




Pandemic risk: doesn't it really matter? Foreign direct investment after COVID-19

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Abstract

Motivation: This article focuses on a foreign direct investment (FDI), one of the most important areas in the global economy which to a large extent determines the current directions of economic development. The recent pandemic is expected to cause a deep recession in the world economy. Its level, duration and strength in particular countries cannot be predicted. Nevertheless, there is no doubt that the entire world will be affected by it for a longer period of time.



Aim: The aim of this article is to present how investors identify pandemic-related threats among FDI risks. Also discussed are investors' first reactions to the current SARS-CoV-2/COVID-19 pandemic, as reflected by forecast revisions of FDI flows.

Results: Our studies show that Polish direct investors did not take into account threats such as natural disasters, epidemics or pandemics in their risk assessments. When undertaking FDI, Polish entities focused mainly on assessing the risk of the country in which they were to invest. According to UNCTAD's study from 2017, global risk sources were identified by multinational companies mostly as geopolitical uncertainties, terrorism and social instability rather than natural disasters (including pandemics). Even though the risk of a pandemic was nearly totally ignored by the respondents of the discussed studies, UNCTAD forecasts the downward pressure on global FDI from –30 to –40% for 2020–2021.

Keywords: foreign direct investment; FDI; global risk
JEL: F21; F23; D81

1. Introduction

The past two decades will most certainly be recognized as a period of significant turbulence in global capital flows in terms of foreign direct investment (FDI). After a relatively steady growth in the preceding 30 years, significant fluctuations have been observed since 2000 (chart 1, chart 2). They reflect investors' reactions to emerging threats as well as signs of positive business prospects. The collapse of the World Trade Center (WTC) towers will be an unforgettable image of the early 21st century for many generations. 11 September 2001 was the day when the United States declared war on global terrorism. The events of that day were not without impact on the global economy. Stock exchanges across the world saw share price declines of many companies. Airlines and tourist services, along with insurance companies associated with them, suffered substantial losses. At the end of 2001, Argentina's economy slid into recession. The severe depreciation of the peso led to a deep economic and political crisis that spilled to other countries in Latin America, with Venezuela and Uruguay particularly affected. After the outbreak of the Second Persian Gulf War in 2003, the oil prices first dropped, which soon attracted investors interested in profiting from the demand generated by the post-conflict reconstruction programme in Iraq. In the first decade of the 21st century, the world economy was shaken by the financial crisis that started in 2007 on subprime mortgage and real estate markets in the United States. Its shockwaves spread across the globe, including Europe, slowing down the economic growth in most of the countries of the Old Continent and even causing negative GDP growth rates in some countries of the euro area.

Along with economic turbulence the world has also experienced natural disasters, epidemics and pandemics. In April 2009, the World Health Organization (WHO, 2011) announced an outbreak of Influenza A (H1N1) in Mexico. Due to the rapid spread of the disease the WHO raised the level of the H1N1 flu pandemic alert to level six (the highest), effectively declaring a pandemic which

lasted until August 2010. With a certain degree of probability, it may be assumed that the Influenza A (H1N1) pandemic reduced FDI in Mexico and other countries in the region. However, this state of affairs did not last long (chart 3).

In 2013, there was an outbreak of Ebola virus disease (EVD), viral haemorrhagic fever, in Guinea. However, the Guinean authorities reported the national epidemic to the WHO only in March 2014. The disease quickly spread to Guinea's bordering countries in West Africa. In August 2014, the WHO declared the outbreak a Public Health Emergency of International Concern (PHEIC), arguing that 'the Ebola outbreak in West Africa constitutes an 'extraordinary event' and a public health risk to other States' (WHO, 2014). This situation also entailed a reaction from foreign investors due to the threat caused by the epidemic (chart 4).

For the past 15 years the World Economic Forum (WEF, 2020) has conducted research to identify risks in the global economy. Its latest *Global risks report 2020* presents, inter alia, the main risks defined for the consecutive years between 2007 and 2020. Interestingly, the risk of a pandemic was included among the top five risks only for the first two years. With the passage of time the assessment of risks seems to have changed dramatically, with threats related to climate crisis identified increasingly more frequently to eventually dominate the ranking in 2020 (table 1, table 2). All this time the risk of a pandemic — like the one that has now hit the globe with an unparalleled force — remained largely out of sight.

Nevertheless, the *Global risks report 2020* points out the need for continuous improvement in healthcare systems, irrespective of large investments already made to fight previous epidemics such as polio. Despite the historic effort leading to the eradication or elimination of some infectious diseases, such as smallpox or measles, the world is now facing their revival due to vaccine hesitancy driven by people's willingness to accept the opinions of anti-vax quacks and charlatans. Reluctance or refusal to vaccinate is currently considered to be among the top 10 threats to global health (WEF, 2020, p. 75; WHO, 2019). Growing vaccine hesitancy has led to outbreaks of measles also in developed countries where it had largely been eliminated.

Similar findings are reported with respect to other diseases, only intensifying the scale of healthcare failure. The report argues that despite considerable progress since the Ebola epidemic in West Africa (2014–2016), healthcare systems worldwide are still underprepared for significant outbreaks of other emerging infectious diseases, such as SARS, Zika and MERS (WEF, 2020, p. 76). This is clearly demonstrated in a report by the Nuclear Threat Initiative (NTI) and the Johns Hopkins Center of Health Security (JHU), which points out that 'no country is fully prepared for epidemics or pandemics', and that 'many countries do not show evidence of the health security capacities and capabilities that are needed to prevent, detect, and respond to significant infectious disease outbreaks'. These organizations indicated that in 2019 the average overall Global Health Security (GHS) Index score among all 195 countries assessed was 40.2

of possible score of 100. Even among the 60 high-income countries, the average GHS Index score was low and reached 51.9. Furthermore, specific scores for the GHS Index revealed health system indicators as the lowest-scoring category, with the average score of only 26.4 out of 100 (NTI & JHU, 2019, p. 9).

With countries largely unprepared for pandemics and thus unable to counteract their effects, the impact on the global economy may be unpredictable, including significant changes on the global FDI map. Therefore, the activity of the scientific community in undertaking research topics about forces involved in international business in relation to the pandemic is extremely needed. This article focuses on identifying the risks associated with FDI, including global risks such as pandemics. Investors' first responses are presented with respect to forecast revisions of FDI flows due to SARS-CoV-2/COVID-19.

2. Literature review

FDI is exposed to various types of risk, some specific to its international nature, some not. Table 3 shows the typology of investment risk divided into four groups: global, country, industry and enterprise risk¹. Two of them are basic risks faced by every enterprise undertaking an international project — industry and country risk. However, foreign investors cannot ignore the other types of risk, e.g. global risk. According to White & Fan (2006, p. 131), a global risk is that risk which has a systematic tendency at the global level. There are risk-generating events which can be described as global, covering all industries and all countries, and creating the potential for a type of overarching generic risk (White & Fan, 2006, p. 131). The *Global risks report 2020* proposes a slightly different definition of a global risk which it describes as ‘an uncertain event or condition that, if it occurs, can cause significant negative impact for several countries or industries within the next 10 years’ (WEF, 2020, p. 86).

Global risks can take many different forms (White & Fan, 2006, pp.133–134):

- natural disasters such as the Asian tsunami on the Boxing Day in 2004;
- war or civil unrest which spills across international frontiers;
- terrorist attacks of various kinds such as that of 11 September 2001;
- international depression such as the financial crisis of 2007–2008, also known as the global financial crisis (GFC);
- computer viruses such as the WannaCry ransomware attack of May 2017;
- diseases of various types such as AIDS, SARS or COVID-19.

According to the *Global risk report 2020*, global risks can be divided into six groups: economic (e.g. fiscal crises in key economies), environmental (e.g. extreme weather events, failure of climate-change mitigation and adaptation), geopolitical (e.g. large-scale terrorist attacks), societal (e.g. rapid and massive

¹ The FDI risk classification used in this article was proposed by White & Fan (2006). However, one can find many different classifications in the literature. For example, many authors consider corruption or bureaucracy as special categories of political risk (e.g. Benáček et al., 2014).

spread of infectious diseases), technological (large-scale cyberattacks) and others (WEF, 2020). While many of these events are infrequent, once they occur their impact may be dramatic.

A global risk has largely been ignored by the worldwide literature on FDI which has rather focused on country-specific risks, particularly political ones (Baek & Qianx, 2011; Desbordes, 2010; Osabutey & Okoro, 2015; Wei, 2000), or on the impact of domestic factors, such as political instability (Asiedu, 2006; Jun & Singh, 1996), corruption (Bitzenis et al., 2009; Büsse & Groizard, 2008; Büsse & Hefeker, 2005; Habib & Zurawicki, 2002; Harms, 2002; Li, 2006; Türedi, 2018; Wei, 2000) and bureaucracy (Bitzenis et al., 2009), on the FDI flows.

It would seem that the risk of an epidemic or pandemic should be taken into account in the decision to internationalize one's business operations, particularly in terms of capital investments abroad. As a global risk it may interrupt global supply chains (GVC) understood as global-scale transnational networks of entities involved in the supplier-buyer relationship to deliver products and services to end-users. In the past several decades the world has seen an expansion of mutual interactions among enterprises resulting in increasingly complex supply chains. This is reflected by an extensive subject literature, for example in the field of international economics (e.g. Aichele & Heiland, 2018; Antrás & Chor, 2013; Grossman & Rossi-Hansberg, 2008; Johnson & Noguera, 2012; Lee & Yi, 2018) or international business (e.g. Buckley, 2009; Kano, 2018; Laplume et al., 2016; Mudambi, 2008).

The chains consist of organizations (links) increasingly scattered around the globe, creating a dense network of globally intertwined economic structures. Searching for the most profitable investment opportunities, investors develop global value chains (GVC), or indeed global value networks (GVN). Such networks need to ensure stable, uninterrupted (smooth) flows of goods and services to deliver on the objectives of all actors involved. This requires a proper synchronization of the current and future activities. Naturally, the share of entities in creating the value of the network is different. Disturbances affecting different links in the chain will also have a different impact on the performance of the entire network. Such disturbances may be of both internal and external nature. The latter include elements of global risks (Wagner & Bode, 2019). A severe, unmanageable damage to one or many links in the chain may easily result in a domino effect.

This appears to be currently the case. According to Baker McKenzie (2020, p. 9), COVID-19 has now unleashed a global supply chain crisis across a huge number of organizations, stemming from a lack of understanding and flexibility of the multiple layers of their global supply chains and a lack of diversification in their sourcing strategies. It is clear that the risk assessment of such damage can suggest what safeguards should be used to ensure a smooth operation of the network. Therefore, it is critical to study risks related to the process of making business decisions.

3. Methods

The article uses both primary and secondary data. The former was obtained in three scientific research projects regarding FDI of Polish enterprises. The first project was implemented in 2007–2008². A total of 102 companies, i.e. 20.5% of Polish direct foreign investors at the time, participated in the survey. Taking this into account and having complied with other formal criteria, the results of the study could be generalized to the entire population of the studied enterprises. The second study was carried out in 2012–2013³. Slightly over 10% of all Polish direct foreign investors who implemented 279 FDI projects participated in this survey. Here the authors clearly recommended extreme caution in generalizing the study results. The third study was launched in 2019 to explore Polish direct investments in Kazakhstan⁴. A total of 40% of all Polish enterprises that made FDI in this country participated in the study. One of the areas addressed in all three projects was the perception of risks related to FDI.

The secondary data presented in the article was obtained from official statistical sources, including the United Nations Conference on Trade and Development (UNCTAD, 2020d), WHO (2019), WEF (2020), NTI & JHU (2019) and Baker McKenzie (2020).

This study uses a variety of methods, such as statistical and economic analyses, comparisons, analogies, synthesis as well as the method of measuring and aggregating data, and graphical and tabular method. The choice of economic parameters presented below as well as the related parameter formulas as proposed by the authors is based on the results of a preliminary query of the scientific literature on the subject, available statistical data, as well as the authors' research experience and own conclusions.

4. Results

The studies show that direct risk analyses conducted by Polish investors did not take into account threats such as natural disasters, epidemics or pandemics. In the first study from 2007–2008 Polish entities opting for FDI focused mainly on assessing the risk of the country in which they were to invest. Very similar results were also obtained in the second study carried out in 2012–2013. Polish direct investors participating in it also pointed to the primary role of risks related to the investment country, while also listing the economic risk, currency exchange risk and political risk. Some insight is also offered into the risk assessment by subsidiaries which indicated market risks (risks related to competition, market trends) among the most significant industry risks. The risk of supply

² For a detailed discussion of the study results see Karaszewski (2008).

³ For a detailed discussion of the study results see: Karaszewski (2013).

⁴ The third study is part of a larger project covering four countries (two highly developed and two developing).

chain interruptions ranked twelfth in their hierarchy of importance, potentially covering also epidemics or pandemics; however, without specifying them directly. As revealed by the most recent research project, launched in 2019 and focused on Polish direct investors in Kazakhstan, none of the respondents included in their risk analysis such threats as epidemics or pandemics. According to them, the most important risks related to the investment country were primarily economic (risk of changing exchange rates of the local currency, risk of changing interest rates, risk of economic recession) and political risks (risk of difficulty in pursuing claims before local courts, risk of the volatility of the law, risk of unfavourable legal regulations).

A similar study (in terms of the subject matter and methodology) was carried out by UNCTAD (2017, pp. 6–7) in the first months of 2017 in a group of executives from the largest multinational enterprises (MNEs). Nearly 100 respondents took part in the survey. Its aim was to identify the factors (including risks) that could have an effect on the scale of the FDI. Two groups of factors were considered: macroeconomic as well as corporate and external factors. In the first category the main drivers behind the FDI growth were defined by most respondents as (in order of importance): the state of developing Asian economies, the state of the United States economy, the state of the BRICS and other emerging economies, with geopolitical uncertainties indicated as a source of global risk. In the second group (corporate and external factors) the majority of the respondents indicated technological change (including digital economy) and global urbanization as positive factors, indicating terrorism and social instability as major sources of risk. Significantly fewer respondents pointed to natural disasters, including pandemics.

In light of the above it may be argued that contrary to the UNCTAD (2017) study, in which the possibility of a global risk, including a pandemic, was recognized by a small number of investors, Polish FDI enterprises did not anticipate this kind of threats at all.

This shows that the COVID-19 pandemic of 2019/2020 must have come as a real shock to foreign investors. On 8 March 2020, UNCTAD (2020b) released its first Special Issue information on the SARS-CoV-2 pandemic and its impact on global FDI flows in 2020–2021. Revising its previous forecasts projecting a marginal growth in FDI for 2020–2021⁵, UNCTAD (2020b) informed of the downward pressure on FDI at the level between –5% and –15%. It expected the negative impact to be concentrated mainly in the countries most affected by the pandemic; however, other countries were said to also experience it, largely due to negative demand trends and consequences of supply chain disruptions. UNCTAD (2020b) also quoted the alarming statements from 69 out of 100 MNEs with largest assets invested abroad in 2019. Of these, 41 issued profit alerts informing that lower profits and an increased risk would translate

⁵ The forecast of 20 January 2020 assumed an increase in global FDI of 5% for 2020–2021 (UNCTAD, 2020a).

into lower reinvested earnings profits (a major component of the FDI value)⁶. The revised earnings forecasts of the global top 5000 MNEs were also presented for the fiscal year 2020 (by sector and industry). Between 1 February and 5 March 2020 they were revised down by an average of –9%. The heaviest cuts in expected earnings were reported for the following sectors: Automobiles & Auto Parts — 44%; Airlines — 42%; Hotels, Restaurants & Leisure — 21% (table 4).

On 27 March 2020, UNCTAD (2020c) published another Special Issue on the impact of the pandemic. After only 20 days it corrected its previous downwards revisions of FDI earnings estimates for 2020–2021, suggesting the downward pressure from –30 to –40%, based on updated economic impact estimates and earnings revisions of the largest MNEs. Between 1 February and 5 March, the global top 5000 MNEs revised down their 2020 earnings estimates by –30% on average. The average earnings revision by March 27th was –35% for 2663 MNEs in developed economies, –20% for 1249 MNEs in developing economies, and –18% for 40 MNEs in transition economies. The scale of downward revisions varied across the studied sectors and industries. Those affected the most included: Energy (–208% compared to –13% estimated in the previous period); Automobiles & Auto Parts (–47%); Airlines (–116%); Hotels, Restaurants & Leisure (–41%).

5. Conclusion

The changes in investors' behaviour clearly show that the global economy is in the state of utter shock. The SARS-CoV-2/COVID-19 is said to be a 'Black Swan' event (Halliburton, 2020). In business this term commonly denotes a rare and disruptive occurrence that is difficult to predict. However, one needs to bear in mind that SARS-CoV-2/COVID-19 was preceded by SARS-CoV (severe acute respiratory syndrome), which began in 2002 also in China, where it was first concealed, and eventually was declared an epidemic by the WHO (2004, p. 4) in 2003. The prevalence and spread of that disease was much lower compared to COVID-19, but at that time China's position in the global economy was completely different, not to mention the scale of mobility in the global population. The discussed research results show that global investors, both the largest and the small ones (such as Polish direct foreign investors), originally did not include a pandemic (epidemic) among the identified risks. They probably did not realize the impact of a pandemic on global supply chains and the economic situation of entities that build them, negative implications in terms of supply, and above all, sharp declines in demand. Among the least affected in the initial period will be the biggest actors — typically suppliers of finished goods, par-

⁶ In 2018, the share of reinvested earnings in FDI was respectively: in developed economies — 61%, in developing economies — 40%, in transition economies — 93%, and worldwide — 52% on average (UNCTAD, 2020c).



ticularly those with supply reserves. However, it will be a matter of (not so long) time before they experience it, too.

References

- Aichele, R., & Heiland, I. (2018). Where is the value added: trade liberalization and production networks. *Journal of International Economics*, 115. doi:10.1016/j.jinteco.2018.09.002.
- Antrás, P., & Chor, D. (2013). Organizing the global value chain. *Econometrica*, 81(6). doi:10.3982/ECTA10813.
- Asiedu, E. (2006). Foreign direct investment in Africa: the role of natural resources, market size, government policy, institutions and political instability. *World Economy*, 29(1). doi:10.1111/j.1467-9701.2006.00758.x.
- Baek, K., & Qian, X. (2011). An analysis on political risks and the flow of foreign direct investment in developing and industrialized economies. *Economics, Management, and Financial Markets*, 6(4).
- Baker McKenzie. (2020). *Beyond COVID-19: supply chain resilience holds key to recovery*. Retrieved 24.04.2020 from <https://www.bakermckenzie.com>.
- Benáček, V., Lenihan, H., Andreosso-O'Callaghan, B., Michalíková, E., & Kan, D. (2014). Political risk, institutions and foreign direct investment: how do they relate in various European countries. *World Economy*, 37(5). doi:10.1111/twec.12112.
- Bitzenis, A., Tsitouras, A., & Vlachos, V.A. (2009). Decisive FDI obstacles as an explanatory reason for limited FDI inflows in an EMU member state: the case of Greece. *The Journal of Socio-Economics*, 38(4). doi:10.1016/j.socec.2009.03.001.
- Buckley, P.J. (2009). Internalisation thinking: from the multinational enterprise to the global factory. *International Business Review*, 18(3). doi:10.1016/j.ibusrev.2009.01.006.
- Büsse, M., & Groizard, J.L. (2008). Foreign direct investment, regulations and growth. *World Economy*, 31(7). doi:10.1111/j.1467-9701.2008.01106.x.
- Büsse, M., & Hefeker, C. (2005). Political risk, institutions and foreign direct investment. *Hamburg Institute of International Economics Discussion Paper*, 315. doi:10.2139/ssrn.704283.
- Desbordes, R. (2010). Global and diplomatic political risks and foreign direct investment. *Economics & Politics*, 22(1). doi:10.1111/j.1468-0343.2009.00353.x.
- Grossman, G.M., & Rossi-Hansberg, E. (2008). Trading tasks: a simple theory of offshoring. *American Economic Review*, 98(5). doi:10.1257/aer.98.5.1978.
- Habib, M., & Zurawicki, L. (2002). Corruption and foreign direct investment. *Journal of International Business Studies*, 33(2). doi:10.1057/palgrave.jibs.8491017.
- Halliburton, B.C. (2020). *COVID-19 is a black swan*. Retrieved 26.04.2020 from <https://www.forbes.com>.

- Harms, P. (2002). Political risk and equity investment in developing countries. *Applied Economics Letters*, 9(6). doi:10.1080/13504850110084064.
- Johnson, R.C., & Noguera, G. (2012). Accounting for intermediates: production sharing and trade in value added. *Journal of International Economics*, 86(2). doi:10.1016/j.jinteco.2011.10.003.
- Jun, K.W., & Singh, H. (1996). The determinants of foreign direct investment: new empirical evidence. *Transnational Corporations*, 5(2).
- Kano, L. (2018). Global value chain governance: a relational perspective. *Journal of International Business Studies*, 49(6). doi:10.1057/s41267-017-0086-8.
- Karaszewski, W. (Ed.) (2008). *Bezpośrednie inwestycje zagraniczne polskich przedsiębiorstw*. Toruń: Dom Organizatora.
- Karaszewski, W. (Ed.) (2013). *Aktywność inwestycyjna polskich przedsiębiorstw za granicą*. Warszawa: PWE.
- Laplume, A.O., Petersen, B., & Pearce, J.M. (2016). Global value chains from a 3D printing perspective. *Journal of International Business Studies*, 47(5). doi:10.1057/jibs.2015.47.
- Lee, E., & Yi, K.-M. (2018). Global value chains and inequality with endogenous labour supply. *Journal of International Economics*, 115. doi:10.1016/j.jinteco.2018.09.006.
- Li, Q. (2006). Democracy, autocracy, and tax incentives to foreign direct investors: a cross-national analysis. *Journal of Politics*, 68(1). doi:10.1111/j.1468-2508.2006.00370.x.
- Mudambi, R. (2008). Location, control and innovation in knowledge-intensive industries. *Journal of Economic Geography*, 8(5). doi:10.1093/jeg/lbn024.
- NTI, & JHU. (2019). *Global Health Security Index: building collective action and accountability*. Retrieved 23.04.2020 from <https://www.ghsindex.org>.
- Osabutey, E.L.C., & Okoro, C. (2015). Political risk and foreign direct investment in Africa: the case of the Nigerian telecommunications industry. *Thunderbird International Business Review*, 57(6). doi:10.1002/tie.21672.
- Türedi, R. (2018). The effect of corruption and country risk on FDI inflows: empirical evidence from developing countries. *International Journal of Economic and Administrative Studies*, 21. doi:10.18092/ulikidince.370653.
- UNCTAD. (2017). *World investment report 2017: investment and the digital economy*. Retrieved 24.04.2020 from <https://unctad.org>.
- UNCTAD. (2020a). Global FDI flows flat in 2019: moderate increase expected in 2020. *Global Investment Trend Monitor*, 33.
- UNCTAD. (2020b). Impact of the Coronavirus outbreak on global FDI. *Global Investment Trend Monitor*, 34.
- UNCTAD. (2020c). Impact of the COVID-19 pandemic on global FDI and GVCs: updated analysis. *Global Investment Trend Monitor*, 35.
- UNCTAD. (2020d). *UNCTADstat*. Retrieved 08.04.2020 from <https://unctadstat.unctad.org>.



- Wagner, S.M., & Bode, Ch. (2009). Dominant risks and risk management practices in supply chains. In G.A. Zsidisin, & B. Ritchie (Eds.), *Supply chain risk*. Boston: Springer. doi:10.1007/978-0-387-79934-6_17.
- WEF. (2020). *The global risks report 2020*. Retrieved 15.04.2020 from <https://www.weforum.org>.
- Wei, S.-J. (2000). How taxing is corruption on international investors? *Review of Economics and Statistics*, 82(1). doi:10.1162/003465300558533.
- White, C., & Fan, M. (2006). *Risk and foreign direct investment*. New York: Palgrave MacMillan.
- WHO. (2004). *WHO SARS risk assessment and preparedness framework*. Retrieved 22.04.2020 from <https://www.who.int>.
- WHO. (2011). *Pandemic influenza A (H1N1)*. Retrieved 22.04.2020 from <https://www.who.int>.
- WHO. (2014). *Statement on the 1st meeting of the IHR Emergency Committee on the 2014 Ebola outbreak in West Africa*. Retrieved 20.04.2020 from <https://www.who.int>.
- WHO. (2019). *Ten threats to global health in 2019*. Retrieved 21.04.2020 from <https://www.who.int>.

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Appendix

Table 1.
Top 5 global risks in terms of likelihood in 2007–2008 and 2020

Position	2007	2008	2020
1	infrastructure breakdown	blow up in asset prices	extreme weather
2	chronic diseases	Middle East instability	climate action failure
3	oil price shock	failed and failing states	natural disasters
4	China hard landing	oil price shock	biodiversity loss
5	blow up in asset prices	chronic diseases	human-made environmental disasters

Source: WEF (2020, p. 2).

Table 2.
Top 5 global risks in terms of impact, 2007–2008 and 2020

Position	2007	2008	2020
1	blow up in asset prices	blow up in asset prices	climate action failure
2	deglobalization	deglobalization (developed)	weapons of mass destruction
3	interstate and civil wars	China hard landing	biodiversity loss
4	pandemics	oil price shock	extreme weather
5	oil price shock	pandemics	water crises

Source: WEF (2020, p. 2).



Table 3.
A typology of investment risk

Global risk	Country risk	Industry risk	Enterprise risk
1. natural events (drought, floods, earthquakes, volcanic eruption)	1. political risk	1. product nature risks	1. operational risks
2. social events (epidemics or epizootics)	– political instability (war, revolution, democratic change of government, other political instability)	– for producers-health and safety	– labour risks (labour unrest, high labour turnover or absenteeism)
3. political events (wars)	– government policy risks (tax reforms, monetary reforms, price controls, trade restrictions, nationalisation, government regulation, barriers to earnings repatriation)	– for transporters-health and safety	– input supply risks (raw material shortages, quality changes, spare parts restrictions)
4. economic events (depressions)	– social instability risks (civil unrest, riots, demonstrations, low level terrorism)	– for consumers-product liability	– production risks (teething problems with new technology, machine failure, other random production factors)
5. technical events (computer viruses)	2. economic risks	– pollution to nearby residential areas	2. finance risks
	– performance risks (product price, transfer risks, the price of capital)	2. input market risks (resources, labour, capital or goods)	– liquidity problems (problems with collectibles)
	– market context risks	– quality risks	– credit problems (deteriorating credit rating, poor structure of assets and liabilities)
	– infrastructural risks	– shifts in market supply	3. behavioural risks
	3. financial risk	– changes in the quantity used by other buyers	– agency problems or self-interested actions
	– creditworthiness risk	3. product market risks	– actions which damage reputation
	4. cultural risks	– changes in consumer tastes	– deficiencies of skill or experiences
	– transaction cost risks (corruption, bureaucracy, nepotism)	– availability of substitute goods	
	– negotiation risks	– scarcity of complementary goods	
		4. competitive risks	
		– rivalry amongst existing competitors	
		– changes in product differentiation/branding	
		– new entrants and movements in the barriers to entry or exit	
		5. technological risks	
		– products innovations	
		– process innovations	
		6. regulatory risks	
		– industry risks	
		– government regulations	

Source: White & Fan (2006, p. 175).

Table 4.
Earnings revisions and capital expenditures of the top 5000 MNEs

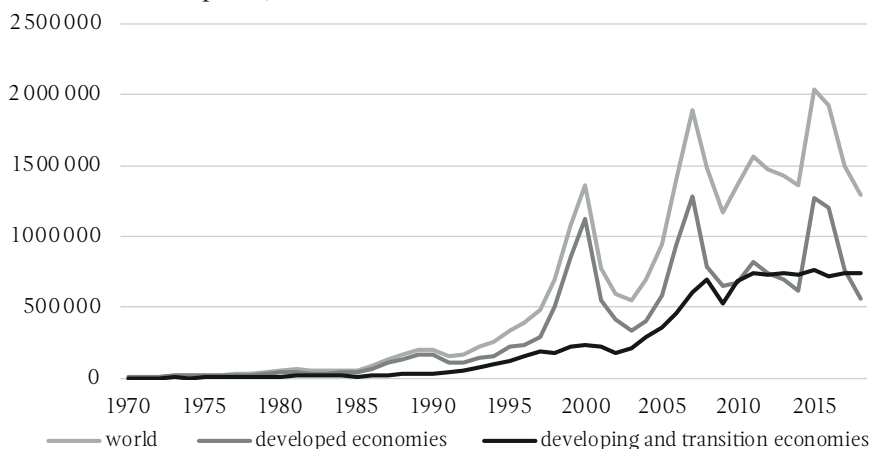
Sector/industry	Number of companies with earnings revisions		Average earnings revision (in %)		Share of capital expenditures 2019 (in %)
	08.03.2020	27.03.2020	08.03.2020	27.03.2020	
basic materials	389	483	-13	-20	8
consumer cyclicals	671	810	-16	-24	16
airlines	45	56	-42	-116	2
hotel, restaurants & leisure	111	125	-21	-41	2
consumer non-cyclicals	351	447	-4	-8	6
energy	243	289	-13	-208	20
healthcare	195	216	0	-2	3
industrials	739	910	-9	-20	14
automobiles & auto parts	142	169	-44	-47	9
technology	358	412	-3	-7	11
telecommunications services	105	125	1	-4	11
utilities	175	220	-5	-9	10
total	3226	3912	-9	-30	100

Notes:

Top 5000 public companies that had at least one revision of earnings forecast for the fiscal year 2020 since 1 February 2020. A few outliers (5 in total) were excluded as extreme revisions of earnings were driven by idiosyncratic factors not related to COVID-19.

Source: UNCTAD (2020b, p. 3; 2020c, p. 3) based on data from Refinitiv SA.

Chart 1.
FDI inflows to developed, developing and transition economies in 1970–2018 (millions of dollars, current prices)

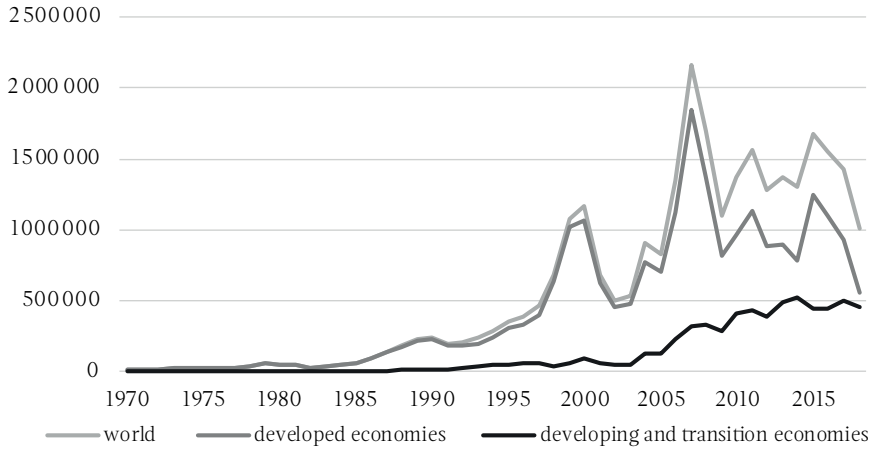


Source: Own preparation based on UNCTAD (2020d).



Chart 2.

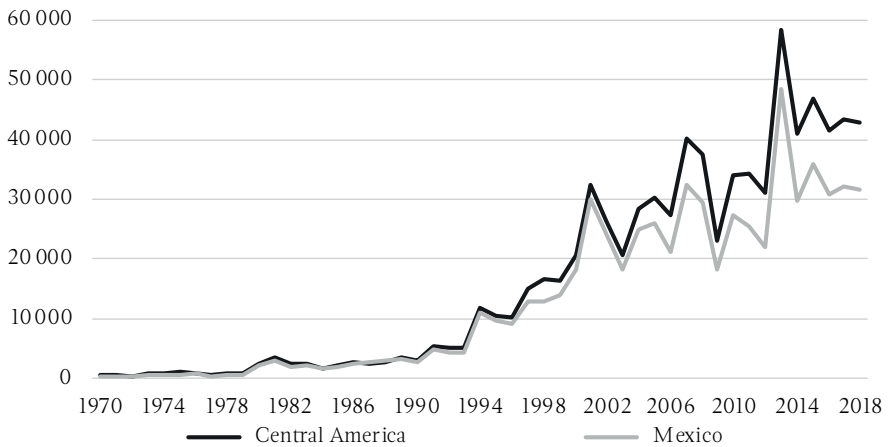
FDI outflows from developed, developing and transition economies in 1970–2018 (millions of dollars, current prices)



Source: Own preparation based on UNCTAD (2020d).

Chart 3.

FDI inflows to Central America and Mexico in 1970–2018 (millions of dollars, current prices)

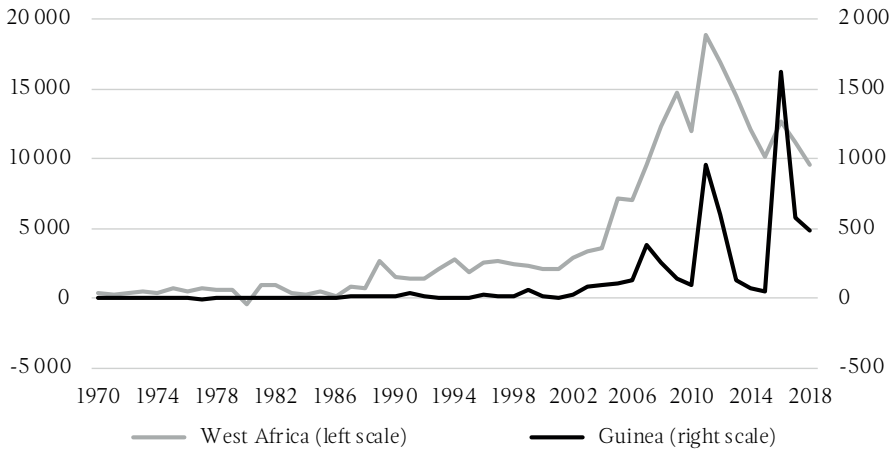


Source: Own preparation based on UNCTAD (2020d).



Chart 4.

FDI inflows to West Africa and Guinea in 1970–2018 (millions of dollars, current prices)



Source: Own preparation based on UNCTAD (2020d).