, countries all over the world are represented.



**Table 1.** Top ten FDI host and home countries 2018

	<b>FDI inflows</b>	<b>FDI outflows</b>
1	United States of America	Japan
2	China	China
3	Hong Kong, China	France
4	Singapore	Hong Kong, China
5	Netherlands	Germany
6	United Kingdom	Netherlands
7	Brazil	Canada
8	Australia	United Kingdom
9	Spain	Republic of Korea
10	India	Singapore

**Source:** United Nations Conference on Trade and Development (2019).

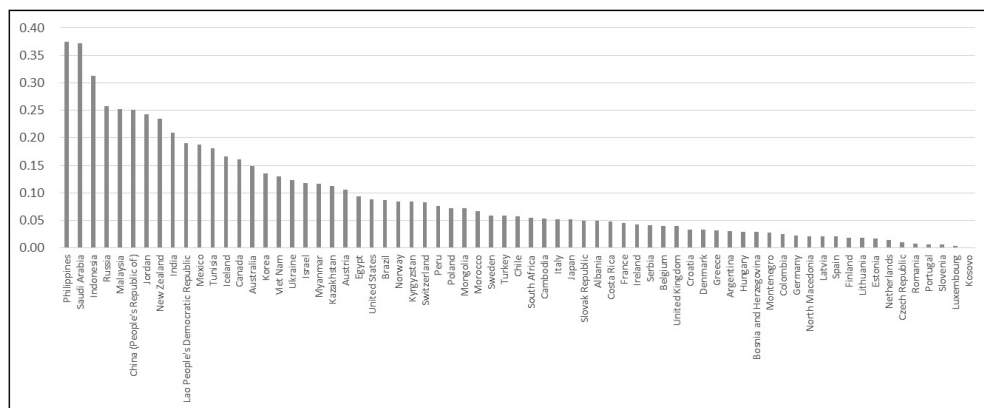
According to the World Bank (2019) data, the world share of net FDI inflows in GDP in the period 1970-2018 increased from 0.48% in 1970 to 1.39% in 2018. However, the highest value in the observed period was achieved in 2007 (5.27%). In 2017 the world share of net FDI inflows in GDP was 2.56%, so the value in 2018 represents the decrease of 1.17 percentage points.

FDI Confidence Index, developed by A.T. Kearney (2019) and calculated for 2019 from a survey of 500 senior executives of world's leading companies, showed that top ten (out of 25 countries in the survey) likely destinations for FDI in 2019 are mostly developed countries: (1) United States of America, (2) Germany, (3) Canada, (4) United Kingdom, (5) France, (6) Japan, (7) China, (8) Italy, (9) Australia and (10) Singapore. The results of this study showed that potential investors are planning to increase the level of FDI are surprising, having in mind, that global FDI decreased, like previously explained. Also, the results are contradictory with the UNCTADs data (2019) due to the fact that highest ranks of the FDI Confidence Index have developed countries, but these countries experienced decrease of FDI inflow, while developing countries experienced increase.

The extent of FDI restrictiveness is measured by FDI Restrictiveness Index. This index is developed by OECD (Blanka Kalinova et al., 2010) and it is consisted of four groups of measures for each of 22 covered sectors: (1) foreign equity restrictions, (2) screening and prior approval requirements, (3) rules for key personnel

and (4) other restrictions on the operation of foreign enterprises. The highest score for any measure in any sector is 1 (closed) and the lowest is 0 (open). Average score of all sectors makes a country score (Kalinova et al., 2010). The average score for all 67 countries included in the OECD database is 0.09 in 2018 (Figure 5). 63% countries are below this average, while 37% of countries are at the average or higher.

**Figure 5.** FDI Regulatory Restrictiveness Index 2018, by country



**Source:** OECD.Stat, FDI Regulatory Restrictiveness Index database available at: <https://stats.oecd.org/Index.aspx?datasetcode=FDIINDEX#> (29.8.2019).

Countries in the Asia and the Pacific region tend to remain relatively more restrictive than others. However, countries like India, Indonesia, China and Viet Nam have undertaken considerable efforts to liberalise FDI further (Fernando Mistura and Caroline Roulet, 2019). Still, Asia has the highest share in FDI inflow in developing countries. Analysis of the FDI Restrictiveness Index in the period 1997-2018 showed that countries have liberalised environments for FDI. Interestingly, Mistura and Roulet (2019) in their study covering 60 advanced and emerging economies in the period 1997-2016 found that liberalising FDI restrictions by about 10% as measured by the FDI Restrictiveness Index could increase bilateral FDI in stocks by 2.1% on average. They also found that effects are higher in the service sector.

## CONCLUSION

The Fourth industrial revolution has potential to make greater improvements on every aspect of private and business lives than the first three industrial revolu-

tions. Nevertheless, the great challenge would be to ensure that advances reached by this industrial revolution benefit all and distribute evenly.

Foreign direct investment is inevitably important for each economy. Global FDI decreased by 13% in 2018 compared to 2017, although projections were opposite. Interesting are the facts that this decrease was mainly in developed countries, where FDI inflow decreased for 27% and that decrease in Europe was 55%. On the other side, developing countries experienced increase in the FDI inflow for 2%. Analysing regionally, only Africa (11%) and developing Asia (4%) experienced increase in the FDI inflow in 2018, compared to 2017. Countries in the Asia and the Pacific region tend to remain relatively more restrictive than others in terms of FDI Regulatory Restrictiveness Index. Still, Asia has the highest share in FDI inflow in developing countries.

Analysis of the data in the period 1990-2018 showed that shares of developed and developing economies in world FDI inflow changed over the period. At the beginning of the period, 83% of world FDI inflow went to developed economies, and 13% in developing economies. The latest available data, for 2018, show that most of the world FDI inflow went to developing countries. Analysis of the distribution of FDI inflow among developed countries by regions in the same period, 1990-2018, showed also changes in the distribution. In 1990 more than 60% of FDI inflow in developed countries went to Europe. However, after 2005 decreasing trend of Europe's share is visible. The smallest share is achieved in 2018, only 31%, while North America reached 52%. On the other side, analysis of the distribution of FDI inflow among developing countries by regions in the same period, showed no changes in region rankings, only shares. For the whole observed period Asia had the highest share in world FDI inflow. It was 66% in 1990, while in 2019 it reached the highest share in the observed period of 73%. On the other side, shares of Africa and Latin America and the Caribbean in the FDI inflow decreased in the observed period. In top ten FDI host and home countries in 2018, the best positioned is China, second in both rankings. Over 10% of world total FDI inflow in 2018 went to China which experienced growth of 4% in 2018, compared to 2017.

However, the emergence of the Fourth industrial revolution clearly raised issues regarding to foreign direct investment. First of all, the occurrence of Industry 4.0 and related technologies changes motives and basis of foreign direct investment and bringing decisions upon international business. Greater use of these technologies, like robotics, artificial intelligence, etc., will minimize the advantages

of low labour-cost countries. So, we could say that prior the eras of the Industry 4.0 one of the most recognized motive for the FDI were labour costs. However, in the era of Industry 4.0 factors of importance become multi-localism, growing demand for local and personalized products, localized production; eco-system development; focus on social impact, as well as sustainability.

Understanding new technologies brought by the Industry 4.0 and their disruption potential is critical for all countries and their relevant policies. Without that governments won't be able to ensure reaching all potential accomplishments of this industry revolution, and what is of same importance, reaching equal distribution of these benefits.

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