



Ca' Foscari
University
of Venice

Master's Degree
in International Management

Final Thesis

**Business Regionalization: additional
strategies for international
competitiveness**

Supervisor

Ch. Prof. Stefano Micelli

Assistant supervisor

Selena Brocca

Graduand

Marco Poveglian

Matriculation Number 879064

Academic Year

2020 / 2021

Index

Index 4

Introduction..... 7

Chapter 1: Globalization..... 11

History of Globalization..... 11

Empirical evidence and data analysis of globalization..... 17

Managerial and societal implications of globalization 25

Chapter 2: Toward regionalization..... 33

Semi-globalization..... 34

US-China trade war and technological decoupling..... 48

US-China Trade War 48

Technology Decoupling 55

Covid-19 outbreak..... 59

Impacts on the Supply Chains 67

Chapter 3: Corporate Strategies and Regionalization 75

Definition of a region..... 76

Regional Business Strategies 78

Regional or Home Focus..... 79

Regional Portfolio..... 81

Regional Hubs 82

Regional Platforms 84

Regional Mandates 86

Regional Networks..... 87

Case Study 1: Electrolux Professional AB..... 91

Case study 2: Whirlpool Corporation 95

Case study 3: Somec S.p.A..... 99

Case Study 4: Samsung Electronics 102

Conclusions 105

Appendix..... 109

Interview 1..... 109

Interview 2..... 111

Interview 3..... 113

Interview 4..... 115

References..... 117

Figure Index..... 123

Introduction

The central theme of this project is the analysis of **regionalization**, an international-business condition strongly linked with the widely known phenomenon of the globalization. The reason behind this choice is trying to give order and a truthful interpretation of where international business world is directing to, providing empirical evidence and real case studies as a support.

“Regionalization” is an expression that may be exposed to multiple definitions, it may be designed as a subsystem submitted to the rationale of globalization, or as a substitute to it (Amin, 1999). In general, in the international business environment it is considered an evolution of the globalization process which emphasizes the importance of regions as central institutional bodies for trade, sales and strategic operations. **Companies which are international or aim to compete internationally should target regions rather than single nations or the entire world.**

Globalization is a process that started many centuries ago with the first navigation routes of the European colonizers and that affected, through the years, the business world as well as culture, ideologies, education, habits, travels, innovation. Countries once so far one another became closer, opening new markets, giving access to new competences, resources, ideas. The first great boost for a globalized world occurred with the second industrial revolution of the XIX century: new technologies enabled the construction of railroads, introduced new chemicals, new more reliable means of transport, mass production, etc., which enabled an increase in the export rate of the strongest nations of the time. Then, statistics show that the second boost took place in the middle of the XX century with multinationals and then with Internet: +688% of global export volume from the 50s to 2008, global trade (% GDP) doubled, migrants all around the world are five times higher, etc.

Despite the centrality it achieved after the boost from geopolitical and technological disruptions of the XX century, recent events have brought experts and people to question the positivity, the utility and even the current existence of globalization in the business

world. In particular, the great financial crisis of 2008 (GFC), the Euro-Zone struggles, the China-US trade war tensions, the risk of a technological decoupling and, finally, the still on-going Coronavirus outbreak are the key points in trying to address why regionalization is gaining ground as a positive strategic option.

More, many studies suggest that even multinationals widely perceived as global are operating, instead, at a regional level.

The thesis is composed of three chapters and it is based on deep online and offline research, interviews with experts and information from seminars.

The core structure is connected to contributions made by Pankaj Ghemawat, Management and Strategy Professor at the Harvard University and globalization expert.

Chapter 1 hosts an analysis of the story of the globalization phenomena as regionalization is considered an evolution of it. The focus is initially posed on Thomas Friedman's work "The World Is Flat", a widely debated book in which he describes, among many topics, the evolution of a global and interconnected world. Then, Chapter 1 proposes a series of empirical analysis of most important indicators in terms of global connectivity. The first chapter ends with a research on the most relevant consequences in managerial terms, so on how a more globalized world have shaped corporate strategic decisions.

Chapter 2 focuses on regionalization and starts discussing a phenomenon called "semi-globalization", which means that data show that countries (and companies), for a big number of globalization indicators, still record levels that are wide below what's needed to be really global. Then, a double study by Rugman and Verbeke on Fortune 500 multinationals confirms that a big percentage of them acts following regional schemes and less than 10 can be considered truly global companies.

From the second half of the chapter there is a deep and detailed analysis on the impacts and boosts that the US-China trade war, the fears of a technological decoupling and, above all, the Covid-19 pandemic have been giving to the affirmation of regional patterns since 2015, particularly in the management of long supply and value chains.

Chapter 3, adhering to the contribution of Professor Ghemawat, after giving guidelines on how to identify and bound a region, explains six different strategic options that could be adopted by companies to try to be competitive internationally through a regional

approach. In this sense, to try to give more practical evidence, in the chapter there are four different case studies; the first two analyze two key realities of the home and the professional appliances: Electrolux Professional AB and Whirlpool Corporation. Instead, the third case study considers an Italian company, Somec S.p.A., which works in multiple construction and architectural businesses worldwide but does not have an official regional segmentation of them. The fourth and last case study focuses on a telecommunication and electronics company, Samsung Electronics, which is part of the Samsung South Korean chaebol¹.

In the appendix there are the interviews that Andrea Zanata (CEO Electrolux Professional AB), Paolo Liroy (CEO Whirlpool Italy and Iberia), Oscar Marchetto (CEO Somec S.p.A.) and Riccardo De Franchis (Head of Business Management Samsung Italia) have kindly allowed to perform.

¹

Chaebols are industrial conglomerates that are run usually by a family or an external owner (often linked with the original family).

Chapter 1: Globalization

History of Globalization

The process of globalization is one of the most discussed and highlighted of our times. Potentially, every single science, from medicine to economy, is somehow connected with the changes that globalization has brought and is bringing to the modern world. In this sense, it's of massive importance to understand what Globalization means: the World Health Organization considers it as *“the interconnectedness and interdependence of people and countries, is generally understood to include two interrelated elements: the opening of international borders to increasingly fast flows of goods, services, finance, people and ideas; and the changes in institutions and policies at national and international levels that facilitate or promote such flows; consequences of globalization can be both positive and negative.”*; the International Monetary Fund (IMF) instead considers it an historical process, result of human innovation and technological advancements. The British sociologist Anthony Giddens describes it as the phenomenon of intensification of the relations among distant parts which causes that a local event could be influenced by another one located far from the first.

According to one of the key figures and experts of globalization whose name is Thomas Friedman, three-times Pulitzer Prize winner and weekly columnist for the New York Times, globalization is a process that starts in the XV century and that can be divided into three different phases (Friedman, 2005):

- The first one is named Globalization 1.0, it is comprised between 1492 and 1800 and it was driven by European countries which exploited the technological and military superiority to reach new territories and colonize them. Major players were Netherlands, which directed efforts to Africa, Spain and Portugal which focused on South America, England and France which instead operated at a wider scale entering different continents, mainly North America and Africa.

Despite there weren't examples similar to current corporations, the forces and incentives behind colonization started to track new navigation routes that reduced the distances from countries and societies (from an ideological perspective),

starting a first mixing of ideologies, styles, products, etc.; the main drivers of globalization in this first era were the **nation states**, as they saw in colonizing new countries the chance to expand their markets, access to new resources and increased military power.

- Globalization 2.0 lasted roughly from 1800 to 1990 and further shortened the distances in the world. The XIX century hosted extremely important technological innovations such as the steam power, chemical composts, fossil fuels, telegraph, railroads and telephones. All these introductions allowed firms to take advantage of faster, cheaper and more reliable transportation methods, which enabled them to reach more markets (even outside the nations), with a clear incentive to expand the manufacturing capacity. These conditions allowed many companies to become multinationals or to be founded those years as MNEs (General Electric, Reebok, Coca Cola, Ford, Gillette, IBM, etc.); the presence of subsidiaries or international headquarters expanded the international presence, thus fostering the mixing of the cultures, management practices, products through operating and serving different countries.

The table below represents the increase, in terms of kilometres, of railroads present in different countries between 1870 and 1913: railroads were a key infrastructure because they allowed for the first time to reach territories before unaccessed and helped the development of gigantic steel companies. Noteworthy is the fact that every country invested in this infrastructure, with United States that almost quadrupled their network and Russia made it seven times more extended than forty years before.

	1870	1913
Japan	0	10.570
France	15.544	40.770
Italy	6.429	18.873
UK	21.500	32.623
US	85.170	400.197
Russia	10.731	70.156

Table 1: Kilometres of railroad track in service, 1870 and 1913 (Amatori F., Colli A., 2011)

The second half of the XX century instead is characterized by the fall of communication and telecommunication costs due to the diffusion of calculators, telephones, computers, personal computers, satellites, optic fiber and world wide web. These innovations shrunk even more the distances between people and corporations, allowed easier and cheaper potential control which enabled companies to seek all over the world opportunities for profitability which justifies the affirmation, in those years, of companies which pursued internationalization strategies.

Hence, key agents for the spread of globalization were **multinationals**. These players started to be organized in a more complex manner, which consists of multiple functions or even product/geographical divisions.

- Friedman identifies the last phase of the globalization (Globalization 3.0) from the 90s onward, with **individuals** as the protagonist (so western MNEs aren't key agents of change anymore, but individuals from all diverse parts of the world are). The development of digital devices, Internet connection and virtual social platforms gives the chance to every single person to compete and be present worldwide, connected potentially with everyone. But the novelty is far more than this: the "New Economy" that emerged those years revolutionized the purchasing process of people, allowing them to take advantage of the online presence of brands with e-commerce; it paved the way for open-source collaborations in every field, from education and research to any kind of job, from military actions to sports events and healthcare (tele-medicine). More, plenty of new typologies of jobs have been created because of the possibility to monetize the knowledge of these new technologies, while others have disappeared or are on the way to do so.

% / Area	2005	2010	2016
Africa	2	10	25
Americas	36	49	65
Arab States	8	26	42
APAC	9	23	42
Commonwealth	10	34	67
Europe	46	67	79

Table 2: Percentage of internet users in different regions

As the table above shows, the amount of people that over the last two decades has utilized internet has grown with an important pace: non-developed and developing regions too have boosted the use of the net. This shows how pervasive and revolutionary the technology has revealed to be.

Included in this third phase of the globalization process it is also the so called “Industry 4.0” advent.

This terminology comes from the financial investments planned initially in Germany (Industrie 4.0) and followed then by France with “Industrie du futur” and by US with “Manufacturing USA” aimed at empowering the corporations of the country in the competitive arena brought by new enabling technologies like 3D printing, laser cutting, artificial intelligence, internet of things, augmented reality, cloud computing, additive manufacturing and simulation. These innovations are going beyond the shortening of the distances as they allow even a replacement of the workforce with machines that are able to communicate with each other. In this sense, for instance one person from its house is able to work for different clients located in multiple countries, making distance and differences an obsolete issue.

Alongside technological advances, other forces pushed in favor of a more connected world, mainly from a political-economic perspective.

At the end and soon after the Second World War, most powerful nations of the time conducted the Bretton Woods conferences (1944) where they gave birth to the World Bank, aimed at helping developing economies, and International Monetary Fund which scope is, among others, to establish free trade policies, while the General Agreement on Tariffs and Trade (Gatt, 1947) acted in favor of free tariffs world trade; 1957 saw the “Treaties of Rome” that established the European Economic Community (EEC) which created a common market among European countries. This institution has evolved then into the European Union in 1992 following the Treaty of Maastricht and since 2002 is integrated with a common currency, the Euro, which makes it easier to perform international transactions.

An additional great boost for a global economy without barriers took place in the 80s with the election of Margaret Thatcher as UK Prime Minister and Ronald Reagan as US President: they both were fierce supporters of free trade, deregulation of economies and privatization of state-owned enterprises (SOEs) and, thanks to the power represented by

their states, they were massively influential in spreading these ideologies to foreign political powers.

1989 marked another important milestone for globalization and capitalism with the fall of the Berlin Wall and the end of Soviet Union and communism: a big number of countries, especially in Eastern Europe and Asia, once under the communist ideology embraced the idea of those advocating democratic, consensual, free-market-oriented governance, and rejected authoritarian rule with centrally planned economies. This event opened the way for these countries to join the institutions listed above and be themselves engines for a more integrated environment. More, democratic political solutions started to substitute dictatorships and often the direction of the ideologies were toward more open and liberal institutions.

The 90s saw the so called “hyperglobalization” with a clear reject of public state power in favor of privatization of companies in the key sectors of the economy. From the 80s to the end of the millennium data shows that more than one thousand privatizations were concluded in Western Europe for a capital involved equal to 600 billion dollars (Amatori F., Colli A., 2011); the concept and name of the “Washington Consensus” were first presented in 1989 by John Williamson, an American economist from the Institute for International Economics, an international economic think tank based in Washington. The term summarizes commonly shared themes among policy advice by Washington-based institutions such as the International Monetary Fund, World Bank, and U.S. Treasury Department, which were believed to be necessary for the recovery of countries in Latin America from the economic and financial crises of the 1980s: the base of these policies was mainly the pursue of campaigns of liberalization of trade, which meant more and international trade and privatization of state-owned enterprises.

All the hype was stimulated also by many economists like Andrew Warner which stated that there was no evidence for supporting the worries about the “opening” of a country. The end of the 90s saw first protests against the effects of globalization on local businesses and communities: extreme competition, unfair trading practices, pollution, massive depredation of many natural resources, alienation from the work, military conflicts etc. were first signs of the other side of the coin globalization. Nevertheless, the main protagonists of the political parties and economic experts were denying any obstacle to globalization.

2001 terrorist attacks and the war in Iraq of the early stages of the new millennium diverted for some years the attention from the just mentioned theme, which came back in 2008 with the Great Financial Crisis. From that point on, the debate about benefits and downsides of the phenomenon have continued and further in this work there will be the analysis of the current state.

Empirical evidence and data analysis of globalization

When dealing with globalization it is important to have a clear link with historical data that show how technological innovations and political support have shaped many indicators over time.

In light of this, the next pages will focus on six different historical series that show some effects of the push toward a more globalized, interconnected and interdependent world.

The first outlook considered is focused on the economic globalization, so on those indicators that underpin economic trends, which are the ones pivoting changes also in other aspects of the society such as consumer trends, habits, knowledge, etc.

George Soros, Hungarian-American billionaire entrepreneur and philanthropist, in fact interprets the globalization as mainly an economic process made of free trade, capital flow and financial markets and MNEs dominance over national economies (Soros, 2002), which then extends its influence on the other spheres above mentioned.

In particular, the lenses are put on historical series of global export volume of trade in goods, trade as a percentage of the gross domestic product, foreign direct investment world stock, the stock of migrants and the cooperation in scientific articles.

Moreover, there is the analysis of a more recent but interesting index, the one provided by the logistic transportation company DHL, the so called “DHL global connectedness index”.

The first indicator below graphically depicted is about the amount of export volume of trade in goods from 1950 to 2019. The effects of more interconnected and interlinked nations are visible with the sharp increase of the curve that starts in the 80s, which is the result of technology advancements and political support for globalization. Impressive is the increase that can be observed between the 80s and 2008, the year of the financial crash, that it is equal to +688%.

Despite the hit caused by the financial crash of the early years of the new century, it is worth noticing that the levels have recovered just after three years in 2011, while they stabilize over the following decade.



Figure 1: Trends in global export volume of trade in goods from 1950 to 2019 (in billion U.S. Dollars) – World Bank Database

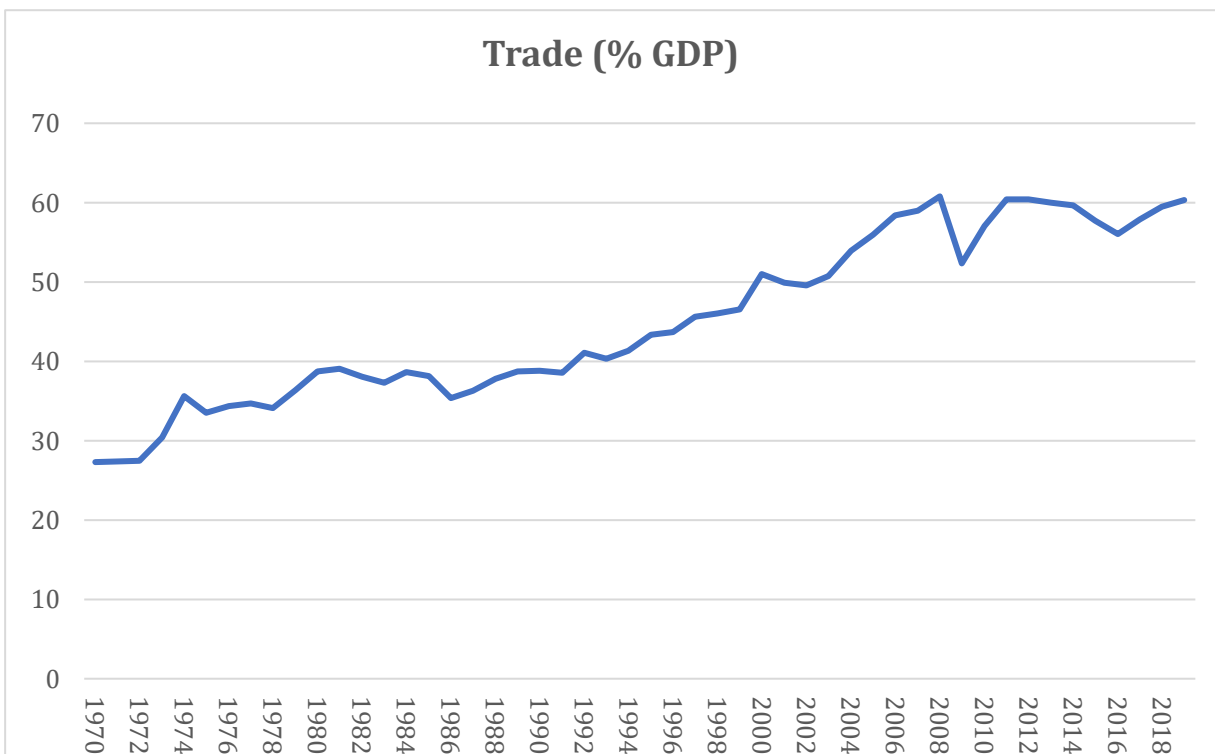


Figure 2: Trade (% GDP) – World Bank Database

Secondly, partially connected with the export representation, it's important to notice that a growing share of the world GDP is made of trade and that this share has been increasing systematically since the 70s, with a short negative downturn in the middle of the 80s. From the 90s, with the fall of the Soviet Union and communism, a great number of countries opened itself to capitalism and trade and thus, as it can be seen, the curve's slope increases.

Downturns of the curve are located between 2000 and 2002 and 2008 and 2010: in the first case there were the dot.com bubble crisis and September 11th terrorist attack; in the second case the Great Financial Crisis that exploded in 2008 massively affected all world's economies and thus the trade levels.

More, it is interesting to notice that nowadays the level of trade (%GDP) has come back to previous crisis levels, but it is not going beyond that percentage (60%).

Nevertheless, what's clear is that nations have been constantly making value from communicating and trading with other partners and that this value has increased over the decades.

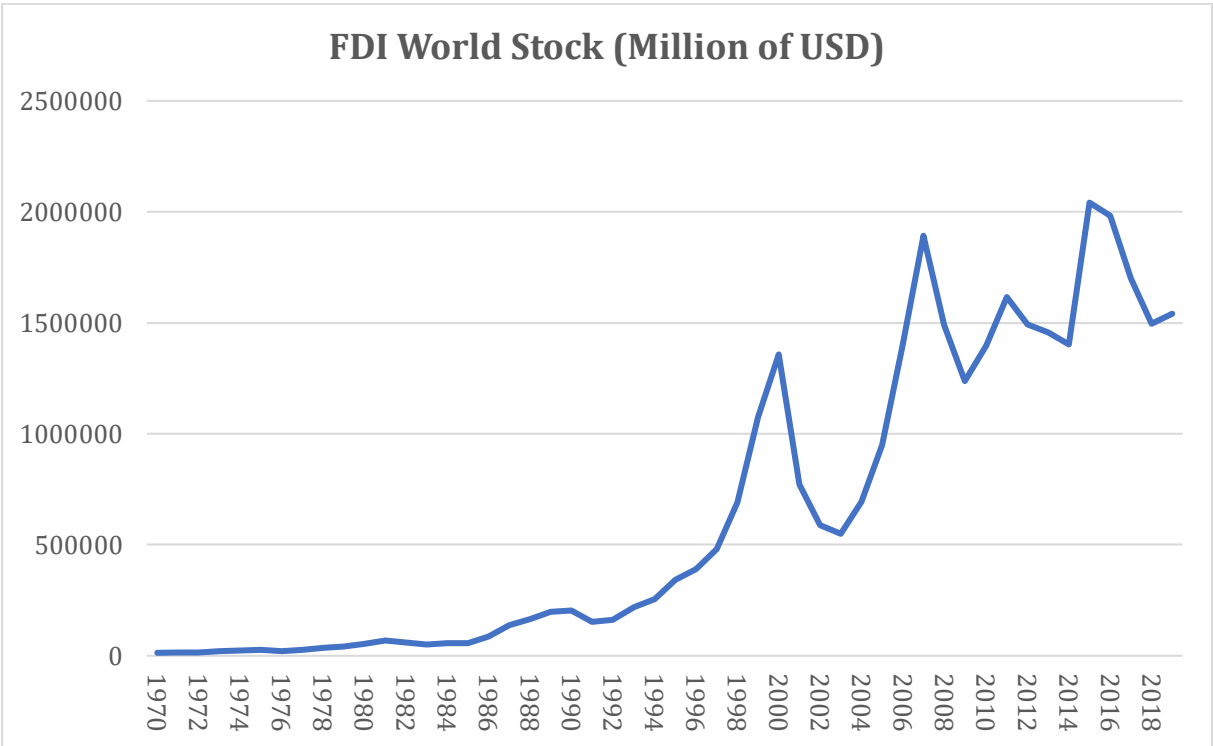


Figure 3: FDI World Stock (Millions of USD) - World Bank Database

Foreign direct investments (FDI) is the third indicator considered and it includes many different solutions:

- Direct Investments, which is “capital investment” if the amount invested is above the 10% of the capital of the firm, financial investment if below that percentage;
- Joint Ventures if two different companies decide to generate a third co-owned legal entity, no matter the location of the latter;
- Mergers when there is a legal consolidation of two entities into one, while an acquisition when one entity takes ownership of another entity's stock, equity interests or assets;
- Greenfield Investment when a parent company creates a subsidiary in a different country, building its operations from the ground up;
- Brownfield Investment when a company or government entity purchases or leases existing production facilities to launch a new production activity.

The curve of the graph shows, in coherence with previous representations, an increase close to the end of the century, meaning that the economic, political and managerial environment was fertile for this kind of operations.

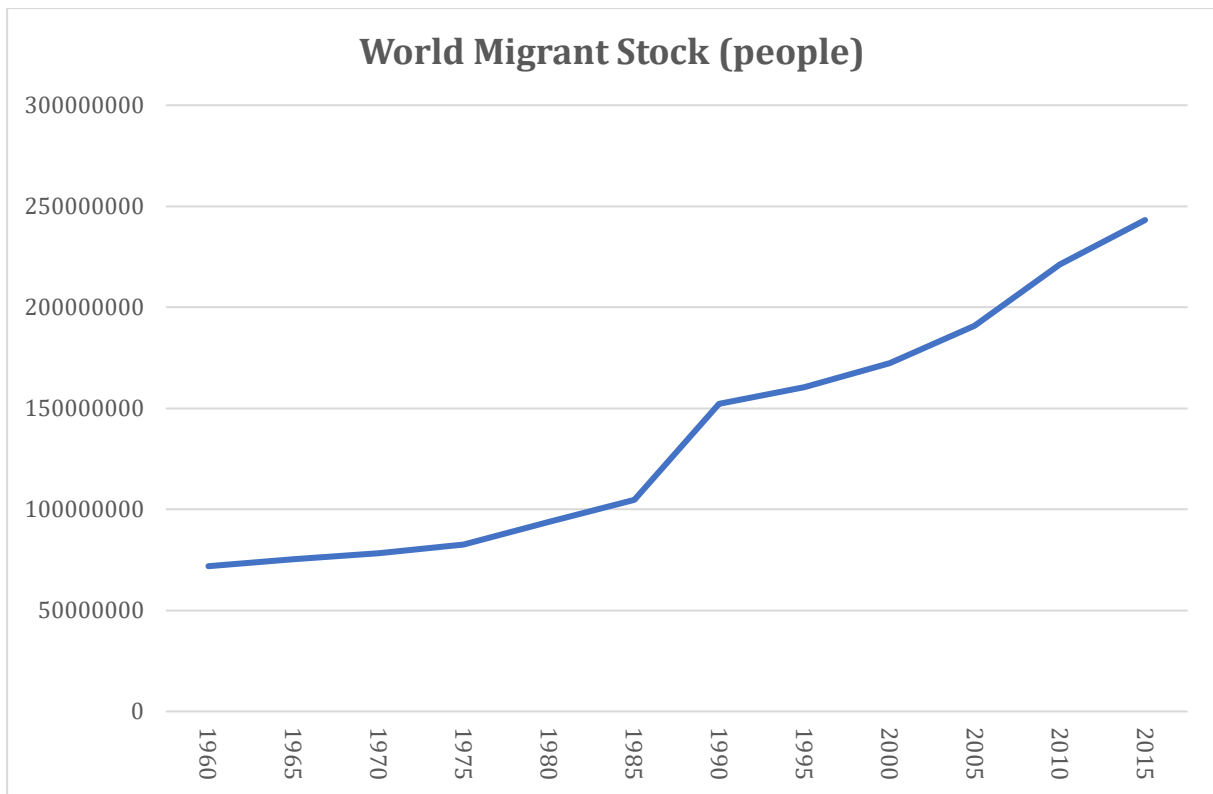


Figure 4: World stock of migrants - World Bank

Moreover, it is important to go also beyond mere economic indicators and consider even those related to society and science. For the first, an usually not-shared statistic is the one related to the evolution of the number of foreign students enrolled in the US, which almost doubled from 1993 to 2008, showing how knowledge and education have been impacted by all the policies and innovative technologies too. Furthermore, one of the main effects generated by globalization is the formation of important flows of migrants and the reasons behind such flows can be multiple: Stefano Manservigi, General Director for International Cooperation and Development of the European Commission, underlines that the differences in the distribution of the wealth generated by the globalization which sees some countries lagging behind others, pushes people from poor realities to richer countries in search for job and a better social condition. Then, often globalization is associated with conflicts and depredation of natural areas, which are two fundamental causes for the escape of thousands of people to other safer lands. The graph above, sourced from the World Bank, shows a positively sloped curve in representation of the world migrant stocks. In particular, a sharp increase is located in the 80s and 90s, which is the period when the communist and socialist realities collapsed, leaving multiple

countries in a state of poverty and with non-efficient and non-effective political institutions.

Moving to the scientific cooperation, it is as well noteworthy the analysis related to the trend in the cooperation in scientific articles published by OECD, which shows how scholars and academics from different parts of the world have increasingly shared effort for the publication of scientific papers over years, mixing competences, experiences, cultures, working methods, etc. through easier communication methods and encouraging cooperative policies among nations and universities.

Alongside this trend, single-author studies and works have constantly decreased over the years, while single institution co-authorship has remained constant.

More, the number and variety of international study programs offered by universities has increased a lot in the recent years, improving the cooperation and the cultural exchange obtained.

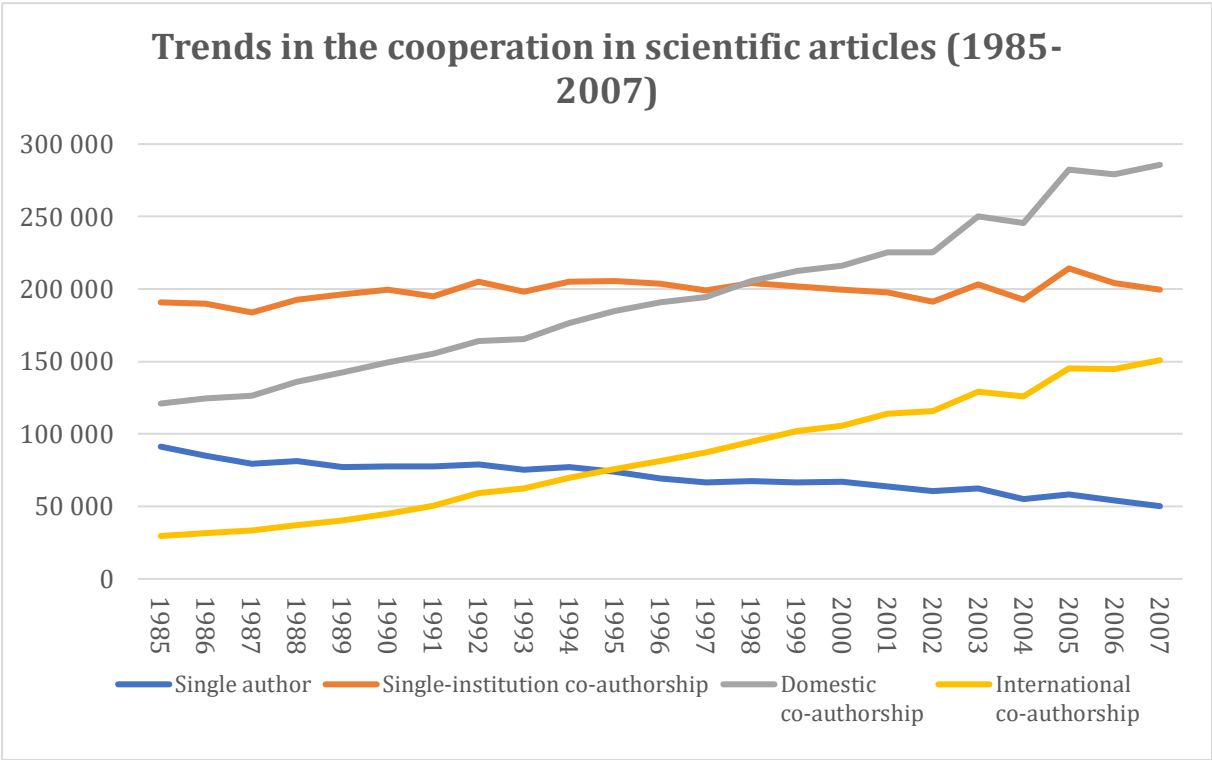


Figure 5: Trends in the cooperation in scientific articles (1985-2007) – OECD

Considering the analysis made up until this point, there is a sharp increase in all the indicators that gives back the “state of globalization”, which means that the policies and

the technologies developed from those years onward have been a great push for a more interrelated and open world.

An overall view is finally provided by the so-called DHL global connectedness index. This index has been jointly created, among all participants, by the American transportation and shipping company DHL, Pankaj Ghemawat, Indian American global professor of management and strategy and director of the Center for the Globalization of Education and Management at the Stern School of Business at New York University, Steven Altman and Philip Bastian, two senior research scholars at the New York University Stern School of Business. The DHL Global Connectedness Index measures globalization since 2001 based on a joint evaluation of international flows of trade (merchandise and services trade), capital (FDI stocks, FDI flows, portfolio equity flows, portfolio equity stocks), information (international internet bandwidth, telephone call minutes, scientific research collaboration, trade in printed publications), and people (tourism, migrants, international students).

These indicators are then analyzed in terms of *breadth* and *depth*, which means for the first to what extent flows are distributed all over the world, while for the second how the cross-border flows compare to relevant domestic activities.

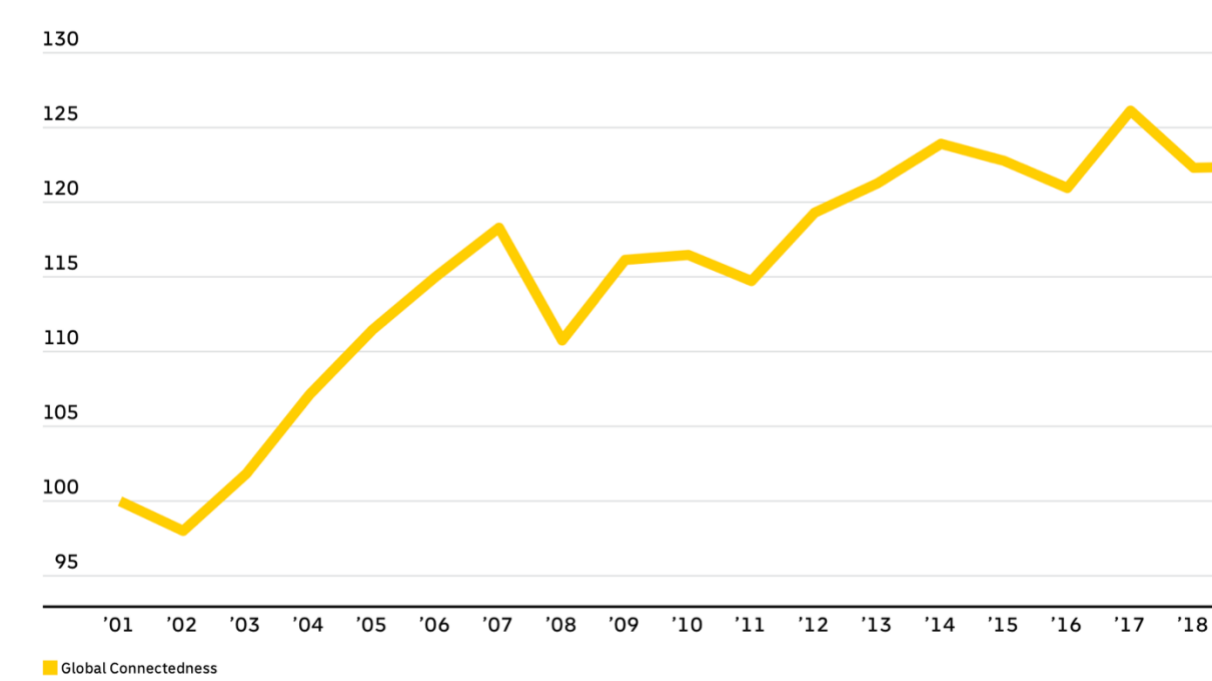


Figure 6: DHL Global Connectedness Index 2001-18

It is interesting to notice that the curve shows a sharp increase until the financial crisis, where values started to decrease. 2012 represents instead the year of the recovery. It is also remarkable that, despite the graph shows a curve signalling globalization, the actual analysis made by the authors suggests a trend toward regionalization for the years to come (next chapter will go deeper in detail on this).

Deepening the analysis through a decomposition of the curve, it is possible to observe that information flows have been constantly sharply augmenting over the past 20 years and are far more global than the other indicators, while people globalization has experienced a lower growth. Capital and trade instead have experienced a more “on-off” global footprint evolution, with both that have not yet restored the values reached before the crisis.

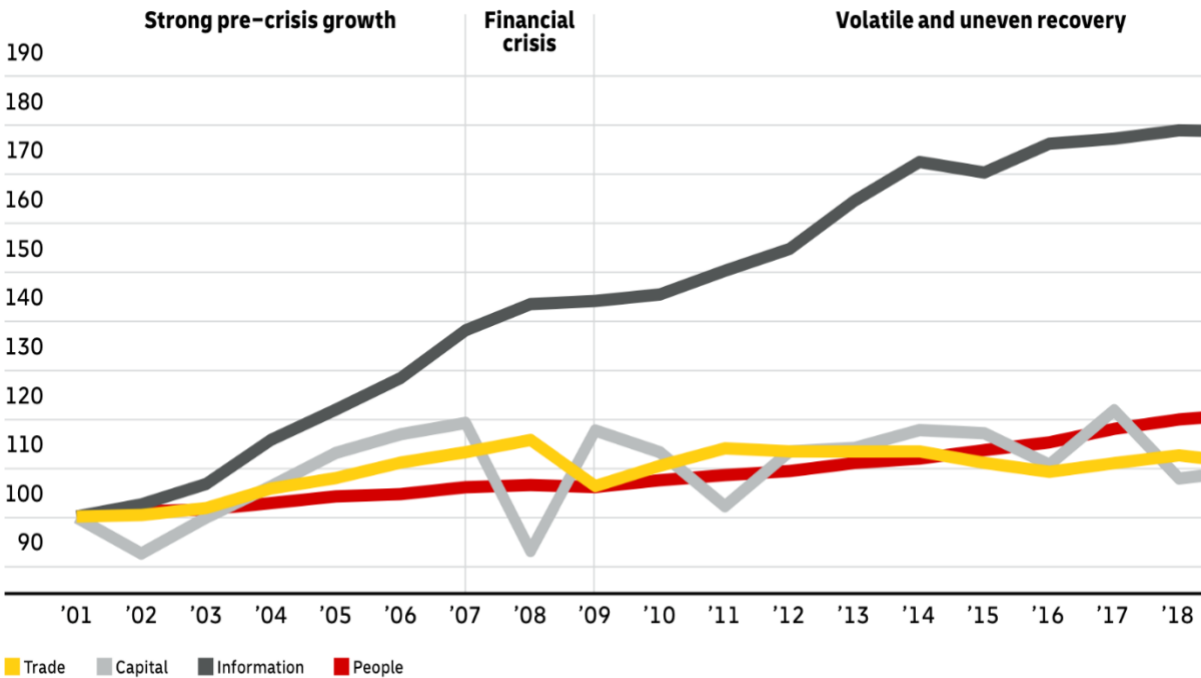


Figure 7: DHL Global Connectedness Index decomposed 2001-18

Managerial and societal implications of globalization

Globalization trends and forces have shaped over the years also the main engines of economy and society: companies and their strategic managerial choices.

International production, trade and investments started to be increasingly organized within so-called global value chains (GVCs), where the different stages of the value generation process are located across different countries. The lowering of trade barriers and tariffs, more advanced and control-enabler technological devices such as the Internet and reduced transportation costs opened the way for companies to seek solutions to become more efficient and cost-effective. Particularly boosted by the adhesion of China at the World Trade Organization (WTO, evolution of the Gatt established 1995) in 2001, it became extremely convenient for several industries to look for changes in their business models engaging in these extended value chains. More, it is not hazardous to say that many companies were forced to join these global value chains because if they didn't but rivals did, the latter would have become far more competitive (Friedman, 2005). The base for the development of global value chains, so for the chains of players that generate the value of the final product sold to the customer, were (and are, because as it is analyzed further in the thesis they're not over despite changes have occurred) the outsourcing and offshoring managerial solutions.

The first one existed also before the tipping of the globalization process and consists of externalizing, through contracts, those activities that the company does not want to perform inside for multiple reasons:

- Cost efficiencies, as it is possible to "hire" some companies that are able to perform the activity at a lower cost. The reasons behind this could be multiple as the company could have access to cheaper labor force, more efficient and effective machinery.
- Access to better qualities and competences, as it is possible to externalize the tasks to better equipped workforces;
- Necessity to move the focus from non-central activities to core ones which make most of the final value of the product; the activities that bring the lowest share of the final value of the product can vary according to the typology of the output: in

case of a manufactured product usually production and assembly are the ones that are externalized.

The solution of the outsourcing clearly is not exempt by risks: the company inevitably loses part of the control over the activities externalized or it has to sustain more costs to monitor them. More, there is the risk of losing the competences in doing the mentioned activities, associated with a parallel more competitiveness of the outsourcee.

A great example of global value chain made through outsourcing is represented by Apple Inc., the American well-known technology company and one of the most valuable listed companies. In a 2007 article published by the New York Times, Hal Varian, American Economist and Chief Economist at Google, provides a deep analysis of how (and where) the value of an iPod was generated.

Component	Supplier	HQ Location	Manufacturing Location
Hard Drive	Toshiba	Japan	China
Display Module	Toshiba-Matsushita	Japan	Japan
Video Processor	Broadcom	US	Taiwan / Singapore
Portal Player CPU	PortalPlayer	US	US/Taiwan
Insertion, assembly	Inventec	Taiwan	China
Battery Pack	Unknown		
Display Driver	Renesas	Japan	Japan
Memory RAM	Samsung	Korea	Korea
Back Enclosure	Unknown		

Table 3: Key components of iPod 5th generation - Linden et Al.

Looking at the table above it is possible to appreciate the variety of companies involved in the value generation of the Apple's product of the early 2000s, the different origins they

have and the multiple locations in which they operate, which witness how behind a product “Designed in California” there are many other actors. More, it is interesting to notice that two companies that can be competitors in a precise market, as Apple and Samsung are, can cooperate in other circumstances.

The decisions about what to outsource are usually taken following the model of the so called “smiling curve” (Baldwin, 2016), a definition that comes from the curve generated having the activities in the horizontal axis and the value added by them in the vertical one: looking at the curve below it is possible to appreciate that companies tend to externalize those activities that are not representative of the core value of the final product, the ones that do not substantially influence the willingness to pay of the customer.

In the case of Apple Inc., design, marketing and distribution are kept internally because they generate most of the final value recognized by the client, while manufacturing and assembly don’t and thus they are performed by external companies (that usually can exploit really cheap labor costs, better organization of work, more resources, etc.).

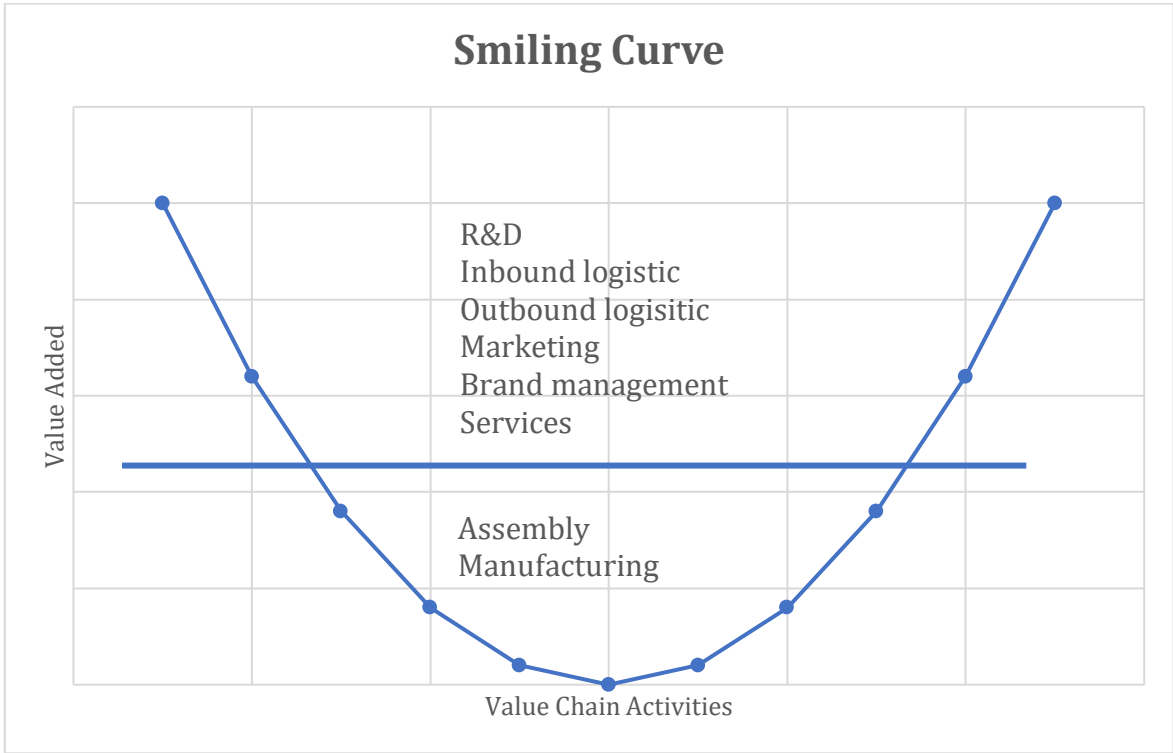


Figure 8: Smiling Curve (personal re-elaboration)

The majority of the activities that are externalized are mainly labor-intensive, while those kept inside are knowledge intensive. Behind this there is also the will not to lose precious competences that competitors could steal in their favor.

Moving to the choice to offshore the company (“nearshoring” if the chosen country is close to the home country), it consists in the process of relocating the entire business or parts of it to another country to exploit the advantages that the latter can offer, which often can be summarized as follows:

- Cheaper labor cost, especially in non-developed or developing economies which can take advantage of the large supply of work;
- Cheaper access to natural resources or human talents because of particular geographical location or educational development programs. India for instance is a pool of young talented students of scientific disciplines;
- Better access to qualified workforce;
- Better taxation policies;
- More flexible and smoother production because of less regulated working conditions.

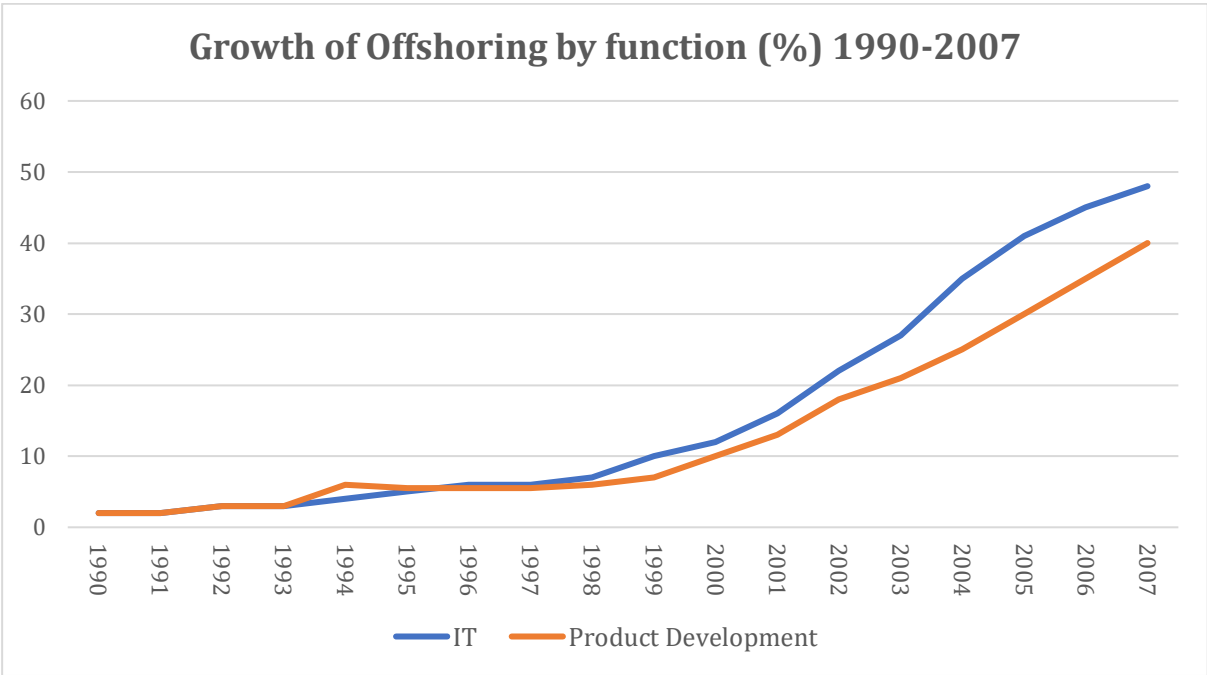


Figure 9: Growth of Offshoring by function (%) 1990-2007 - OECD

An interesting example of offshoring is the one related to the American messaging platform WhatsApp: back to 2009, the company offshored the software development area to Eastern Europe and instead kept in-house all the client-related tasks, which were the most delicate ones and processes that brought higher value. The curves below prove that the push for globalization had positive effects in the number of companies opting for this

solution. As explained before, 2001 represents a crucial year for offshoring because China became “available” for this solution and thus many companies decided to exploit the unequivocal advantages of the country.

IT function is usually one of the most offshored, specially to Asian countries like India which can offer extremely qualified workforce, with no high requests in terms of salary and perks and with an easy control from the offshoring entity.

After having considered few indicators that work as evidence of the happening of the globalization forces, it is important to focus also on the consequences of this process that lie at the socio-economical level. Commonly linked with the offshoring practice is the theme of unemployment, which many think it increases because of such managerial option. However, evidence proves that a reduction can be appreciated only for low skilled workers, while for high skilled ones and those related to servitization there is no harm brought by offshoring.

More, globalization has helped many developing or non-developed economies to overcome the poverty state in which they lived through an increase in the per capita GDP: as it is possible to observe in the graph below, South America, Eastern Europe, Asia and Middle East, all regions somehow involved in globalization programs, improved their position, while those not touched by these trends such as the Sub-Sahara have not.

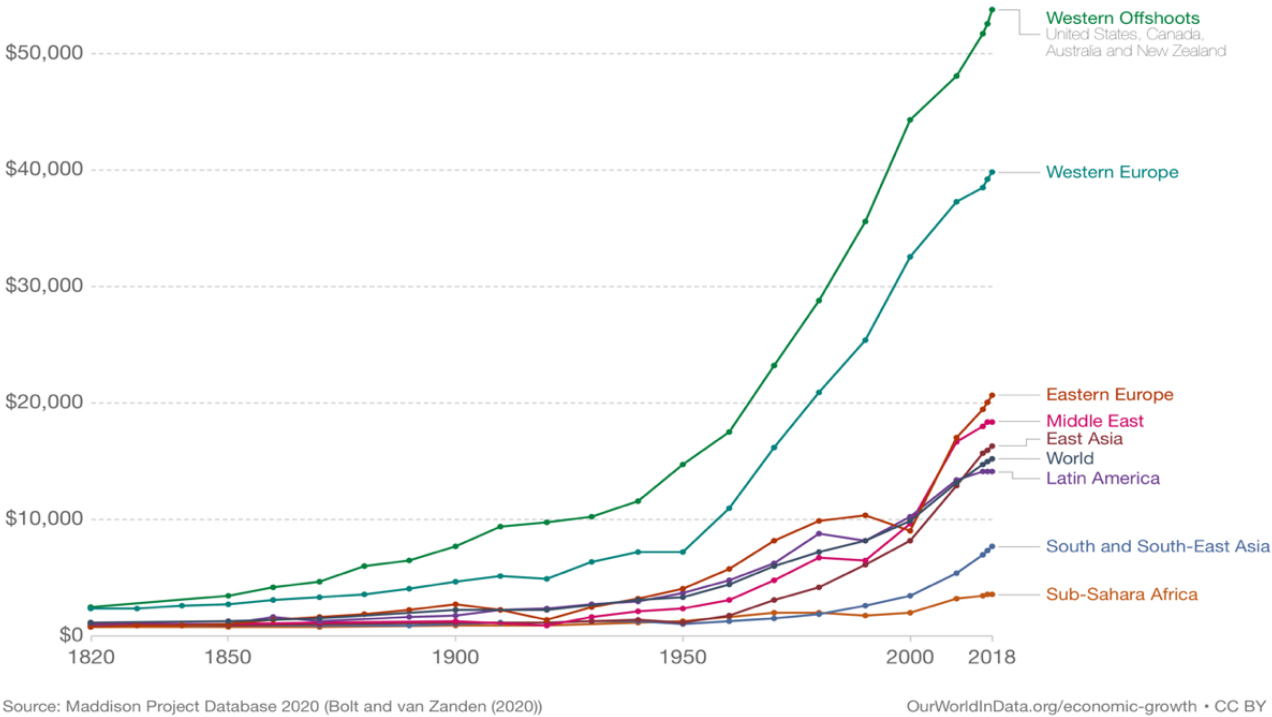


Figure 10: GDP per capita, 1820 to 2018 - Maddison Project Database

Nevertheless, what's frequently appointed to the globalization outcomes is that they surely have generated more wealth around the world and brought out of a state of poverty many populations, but the distribution of such wealth among countries and social classes has been unequal. Branko Milanovic, a Serbian American economist, has dedicated a big part of his studies to income inequalities.

Considering the Gini index² for global distribution of income, it moved from 72,2 (1988) to 70,5 (2008) to 67 (2011), which means more equal income distribution. However, if this confirms that the differences among nations have decreased, differences within socio-economic classes of the same nations have enlarged.

In the chart below, the Global Incidence Curve, the economist considers the world's population in the horizontal axis organized in a ranking from the poorest to the richest percentile, while real income percentage gains are in the vertical axis. Data from the chart shows that a decline in overall global inequalities is nevertheless accompanied with the evidence that two classes, the Asian middle class (mainly China, Vietnam, Thailand, Indonesia, India) and world's top 1% and 2-5%, improved their condition the most, while the western economies' middle classes gained the less.

Top 1%, 2-5% of the population usually refers to entrepreneurs which have been able to maximize the value out of their capital; the Asian middle class experienced an important growth because the starting point of their wealth was poverty, making it easier to improve. But what is extremely relevant is the fact that the western world middle classes have suffered the most, they have not experienced that growth that globalization advocates of the past announced.

According to Friedman, this is the inevitable result of the flattening of the world economies, which showed how the middle classes of until now rich economies are at risk because of the fact that they have to face the strong, labor cost-based competition of developing-economies middle classes. The writer alerts governments of the need of a total reshape of the western average worker, highlighting that investments should be pursued in order to stimulate the development of more specialized and technical competences and

2

Gini index: it measures the inequality among values of a frequency distribution (for example, levels of income). A Gini coefficient of 0 expresses perfect equality, where all values are the same (for example, where everyone has the same income). A Gini coefficient of 1 expresses maximal inequality among values (e.g., for a large number of people where only one person has all the income or consumption and all others have none).

more flexible working systems. This can be interpreted as a kind of alert for the Asian middle class because in the future, supposing a continuation of globalization, they may suffer the same difficulties of the current western middle classes, while other regions middle classes may gain more.

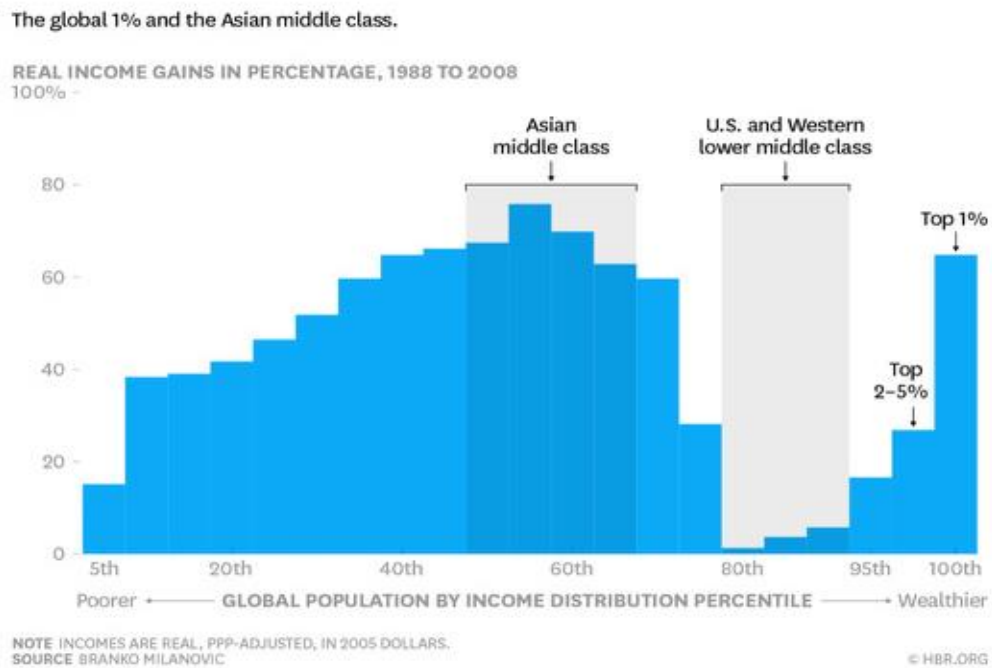


Figure 11: Global Incidence curve -HBR

The acknowledgement of the just mentioned inequalities, bonded with other effects such as job losses, price competition, etc. were at the base of the first signs of opposition and distrust toward globalization. On the other side of the promoters of the process such as the U.S. Presidents Bill Clinton and George H.W. Bush, the already cited American economists Thomas Friedman and Paul Krugman or the politician Lawrence Summers, there was a growing body of experts that highlighted the negative externalities of it accompanied by a rising tension against political institutions (culminated with the 1998 protests of an anti-globalization movement in the occasion of the G8 meeting in Genoa, Italy). Lawrence Summers himself, in a recent interview changed his perspective about globalization stating that countries should focus on “responsible nationalism” and “not to pursue some abstract concept of the global good”.

The first two decades of the XXI century, especially from the Global Financial Crisis of 2008, hosts a changing trend about globalization; the blind support of the past is being

questioned and a number of forces is likely to drive the system from globalization to a more regionalized pattern.

Next chapter will focus on the drivers of the regionalization.

Chapter 2: Toward regionalization

The analysis described in the previous chapter assumes a past-oriented perspective as it focuses on the globalization affirmation over the centuries and the empirical evidence that statisticians have been able to collect for the last decades.

Coming to the current period, the 2008 financial crack, led by the default of Lehman Brothers Bank which then affected all the world economies, signs a turning point in the approach, appreciation and support for globalization forces. The unquestioned positivity of a more globalized, interconnected and interdependent world has been leaving space for different ideas and more nationalistic political forces (Marine Le Pen raise in France, Donald Trump in the US, the Podemos party in Spain, Movimento 5 Stelle and Lega in Italy, the Brexit, China-US trade war). Moreover, many studies suggest that trade, travels, companies' sales distribution and many other indicators actually underpin **regional rather than global trends**. This means that countries and companies within them, people, services, etc. operates more with close geographical, economic, cultural partners, which usually are organized within a political region.

All of the latter have massive implications for the managerial choices adopted by international companies.

In the next sections there will be a detailed analysis, organized according to the collocation in time, of different drivers that are setting the world in different regions and evidence that most companies actually already do operate influenced by their area. The crucial consequence is that in light of these information **multinationals should rethink their strategies for international competitiveness**.

Semi-globalization

The analysis starts from the data brought in the previous chapter but goes deeper in detail to try to address the question: **“Is the world organized in regions?”**

To answer this question, it is important to first say that despite globalization has occurred in the last centuries, currently international interactions are significantly less intense than domestic interactions (Ghemawat, 2018). Cross borders interactions do take place but they are far less significant than those that take place within borders (may them be nations, regions, etc.);

A recent survey conducted by the expert in Strategy and Internationalization Pankaj Ghemawat highlights that the share of international interactions with the total of them, for macro level indicators of trade, capital, people and information flows, are well below what one person would expect. For example, if we consider phone calls that took place in 2014, less than 10% were cross-border ones; more, in that year even e-commerce has assisted international transactions only for the 15% of the total realized, while the remaining 85% of them was realized within a common region.

International services and merchandising exports value added account just for 15% and 21% of the total, while international foreign direct investment inflows less than 10%. Considering the information category more in detail, cross-border mails are less than 5% of the total, internationally co-authored patents reach a scarce 10%, while the only indicator above 50% is represented by movies, clearly because of the massive influence that American production has in the industry (which, however, is going to face competition from other countries in the next decades).

Air travels, patents and stock market investments are other indicators that actually proof some evidence of internationalization, even though cross-borders activities reach respectively 40%, 38% and 33% of the total.

Additionally, what’s interesting about the survey is that people interviewed tended to massively overestimate the extent of the internationalization of their own environments; even top managers of multinationals tended to completely misjudge the magnitude of internationalization and globalization, with the negative consequence of basing their decision-making processes on ideas that are far distorted with respect of the reality.

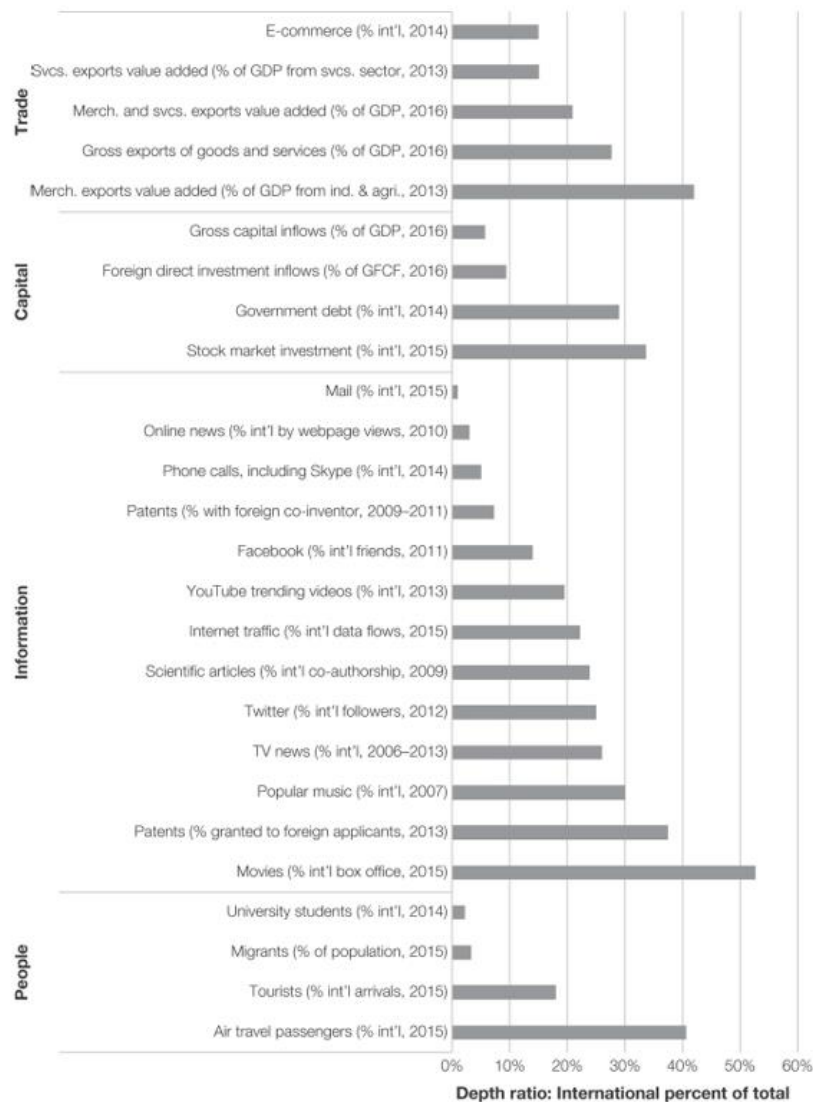


Figure 12: International percentage of the total of macro level indicators of trade, capital, people and information flows (Ghemawat, 2018)

According to the business strategy famous professor, the actual state of globalization is the one of **semi-globalization**: it is not correct and faithful to avoid the consideration of national and regional patterns due to the fact that they have proved to be far more significant than international ones. Semi-globalization implies that it is observed neither extreme geographical fragmentation of the world in national markets nor complete integration (Verbeke, Rugman, 2000).

Moving to trade data, the first chapter shows that over the last five decades trade (% GDP) has continuously increased. However, going deeper in detail it is possible to state that much of it has been intraregional rather than interregional. This means that much of the

companies, governments and the protagonists of trade actually interact with partners that are close or part of their home regions. According to UNCTAD, in 2019 60% of Asia total trade was intraregional, in Europe this percentage reaches 68%. Globally, the proportion of trade within regions rose from about 47% to 55% between 1958 and 2000. The only significant decline has been in Eastern Europe, but the reason for that is the end of the communism. The low numbers of Africa may hide the multi-faceted difficulties of the continent to develop collaborations among states and the prevalence of interregional interactions.

In general, the values indicate that increasing economic integration through international trade has been accompanied by increasing rather than decreasing regionalization.

Further on, it is important to understand which is the rationale behind the formation of such regions, why companies of a particular countries tend to have more interactions with players of the same region. In this sense, it is worthwhile mentioning that the concept of distance, declined in cultural, administrative, geographical and economic (**CAGE model** (Ghemawat, 2018)), still plays a central role in determining the areas of operation. Cultural distance means differences in terms of language, ethnicities, religions, lack of trust. They may impact two different parties because of the inability to understand each other, because of mistakes in the dealing with each other due to low knowledge of the other part's habits, etc.; going deeper into the analysis of cultural distance, another tool is frequently used to assess it: the Hofstede model. This model takes into consideration six different parameters: power distance, which express the degree to which the less powerful members of a society accept and expect that power is distributed unequally; individualism, as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families and not of other people; masculinity which consists of the preference in society for success, heroism, assertiveness, and material rewards for victories; uncertainty avoidance; long term orientation, which express how much people tend to sacrifice the present for future rewards; indulgence as an expression of how and if the society allows relatively free gratification of basic and natural human desires related to enjoying life and having fun. What comes from the inspection of these variables is the fact that culture can play a crucial role in making countries close or far from each other.

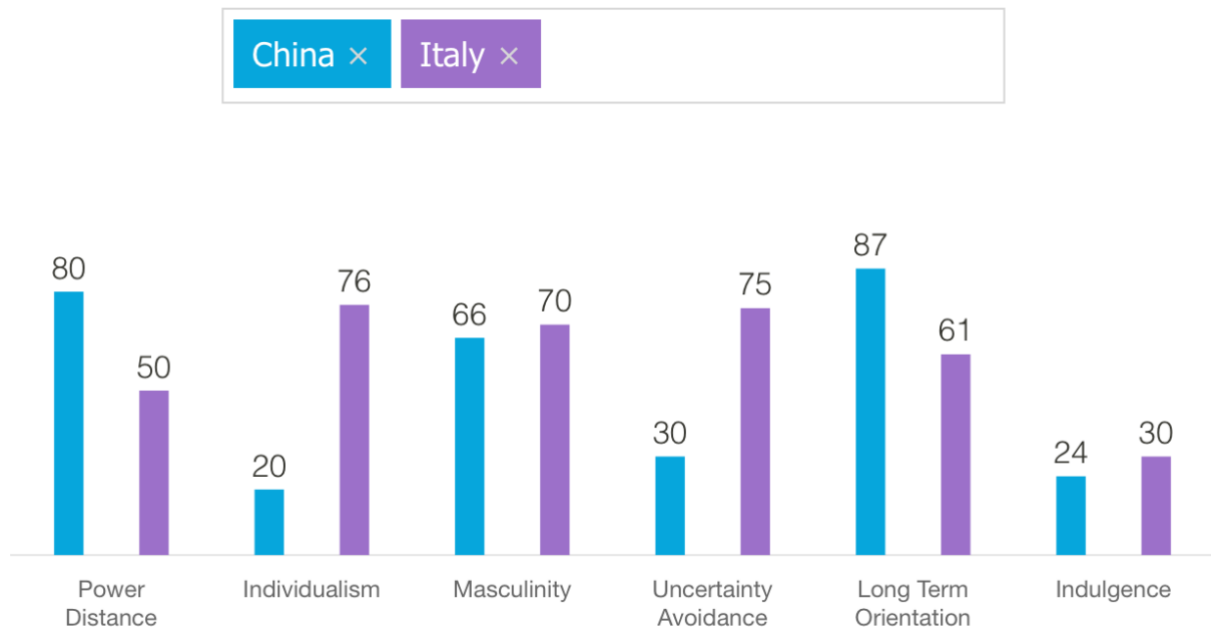


Figure 13: An example of the application of the Hofstede Model

Administrative distance is the one measured through political hostility, absence of common currency, different regional bloc, bureaucracy. Focusing on the latter, it could be interpreted as the difficulties encountered in obtaining licenses or in the slowness in moving on with procedures; geographical distance considers the actual physical space between two countries, the morphology of the territory, the isolation of the countries; economic distance instead means differences in per-capita income, cost and/or quality of infrastructures (even the presence or not of such infrastructures), human capital, financial resources.

Considering this, it is clear why United Kingdom exports more to Ireland than it does to China, despite the latter is an economy forty-times bigger than the Irish one: the different currency matters, as well as the physical distance, the different cultures and political ideas, even the different time-zones. More, it is also interesting to analyze that despite a big-impact event like Brexit, geographical and cultural closeness make European Union still a relevant partner for United Kingdom.

If the lenses are put to German companies, which made Germany the third-largest exporter in the world in 2015, it is possible to appreciate how the CAGE analysis is confirmed: two thirds of the total exports are directed to European partners, because they are “closer” if considered in the terms of the model. US accounts for the 10% of the

exports, China for the 6%, less than France, United Kingdom and Netherlands for example, which clearly are far smaller economies than the Asian one.

The first map below represents the countries of destination of the export from Germany's perspective: it's possible to notice that those massively affected by CAGE distances with Germany are small or invisible, which means that there are really few reciprocal interactions. Border countries like France, Italy, Spain, England and Poland instead keep a kind of normal shape as they are main partners.

The representation below highlights with a different set of colors that the very main partners of Germany consider Germany itself a key destination for the export of their goods. Switzerland and Austria for instance have a dark red color: this is not surprising because they are close to Germany from a geographical perspective, they share the same language and culture, with Austria also the same currency.

The map does not distort the area of Germany itself because it would completely cover all other countries as the internal flows are much higher than cross-border ones, confirming the law of semi-globalization explained above.

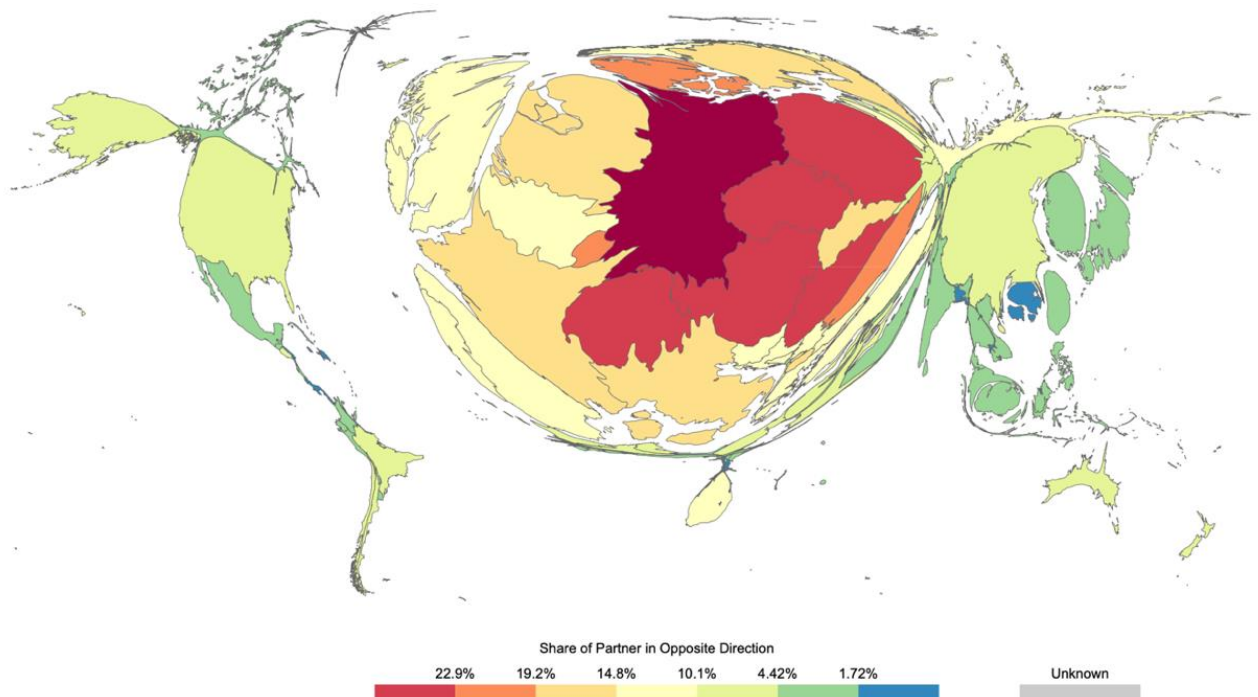


Figure 14: CAGE comparator. German merchandise export

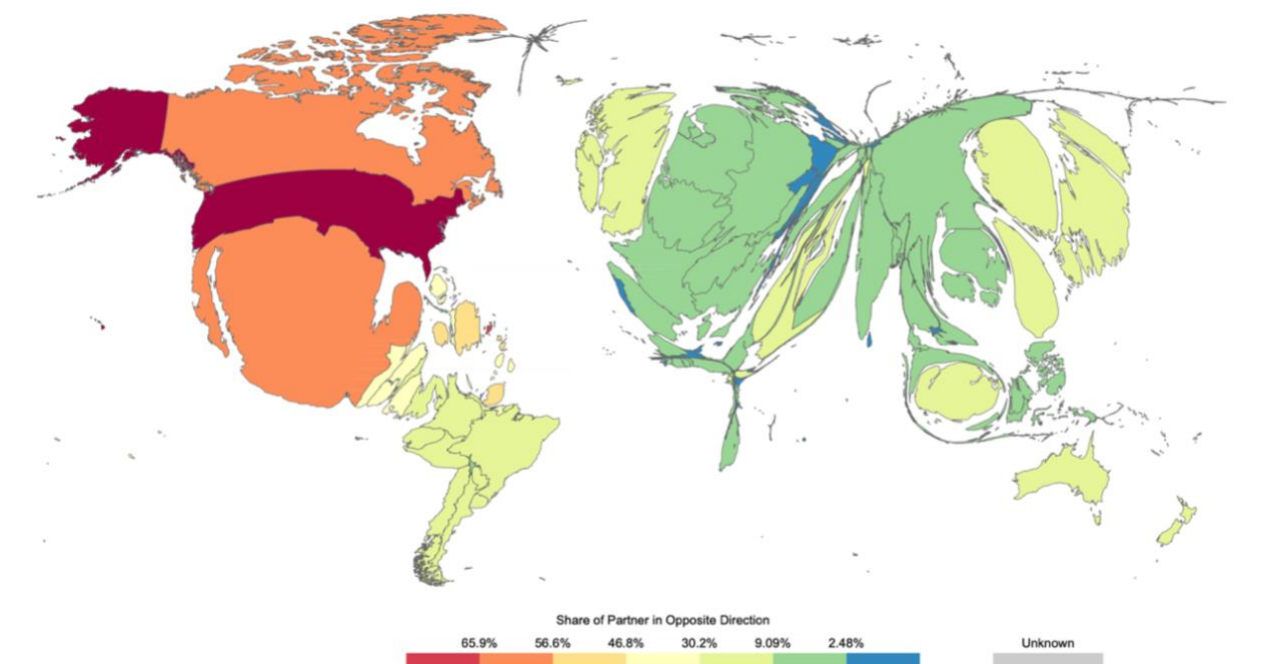


Figure 15: CAGE comparator: United States Merchandise export

The same condition can be seen looking at main partners of United States in terms of merchandise export; the North America Free Trade Agreement (NAFTA), which came into force in 1994 and defined the creation of a free trade regional bloc among United States, Canada and Mexico, clearly plays a crucial role in diminishing mainly administrative and economic distances since tariffs are lowered and bureaucracy diminished. Physical distance and different currencies have a negative effect in terms of export to South America and Western Europe, while the history, common language and culture makes United Kingdom a good partner despite the Atlantic Ocean represents a big physical distance.

As it is possible to appreciate in the table below, in general a common official language can double the merchandise trade and FDI stocks; the participation in a regional trade bloc increases the two indicators for about a 50%; an accessible physical distance could boost the two results for more than 200% and 150% respectively. Common borders have a bigger impact for the merchandise trade rather than for the FDI stock flows.

According to the DHL analysis described in Chapter 1, among all the regions, European Union-28 (EU28) is the region which has the biggest share of intraregional trade (more than 60%), followed by East Asia and Pacific which sets around 55%).

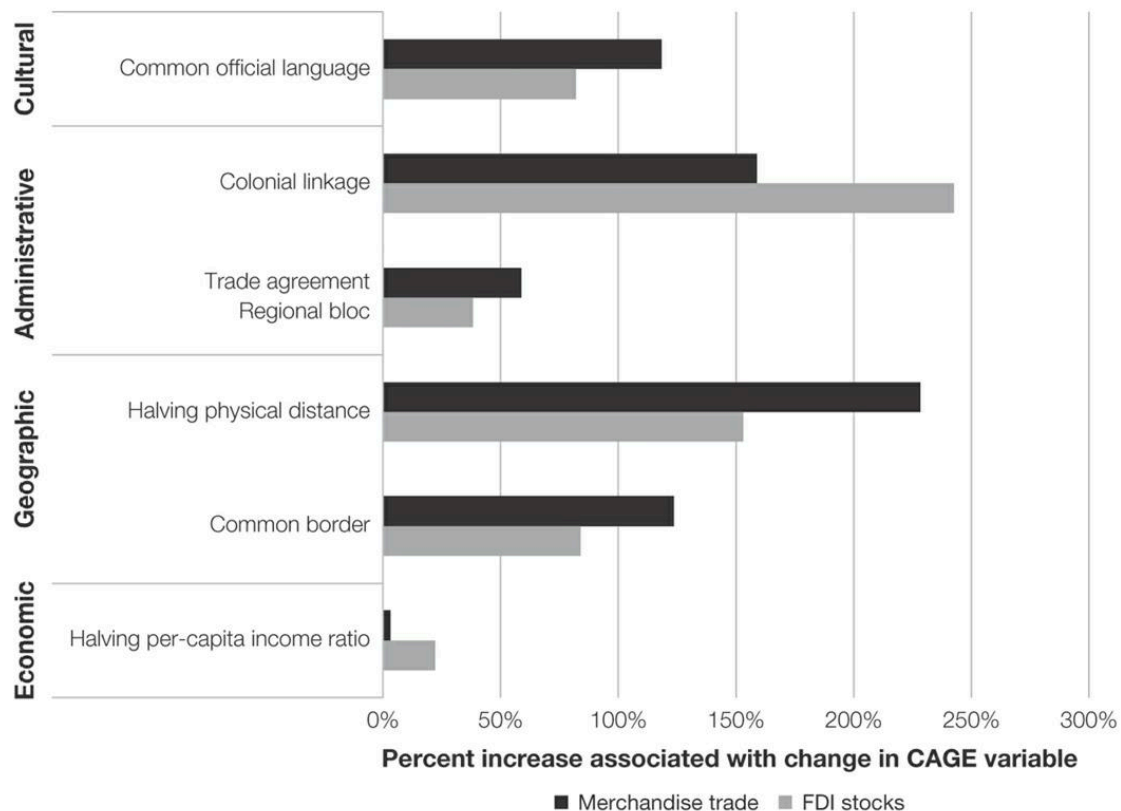


Figure 16: Percent increase associated with change in CAGE variable (Ghemawat, 2018)

Globalization is strictly connected with business corporations as they are the primary engine of the phenomenon. Exports, investments, subsidiaries, supply chains, etc. have all contributed to create more interdependent economies and societies. More, a relatively small set of multinational enterprises represents for most of the world’s trade and investment. The largest 500 MNEs account for over 90% of the world’s stock of foreign direct investment and they conduct about half the world’s trade (Rugman, 2000). Nevertheless, measuring globalization through these tools means using macro-levels indicators, while if, as said, real actors of globalization are companies, it is necessary to rely on micro-level ones.

In a detailed study realized in the early 2000s by Alan Rugman and Alain Verbeke, they consider 380 of the top 500 largest companies in the world (in terms of revenues) according to the Fortune 500 ranking, which accounted for 79.2% of the total revenues of all the 500 firms, with an average sales volume of a firm in the set of 380 equal to \$29.2 billion.

The scope of the study is to investigate the distribution of the sales of the companies as it is considered a fair indicator of the international presence of a player, particularly which

share of them is obtained in Asia, European Union and North America. These three areas consist of a “triad”, a concept introduced in 1985 by Kenichi Ohmae, at that time a McKinsey consultant, which means three different geographical and economic regions or, more precisely, markets.

Of the 365 companies with reliable data available, only nine MNEs are “undoubtedly global”, with at least 20% of their sales in all three regions, but less than 50% in any one region (50% is the chosen threshold above which the focus is considered only to one region).

Going deeper in detail, four different corporate approaches were identified:

- **Home region** oriented: 320 firms have at least 50% of their sales in their home region of the triad;
- **Bi-regional**: 25 MNEs are bi-regional, defined as firms with at least 20% of their sales in each of two regions, but less than 50% in any one region. This set includes 25 firms with sales ranging between 20 and 50% in the home region and 20% or over in a second region;
- **Host region**: 11 firms have more than 50% of their sales in a triad market other than their home region;
- **Global**: 9 out of all the MNEs included are global, defined as having sales of 20% or more in each of the three parts of the triad, but less than 50% in any one region of the triad.

Hence, if companies are the engines of globalization, what emerges from the result is that in the downstream part of their value chains only a few are really-global (1,8% of the Fortune 500), while the majority operates with a sales distribution that redirects to a regional perspective.

Most of the nine global companies operates in the computer, hi-tech and telecommunication industry; among the bi-regional companies there is McDonald’s with 40,4% of the revenues realized in North America, the home region, 31,9% in Europe and “just” 14,8% in the Asia-Pacific region; Toyota instead made 49% of revenues in APAC, 36,6% in North America and 7,7% in Europe. What’s interesting to notice analyzing the bi-regional companies is that those located in Asia-Pacific tend to privilege North America

and vice versa, proving that the geographic variable of the CAGE model exerts important influence.

Daimler-Chrysler, an European company, is counted as an host region company due to the fact that it made 60,1% of its revenues in North America while the amount realized in the home region is down to 29,9%.

Wal-Mart, one of the biggest and well-known American firms in the world, can be classified as home-region corporation, because it made almost the total of its sales (94%) in North America.

Type of MNE	No. of MNEs	% of 380	% intra-regional sales
Global	9	2,4	38,3
Bi-regional	25	6,6	42,0
Host Region Oriented	11	2,9	30,9
Home Region Oriented	320	84,2	80,3
Insufficient Data	15	3,9	40,9
Total	380	100	71,9

Type of MNE	Example	% revenues North America	% of revenues Europe	% of revenues Asia-Pacific
Global	Coca Cola (NA)	38,4	22,4	24,9
Bi-Regional	Toyota (APAC)	36,6	7,7	49,2
Host Region Oriented	AstraZeneca (EU)	52,8	32,0	5,2
Home Region Oriented	Allianz (EU)	17,6	78,0	4,4

Figure 17: Personal arrangements of the results of the study made by Rugman and Verbeke

As the study was conducted in the early 2000s, it is important to understand if things have changed over the last two decades. The study was remade in 2020 and a dominant regional sales orientation does remain the strategic outcome for three quarters of the

world's largest companies (Rosa, Gugler, Verbeke, 2020). More precisely, of 365 firms listed in the Fortune 500, 9,3% are global, 74,1% home-regional, 10,1% bi-regional and 6,5% host-regional. It looks like that valuable and well-designed regional asset and processes are still the key for securing success in host regions and a great step toward profitable global presence.

The results found by the study are a confirmation of the Ghemawat's model above presented. Distances, declined in the four variables still matter a lot. More, it is possible to argue that for those companies the Firm-Specific-Advantages (FSAs) often developed and factors of success in the home region may not be easily transferred and exploited in host ones. Brands, proprietary technology knowledges, know-how may not generate a final output that whose value is recognized in the host regions' customers willingness to pay, thus for the company is difficult to penetrate the global market. When dealing with multinationals or in general with internationalization strategies, often difficulties and success struggle is linked to the so called "Liability of Foreignness (LOF)": the term was coined by Srilata Zaheer, an Indian academic administrator at the University of Minnesota, to refer to the additional costs that firms operating internationally experience in comparison to local firms: more deeply, lack of knowledge in terms of laws, culture and society are key elements that often feed the liability of foreignness.

Potentially, this could reflect the difficulties that may emerge in terms of CAGE distances, so the inability to offer a valuable product to people with a different background. On the other hand, the inability to penetrate several different markets may be due to the wrong governance model they set up, frequently standardized and not adapted to address key regional diversities.

Other proof of the persistence of the distances comes from the consideration of the kilometres traversed by merchandise trade flows since 1950, so how much distance an output realized in place A covers to reach its final destination B, which is a data strictly connected with the regional distribution of sales. The graph below shows that distance has fluctuated between 4000 and 6000 kilometers over most of the period analyzed, with a trend of slight downturn if the analysis is shortened from the 90s: if cross-country distances and differences didn't matter, one would expect to see that distance to rise to higher values because of the supposed never-ending globalization, but this doesn't

happen, proving that despite the belief that many companies are global, according to the above analysis they aren't.

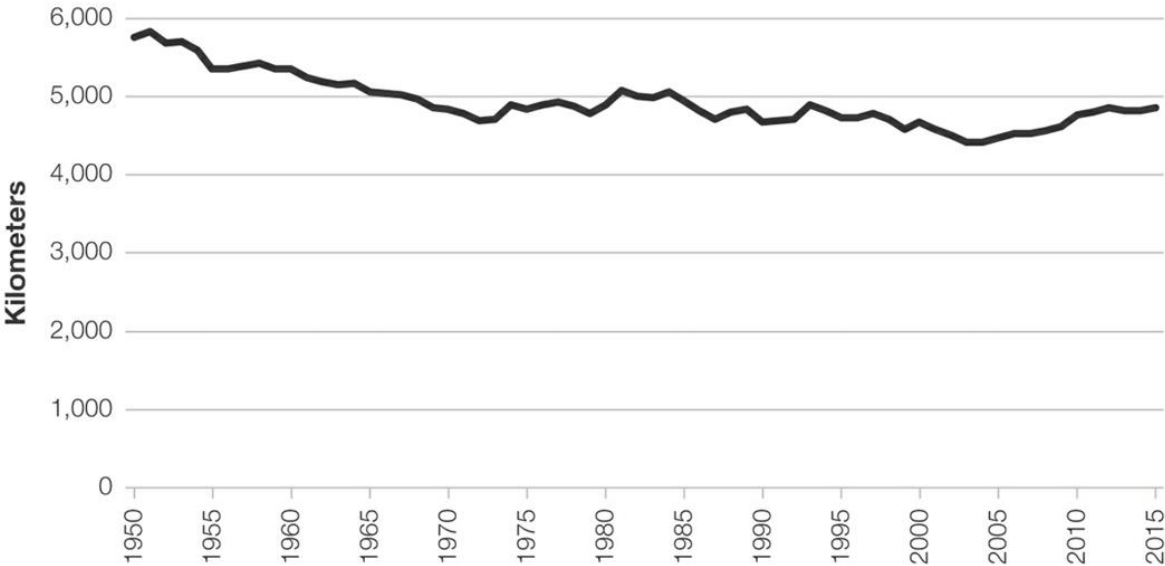


Figure 18: Average distance traversed by merchandise trade flow 1950-2015 – (Ghemawat, 2018)

Furthermore, considering the time between 1958 and the early 2000s, intra-regional trade has proved to be dominant with respect to total trade (so inter-regional is included). As the following graphs show, about 60% of European trade has taken place within the region; after a decline in the middle of the second half of the century, the Americas realizes half of their trade within their region, as well as Asia and Oceania’s countries which moved from the 35% of intra-regional trade of the 1958 to the 50% of 2003. Interesting is the trend followed by Eastern-Europe countries: related to the total of trade, Eastern-Europe countries reached peaks of 60% of inter-regional share in the 60s but then crashed in the 90s because of the fall of the Soviet Union and the Communist bloc and so, without the existence of this region they looked to other partners. Data indicate that in the postwar period, generally considered a period of enlarging globalization, intraregional trade has had more influence than interregional trade on the large increases in international trade (Ghemawat, 2018). What’s even more interesting is the fact that those regions that reach low levels of inter-regional trade, Africa and Middle East, are those that are associated with poor performances at the intra-regional level.

Considering the aggregate data (World), in the last 50 years intra-regional trade has slightly increased, from just below 50% to a percentage close to 55%.

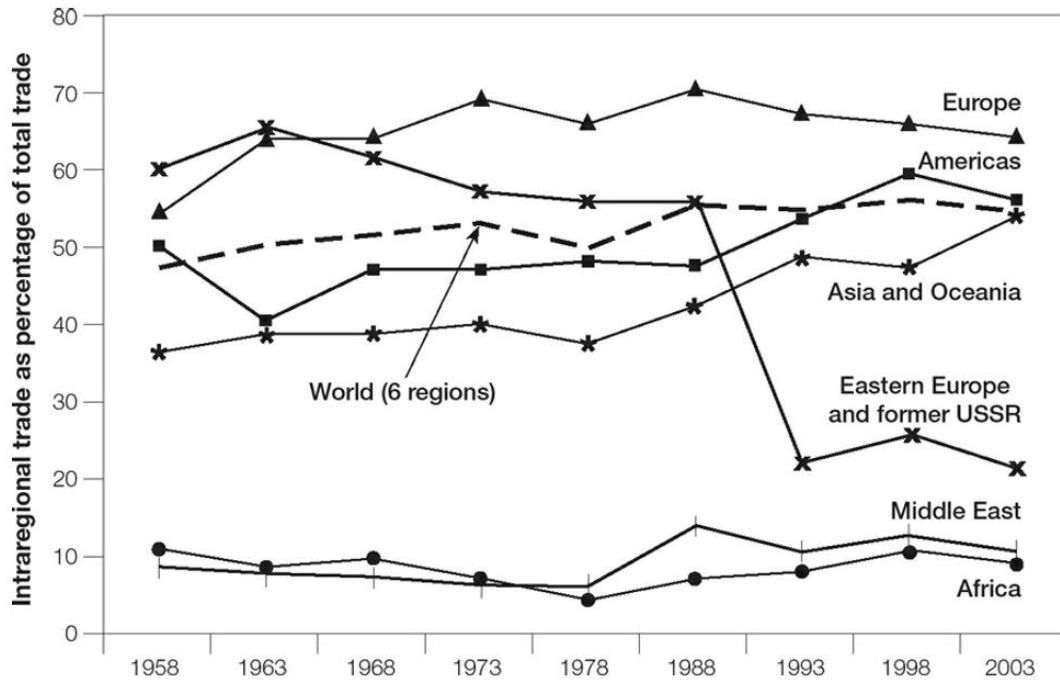


Figure 19: Intra-regional trade share with respect to total trade - United Nations International Trade Statistics Yearbook

The result of this analysis is that globalization should be assessed looking at both the upstream part of the value chain and the downstream one. If for the first the global value chains are the confirmation that globalization has occurred, sales and international presence show a different situation, the one of a more regionalized business world.

Nowadays the number of economic regions counts multiple other forces than the just three mentioned above. As it is possible to appreciate in the figure below, in addition to NAFTA and European Union, relying on a more detailed perspective, there is the Russian Federation, China, India, Association of Southeast Asian Nations (ASEAN) and Mercado Comun del Sur (Mercosur). More, it is possible to appreciate the fragmentation within the African continent which counts at least five different regional agreements³, proving a non-coherent and harmonic political internal environment.

3

ECOWAS: Economic community of West Africa States.
 CEMAC: Communauté Economique et Monétaire de l'Afrique Centrale.
 SADC: Southern Africa Development Community.
 IGAD: Intergovernmental Authority on Development.
 GCC: Gulf Cooperation Council.
 EFTA: European Free Trade Association.

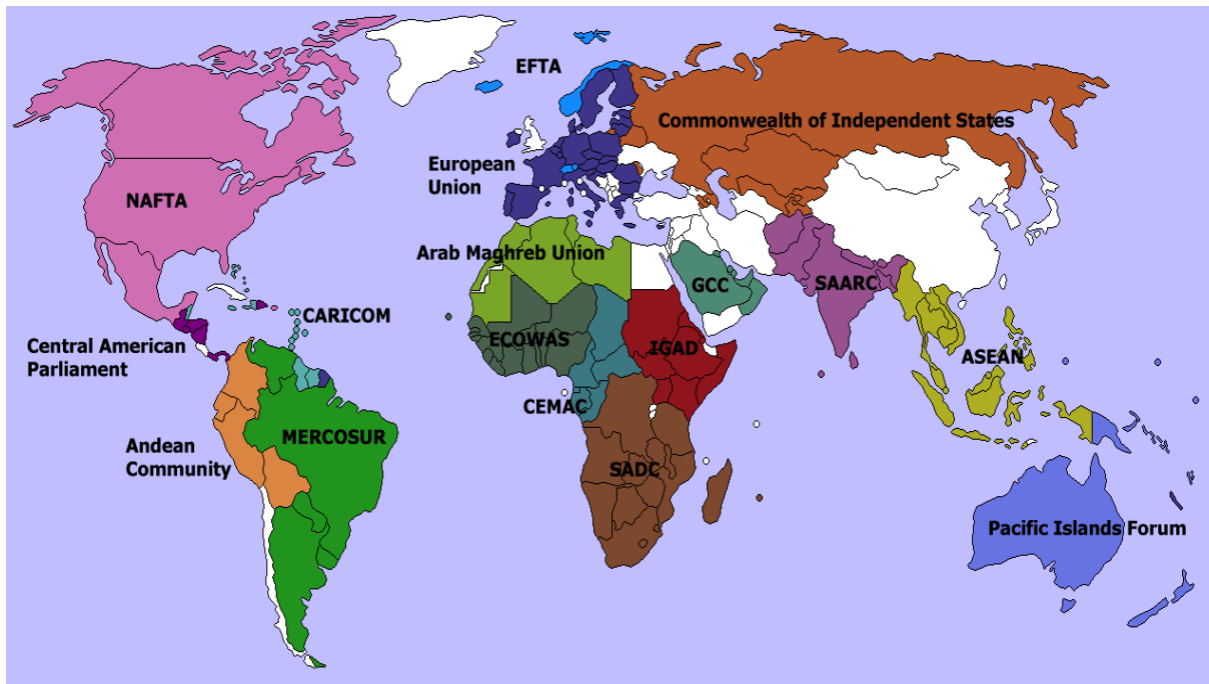


Figure 20: Economic regions in the world

The presence of such an intense number of economic regions shows a kind of response to the difficulties in dealing with globalization and creates the conditions for which companies within such areas are much more favorite to trade and expand in them than foreign players. In this sense, trade, culture, people, etc. will develop more regional features.

Governments of countries have been playing their part since the formation of Gatt and World Trade Organization with the notification of many regional trade agreements (RTAs). According to the WTO there have been notified a total of 765 regional trade agreements, 548 of which are still active today. What is really noteworthy is the fact that they were not so diffused and common in the third quarter of the past century, while from the 90s onward the number of notifications per year explodes: this is probably because in the first years all the events described in Chapter 1 (end of Soviet Union, the born of the European Community, the political push for globalization, the world wide web) fostered the will and convenience to connect and cooperate among countries; the fact that the growth continues also after the 2008 financial crisis is explained by the WTO as the positive belief toward these solutions as a way to make national companies competitive internationally.

The need for regional agreements can be proved by the data that shows that in the last months United Kingdom, in response to the Brexit, has signed more than 32 regional agreements, which involves even countries outside the historic commonwealth.

US-China trade war and technological decoupling

The first driver of regionalization explained above is related to the management field as sales distribution was the main element considered. Furthermore, in this section the focus is on two different events, chronologically overlapped, which regard the two biggest economic forces in the current world, China and United States, for the **commercial trade war** and the **technological separation** they could be experiencing.

According to many scholars and experts these two forces are pushing the world economy to regionalization and thus are of key importance for the management leaders of companies that have to set their own internationalization strategies. Keeping the management perspective, these events are likely to impact in both upstream and downstream sides of the value chains.

US-China Trade War

China has not always been, like the US, an economic superpower. Its growth started in the 80s with the fall of Maoism⁴ and the adherence to a more liberalized pattern of trade and entrepreneurship. This, combined with an overwhelming amount of human capital and natural resources, determined a GDP average annual growth rate equal to 9,6% for 25 years from 1980. By 2005, China overtook the economies of nations like Italy, France and Great Britain. What has made China a leading player in the world economy is the fact that it has converted its role of “Factory of the World” into the one of innovative country, expected leader in many technology areas like artificial intelligence (AI) and internet of things (IoT), center of the maritime and air trade and potential competitor for leading roles in the global scenario. The affirmation of China has for the first time in history moved the barycenter of the economy away from the Atlantic (North America and Europe) to involve also Asian realities.

Despite the welcoming of China by the United States into the World Trade Organization back to 2001, the massive presence of American multinationals in the Chinese territory

⁴

Maoism is a variant of Marxism–Leninism that Mao Zedong developed for realising a socialist revolution in the agricultural, pre-industrial society of the Republic of China. The major philosophical divergence between Maoism and traditional Marxism–Leninism is that the peasantry are the force in pre-industrial societies rather than the proletariat.

and the impressive numbers related to bilateral trade exchanges, 435 million of USD of import from China and 124 million of USD of export according to the 2020 United States Census Bureau analysis, in the recent years the two biggest economies of the world have started a fierce trade war.

Before the 2008 financial crisis, the US–China economic relationship was more complimentary and cooperative in nature. America and China substantially formed a symbiotic relationship: America consumed China’s cheap exports, paying China in USD, and China held US dollars and bonds, lending then money to the US. However, after the 2008 financial crisis, China changed its own growth plan shifting the focus on innovation, new technologies and relationships with other countries in addition to US, all fueled by dominance ambitions.

A first move from China was the creation of the Belt and Road Initiative (BRI) in 2013, a multilateral agreement promoted and lead by China which aims to integrate dozens of countries with commercial agreements, infrastructural investments and other partnerships. A campaign of huge foreign investments from China accompanies the project, with the nation trying to enter mainly the African continent and spreading the influence further into the Asian one. Additionally, considering the Chinese government statistics the distribution of BRI endorsement counts for 36% other Asian countries, for 26% European ones, 11% Caribbean, 9 and 8% Oceania and South America ones respectively.

Though China claimed that BRI has a supplementary nature to the incumbent institutions such as World Bank and International Monetary Fund aimed at fostering cooperation and regional integration, many consider it as China’s challenge to the pillars of the US-dominated liberal world order, a project aimed to move the power and centrality from US to Asia and to “steal” some cooperative countries to the US.

Moving to the end of the second decade of the XXI century, in 2018 Trump’s presidency accused China of unfair treatment of foreign multinationals in China, which would be disadvantaged by the Chinese government which directs all the subsidies and favorable conditions only to national companies. Second, the US accused China of unfair trading practices and intellectual property theft, which is a threat to the technological supremacy of the Americans. Moved by these reasons and by the substantial need of reducing the

trade deficit with China, a target still not reached, in March 2018 United States started imposing protectionist and the conflict escalated:

- In February 2018 US imposed taxes of 30% on imports of solar panels and of 20% of washing machines; March and April 2018 saw the implementation of tariffs of 25% and 10% respectively on steel and aluminum imports from China;
- In the same period China responded to this approach of US through retaliation of a value equal to 34 billion USD applied to the same categories of products;
- In August 2018 both countries (with China always retaliating) raised the percentages of previous tariffs imposed to 25%, reaching a total of 50 billion USD of Chinese import affected by taxes;
- By the end of 2018 US announced a new increase in the taxation to reach 200 billion USD of Chinese export affected by tariffs;
- 2020 represents a year of lower intensity in the trade war due to the introduction of the so called *phase-one agreement*: on January 15, 2020, the United States and China signed the phase one agreement. Its 91 pages included chapters addressing intellectual property protection, technology transfer, trade in food and agricultural products, some new market access in China for financial services, exchange rates and transparency, and a government-to-government enforcement mechanism that could result in unilaterally determined trade sanctions if one side did not adhere to the agreement.

How the US-China trade war has escalated



Figure 21: US-China trade war timeline – Peterson Institute of Economics

The graph below shows the trends over the past 3 years; the categories of products involved by the tariffs are organized in lists: before the trade war started in 2018 tariffs were already present but they respected the WTO norms; between the middle of 2018 to January 2020 tariffs escalated to about 25% and after the phase-one agreement they reduced of a percentage between 5-10%. What does not look safe and stable for the future is the fact that they have re-increased after this decrease, proving that conflict is still present, even after the Trump’s presidency left.



Figure 22: Level of tariffs in the period between 2017-2020 – Peterson Institute of Economics

According to the Peterson Institute of Economics, intermediate goods are the most impacted by tariffs (93% of tariffs coverage, which means that the four lists above cover the goods), followed by final consumer goods (69%) and capitals (47%). Moving to a per-sector analysis, the most covered by tariffs are those of fuels (100%), agriculture, declined in soybeans, cotton, sorghum, wheat, lobster, corn (100%), energies (100%), hide and skins (100%), vegetable products and prepared foodstuff (99%). Less impacted by the tariffs impositions is the manufacturing sector, with both countries aware of the key importance played by sectors as automotive, aircraft industry, semiconductors, etc.

The presence of tariffs and barriers imposed mainly by US government extends also to other countries all over the world, reinforcing the protectionist approach toward international trade. This policies create negative effects not only for US and Chinese companies (and consumers, as the higher costs will then be generating higher prices, thus more expensive and less competitive products – Apple in 2019 announced that tariffs could force the company to raise the price of the iPhone) but to most of the firms in the world, as the relations, almost in terms of supply chain, are global; the impacts suffered by players of

these two nations extends to all the partners of them, which almost certainly can be of a different region. As China has been the manufacturing country in the last decades and US a frequent destination of export for multiple nations, these tensions may drive changes in many corporations because some could decide to abandon those destinations due to the increase in costs of raw materials or intermediate goods in favor of more convenient solutions. So, consequences cannot be described as purely negative, but surely a reshaping of the network would be on the way. Another great example of the potential consequences can be seen looking at the US automotive industry, which provided an idea of how even temporary trade war tariffs could have potentially long-lasting effects. By 2017, China had become the second-largest export market for American vehicles. As a result of the events of July 2018—the US tariff on parts, China’s imposition of a 25 percent retaliatory tariff on US autos and simultaneously lowering its auto tariff on imports from the rest of the world—US auto exports to China fell by more than a third. Tesla highlighted that it was accelerating construction of a new plant in Shanghai in late 2018, indicating that Trump’s tariffs on auto parts and China’s retaliation on cars, and the consequential uncertainty, had made it uncompetitive for the electric cars company to export to China from the United States. For similar reasons, BMW shifted production of some models destined for China out of United States. By the end of 2020, US exports had still not recovered to pre-trade war levels.

The map below shows how the two forces have influenced economic trade relationships with the other countries of the world; it is noteworthy the massive influence exerted by China in the African continent because of the Belt and Road initiative and in the Pacific area. United States keeps a strong influence in western Europe and in Central America. For the theme of regionalization and the partnering with one specific economic-technological power the most relevant countries are the one represented with horizontal stripes which represent a preponderance toward one of the two sources of influence. Spain for instance is indicated as China preponderant, but it is not clear how the nation could cooperate with other European countries, mainly US preponderant, if it adhered to Chinese standards: this could have massive negative implications in the trade and cooperative relationships with other neighbors.



Figure 23: Current influence of the two forces: US and China – (Ghemawat, 2018)

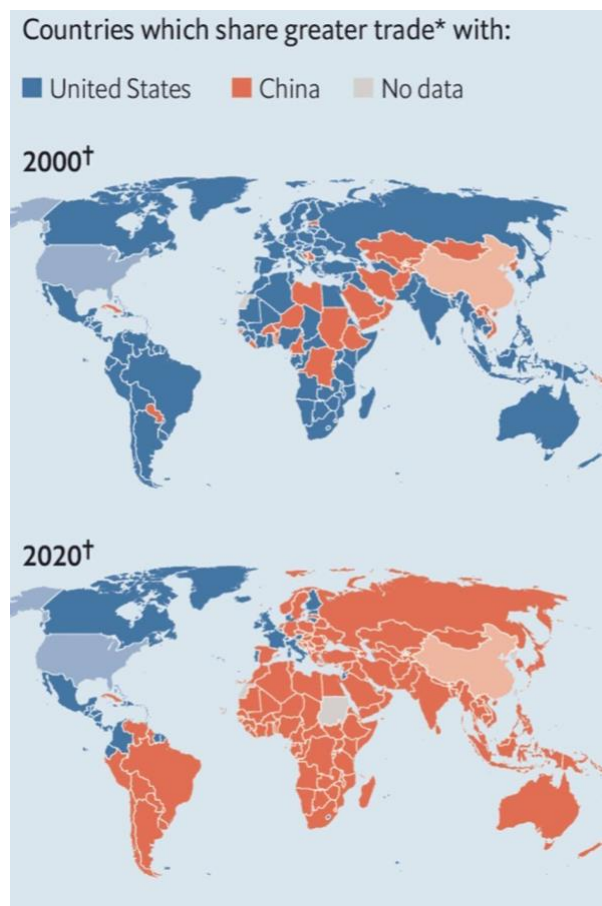


Figure 24: Countries which share greater trade with: US, China, No Data - The Economist

Moreover, if the analysis is limited to the trade of goods (it is not extended to services), it is relevant to mention that power relationships and influences may change over the decades. In fact, according to the *The Economist*, the influence and orientation of many countries have shifted toward China; looking at the map below, it is evident that Oceania, Africa, Russia, part of the Eastern Europe and all the Latin America have experienced a significant influence from China and its foreign policies.

Technology Decoupling

As mentioned above, concerns from America were also about technological thefts and industrial espionage. According to multiple studies the value of the intellectual property thefts suffered by US caused by China are equal to 300-600 billion USD. These are two among the multiple reasons why in 2019 the American government decided to start a process of decoupling from the Chinese technologies, privileging national supply chains and adopting policies to make China in a difficult lonely position as the latter heavily relied on US supply of chips and other materials.

Furthermore, in an escalation of the events, US banned China from utilizing a number of technological devices and solutions, especially in the hi-tech software industry and in the chip industry, officially because of the accuse of intellectual property theft, more probably because they do not want them to become dominant on the technological side taking advantage from reverse-engineering their technological solutions. One important race and battleground is the one related to 5G network technologies. This network should be able to connect multiple devices making them able to communicate each other, with a high speed and reliability. According to many experts, this technology is set to completely revolutionized the way factories work (for instance the production line would become wireless), transportation, privacy, etc.

To set up the whole network of technologies that makes 5G available all over the world is an enormous and potentially highly remunerative operation. For this reason, there are multiple companies (and countries behind them) from many parts of the world trying to impose their technologies as the dominant standards; this lighted the spark for a tech war as it happened between US and the Chinese telecommunication giant Huawei, the company that recently stepped up as the biggest seller of smartphones in the world. In 2019 the corporation suffered massive offensives from the United States with Google stopping the license of the Android system and Trump's administration ban of Huawei technologies use in the American territory. In the recent years, key suppliers for Huawei (American semiconductor giants like Intel and Qualcomm, search engines dominant as Google for instance) have been forbidden to supply the Chinese giant, even though it often represented the biggest share of revenues for these firms. In 2018 President Trump then also blocked a 117 billion USD merger promoted by Broadcom, a Singapore semiconductor company, to the American semiconductors giant Qualcomm, citing

national security as the main reason, hiding the fact that probably the real motivation was the will not to share the competencies and knowledge about such a critical industry.

Despite the reply from China focused on commercial retaliation, the country announced heavy investments in the most hit chip, semiconductors and software industries to drive the companies to completely unbound from the dependence from US supply, to “de-Americanize” the supply chain. In 2019 The Wall Street Journal in fact announced that Huawei was able to develop and manufacture a phone entirely without US components and chips.

The principle consequence and driver toward regionalization of this tech war is the risk of the creation of the so called “digital iron curtain”⁵, mainly a situation in which consumers and professionals all over the world will have to choose to adhere to one of multiple dominant technological designs; Bob Davis, a Wall Street Journal senior editor, evaluates this tech war as an American invite to all the countries in the world to choose between what he thinks will be two completely different technological standards; as the Regional Chief Investment Officer at Global Wealth Management Kelvin Tay impressively explained back in 2019, it could be possible that one person should carry on with her more than one typology of telephone if he/she is travelling the world, because of the incompatibility generated by this divide. In fact, many argue that the existence of the Belt and Road Initiative and the big amount of money invested by China into many countries in the recent years have been as well a strategic move to influence and pressure those partners to adhere to the future technological standard proposed by China.

If from the perspective of a single person the impact of this potential divide could be limited, posing the lenses on the corporate world, this could potentially cause massive disruptions. As technology, from electronics to software to telecommunications, is at the base of even the mere existence of any company in the world, the potential presence of different standards over time generates deep difficulties: even though multiplicity could

5

The “iron curtain” is an expression introduced back to the XX century with the Berlin Wall that was a symbolic division between the capitalistic world driven by United States and NATO members and Soviet Union, which was the leader country for the communist party. This division, as the technological one described in this chapter, has created two economically separated world, leaving one (the sovietic part) far behind. Production processes were different, the organization of societies, work, politics, management were diverse, and the absence of similarity made relations and cooperations far more complicated. Only after the 1989 fall of the Berlin Wall and the end of communism the countries adhered to the capitalistic ideology and relations improved, as well as economic performance.

be a good driver for continuous competition and innovation, the situation brought by multiple technologies is the one in which communication is more difficult and slower, products need to be adapted to the technological designs of foreign markets, which implies additional costs, the potential size of the market for a company could shrink, cooperation at the international level would inevitably decrease because of the lack of activities to cooperate on, knowledge and competences of workforces would substantially diverge and integration would decrease. More, the development of complementary products would enlarge the divide as they would be applied and available only to those that had adopted the corresponding standard.

The situation would be much worse for those countries that currently counts companies that cooperate both with China and America: if they have to abandon one of this two partners, it is not given that with only one side they would dimensionally replicate the cooperation and exchanges they have today, meaning that the whole economic activity could reduce.

Moving back to the CAGE analysis provided by Pankaj Ghemawat, players will interact and partner with realities which are close to them from the cultural, administrative, geographical and economic perspectives.

The above depicted situation clearly works in a way that enlarges the differences: those companies that “adhere” to a precise standard would cooperate and work with those players that are similar to them, thus creating real regional economic blocs that over the decades would communicate less and less among them. In particular, a technology divergence would boost the economic distance which usually comprise the presence of infrastructure and common technological solutions.

Moreover, the absence of a dominant standard and player could potentially pave the way for the emergence of a third player, many think Europe, as a source of an even alternative technology; this means that the regionalization and the multiplicity of technology could rise and the separation with it. The world could, in this extremely negative scenario, be split in more than two regions, exacerbating the above-described problems.

A little evidence of this comes taking Australia as an example: the country has been recently imposed tariffs on wheat export from the Chinese government mainly as a reply for, among many, the fact that it has politically banned Huawei technologies from setting up 5G telecommunication network in its territory. Thus, Australia is clearly siding with

forces that are not in the tech sphere of China, with the combination of tech and trade war setting up the stage for a decoupling process.

Covid-19 outbreak

Commercial trade war and technology divergence are two elements of a more complex puzzle that has generated a situation of uncertainty which calls for risk management practices. 2019 added another crucial component that contributed and is contributing to foster the decoupling of the two main economic forces and the development of a more regionalized system: the Covid-19 pandemic⁶.

The COVID-19 pandemic, also known as the coronavirus pandemic, is an ongoing global pandemic, officially declared on March 11th 2020, of Coronavirus disease (COVID-19) caused by severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2). The virus, even though many scientists say that it was circulating long before, was first discovered in the Chinese city of Wuhan later in November 2019 because of an abnormal amount of cases of lethal pneumonia. The initial hiding by the Chinese government combined with international travels of people in and out of the country and the ease in transmitting the virus paved the way for an easy spread of the disease in almost all countries of the world.

In the first months of 2020 first cases were detected in Europe, Australia and other countries close to China. From March 2020 the disease was worldwide recognized as a threat because of the impressive raise in the contagion and the dangerous death rate reached. This is because the virus can spread from an infected person's mouth or nose in small liquid particles when they cough, sneeze, speak, sing or breathe. These particles range from larger respiratory droplets to smaller aerosols. Current evidence suggests that the virus spreads mainly between people who are in close contact with each other, typically within 1 meter. A person can be infected when aerosols or droplets containing the virus are inhaled or come directly into contact with the eyes, nose, or mouth.

The virus can also spread in poorly ventilated and/or crowded indoor spaces, where people tend to spend longer periods of time. This is because aerosols remain suspended in the air or travel farther than 1 meter. In fact, as it happens for most of the Coronavirus

⁶

The pandemic has been used as an additional weapon by US government to try to attract more countries to its influence sphere as it publicly accused China to have deliberately released the virus from a laboratory located in the Chinese soil. Despite there is still much uncertainty about this, it has clearly been a move that does not reduce the animosity between the two forces.

variants, they are able to replicate mainly in the cold months of the year because people tend to spend more time in closed settings.

Moreover, the virus has been able to mutate over the months (as it frequently happens) and some of the so called “variants” have proved to be more aggressive and more rapid in the diffusion than the original version of the virus. This has complicated the way toward the elimination of the virus.

From an epidemiological point of view, according to data collected by World Health Organization, as of May 2021 there have been more than 160 million cases confirmed with 3,5 million of them ended with a death, mainly because there was no preparation from a medical point of view in terms of how to treat the disease and prevent the diffusion. The distribution of the outbreak has not been homogenic among regions, as the combined charts from WHO below show. Currently the biggest impact has been recorded in the Americas, with both South and North parts heavily exposed. Europe is at the second place and the South-East Asia stands for the third. What is important to underline is that these are only confirmed cases, which means that obviously many infected people, because asymptomatic or because non detected, are not included in the official count. United Nations alerted that many countries have not been able to collect reliable and extensive data: this for example refers to African countries which count officially 3 million cases but are supposed to have suffered a more severe impact.

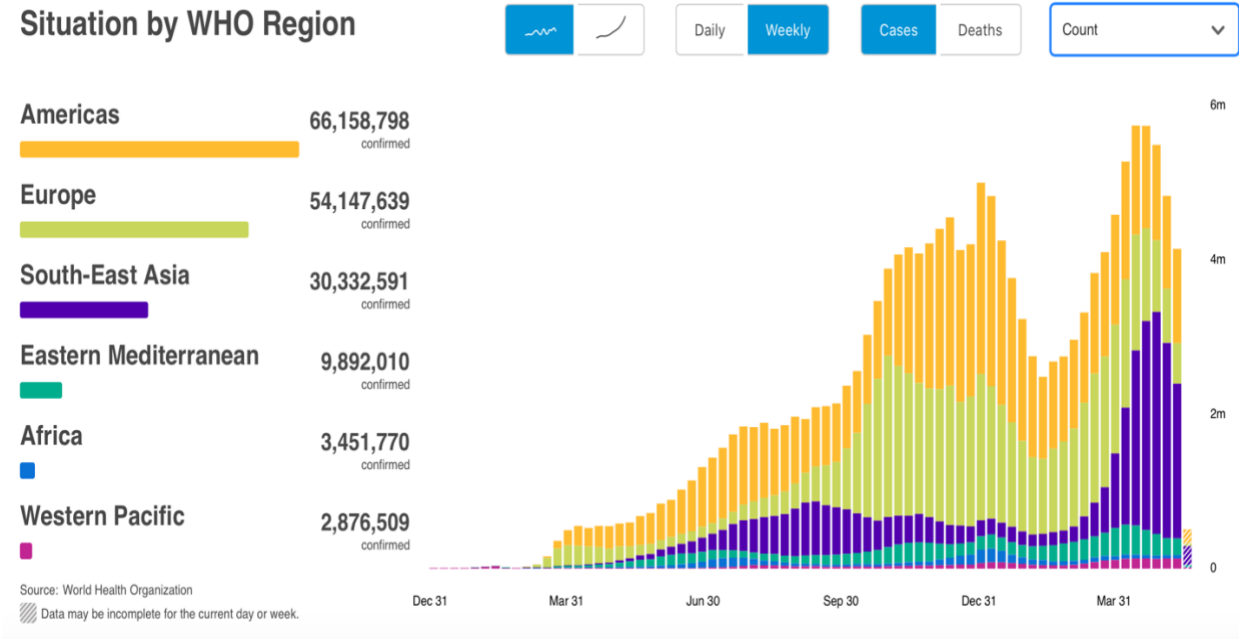


Figure 25: Cases of Coronavirus divided according to WHO Regions

As the virus is carried by humans which are able to transmit it one another, the World Health Organization suggested, beyond the common norms of personal hygiene, a temporary solution that was found in the social distancing and in the confinement. People were suggested and often forced to stay distant one another and to confine into their houses in case of suspect of contagion or risky situation.

Going beyond the medical treatments and medical-scientific analysis of the fight against Covid-19, it is important to focus the attention to the fact that consequences have been severely experienced also in other spheres, economics and management included. As the virus spread out of China to other countries, governments were forced to take action against the diffusion of it. The main moves followed to counteract the situation were travel bans, forced quarantine and lockdowns of all non-essential business activities in the cities. Unlike earlier events like the US Twin Towers terrorist attack and precedent epidemics as Middle East Respiratory Syndrome (MERS) of 2012, it has simultaneously hit the leading economies, paralyzed links between countries, prompted a mix of responses and created uncertainty about its eventual eradication. Impacts on different economic industries have been severe: according to UNCTAD in 2020 world GDP decreased for -4,3% with respect of 2019, a decline heavier than the one experienced in the latest financial crisis. As it is possible to observe from the graph below global merchandise trade as well registered a big hit from the pandemic with negative percentages close to -20%, while the one related to medical equipment increased.

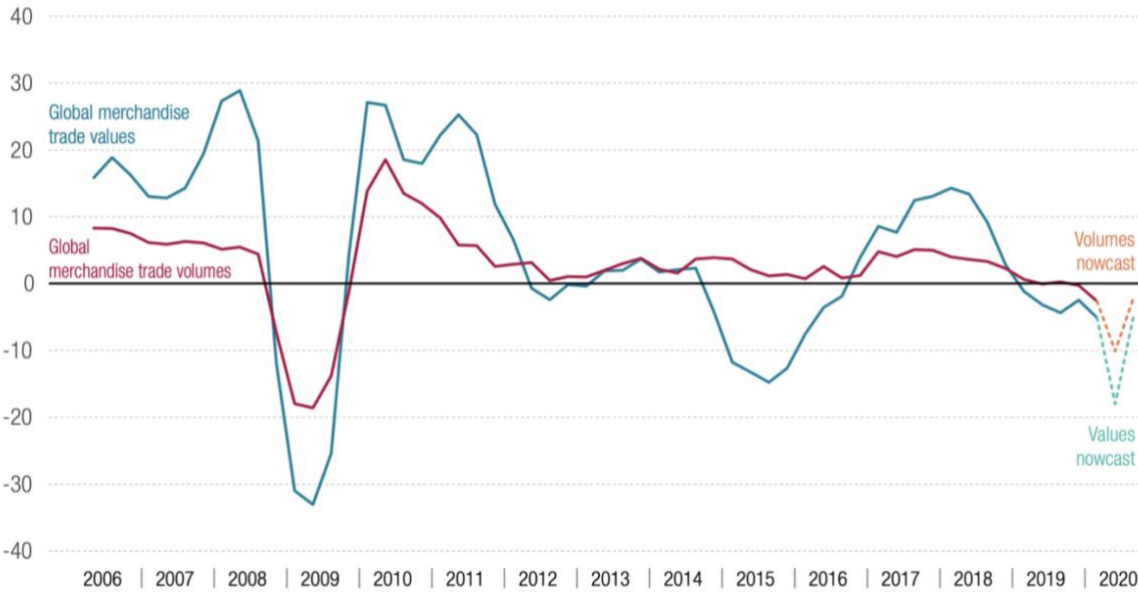


Figure 26: Global merchandise trade volume and value (percentage) - WHO

Keeping the analysis on the trade side, multiple industries have experienced a deep impact in terms of export volumes. As the bar chart below shows automotive and chemical exports suffered the most; in particular, US reduced the export of automotive industry products more than Europe and China. The same circumstances occurred in the chemical industries. Noteworthy is the fact that there are some industries in which the only players which experienced a negative result in terms of export are Europe and United States: this has happened in the textile, precision instruments, office machinery, machinery, electrical machinery and communications equipment.

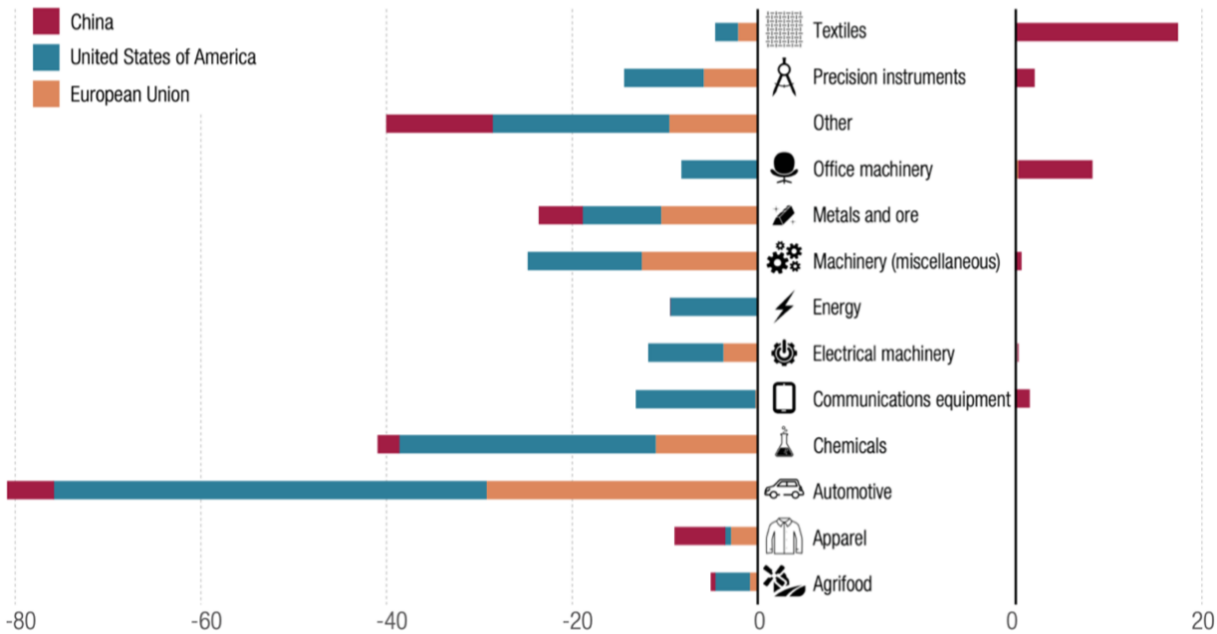


Figure 27: Export decline in the three major economies - by industry (USD Billion)

Considering the world manufacturing output, containment measures, infection of workers and the paralysis of the supply chains that will be discussed further in the chapter have caused a dramatic decline, like the one experienced in 2009 because of the financial crisis. The second quarter of 2020 showed a -11,3% result in terms of manufacturing with respect to the same quarter of 2019.

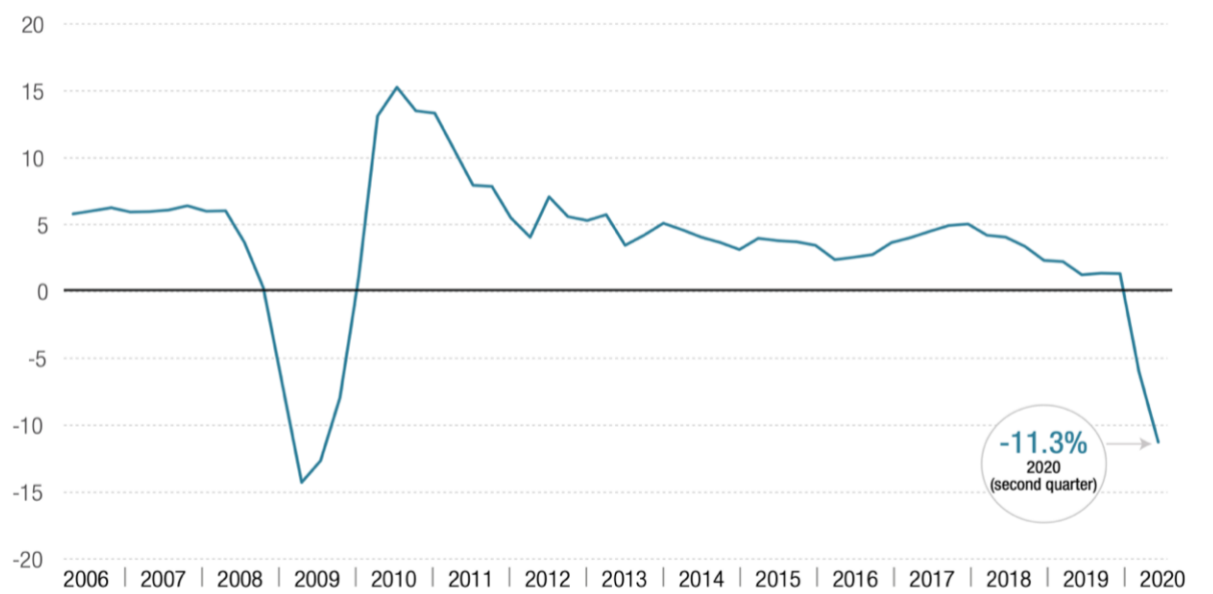


Figure 28: Growth in world manufacturing output

After having reported few indicators of the impacts caused by Covid-19 outbreak, it is important to understand **why the phenomenon is connected with regionalization trends.**

From a political and managerial point of view, the main problem that emerged was the fact that despite the globality of the event, it has not triggered an effective global response. Rather, nations have pursued disparate responses based on their trade-off between the costs of virus containment and those of economic shutdown and isolation (Enderwick, Buckley, 2020).

For example, Australia decided to create a kind of safety bubble closing its borders to any arrival from foreign countries except New Zealand, made use of a 7-months-long lockdown and after that reopened all its business activities. China, the first country to be hit, exerts the strong political power to force long periods of isolation and lockdown for the population. European countries, despite the presence of continental institutions, initially showed a nationalistic response to the crisis, with countries closing borders to each other, fighting financially to ensure a sufficient supply of personal protective equipment (PPE) and promoting no action of regional rather than national response. Italy was the first European country to announce lockdown of all major and non-essential business activities in March 2020, while United Kingdom and North Europe countries like Sweden instead for an initial period kept everything open and no rule was imposed on the population to prevent the diffusion of the virus. Nowadays, differences are still present as some countries have overcome the lockdown condition while others keep it still on board.

National or at most regional responses have been the file rouge also in the production, distribution and administration of the vaccines, which were developed at the end of 2020 and throughout 2021. The heterogeneity can be observed in terms of timing and typology of action: for the first case, different regions of the world are proceeding with vaccinations at a different speed rate because different countries (or regions, as it is the case for Europe), simply have been more powerful in terms of financially bidding for ensuring the supply and the distribution of the vaccines. According to Yuval Noah Harari, an Israeli historian, professor and at the Hebrew University of Jerusalem, the way by which vaccines have been managed by international political powers goes against the very needs of these political forces. The disparity in the access to the vaccine doses that can be appreciated in the map below has the effect of setting the ground for new variants of the virus that can be generated in those countries in which the latter is not under control through vaccination campaigns.

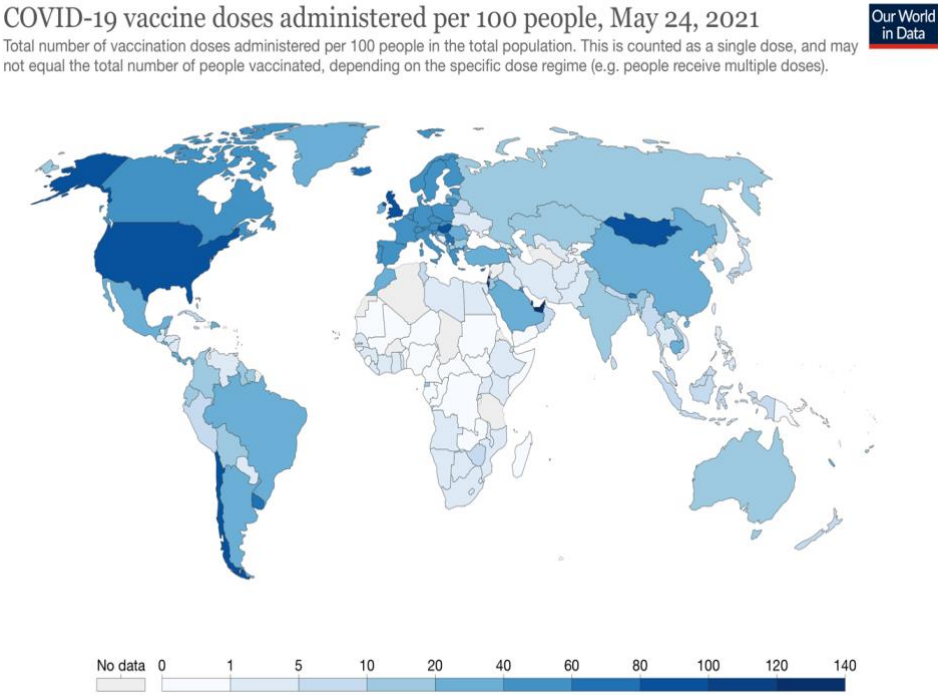


Figure 29: Covid-19 vaccine doses administered per 100 people as of May 2021 - WHO

As it can be seen in the map above there are different speeds in the vaccine administration: Europe and North America range between 60-80 people out of 100 with at least a first dose, while Asia, South-East Asia and Oceania are lagging as their vaccination campaigns haven't started yet or haven't yet achieved a sufficient progress pace. The poverty and disorganization of the countries of the African continent created the unfortunate condition of zero or really few vaccines.

Vaccine campaigns relate to regionalization because of the different technologies utilized in the vaccines by the countries and because of the diverse approach toward vaccination campaigns. The fact that there is no certainty with respect to the duration of the protection and the potential collateral effects that could be generated by different technologies, all this could have the potential to make social and business life less attractive and less safe in the future in certain countries (one cause could be different responses to mutations of the virus). More, the development and the sale of vaccines is connected with huge opportunities in economic terms as governments are able to exert future influence on other business-economic fields leveraging on the distribution of the vaccines. In this sense, there is the possibility of the generation of kind of regions that are bonded by the vaccination treatment people within them have received and the political decisions on liberties related to them. What’s more, is the fact that there are regions of the world (Asia in particular) where the political ideology and structure allow an easier and more common use of the lockdown measures: China for example, as the colored map below shows, is the country which has imposed quarantine restrictions more than others, probably thank to the intense power the government has over citizens; this is of massive importance for global business themes because it affects the reliability and the uncertainty over operating in a precise country, which may force companies to opt for other solutions (regions among them).

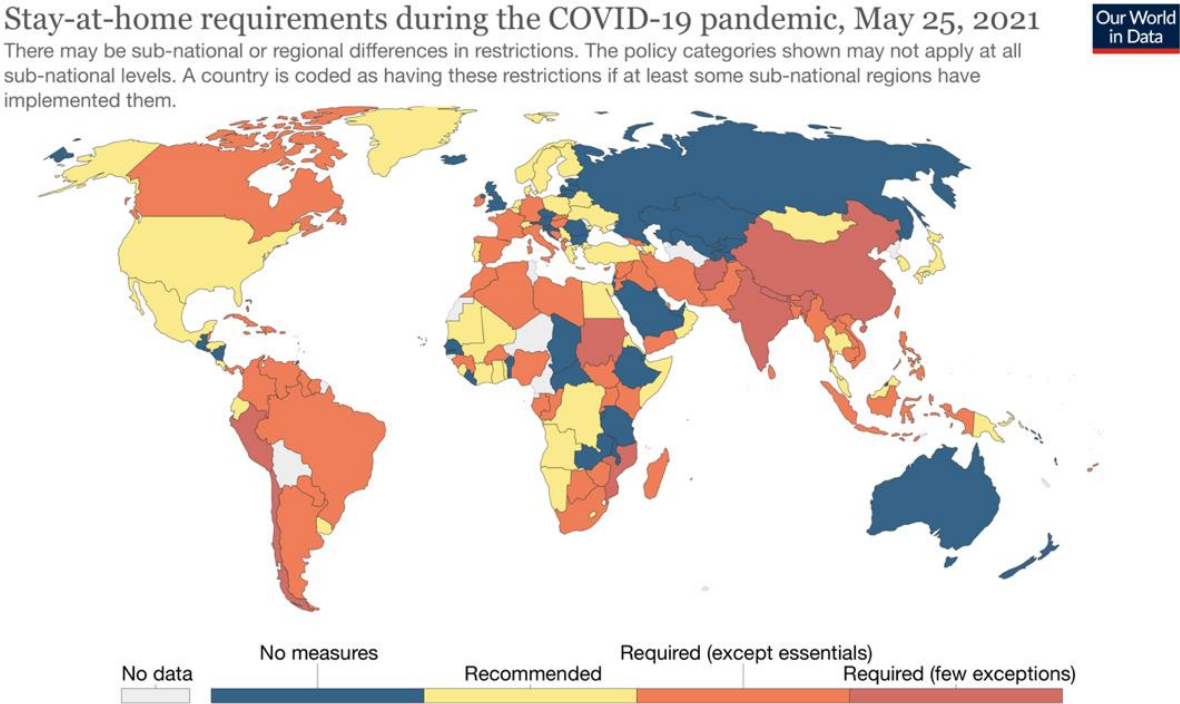


Figure 30: Stay-at-home requirements during the Covid-19 pandemic - WHO

The disparity of the countermeasures is noteworthy also as countries can restore businesses, travels and safe life earlier than other, which could also mean, for instance, that they could be able to steal market share, make earlier investments, recover from the crisis rapidly. Considering the latter issue, the loss of market share, a great example comes from the tourism industry: in the early months of 2021, Spain reopened borders and international tourism before many of other European countries, whom citizens spent vacations and holidays in the Iberic peninsula, while tourism in their home countries was still not allowed by government restrictions, causing severe losses and opportunities to recover from the economic crisis. The tourism industry can be a great example of how Covid-19 could enhance regionalization: holidays and vacations are subjected the accessibility of the various countries; if, as it has happened in the European Union, this accessibility is granted by certifications of vaccination, tourism industry creates a real region, Europe, that will set up in a way to cope with the need of this documentation. In the remote hypothesis that Americas, or whatever area, require other certificates or other vaccinations, even tourism could be heavily regionalized.

Impacts on the Supply Chains

As described above dealing with the Rugman & Verbeke's 2004 study and with the outsourcing-offshoring practices, more than communications, travels, online connections, sales, etc. supply chains were what determined globalization. The economic world was globalized mainly because of the extended network of suppliers or operations that involved multiple countries due to several cost advantages and other benefits.

The trade war, technological decoupling and the Covid-19 pandemic described above are three important elements which have impacted value chains a lot and that are contributing to challenging globalization and favoring the emergence of a more regionalized economic world.

The reasons that drive a reshape of the partnerships and of the organization of the networks of companies due to the trade war and the technology decoupling are explained above in this section and overall can be summarized as follow: in the first case the presence of tariffs means an increase in the costs associated with all transactions made with China and US and more uncertainty due to the turbulent situation. More, if the products cross more than one border then the increase in the costs raises. Power forces may change because some countries or poles of the network may lose importance and leave space for new key players. In the second case instead the technological decoupling forces countries and companies to potentially side with one of the providers, which means that divergences would enlarge.

The three mentioned issues can be considered as sources of risks⁷ and as that, companies should take initiatives to reduce as much as possible the challenges that they could face in the future; hence, in this sense it is plausible to speculate that the US-China trade tension and the Covid-19 would make the production and trade networks even more regional and less global (Zhaohui, Zhiqiang, 2021). US-China trade war, combined with the increase in the salary levels in China are making the Asian giant far less attractive than it was two decades ago; given the immense amount of goods that transits through Chinese ports (i.e. Shanghai) and infrastructures and the multiplicity of countries that established

⁷

Many media and also scholars considered Covid-19 pandemic as the so called "black swan", an expression introduced by Nassim Nicholas Taleb, an Egyptian writer, to define high impact low probable events. However, there were many alerts from the past that a pandemic could have happened in any time. Famous is the alert from Bill Gates in a TEDx event back to 2015.

relationships of the kind described in previous sections (offshoring, outsourcing, transit), the effects of tariffs imposed on goods and of more expensive labor force have a widely extended impact. In light of this, many companies are making efforts and plans to reshape their networks and value chains, where to locate production and operations.

According to the McKinsey Global Surveys in 2018, one out of two of the respondents stated that their companies would shift their global footprint in response to the US–China trade tension, and one-quarter said they would invest more in regional and local supply chains. Up to 2019, according to the surveys by supply chain consultancy QIMA, over 75% of US respondents reported of being affected by the US–China tariffs, and 80% of US respondents and 67% for those based in the EU expressed that they had already begun to diversify their supply chains and strengthen their presence in the local regions or had plans to do so in the next future.

Moving to the Coronavirus outbreak the situation is different: OECD in a report issued in 2020 proposed a classification of the impacts that the virus had and is having on the supply chain of a company:

- Direct: the virus infected workers impeding them to work and so activities are not performed (excluded those that can work remotely);
- Indirect on supply chains: one of the company's suppliers is located in a country where lockdown measures have been imposed so goods/services are not delivered;
- Indirect on transportation: goods cannot be transported from the country of origin to the country of destination because of multiple lockdowns in between or unavailability of logistic intermediaries;
- Indirect on demand shocks: Coronavirus has amplified the demand of categories of products (personal protective equipment for instance) at a level that was unsustainable by the supply side. This creates major disruptions because new sources of production and import have to be found.

Supply chain problems than generate difficulties with the capability of the company to satisfy the customer demands in time, causing a negative chain effect.

What comes from this analysis is the fact that companies are working to understand how to improve the robustness and the resilience of their supply chains in case of future new

disruptions. All the benefits of being part of a global value chain are dependent on the free movement of people, goods and capitals, which is not guaranteed in case of events of this magnitude. The link with regionalization comes with the fact that the trend to improve the just mentioned indicators seems the one of shorter and regionalized supply chains. Companies see in the proximity of their suppliers more reliability, less exposure to risks, a better capability to quickly adapt to consumer demand and preference changes. Jim O'Neil of Goldman Sachs states that the trend of moving away from China was already in place before the pandemic and now it is accelerated; more, salary increases in the country paved the way for selecting other Asian nations like Vietnam and India, with the textile sector as leading example. Joseph Stiglitz, 2001 Economics Nobel prize winner, thinks that companies and government haven't acted to increase the resilience and structure of supply chain and thus now they are privileging the shortening of them.

The Economist Intelligence Unit recently examined how Covid-19 has impacted and will continue to fundamentally reshape global supply chains, and strongly argue that Covid-19 will change trade, accelerating the trend toward shortening supply chains. More, they underline that for global companies there is the will to create **quasi-independent regional supply chains**: this means that for each region in which these companies operate they set up a regional value chain, separated from the ones present in the other areas. This gives massive flexibility and reduces the exposure to risks to a regional level (so, if a disruptive event occurs in a region it does not affect what happens in other ones). The choice to regionalize and shorten the supply chains can be expressed selecting suppliers that are in the geographic and economic area of the company; this hypothesis is confirmed also by Jeffrey Sachs, director of United Nations Sustainable Development Goals (UN SDGs), which forecasts that for these reasons the world will be economically organized in regions, each of which with its own supply chain, customers and distributions systems. The rationale behind this is that if disruptions occur at a regional level and not at the global one it is easier, faster and more effective the action taken by an economically and politically organized entity. Moreover, regional supply and value chains are considered valuable as they increase the speed of response to changing consumer needs, it may develop collaborations and cooperation at a more local level that may give birth to long-lasting-trustworthy relationships.

All the multiple economic areas described in the previous section like NAFTA, EU, MERCOSUR, ASEAN, etc are now of massive importance because if the participant

countries operate jointly as a region they are able to reduce the risks they could be potentially exposed to. Furthermore, one of the ways by which the shortening of these value chains is obtained is through a strategic option opposite to off-shoring: reshoring. Reshoring is the process of returning the production and manufacturing of goods back to the company's original country. There are four typologies of reshoring:

- in-house reshoring, when a company is relocating manufacturing activities being performed in wholly owned offshore facilities back to wholly owned structures in the home country;
- reshoring for outsourcing, when a company is relocating manufacturing activities being performed in wholly owned offshore facilities back to home-based suppliers/partners;
- reshoring for insourcing, when a company is relocating manufacturing activities being performed by offshore suppliers back to wholly owned facilities in the home country;
- outsourced reshoring, when a company is relocating manufacturing activities being performed by offshore suppliers back to home-based suppliers.

Reshoring can be classified as Near-Reshoring if operations they once were offshored are set up in a country closer than the previous one but not in the country of origin. Reshoring has multiple benefits:

- Supply chain is shorter and thus easier to monitor;
- Company could have access to competences, climate conditions, regulations, exchange rates that are not present in other countries;
- There is the possibility to improve the economic condition of the country by generating more work and financial wealth;
- The company is more able to quickly adapt to changes in the consumer demand because the shipping time of goods is shorter;
- The lower distance reduces the time and the costs of transportation of final or intermediate goods;

- For those companies that pursue sustainability reshoring is a way to reduce the carbon footprint of the activities. Shorter distances allow for lower transportation emissions and potentially less impactful packaging solutions.

Reshoring solutions are supported also by the development of new technologies of automation and the so-called Industry 4.0, which make easier for companies to move back activities once offshored. The magnitude of this phenomenon is in constant growth and the presence of international monitors confirms this. In Europe from 2011 more than 140 companies have completed their project of relocation of their operations; in the US, with the push from the Trump's nationalism, reshoring is reaching important numbers, as more than 25 billion USD are on the way to be implemented to push this trend. The Recovery Fund approved in Italy gives the possibility to companies to think about bringing back production processes once offshored because of the need to overcome supply chain paralysis. More, Japan has set aside more than 2 billion USD to assist its firms in shifting out of China, relocating either home or somewhere else in the region as Madza is doing, targeting Mexico as a source of larger supply.

As the graph from the Reshoring Initiative below shows, the number of manufacturing jobs created because of reshoring has exceeded the ones generated by foreign direct investments. The sharp increase visible from the 2019 is probably due to the incentives that have been set by US government to bring back many production processes at that time offshored.

However, it is important to underline that the reshoring practice is not always a guarantee of creation of new jobs because if it is sided with industry 4.0 solutions, many processes are automatized and thus no job, or a small number of jobs, is created. Going further, reshoring may not bring the results a company expects: this happened to Adidas, one of the leaders in the sport equipment industry, which decided, back to the 50-60s, to offshore its activities to Asia, targeting in particular China due to labor cost advantages; during the past decades the skills and know-how required to manufacture shoes and other sports items moved from the home country-Germany-to the offshoring destination. In the recent years, top management of Adidas decided to bring production processes back to Germany to take advantage of the new technologies related to the Industry 4.0 developments like automation and, in this way, to become more flexible and reactive to customer requirements. Unfortunately for the company, German production processes suffered

massive inefficiencies and low flexibility due to the fact that the automation of the processes couldn't replace the necessary competencies and knowledge of the products that, as said before, moved to China with the offshoring option.

Adidas then decided to transfer technologies and production plants back to China and in addition Vietnam where they could exploit cheaper labor costs and, in this case, more developed skills.

Another disruption emerged due to the Covid-19 pandemic which made Vietnam and especially China totally unreliable in the first phases of the crisis due to lockdowns. Adidas decided to reason again around the reshoring or near-reshoring opportunities due to the need to enhance quick responses to the customer needs modifications, finding in the regional value chains a good answer to this.

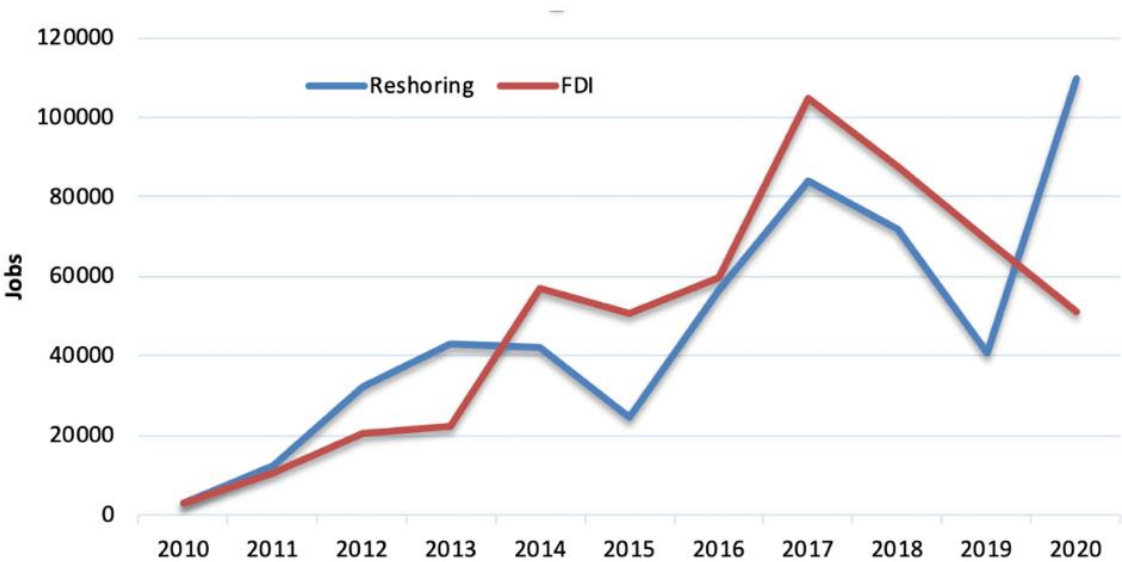


Figure 31: US job announcements by year, reshoring and FDI, 2010-2020 – Reshoring Institute

More, near-reshoring topic leads back to the CAGE model discussion: it is a way to arbitrage similarities and differences between two different countries; for a West-Europe country to reshore its activities to East Europe means taking advantage of geographic similarities and economic and cultural differences (for instance low labor cost, better manufacturing skills, etc.).

Nevertheless, the reshoring solution alone is expected to not entirely solve the problems related to the paralysis and unreliability of the global value chains. This because if the aim is to try to avoid that disruptions in a foreign country affects other countries' activities and operations, relocating the supply only in a single country does not solve the problem: the unavailability of free circulation of people, capitals and goods may happen if there is

a national shock and thus if a disruption occurs in the home country the company suffers the same challenges. The focus of decision makers should be on acting in favor of the resiliency of the whole supply chain: this usually consists of enlarging the amount of suppliers of the same input so that with a diversified portfolio of suppliers the risk of being affected by shocks is reduced. More, companies should partner with other institutions like governments, industry associations, etc. to bring them to make important stress tests of the supply chain, in this way understanding where potential crisis could happen, key inputs the supply of which must not stop and eventually new available partners.

The regionalization or, in general, the shortening of the supply chains, could be seen as a positive way to address new customer needs emerged during the Covid-19 pandemic. Fjord, a design and innovation consultancy firm, studied that the changes in the business environment brought by the pandemic have massively impacted consumer preferences and behaviors. People have get used to spend more time at home and have re-organized the home environment in a way that it fits with business and private life. According to multiple studies of the company, people want to experience the same emotions they feel at the physical stores when they receive delivered products purchased online. This means that also the supply chain has to adjust its way of operating to ensure the satisfaction of these needs: it has to satisfy speed, reliability but also it has to generate a positive experience. For many companies this means requiring more control and supervision of the supply chain's operations and thus the shortening of it, the creation of a supply chain for each region or, anyway, a regionalized approach, could fit well with these targets.

Chapter 3: Corporate Strategies and Regionalization

Chapter 2 proposes a series of phenomena that are slowing globalization into a political-economic world made of regions. US-China trade war, technology divergence and Covid-19 pandemic have accelerated a trend that was already in place and that now cannot be ignored anymore. From a micro perspective, these events have forced companies to reevaluate the operational strategy, such as where to place and locate production and operations (global value chains may leave space for regional value chains). Nevertheless, it is important to note that neither the US–China competition nor the Covid-19 pandemic constitutes the sole cause of the global transformations of production and trade. Other forces that drive regionalization include but are not limited to new technologies, changing global consumption patterns, as well as the benefits and costs of location decisions.

Hence, regions are acquiring and should acquire an increasing importance in terms of strategy definition at the corporate level. Most advantages can be captured looking at the upstream part of the value chain, the one related to supply, even though also the downstream one, linked with customers, experiences important implications from the regionalization.

Literature on internationalization strategies is abundant of studies that assume the focus of the single foreign nation as the target to tackle; however, this approach may not be correct with the need to satisfy and exploit the various advantages that can emerge from the current international situation:

- Economies of Scale: they consist of the possibility to lower the per-unit-cost of inputs when they are purchased or produced in large quantities;
- Economies of Scope: they consist of the cost-advantages of producing more than one output using the same technologies, production plants, etc;
- Economies of Knowledge: they consist of cost-advantages (mainly reductions) because of an increase in the knowledge related to the product, production process, etc.

The next paragraphs treat which methods, metrics and variables can be adopted to define the boundaries of a region and a set of six possible regionalization strategies to follow in order to maximize the return on the investments in internationalization strategies, which come from a detailed analysis of Ghemawat.

Definition of a region

The definition of what a region could look like for a company may be diverse because diverse are the variables that can be used to address this point. The logic behind the formulation of such entity is the aggregation: finding a common ground through which to group areas into regions.

One first driver commonly utilized is the geographical one: companies tend to group together countries that are close to each other in a precise geographical area. As mentioned before, the famous consultant Kenichi Ohmae identified three different regions, “triads”, in Europe, Asia and America. Adopting this kind of discriminant clearly does not take so much into consideration other important variables like customer preferences, local differences in many fields such as politics, legal, societal, etc. This choice is run by many corporations as it is often the most immediate one: for instance, Whirlpool Corporation, an American multinational manufacturer and marketer of home appliances founded in 1910 and currently stable presence in the Fortune 500 list, structures its activities in regions identified with the geographical driver, hence adopting one of the most utilized classifications:

- North America: United States, Canada, Mexico and Central America countries;
- EMEA: Europe, Middle East and Africa countries. The presence of the company in those areas is not equal everywhere in terms of activities as for instance Poland host production centers in addition of being a country where Whirlpool distributes its products;
- Latin America;
- Asia: within this region the company identifies five additional clusters in China, India, HTKJ (Hong-Kong, Taiwan, Korea, Japan), South-East Asia and Oceania.

The aggregation that can be set up utilizing the geographical driver can mutate or be different between companies, as one may find that a combination fits better than the one used by another player. The American Whirlpool's rival General Electric, one of the biggest companies in the world, for example extracts Africa and Middle East from EMEA and considers them as single regions; more, Australia is separated from Asia and considered a single region which includes all the territories of the common Oceania.

The CAGE model explained in the chapter 2 comes back useful in this case because the four variables it consists of could be adopted to define new boundaries of a region. Considering the administrative variable, regions can be identified paying attention to political agreements and similarities. For example, the Japanese Toyota, one of the biggest automotive producers of the world, decided to group countries adopting existent or expected free-trade agreements in those areas; in this sense, Toyota is relying on all the free-trade agreements described above: NAFTA in North America, European Union in Europe but also the Belt and Road Initiative could be a driver followed by the manufacturer. More, still in the administrative variable, Raytheon, an American company based in Massachusetts operating in the defense industry, adopts as a driver the presence in the Commonwealth association, which is composed of 54 member states, almost all of which are former territories of the British Empire. The rationale was that many of these countries shared similar procurement procedures and practices, which makes it easier to cooperate and reduces the uncertainties in the transactions.

Tata Consulting Services, the Indian IT technology consulting multinational, adopts language, which is a fundamental cooperation aspect for the correct functioning of such a business, as a way to group different areas of the world, which is clearly a cultural variable. From 2002, TCS established a regional delivery center in Montevideo, Uruguay, and later set up one in Brazil, to serve not just Latin America, but also Spain and Portugal which share the same languages. TCS followed this up with a regional delivery center in Hungary, where people speak German as a second language, that focuses on markets in Central Europe. Now the company is targeting Morocco, the North Africa francophone country, to set up another regional delivery center which serves Morocco, France and all other French-speaking countries.

Aggregation through Economic drivers could be done distinguishing between the state of the development of the country: non-developed, developing and developed entities.

Hence, a company may set up different strategies according to the purchasing power, resources, needs, infrastructures, etc.

Despite the above listed methods are country-based it is possible to find also other non-country-based drivers: industry of operation, distribution channels, business units, global accounts, etc.

Regional Business Strategies

As companies decide to be present internationally through the adoption of a regional approach it is important to know that there is a multiplicity of strategies that could be selected to compete effectively. As it often happens when dealing with common internationalization strategies there is not a standard fit-all solution, but companies should go for the option that satisfy the most their needs, aspirations and possibilities.

Professor Pankaj Ghemawat lists six possible strategies that are linked with a regionalization approach:

- Regional or Home focus;
- Regional Portfolio;
- Regional Hubs;
- Regional Platforms;
- Regional Mandates;
- Regional Network.

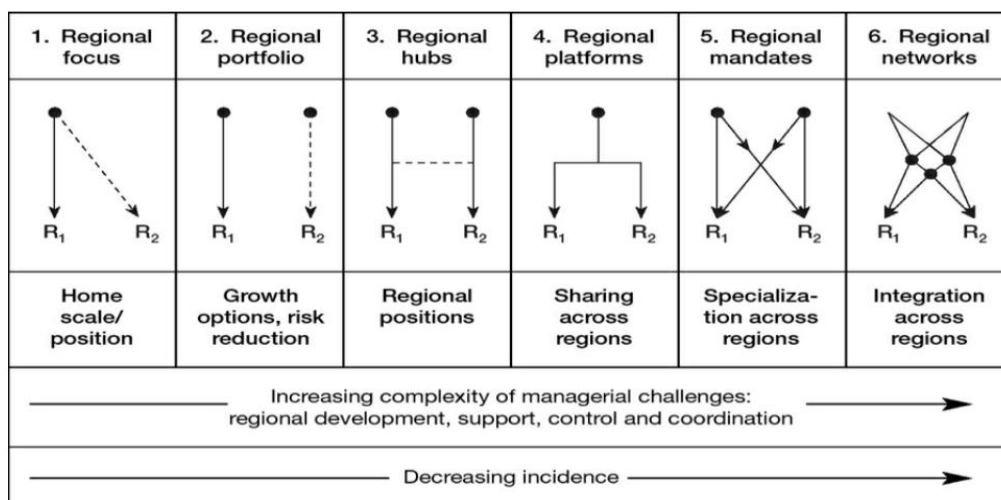


Figure 32: Set of 6 regional strategies. Rs are different regions, the • are product types – (Ghemawat, 2018)

What's important to remind is the fact that the six strategies are not represented as a step-by-step road to follow but as an array of options from which to choose or to move around. This means that a company may start with a regional or home focus, standing stable to it or then potentially move immediately to a network strategy. More, it is possible that a company also finds itself utilizing simultaneously more than one single option in order to maximize its returns.

Moving from option 1 to option 6 means increasing the managerial complexity required to set up the strategies. More, until option 3 the environment is intra-regional, from the 4th to the 6th it becomes inter-regional.

Regional or Home Focus

The first strategy of the set is the regional or home focus; it consists of companies that set up production plants, R&D centers and other functions/operations in their home region as it proves to be a source of competitive advantage in the international arena. More, the products that are developed in the home region are then distributed, as Figure 32 above explains, also in other regions. The advantages that could come from geographic dispersion of such operations are offset by

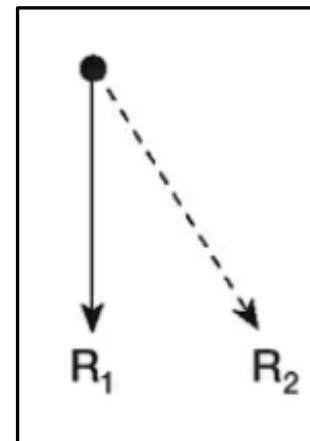


Figure 33: Regional or home focus strategy

those coming from the centralization which generates rapid interactions, no dispersion of knowledge, synergies and potential scale economies. Costs of control and monitoring are reduced because of the absence of dispersion of the operations.

A great example in the application of such strategy comes from Zara. Zara is a Spanish apparel retailer based in the Galicia area in Spain and part of the Inditex⁸group; it competes in the fast fashion industry as it is able to launch multiple different collections in a single year period of time. The company follows a regional or home focus strategy as it designs, makes and chains fashion-sensitive items close to its manufacturing and logistics hub in Spain and transports those goods to West European markets within two to four weeks from design origination. The appreciation coming from the customers and the ability to launch multiple collections within short spans of time, which makes them

⁸

Inditex Group is a Spanish multinational clothing company.

strongly competitive in the market, has massively offset the costs of manufacturing in Europe (especially West-Europe) rather than moving the production, as many competitors do, to East Europe or Asia exploiting cheaper labor costs.

This strategy brings with it, as it often happens, some advantages and some disadvantages: regional or home focus can prove valuable when world scale economies are strong enough to allow centralization of at least some activities in one region or location, or when the key economies of scale operate at the regional, rather than local or global, level. Moreover, a particularly profitable home regional market supports the adoption of this strategy even though, as microeconomics explains, the more profitable a market results, the more it attracts competitors and the lower the profitability becomes (the fast fashion business model has proved successful in Western-Europe but this brought Zara to face competition coming from other producers). Regional or home focus strategy then proves correct when to be successful internationally there is the need to exploit knowledge deeply rooted in a region and when the company success has a high sensitivity to regional free-trade arrangements, which means that if the free-trade policies are blocked or negatively revisited, also the profitability coming from this strategy reduces.

Coming to the other side of the coin of operating at a regional level, those which follows a local approach may have more performance due to a better and more precise responsiveness to local needs. On the other side, at a global scale the fact that all main operations are in the home region may pose the question of how much the home region should strategize for other regions, given the point that what works in a region may not find the same confirms in another one.

A strong link with this strategy comes with the trade war that is taking place nowadays and with the technological diverge: for a company following the regional-home focus approach it is of extreme importance to identify potential challenges that affects its profitability, and these may easily be represented by tariffs and non-complementary or non-shared technologies, which may emerge between different regions or even between countries of the same region (i.e. as Figure 23 shows, within Europe some countries are Chinese preponderant, while others US preponderant). In this sense, such threats may bring the company to choose for strategies that make them present in multiple regions (if it is the goal) with diverse organizational set-ups.

Regional Portfolio

The second strategy is the regional portfolio.

This approach consists of making investments (especially FDI) to set up some operations in foreign regions, even though there is not any formal regional headquarter. Hence, the company works in more than one region. Through acquisitions, mergers, greenfield or brownfield investments the company starts being present in another region, with their workforces and management. However, despite the migration of some resources and power to a foreign

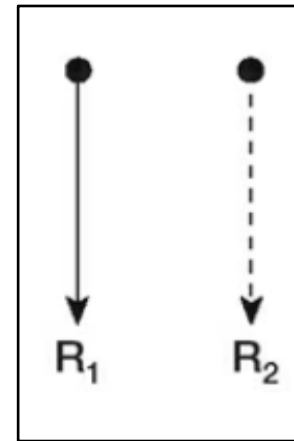


Figure 34: Regional portfolio strategy

region, one main characteristic of this strategy is the fact that these entities still tend to experience a strong influence and coordination from the home region headquarter and have little space to autonomously operate. One remarkable example of the adoption of this strategy is the one coming from General Electric (GE), an American multinational company operating in the aviation, healthcare, renewable energy, power, digital industry, additive manufacturing and finance industries: back in the 80s the company started a process of international expansion that brought them to set up operations in Europe; the autonomy of the European side was contaminated by a remarkable influence still coming from American managers.

The rationale behind such strategic setting includes the possibility of faster growth in nonhome regions, a strong home region position that generate substantial free cash flow to be used to invest in supplementary options, local investment requirements to access foreign markets and the opportunity, described in chapter 2, to mitigate the potential effects of any kind of shock or economic cycle spreading them across multiple regions. Moreover, a benefit can be the access to new competences, knowledge, resources and inputs which come from being present in another region.

However, it is necessary to underline that these programs to be effective require multiple years, even decades, of work and study to determine actual competitiveness and remuneration. Furthermore, the influence of the home-region management may affect the just mentioned process because often they lack the knowledge to control and direct operations located outside their home-region. This makes customers-responsiveness potentially slow and non-effective and reduces the opportunities to gain resources from local knowledge. This condition is somehow in between to a single region approach and

autonomous regional headquarters solution. It may happen that in the foreign region the company underperforms due to a lack of local knowledge of the financial systems, customers preferences, infrastructures, etc.

In a world that could be following a decoupling trajectory, as anticipated in chapter 2, being present in different regions may mean being present in places or environments potentially massively different, and if there is influence from the outside it may cause non-effective presence in a precise non-home region.

A positive example of the application of such a method comes from the Japanese automotive company Toyota. The company, since its foundation back to 1933 and for the following 50 years, kept major operations and production in the home region (Far East). From the 80s they started working for and making FDI into the United States (so North America region) where they were reaching great level of sales. In order to have a better access to a market that was starting to be somehow trade-protected in the automotive industry, they set up a production plant in the US and in this way avoided all potential restrictions to market access for foreign players (but influence from Japan was still relevant).

Regional Hubs

The third option and the last among those that have an intra-regional perspective is the creation of regional hubs. Regional hubs are a kind of geographical bases which comprise more than a single country and that provide resources, assistance and other services to operations located in a precise region. This strategy can be interpreted as an evolution of the regional portfolio one as in this case complete headquarters or institutions are set up in the foreign region. It can also be considered as a multiregional

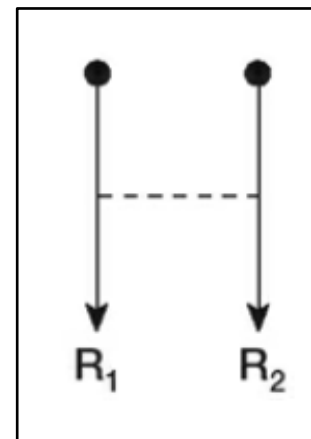


Figure 35: Regional hubs strategy

replication of the regional or home focus strategy as the latter is somehow replicated in all the regions in which the company operates. Hence, it may be that the different regions have their own supply chain, distribution systems, technologies, regulations, etc.

For this reason, the circumstances that makes the regional or home strategy favorable are similar to the ones that make the regional hubs attractive: the possibility to gain economies of scale at the regional level and the existence of factors that shrinks the

various distances among regions. Moving on, it is noteworthy also that such strategy composition may involve regional headquarters (RHQs); the presence of such institutions opens a debate on the power and autonomy that they should be invested of. The rationale behind regional headquarters is that they should be able to collect and better understand the needs of local markets, in this case regional ones, and in this way provide an offer much more tailored on them. They also allow quick response to changing demand and environment because of the proximity and the focus on a precise area. Regional headquarters may also collect and share with other institutions of the company the knowledge and resources they develop, but the more regions differ in their requirements, the weaker the rationale for the multiple, regionally focused entities within such a company to share resources and services (Ghemawat, 2018).

Then, regional headquarters may not be given so much decision-making autonomy from central headquarter as often the latter does not want to lose control and direction of the whole organization. Hence, sometimes their power is typically limited by a focus on support and staff functions, communication and human resource management.

Nevertheless, under some circumstances such institutions could serve important scopes; Philippe Lasserre, famous Business and Strategy professor and Asia-Pacific business expert of the French Business School INSEAD, listed key regional headquarters functions, including:

- Scouting opportunities for business development;
- Strategic stimulation of how the company would perform in regional environments;
- Signaling commitment to a region to external investors and people inside the company;
- Coordination and exploitation of the synergies that may emerge in the region;

In the formulation of the strategy, a company can look at RHQs with multiple perspectives given the role they have to play. They may be:

- Initiators, which emphasize strategic stimulation and coordination to support local operations;
- Facilitators, if they combine integration, strategic stimulation, and signalling;

- Coordinators if the focus is on strategic and operational synergies;
- Administrators, which focus on supporting and staffing functions.

The decision to adopt such a strategy has to take into consideration the fact that, as the Figure 32 explains, managerial complexity raises. This means that the costs of control increase and the flexibility of the company, if not well managed, decreases. More, if the company wants to keep a global image despite operating at a regional level, there are certain corporate functions (marketing for instance) that need common coordination, which means higher complexity. One of the major common concerns about regional headquarters is the divergence between regional goals and targets with the corporate strategy; in such cases it is fundamental that professionals work to bridge the gaps and potential difficulties among central and regional headquarters, working as expatriates or frequent commuters.

On the other side, as described before, the institution of this structure could represent the will to pursue the so-called replication strategy: not just the strategy but the whole organization of operations, links, distribution channels, supply chain etc. can be replicated in each of the regions identified by the company. Clearly, the risk of the duplication and redundancy of investments and costs is real.

Regional Platforms

The fourth strategy comprises the utilization of products platforms to share fixed costs of engineering, research & development, operations, administration, etc. among the regions in which the company is present. Making use of the platforming solution means creating a technological base, floor that is common for multiple products, which then differentiate one another by other often modular features. This managerial option is widely diffused in the automotive industry: one of most

important reasons behind the formation of the Stellantis Group from the mergers between Fiat Chrysler Automobile and Group PSA is the possibility to have access and exploit the benefits that come from common technological platforms in the electric-vehicle business. For this reason, future cars produced by the group will share a common

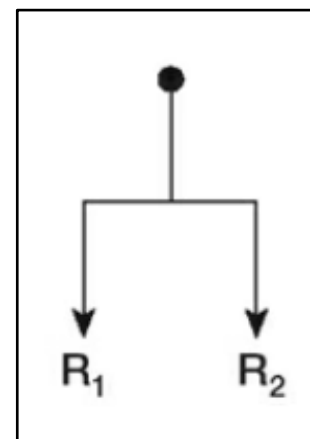


Figure 36: Regional platforms strategy

technological base, which is a massive incentive to share fixed costs among a multiplicity of products; otherwise, for every single car model the companies should have replicated those fixed investments that now they are able to distribute among many different productions.

The idea in terms of regional strategy is that the company, operating in whichever industry might fit with platforming, develops common technological platforms appositively engineered to foster customization and plurality of possible productions at a regional level. Hence, in every region of activity the company is able to pursue adaptation to local needs and tastes, but it avoids achieving this through a replication of the heavy initial investments. The graphical representation of the Figure 32 in fact shows a single product that is then present in two different regions with local adaptations to satisfy customers requirements.

The goal of this strategy is not to reduce the variety of products made available by the company but to achieve the desired variety in a more cost-effective way through the standardization of some parts of the base of the product. One of the major risks of this solution is in fact related to the standardization process: if it is too much extended over features of the products that could have exploited regional differentiation to gain profitability, the company may lose ground against more regional-effective competitors and waste the potential benefits of the investments. This happened to Ford, one of the most iconic and American car manufacturers when, back to the 90s, it tried to integrate the Ford's multiple regions into a single global body, with the aim to reduce the duplication of investments and costs. The company went too far with the standardization of the platforms and thus of the subsequent products. The cars that were appreciated in North America for instance, with a big size and powerful engines, were not so accepted by European customers, which often looks for small size and ecologic vehicles.

It is of massive importance to understand the required balance between standardization and local adaptation in order to effectively share the costs and the investments and do not incur in negative outcomes.

In a world that is going toward more protectionism and regionalization could be useful to develop systems that allow a great variety of products without sacrificing the benefits that comes from standardization. A car manufacturer has the chance to meet different regions requirements to well perform through a common technological starting base which then adapts to different needs. In this sense the tech divergence described in Chapter 2 may

reduce the impacts of this method as the chance to make common tech solutions could be limited because of multiple technological standards.

Regional Mandates

The fifth strategy is called “regional mandates”. It is focused mainly on economies of scale and economies of specialization, which means taking advantage from the specialized competences, know-how, resources, environments, law systems, etc. that are found in a precise area (country, region) of the economic world and that can boost the profitability of the entire company. Hence, players that adopt this solution target a precise area and assign to it a precise task, which may be the production of a particular component, the development of a technology or performing a knowledge-intensive activity (as for a service company).

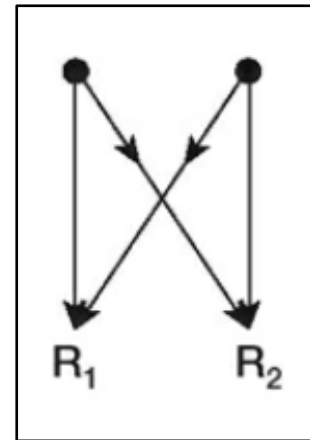


Figure 37: Regional mandates strategy

The outputs of these regional mandates then are not kept within the region but are shared with all the other areas of presence of the company. Whirlpool for instance sources most of their small-size home appliances from India, as in the South Asian country there’s small appliances’ higher value-to-weight/bulk ratios; these outputs then will not stay solely in India or Asia but are expected to move in different regions for further work on them (assembly, etc.).

Even though it is required the deployment of resources at the regional or even national level, a positive outcome from the regional mandates strategy is associated with a product and an offer that can count on an high degree of standardization; this because if otherwise the final product has to be sold completely different from a market to another, it will not be possible to take advantage of economies of scale and specialization and in general the whole strategy would not make sense.

However, standardization should not exceed the boundaries that would make the products valuable in multiple locations, meaning that adaptation and flexibility still cover a central role in the profitability of this strategy.

Regional mandates strategy is in the realm of those that are inter-regional, which means that in the formulation of it multiple regions are involved. It is required an exchange of inputs and outputs among them, which means that the complexity the management has

to face increases a lot. It is important to give space of action to regions but also to control and coordinate them so that the global overall strategy is not jeopardized.

Regional Networks

The last strategy studied and proposed by Ghemawat is the regional network strategy and obviously it implies an inter-regional approach. A network is a structure made of different nodes that are located in different positions within the network. Each of the nodes plays a particular function and activity. In this sense, multiple regions in which the company operates (or, more generally, is present with whatever scope) play key roles in the development of a competitive advantage, which usually takes the form of achieving complementarities across different regions while avoiding excessive specialization and inflexibility. One region may have positively performed in terms of production processes, another one may have easy access to fundamental resources, in a third region professional knowledge may shine.

What's important is the fact that the network approach may not even be set up as an official strategy; many experts and professionals underline that it should be embodied as a state of mind, an overall rule that dominates and leads the company; it can be thought also as an addition, complement to other more traditional strategies. In a network structure the position of the nodes is extremely important because flows of materials, knowledge and information usually go through most important ones, which generally are central. For this reason, is also of extreme relevance to ensure that all nodes are connected, that coordination covers and embrace all parts of the network.

The managerial complexity in dealing with this approach clearly raises significantly and the bureaucracy within the firm may increase so much that it offsets the need of flexibility and interaction. In facts it is necessary to be sure that global overall strategy is respected, that nodes do not pursue aside targets that are not coherent.

From an ideal point of view a company which sets up such a strategy will be able to be competitive taking advantage of both standardization and diversification; however, as

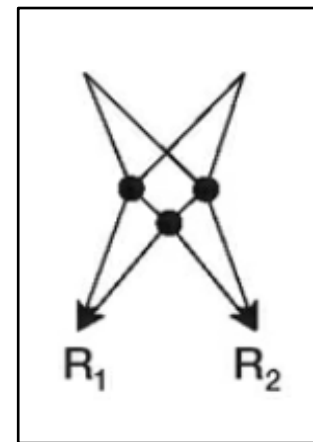


Figure 38: Regional network strategy

described above, this is achievable only if the management of the company is that skilled to positively direct all the structure.

This list of potential strategies described above proposes different approaches when dealing with an organization structured in regions. The decision related to which one to select is totally dependent on the typology of the business, the growth stage of the company and even the aspirations and targets of it. More, it is possible to be associable with more than one stage at a time or even with all stages as there is no rule to follow in the adherence to such stages. This kind of approach to internationalization is strongly linked to the idea of a semi-globalized business and societal world; a world in which the most appropriate aggregation level looks the regional one as neither the bridges nor the barriers between countries can be ignored (Ghemawat, 2018).

These strategies can be then combined with traditional strategies of dealing with the downstream part of the value chain and in general with the possible ways of entering a new country/region. The array of possibilities counts:

- **Export:** it is the easiest way of entering a new country as it consists of shipping the products realized in the home country (or in another area according to strategic decisions) to the foreign destination. For these reasons it does not require investments in production facilities in the target destination as well as no investment in equipment or factories. It is necessary to find a buyer or a distributor that assists the company in reaching the final customer.

There are some negative aspects in adopting the exporting strategy which derives from the fact that the company is not present in the destination market and so it may lose control of how the product is represented, sold, which are preferences, mistakes, etc.

- **Licensing/Franchising:** in the first case the licensor agrees to let the licensee use the property of the licensor in exchange for a fee. Usually, the property consists of production techniques, trademarks, images, patents, etc. in the second case the franchisee acquires access to the knowledge, processes, and trademarks of a business (the franchisor) with the aim to sell a product or service under the franchise's name. The franchisee usually pays fees. This method allows a faster penetration of the new market but usually with low profit returns considered the

heavy investments that are required in terms of training, brand marketing and general management to ensure that the brand image of the company is respected. More, there is the risk that the receiver gets, extracts knowledge and competences from this agreement and takes advantage of this becoming a competitor.

- **Joint Ventures:** this solution involves bigger investments and efforts; it requires two or more companies that create a third entity, with split shares, which usually is meant to work and manage activities in the area of destination. Conflicts of interest and inability to jointly manage a third body are the major concerns to deal with such a strategy, linked with the risk of being stolen of knowledge and competences.
- **Mergers & Acquisitions and Foreign Direct Investments:** the variety of solutions comprised in these definitions is explained in Chapter 1. Choosing these options means investing heavily in the targeted area and keeping the ownership of the activities and operations; this lessens the risks of losing control on brand image, customer insights and distribution systems. On the other hand, especially with FDI, the amount of variables to take care of (legal system, cultural differences, international human resource management, etc.) makes this opportunity massively challenging.

Nevertheless, mergers and acquisitions are faster to execute, and by merging or acquiring an existing foreign company already in the market, outside companies can quickly take advantage of that presence. Another benefit is that a merger or acquisition involves the purchase of assets such as property, plants, and equipment that are already producing a product with a certified revenue stream. Key is to find the right partner and to effectively understand the profitability of an agreement with them.

To conclude, it is worth emphasizing that the path toward an internationalization made on a regional base can be pursued not just by non-international companies, but also by those companies that are present in the international arena following other drivers. This means that it is possible to see a retreat from a global approach toward international

operations to a one made of regions, identified with one or more of the drivers mentioned above.

Next paragraphs describe some case studies that give a larger and more comprehensive perspective on the internationalization-regionalization theme.

Case Study 1: Electrolux Professional AB

Electrolux Professional AB is a Swedish company global provider of food service, beverage and laundry solutions, serving multiple customers, from restaurants and hotels to healthcare, educational and other service facilities. It spun off from Electrolux AB.

Electrolux AB was founded in Sweden in 1910 and through multiple acquisitions fastly became an international player in the home and professional appliances industry, competing with big companies such as Whirlpool and General Electric.

On March 23rd 2020 Electrolux Professional AB is listed in the Nasdaq Stockholm.

Electrolux Professional's 2020 results state 700 million Euro of revenues, 42% related to the laundry business and 58% to the food & beverage one. The company is present with its products in 110 countries and counts about 3500 employees worldwide.

Within Electrolux Professional there are multiple brands that became part of the company through antecedent acquisitions of companies operating in the industries: Zanussi, Molteni, Dito Sama, Veetsan, Wascomat, Cratcho, Grindmaster, SPM, Unic, Alpeninox, Kelvinator, Schneidereit.

Electrolux Professional AB organization structure is a great example of how a company can play at the regional level, without adhering to one particular strategy but mixing multiple approaches in a way that it reaches effectiveness and competitiveness in every area in which it operates.

Electrolux Professional AB has a central headquarter in Stockholm, Sweden, with operational headquarters located in Pordenone, Italy. In terms of production processes, the company is present worldwide with 11 manufacturing facilities in France, Italy, Sweden, Czech Republic, United States, Thailand and China, identified according to the product category assigned. 3 out of these 11 production sites have a global influence, which means that a share of the production they realize is not meant to be distributed in the same area/region but to other geographical markets.

The company sells global products and it provides local adaptations to address precise local customer needs. Global products bring the company to centralize Global Product & Marketing function, Global Business Development and Global Operations and Research &

Development functions, meaning that decision on these topics are considered of key importance and thus are kept centralized in central headquarters in the home region.

The company provides a category of products, the core ones, that are highly standardized and sold worldwide. These products are managed by central headquarter because of the importance they have and the relative low necessity to provide relevant local adaptations (i.e. voltage). Nevertheless, there are also categories of products which are massively dependent on the habits and customs of the destination area: some washing-machines have to be set up to well manage different typologies of water, different habits on the frequency and the methods of washing; cooking appliances differ according to cooking methods or dishes.

Hence, moving to the commercial side of the business, the company could be associated with the regional hubs strategy as it presents multiple regional headquarters with United States representing the Americas, Singapore representing Asia and Pacific (APAC) and the regional headquarter in the home region Europe. These regional entities have the goal to satisfy and meet local needs and to provide support to local operations and distribution, as well as to local customers. For example, recently Electrolux Professional AB decided to change the distribution system in Australia, a nation part of the APAC region, as they wanted to shift from simple export to a solution associated with more ownership of the market, represented by a network of dealers. A decision of this magnitude and size has been taken by the Singapore's APAC regional headquarter because the impact on the overall business of the company was small.

However, for decisions related to core products of the company, those that are highly standardized and sold worldwide, they cannot be taken by regional headquarters but are managed by central headquarters located in Europe, proving an high degree of centralization and control.

Each regional headquarter replicates those functions that are not centralized as for example supply chain formulas and distribution set ups, which redirects again to regional hubs.

Furthermore, the strategy adopted by the company cannot be described as fully global or fully regional. This because there are some markets, as United States and almost China, which prospectively can experience a growth of such an intensity that will make these two states equal to two regions; China in fact is expected to become the larger market for Electrolux Professional AB within few years. The approach for these areas changes, as the

company creates Chinese headquarters that replicate all the structure of the company and that have full direction for the activities related to China. The CEO underlines the critical importance of being physically present as otherwise the local competitors (i.e. Haier), which are as well global players, would take advantage of their knowledge of the market and exploit the unequal advantages that Chinese government grants to local companies with respect to foreign ones, easily outperforming Electrolux Professional AB.

Overall, the company has a strong international presence that is characterized by multiple approaches according to which solution maximizes the performance. Consequently, there are some aspects, as for instance the supply of micro components and microelectronics, which are managed with a fully global strategy.

When it comes to the supply of other materials, the distribution system, the customer care and services, the company values also local responsiveness and thus acts identifying regions and delegating some decisional power to them.

In response to the disruptive events described in Chapter 2, Coronavirus outbreak, the risk of a technological decoupling and the trade war, Electrolux Professional AB assumes the following positions: they see reshoring as a solution that may partially improve the resistance and reliability of value chains as some of their markets are already assisted with a regional or national system (so there is no mean and room for reshoring) and because they think that it would not completely solve potential problems, as disruptions may occur even at the local level.

The trade war between US and China has impacted also Electrolux Professional AB's business because it sources multiple components from the interested areas; however, as many other companies did, the negative cost of the trade war has been suffered by final customers as with higher costs, higher prices have been set. There is the possibility to source from elsewhere and so to be able to set more competitive final prices because of lower costs.

Technological decoupling doesn't seem to bother so much the company's business because they think their core technologies are not in the realm of those impacted by the decoupling. Nevertheless, they do show some worries when dealing with the IoT part of their devices, the ability to communicate with each other and to dialogue with the users:

as the key technologies behind these functionalities are going to potentially see different standards, the company is monitoring the evolution of the situation and it may face some challenges in dealing with it.

Case study 2: Whirlpool Corporation

Whirlpool Corporation is an American company playing in the home appliances industry serving customers both from the private side and the business one (hotels, restaurants, laundries, other companies, etc.).

Whirlpool corporation was founded in 1911 in the USA and in the following decades, especially after the two world wars, thanks to a growing and profitable business activity, it expanded through multiple mergers & acquisitions, reaching the current situation of a brands portfolio composed of Whirlpool, Maytag, KitchenAid, JennAir, Amana, Gladiator GarageWorks, Inglis, Estate, Brastemp, Bauknecht, Ignis, Indesit, Consul, Diqua, Affresh, Acros, and Yummly. Major competitors of Whirlpool Corporations are General Electric (especially in North America), Electrolux AB.

Whirlpool Corporation is listed in most of the major stock markets.

In 2020 the company reached 19 billion USD of turnover, made for a 29% from the laundry market, 31% from refrigeration, 24% from kitchens, 8% from dishwashers and the rest from other marginal types of sales. Whirlpool Corporation is playing in more than 170 countries and it employs more than 70 thousand workers all around the world. From a production sites point of view, it is present in Canada, US, Mexico, Italy, Turkey, Slovakia, Russia, Poland, UK, Brazil, Colombia, Argentina, India and China.

The firm is one of the best examples of the utilization of a regional framework to compete worldwide as they present four regional headquarters:

- Worldwide and North America headquarters (Brenton Arbor, Michigan, USA; Mississauga, Ontario, Canada);
- Europe, Middle East and Africa regional headquarters (EMEA) (Milan, Italy);
- Latin America regional headquarters (Bogoto, Colombia; Lima, Peru; Santiago, Chile);
- Asia (New Delhi, India; Hong Kong; Hefei, China).

57% of 2020 revenues has been obtained in the home region (North America); EMEA accounts for about 22% of the total turnover, followed by the 13% of the Latin America

region. Asia is the less remunerative region with just 6,5% of the 2020 total revenues made there and a negative net operating result (-0,4%).

Whirlpool Corporation's strategy is close to the regional hubs one because the regional headquarters they've set up are invested of large decision-making power as they are expected to run the regional businesses as semi-autonomous entities. Despite there are some functions (i.e. finance) that are centralized to worldwide headquarters in North America, regional headquarters have limited guidance coming from it. This means that relevant and strategic decisions about, for instance, the products are taken also at regional level. A large percentage of the production realized in a region stays in that region. Tastes and habits could relevantly differ even from country to country and so local sensibility is a key factor of success for Whirlpool Corporation, which is expected to manufacture and distribute refrigerator with different sizes, washing machines with different technologies to embrace the habits of local people, etc.

The closeness to regional hubs strategy means that coordination and control from central headquarters is present but it does not influence regional operations. Regions may have their own supply chains and distribution networks, which implies redundancy in some investments and costs and a sort of replication of the home-region strategy; about 80-90% of operating decisions are taken at a regional level. A positive side of this solution is the fact that regions can acquire and gain knowledge, competences and other resources and then they can share them with the other parts of the whole corporation. Being present with this strategy allows also a fast, tailored and effective response to potentially different customer needs and at the same time economies of scale are not unachievable because the large dimension of the regions allows them. Cooperation among different regions is present but, as anticipated before, the autonomy they experience makes communication and sharing not so common.

Nevertheless, in the recent years the company started a program aimed at resetting the strategic presence in the market. They wanted to move from significantly autonomous regions to a more integrated approach, more global products which overcome the potential differences that there are from different regional markets. This scheme was pursued not only in terms of products but in terms of all the value chain, which means selecting the most cost-effective suppliers, dealers, distributors etc. The idea comprised

also having less production sites which could serve countries also outside their own region.

However, recent macroeconomic, political and healthy developments have put this project under scrutiny because of the multiple risks it embodies. The trade war developments, the risk of being obliged to change suppliers or to face unfavorable conditions from them have renewed the importance of having multiple sources, separated one another, part of different regional businesses. The fees introduced because of this situation are seen as potential threats if faced with a unique global approach, while regionalization seems mitigating the risks. This because it is more likely that not all the streams of supply would be affected by the consequences of this macroeconomic situation, leaving regional headquarters with less concerns about raised inputs cost.

Moreover, the Coronavirus pandemic has shown Whirlpool Corporations that the regional approach is a way for them to reduce and distribute the corporate risks. An unique global approach may suffer from production sites shutdowns, uncertainty regarding levels of production, unavailability of key inputs (i.e. semiconductors and chips industries are experiencing an increase in their prices because of the scarcity they have incurred on) and thus an overall re-evaluation of the strategic choices have brought the company to put in stand-by the business project.

Similarly to the Electrolux Professional AB case, technological decoupling does not seem to significantly bother the company at the moment. They are not experiencing any incongruence and divergence in the technological architectures of their products all around the world. However, a light will be put on the theme in the near future as they expect their products to be increasingly interconnected, remotely controlled and digital (enabling technologies like Internet of Things, Artificial Intelligence, Clouds, 5G, etc. already exist and allow these developments). In this sense, telecom components would acquire greater importance also in Whirlpool Corporation's products which means that different technological standards, currently just a threat, could partially hit the business.

From an overall perspective, it is possible to say that Whirlpool Corporation embraces a regional approach but at the same time the interactions and exchanges among them are not so that developed; the logic they adopt is focused on intra-regional exchanges and less on inter-regional ones.

More, the company hopes for regions to become more integrated within themselves, meaning that for instance Europe acts like a single entity and not as a separated multitude of nations, with different regulations, permits, electrical structures and architectures. Only with a deep and profound integration and the formation of a single common entity the performance would improve, while organizational complexity would positively reduce.

Case study 3: Somec S.p.A.

The third case study regards an Italian company that does not have an officially declared regional strategy but that acts identifying as well differentiated areas. It is relevant also to understand why some international companies do not join the regional set up.

This company is Somec S.p.A., a group of companies that performs glass envelopes and façades, special architectural projects, public areas interiors and professional cooking equipment. They operate through two business units: seascape, focused on marine projects (refitting, balustrades, interior design and arrangement, ...) and landscape, related to land-based projects.

The company was founded in 1978 in the province of Treviso, Italy and since 2017 is listed in the Italian stock exchange market and it has the central headquarter still in the province of Treviso.

Throughout the decades the company expanded its power through multiple mergers & acquisitions and now Somec S.p.A. counts a multitude of brands such as: Navaltech, Sotrade, Oxin, Hysea, TSI, 3.0 Partners Inc., Skillmax, Inoxtrend, Pizza Group, Primax, Gico. The business model of the company does not imply series products; instead, Somec S.p.A. works with project-based models and it extends its presence all over the world. In particular, they are present in North America, Europe and Asia, especially thanks to the need of working in all major yards of the world.

In 2020 the turnover of the company has been 223 million of Euros and the geographical dispersion of them show their global activity:

- 21% in Italy;
 - 29% in Europa;
 - 43% in North America;
 - 7% in the rest of the world;
-
- 33% of the turnover is referred to marine glazing business;
 - 30% to building facades;
 - 17% to marine-cooking equipment;
 - 10% to marine public areas;

- 10% to professional cooking equipment.

More, there are 800 employees working for the company throughout the world.

Somec S.p.A., as mentioned before, has not any official region identified. However, they “divide” the business environment in three different areas: America (mainly USA and Canada), Europe and Asia (mainly China). Through all the companies part of the group, Somec S.p.A. has operations distributed in all these three areas. Nevertheless, these three regions have been set up in a way that they do not interact and influence each other; apart from the strategic direction, human resource management and finance, all other functions are managed at the local level. It is possible to reconduct this model to the regional portfolio approach: it consists of making investments (especially FDI) to set up some operations in foreign regions, even though there is not any formal regional headquarter. Hence, the company works in more than one region. Through acquisitions, mergers, greenfield or brownfield investments the company starts being present in another region, with their workforces and management. Control and coordination from the home region is relevant but it does not influence day-to-day operations.

From a theoretical perspective, this model can give the chance to share and spread knowledge, resources, habits and best practices through all the group and the regions it is composed of. and the progress of the activity, which means also reaching a better results-delivery level. More, being locally present allows the company to massively take advantage of in-loco resources: for example, in the north-east of Italy they have strong relationships with players in the Inox steel industry, which is a key input of their businesses.

At the time of writing, all of this is particularly true in the USA because of the presence of a start-up and a network of companies already working there. On the other side, the company is working also in Asia but the stage of the development is still behind the American one, despite the company recognizes the future centrality of the region in terms of potential revenues. One of the main reasons behind this model is not to be adaptive to local needs because, working through projects and not with series productions, requirements may be every time diverse and tailored; instead, the most relevant rationale

is the reduction of risks and potential barriers in the implementation and the progress of the activity, which means also reaching a better results-delivery level.

The recent events in the macroeconomic level, especially the ones studied in Chapter 2, the Suez-channel 2021 incident, USA-China trade tensions, fears of technological divergence in telecom industry and the recent Coronavirus outbreaks have caused a -10% in the 2020 turnover with respect to the previous year one. This was caused mainly because of the many barriers that arises in between the normal flow of the business: marine transportation became highly expensive, more unreliable in terms of time-delivery because of lockdowns and more controls; trade war escalations made the supplies from Asia to USA massively uncertain and more expensive, executives and managers were impeded to move and visit yards and projects, etc.; this brought the company to decide to make more mergers and acquisitions to try to set up local (regional) complete operations: regional supply chain, local distributors and workers (so they do not come from Italy for instance).

Reshoring is seen as the way to achieve maximum performance, local presence, adaptivity, flexibility and to reduce all major risks the company could be exposed to. The goal is to set up whole local value chains that enable the achievement of all of this and heavily reduce the reliance on far and uncertain suppliers.

Technological decoupling at the moment is not a reason of concern for the company because it is not recognized as a source of changes in the way operations are conducted. However, for the future, given the global presence of the business, the situation will be monitored as all tools and machines will interact one another more deeply, would be remote-controlled and, in general, imply more under-attention technologies.

Case Study 4: Samsung Electronics

Samsung is a South Korean chaebol⁹ which includes several multinational companies operating in multiple businesses through one of the most known and valuable brands in the world (2020 8th highest global brand value). Samsung was founded in 1938 by Lee Byung Chul and, over the decades, it has assumed the structure of a group active in multiple industries such as insurance, shipbuilding and heavy industry, events, advertising and medical services.

The focus of the case study is on one of the companies of the group: Samsung Electronics. Samsung Electronics is a South Korean multinational company that plays in the markets of smartphones, televisions, speakers, computers, cameras, monitors, printers, semiconductors, hard drivers, OLED displays, etc. It is the world largest mobile phones and memory chips manufacturer and one of the major semiconductor producers. Samsung Electronics is a powerful player in a lot of the global markets in which it operates: it owns 98% in the Active-Matrix OLEDs market, 34% in the smartphone one, 50% in the DRAM one, 24% in the television market. Major competitors of Samsung Electronics are Apple, LG, Toshiba, Sanyo, SanDisk, Huawei.

Up to 2012, it was responsible of the 70% overall turnover of the whole chaebol. As of 2020, Samsung Electronics realized 198 billion dollars of revenues, making it part of the Fortune 500 list of companies. Samsung Electronics employs 287 thousand employees all around the world, as the company states to be present with manufacturing and sales networks in more than 70 countries, even though with its products it is present in almost every country in the world.

The international strategy and preside of Samsung Electronics follows a regional structure; in facts, the company is present through plural regional aggregations:

- Korea (domestic), which accounts for 16% of overall revenues;
- Americas, which accounts for one-third of the overall turnover;
- Europe, which stands for 19% of the overall revenues;
- Asia/Africa, which represent 16% of the overall turnover;

⁹

Chaebols are industrial conglomerates that are run usually by a family or an external owner (often linked with the original family)

- China, which is considered as a single entity (16% of the overall turnover).

Regions are identified utilizing an aggregation method which considers cultural, administrative and geographical similarities. More in detail, cultural convergence is highly valued because of the possibility to share common marketing campaigns, messages, etc.

The approach of Samsung Electronics toward regionalization follows different rationales if the focus is on the manufacturing side or on the distributive side. In the first case the company identifies some locations within a region where the production – uniquely and totally for that region – is realized. Poland for instance is the selected country for Europe. Generally, decisional drivers are cost advantages, the presence of fees and trade barriers that emphasize the utility of investing in a precise country, labor force particular skills. Regions in this sense do not communicate or share particular resources, they seem to replicate one strategic framework in different regional scenarios.

The regionalization scheme is different if taught in terms of marketing and distributions, even though regions are the same as before. In these cases, regions are called to convey messages, directives and, generally, inputs that come from South-Asian central headquarters and to decline them to the whole countries under the same region. Given that the aggregative rationale is in part also cultural, regions are a way to select destinations for which the effort and customization can be similar.

However, their duty is not limited to this, but they are also the source of inputs (knowledge, competences, information, etc.) that are then shared with the other regions, headquarters and internal players.

Hence, going back to Ghemawat's strategies categorization, it is possible to refer to multiple solutions, meaning that Samsung Electronics, as it happens with many other corporations, makes use and take advantage of a plurality of structures in order to maximize the profitability it can extract from its worldwide presence.

The consequences are that costs of control, both monetary and managerial, may be relevant. The coordination required sometimes may not be that relevant, while in other situations, especially with the sharing of information and inputs among the regional network, it may raise.

Moving to the Covid 19 theme, the company underlines that it has been having since 2020 determinant effects. Consumer demands and consumer behavior trends have changed, pressing the need of immediate satisfaction of orders in every point of contact. This has influenced the modus operandi of the company, posing much importance and attention to supply chain reliability and supply availability at every occasion and location. This means also that the company has stress-tested its own value chains and ensured the availability of key central inputs. In particular, the biggest impact has been registered in the semiconductors demand, boosted by the shift of all scholastic and work-related activities online and the increase in smart tools, IoT, AI.

As it was expectable, technological decoupling and trade war are of bigger concerns with respect of the previous case studies. For the latter, the company monitors the evolution of the situation and is reviewing principal partners in case of escalation of the trade-political conflict.

For the first theme Samsung Electronics is not concerned of the market position of Huawei nor of the Chinese presence in the 5G race. Related to China's power, they think it will continue to be present also in the European and American markets through other companies than Huawei. Nevertheless, they do think that new operative systems may emerge in the future and that the possibility of breakthrough innovations is something that could heavily impact also their business and create a wider separation (in terms of complementary technologies for instance).

Conclusions

Previous chapters have described that the trend toward regionalization cannot be ignored and, instead, should become more and more central in the redefinition of the strategic choices of international companies. Globalization is not dead and will not disappear, but from a strategic-managerial point of view, the idea that international companies, or a company that wants to be present internationally can explode its operations worldwide in seek of cost-efficiencies, resources, etc. has most of the time to be reformulated.

To answer the question “Is the business world organized in regions?” the thesis has focused on two points:

First, multiple studies prove that people (and companies) around the world are far less global than many experts estimate: Ghemawat and his “10% rule” show that a lot of much important indicators about international declination actually score poor results with respect to the total data gathered on the activity: international e-commerce interactions are just around 15% of the total, as well as the international services export value added share of the total. Mails that overcome borders, which could be a good parameter to understand how a global presence a company has, score less than 10%.

Furthermore, the CAGE comparator tool depicts a situation in which countries, considering the export of merchandising, interact far more with close partners: Germany mutually exchanges more with European partners because of the geographic, administrative, economic and cultural short distance; for the same reasons it prefers United States to China or Latin America.

The detailed study of Rugman and Verbeke, made the first time at the beginning of the XXI century, underline that the majority of the Fortune 500 firms actually is not global, where global means more than 20% of total sales in three or more regions. In fact, 84,2% of them is home regional, with sales focused mainly in their home region; 2,9% are host regional companies, realizing the majority of revenues in an host region; 6,6% bi-regional and just 2,4% are truly global companies. The study was then repeated at the end of the second decade and even though there have been massive technological advancements, the overall result has been confirmed.

In terms of merchandising trade, the intra-regional share of the total, considering data from 1958 to the XXI century, has increased, achieving high growth rates in America, Asia and Oceania.

Regionalization can be appreciated also looking at all the regional politic-economic institutions that are existent and that regulate much of the worldwide trade patterns. It is likely that soon negotiations, exchanges, partnerships, etc. will be made with regions as players.

Second, as studied in Chapter 2, recent years have experienced few events that have highlighted the fragility of an interconnected and interdependent world, underlining the theme of how more effectiveness and reliability a regions-based model could offer.

The US-China trade conflict and the Coronavirus outbreak are the most relevant factors that have accelerated the process toward regionalization. In the first case the cost of the inputs and the unreliability of suppliers have brought companies to consider diverse partners; in the second case structural impediments such as lockdowns, government interventions, illness, shortages of production manifested to many companies that shorter supply chains and regional value chains could be the right answer to try to build resilience and resistance within the system. In fact, as Somec S.p.A.'s CEO Oscar Marchetto confirms, alongside this idea stands the growing trend of the reshoring, especially in US (Made in USA movement) and in Europe.

At the time of writing, further concerns are emerging with vaccination campaigns as different policies are being followed by different countries around the world, which appear, almost recently, to be partnering with close nations to act as common regions. This is clearly enlarging the differences and distances among regions because of rules of access, sanitary concerns, etc.

The risks connected to multiple technological standards due to political tensions in both sides of the Pacific coasts, which many experts see as a real threat, does not seem to bother companies as Coronavirus and trade difficulties do. This is probably due to the fact that the risk is perceived a little bit far in time; however, given the growing share of electronics and telecom devices embedded in the products in the future, the impacts could be relevant as well.

What does this mean?

It means that a valuable way to enter global competition or to keep playing in the international arena is through dividing the world in regions or through identifying the regions that it is composed of. They can be already-existent political bodies or can be invented by the business itself following its own segmentation/aggregation criteria. The latter can be geographical, but also based on other variables such as a shared culture, currency, language, economic development condition, climate, political orientation, education average level, etc.

Then, after having identified regions, the companies have to decide how to manage them; it is possible to privilege intra-regional solutions, which means that despite operating in multiple regions the interactions, cooperation and sharing among them is not as relevant as the intra-regional activity. Equally, a company may choose for inter-regional strategies, so for options that comprehend more cross participation in the final value creation; this implies structures like regional platforms, networks or even real regional mandates for the overall business. The interactions raise, as well as communication, sharing and managerial complexity.

As one of the most known Japanese companies, Toyota, does, it is possible to match simultaneously different strategies, to tailor the best options around the different businesses of a single company.

The multiformity regionalization could assume is well represented looking at the home appliance companies' case studies: it is interesting to notice that companies playing in the same industry as Electrolux Professional AB and Whirlpool Corporation, despite being associable to the same regional hubs strategy, they implement it in different ways: first of all, they identify different regions, as Whirlpool Corporation separates North and South America and the Swedish company Europe from Middle East-Africa; then, the Scandinavian company exerts an higher control and coordination of worldwide activities from central headquarters than the American counterpart, which instead delegates to regions also relevant decisions.

To conclude, regionalization is a phenomenon that is continuously affirming itself in the international arena, it is filling the gap between national and global strategies from a

corporate level and national and global collaborations assuming a political perspective. Regionalization will not eliminate the just mentioned alternative options but will offer a great trade-off between the two. It is expected that further studies and evidence in the future will prove the actual positivity and concreteness of this solution.

Appendix

This section hosts the interviews made to different professionals to support the theme of the thesis and to make use of concrete case studies.

Interview 1

The first interview is with Andrea Zanata, Chief Executive Officer of Electrolux Professional AB.

Q: Electrolux Professional AB works with a strategy set-up made of regions (APAC, MEA, Europe, Americas). Which is the goal you want to achieve through regional presence? How do they work alone and together?

A: Electrolux Professional AB has central corporate headquarters which take all major decisions with respect to core products of the company and in terms of relations with clients. This because, overall, our core products (kitchens, laundries) are fairly global, as they present just small differences (i.e. electrical voltage). Nevertheless, the company wants to be flexible and adaptive to local needs, tastes and uses and so regional headquarters, among all the others, allow a better and more tailored local presence.

Impactful decisions such as the opening of new manufacturing plants are taken at the corporate headquarters.

More, in Electrolux Professional AB business environment there are some national markets which can be compared to regions: United States and China. In particular, China is expected to become the biggest market in few years. It is important to focus on China because if a company wants to be competitive in China it has to be locally present, due to the fact that you have to compete with current global players, some of whom come from China (i.e. Haier): these companies have a market knowledge gap in their favor and they are supported by the government; it is impossible to aim of a powerful market share if you are not physically present in China, studying habits, fairly lobbying with government and accessing large resources. For these reasons, we think to set up regional headquarters

and also to regionalize supply chain in that area to avoid fees, to be flexible and responsive.

Moving on, if we consider smaller markets or less potentially disruptive markets, strategic decisions on core products are still taken at the central headquarters, but in case of the need to define and coordinate some specific activities and projects tailored only for the local area, regional headquarters are engaged with more responsibilities and decisional power. For example, recently we changed our strategy in relation to the presence in Australia, from a simple import/export solution to one made of a network of multiple dealers, which implies more ownership of the processes from our side. This decision, which is small from the overall business but important for the APAC region, in fact has been driven by the APAC regional headquarter located in Singapore.

Q: In this scenario, which is the impact of divisive forces such as Coronavirus pandemic, the China-United States trade war and the technological diverge around telecommunications? How do you assess the hype around reshoring and the shortening of supply chains?

A: The business world is not black or white, there are a lot of shadows in between that prove that something is global and something is not. For many of our inputs there exist a global market; hence, it is not practicable for us, for these supplies, the way of shortening supply chains or making them generally regional. If you look also to third and fourth tiers, if they operate globally where we work regionally, the risks are not diminished.

Reshoring is not the one-fits-all solution, but in some cases it might work.

As I mentioned before, to manage China we are thinking of a national/regional supply chain, but for other locations we may continue with a global approach.

Coming to the trade war, we have experienced raises in input costs but, I have to say, as every other single player in the industry they have been recovered through an increase in the final prices. The main negative consequence of the trade war is in fact impacting the final consumer. We continue to monitor the situation and we also analyze the approach of China against non-US companies because there may be some threats coming from the unequal treatment reserved in the China soil.

To conclude, I think we will be marginally exposed to tech decoupling and multiple standards because we do not use a lot of the technology that is under analysis in this tech

clash. However, for those components that are based on telecom technologies there might be the chance to make some adjustments in order to cope with local technological architectures.

I think that telecommunication companies are the ones that could be the most exposed and vulnerable to these political/technological divergences.

Interview 2

The second interview hosts Paolo Lioy, Chief Executive Officer of Whirlpool Italy and Iberia.

Q: Whirlpool Corporation works with a strategy set-up made of regions (WW & NA, EMEA, Asia, Latin America). Which is the goal you want to achieve through regional presence? How do they work alone and together?

A: Whirlpool Corporation historically has four regions that are highly independent one another. In my case (Chief Executive Officer of Whirlpool Italy and Iberia), up to 95% of operative and strategic decisions are taken in the regional headquarter in Milan, with low or no interaction with the central headquarter in Michigan, USA. Then, 80% or more of the production that is made in a region is expected to be the marketed in the same region. These regions, as I said before, are not so cooperative and interaction has never been high. However, in recent years, the company has moved toward the opposite direction trying to adopt a more global approach: instead of making four different products of the same category for the four different regions in which we operate, the company has tried to develop unique high-quality solutions that could fit all the markets. More, also in terms of production there was the will to reduce and concentrate the number of manufacturing sites, making them linked with not only a single region but the entire business world of Whirlpool Corporation.

Nevertheless, recent events have discouraged this strategic path because of the uncertainty related to transportation industry, barriers due to lockdowns or vaccinations, increased costs of inputs, etc. We will keep the importance of the regional set up, even though the goal of a more global offer will surely be re-assessed in the future.

Q: In this scenario, which is the impact of divisive forces such as Coronavirus pandemic, the China-United States trade war and the technological diverge around telecommunications? How do you assess the hype around reshoring and the shortening of supply chains?

A: As I said before our idea was to move toward a more global approach in terms of products, production and distribution. However, these three factors have led us to rethink our goals because they exposed which threats such an approach could suffer from. Hence, we have re-evaluated positively the presence of multiple regions. For instance, nowadays steel has become a scarce resource and thus many countries, China for example, has put fees on the export of it. The presence of quasi-independent regions allows us not heavily suffer from this decision because we have more supply streams opened for each region. We have not abandoned the concentration project but we are aware that a regional logic could be helpful to minimize risks and maximize performance.

At the same time, we need that regions are not identified just by a geographical aggregation; we need the different nations within them to be subjected to the same laws, same norms and conditions. In the case of Whirlpool EMEA, we need Europe to become more than just the sum of different nations, we need it more integrated and unified. Between Italy and France, for instance, there are a lot of differences in the legislation about our business, which makes it difficult to integrate and spread common solutions.

I do not think the technological divergence is something Whirlpool Corporation is suffering now, because our technologies are not impacted by it. However, bigger concerns could be placed in the future if this escalates dangerously; if technological solutions present in our products will move toward something related to telecommunication, the risk clearly arises and there is the chance of having to address it.

Interview 3

The third interview is with the Chief Executive Officer and shareholder of Somec S.p.A. Oscar Marchetto.

Q: Somec S.p.A. is a company that works through projects in an international area as it is present in Europe, Americas and Asia. However, it does not identify any official region. Can you explain which is the model and format you are adhering to?

A: Somec S.p.A. is a group that is present and works worldwide through multiple companies. Back to few years ago when I entered in the group as chief executive officer I decided to be present locally in all the areas in which we realize much of our turnover, which are North America, Europe and also Asia, despite it is a little bit behind now, even though we think it will become our primary market because of the cruise demand. Hence, we set up a start up in the USA in partnership with Permasteelisa, a company of the Inox valley of the Treviso province, and the new creature since then reached 100 million Dollar and hundreds of employees. We plan to do the same in other areas of the world. We did this because we felt the need to be local, to be close to the yard or the site of construction in order to exploit the Made in USA trend and, most of all, to overcome all the problems that Coronavirus, trade war tensions and other disruptions have been generating so far: we suffered limitations on travels, containers shipped through the sea faced delays and their costs raises. More, we wanted to rely less on China because of the uncertainty it brings with its policies.

Our idea is to have local supply chains, local operations, local value chain with an overall strategic direction, human resource management and finance management coming from our central sites in Treviso, Italy. To enter new markets without a redundancy in the investments and costs it is helpful and reasonable to exploit the resources that can be easily and effectively managed and spread from the headquarter.

We do not have formal regions and regional headquarters but the set-up is close to that definition. Our foreign operations are quite independent, there is not a cross sharing of

people or resources even though know-how acquired in a place can then be replicated and exploited somewhere else.

Q: In this scenario, which is the impact of divisive forces such as Coronavirus pandemic, the China-United States trade war and the technological diverge around telecommunications? How do you assess the hype around reshoring and the shortening of supply chains?

A: I do think reshoring is a good answer to all the potential risks we are exposed to. But I see it from the perspectives of the different regions we operate in. It has to be done in a way that American operations have their own value chains and for Europe and Asia the same. If you consider China as a supplier for instance, it is possible to state that it is not reliable as a partner should be, it can easily change the rules of the game and make the business less remunerative.

There are a lot of examples of companies or even countries that are applying this logic. Recently the semiconductors and chips industries have experiences, maybe for even some speculation, a reduction in the availability of the items, forcing higher prices. To respond to this situation, Germany invested billions of Euros to build and develop infrastructures that enable the home production of these fundamental inputs, in this way eliminating the link and thus the dependence from China. Our aim is to partner with players that ensure stability and continuity and we think local value chains enable us to achieve this goal.

Q: And what about tech decoupling?

A: I think it is a theme not widely known. From our side the current impact is zero, but the future developments could be something we need to handle. However, remind that we'd like to operate with quasi-independent systems, which means that we can also face different tech standards without affecting the whole organization significantly.

Interview 4

Riccardo De Franchis is the Head of Business Management at Samsung Italia and is the protagonist of the fourth and last interview.

Q: Samsung, which is a major global player, has a worldwide presence made of regions (Korea, Americas, Europe, Asia/Africa and China). Can you explain us the rationales behind the identification of such areas?

A: At Samsung we have identified the regions you mentioned before for two different business streams: manufacturing and marketing & distribution. But, first of all, regions are the result of aggregative guidelines based on culture, administrative distance and geographical distance.

The reasons that are behind manufacturing are purely of cost-efficiencies; this means that we have targeted regions to ensure production for different world areas, but within such areas we locate manufacturing where there are cost advantages and access to resources at a cost-effective manner. For instance, in Europe Samsung Electronics has production and manufacturing in Poland, where labor cost is cheaper than in other countries, for the Americas we have targeted Argentina.

If we consider the marketing and distribution themes, the company has adopted regionalization as a way to better preside different local markets, which may be clustered with the drivers I mentioned before.

Q: Which is the autonomy and decision-making power at the regional level?

A: It depends, generally regional headquarters are intermediates between the central South Korean headquarter and the local national offices. From a marketing and product line point of view the regions have little room, as they have to make sure that they implement these guidelines. Nevertheless, there is an approach of mutual exchange of information and insights, both from regions to central headquarter and among regions themselves. There is both an inflow and an outflow of inputs from and among regions. This means that in some cases they are not just intermediate administrative players but active protagonist of the search of profitability.

Then, sometimes there are local headquarters that acts like regional entities and this is the case of the US national headquarter that, for the big area it covers, it is an influent institution.

Q: In this scenario, which is the impact of divisive forces such as Coronavirus pandemic, the China-United States trade war and the technological diverge around telecommunications? How do you assess the hype around reshoring and the shortening of supply chains?

A: The trade war is something that has generated a “normal” concern. The company monitors the situation and if it escalates in a way that affects the profitability of Samsung the latter simply considers solutions that reduce or substitute fees and higher costs. I do not know the extent to which this enhances reshoring or regionalization. The tech decoupling concerns I think nowadays are not generating problems. China, with its products will be present overseas and worldwide with or without Huawei and its ban. More than two different telecom architecture we see the “threat” of new operative systems that may be a breakthrough innovation and thus affect entirely our business. And this is true because Covid have immensely changed our business, both in terms of products and supply chains. Consumers ask for more intelligent and smart products, which means that innovations in the operating systems could be impactful. Coming to supply chains, consumers want their products to be immediately ready and available, which has major implications from a supply and value chain perspective. We need to make them more reliable, faster and resistant and regions may play a central role in achieving this.

References

(2018). Timeline: Broadcom-Qualcomm saga comes to an abrupt end. Reuters.

<https://www.reuters.com/article/us-qualcomm-m-a-broadcom-timeline-idUSKCN1GQ22N>

(2019). Global business strategies. LumenLearning.

<https://courses.lumenlearning.com/montgomerycollege-introbusinesswmpopen-1/chapter/global-business-strategies/>

(2021). Joe Biden is determined that China should not displace America. The Economist.

https://www.economist.com/briefing/2021/07/17/joe-biden-is-determined-that-china-should-not-displace-america?utm_campaign=editorial-social&utm_medium=social-organic&utm_source=linkedin;

Altman S., Bastian P. (2020). DHL Global Connectedness Index 2020.

<https://www.dhl.com/content/dam/dhl/global/dhl-spotlight/documents/pdf/spotlight-g04-global-connectedness-index-2020.pdf>

Amatori F., Colli A. (2011). Business History Complexities and Comparisons. Routledge.

Amatori F., Colli A. (2011). Business History Complexities and Comparisons. Routledge.

Baldwin. (2016). The great convergence. Harvard Business Press.

Bown C. (2021). The US-China Trade War and Phase One Agreement. Peterson Institute for International Economics.

<https://www.piie.com/sites/default/files/documents/wp21-2.pdf>

Curtis M., Cotton M., (2021). Fjords trends: rituals lost and found.

<https://www.accenture.com/it-it/insights/interactive/fjord-trends-rituals-lost-and-found>

Enderwick, Buckley. (2020). Rising regionalization: will the post COVID-19 world see a retreat from globalization? Transnational Corporations Journal.

Ficht A., Strumpf D. (2019). Huawei manages to make smartphones without American chips. Wall Street Journal.

Friedman. (2005). The World is Flat. Ferrar, Straus and Giroux.

Ghemawat. (2018). Redefining Global Strategy: Crossing Borders in a World where Differences Still Matters. Harvard Business Review Press.

Ghemawat. (2018). The new global road map: enduring strategies for turbulent times. Harvard Business Review Press.

Harari Y. (2021). Tre lezioni per il futuro dopo un anno di covid. Internazionale.

<https://www.internazionale.it/opinione/yuval-noah-harari/2021/03/19/covid-lezioni-futuro>

Hofstede Insights. (Website visited July 2021). <https://www.hofstede-insights.com/product/compare-countries/>

International Monetary Fund, IMF Data, <https://www.imf.org/en/Data>

Milanovic B. (2016). Why the Global 1% and the Asian Middle Class Have Gained the Most from Globalization, Harvard Business Review

Mistreanu S. (2019). Beyond 'Decoupling': How China Will Reshape Global Trade In 2020. Forbes. <https://www.forbes.com/sites/siminamistreanu/2019/12/03/beyond-decoupling-how-china-will-reshape-global-trade-in-2020/>

OECD, Economic Globalisation Indicators 2005.

<https://www.oecd.org/sti/ind/measuringglobalisationoecdeconomicglobalisationindicators2005.htm>

Palumbo D., Da Costa A., (2019). Trade war: US-China trade battle in charts. BBC News. <https://www.bbc.com/news/business-48196495>

Picotti L. (2018). "Ingiustizia Globale" di Branko Milanovic. Pandora Rivista.

<https://www.pandorarivista.it/articoli/ingiustizia-globale-branko-milanovic/>

Pontiggia A. (2016). International Human Resource Management and Organization.

McGraw-Hill Education

QIMA. (2019). Trade War: US Demand for China-based Inspections Drops by -13% as

Other Regions Reap Benefits. <https://www.qima.it/qima-news/2019-q3-barometer->

[sourcing-regions-reap-benefits](https://www.qima.it/qima-news/2019-q3-barometer-sourcing-regions-reap-benefits)

Reshoring Initiative. (2021). Reshoring Reaches New Record in 2020, Plus, COVID Drives

Cumulative Jobs Announced Past 1 MILLION JOBS.

<https://www.reshorenw.org/recent-data/>

Revi V. (2020). Regionalisation: a better strategy in a post-pandemic world.

<https://www.orfonline.org/research/regionalisation-a-better-strategy-in-a-post->

[pandemic-world/](https://www.orfonline.org/research/regionalisation-a-better-strategy-in-a-post-pandemic-world/)

Rosa, Gugler, Verbeke. (2020). Regional and global strategies of MNEs. Revisiting

Rugman & Verbeke (2004). Journal of International Business Studies.

Rugman. (2000). The end of Globalization. McGraw-Hill.

Soros. (2002). Globalizzazione. Ponte alle Grazie.

The World Bank, World Bank Open Data, <https://data.worldbank.org>

Tong S. (2017). What went wrong with globalization?. Marketplace.

<https://www.marketplace.org/2017/08/07/what-went-wrong-with-globalization/>

UNCTAD. (2020). Impact of the Covid-19 pandemic on trade and development;

transitioning to a new normal. <https://unctad.org/system/files/official->

[document/osg2020d1_en.pdf](https://unctad.org/system/files/official-document/osg2020d1_en.pdf)

Verbeke, Rugman. (2000). A perspective on regional and global strategies of

multinational enterprises. Journal of International Business Studies.

Wall Street Journal. Tech decoupling: China's race to end its reliance on the US.

<https://youtu.be/mTFmBWiMxJE>

World Trade Organization. (2011). Making globalization socially sustainable.

https://www.wto.org/english/res_e/booksp_e/glob_soc_sus_e.pdf#page=38

Worldpress.com, Offshoring, <https://scmwiki2012.wordpress.com/o/offshoring/>

WTO. Regional Trade Agreements.

https://www.wto.org/english/tratop_e/region_e/region_e.htm#facts

Zhaohui, Zhiqiang. (2021). From Globalization to Regionalization: The United States, China, and the Post-Covid-19 World Economic Order. *Journal of Chinese Political Science*.

Figure Index

Figure 1: Trends in global export volume of trade in goods from 1950 to 2019 (in billion U.S. Dollars) 18

Figure 2: Trade (% GDP) – World Bank Database 18

Figure 3: FDI World Stock (Million of USD) - World Bank 19

Figure 4: World stock of migrants - World Bank 21

Figure 5: Trends in the cooperation in scientific articles (1985-2007) – OECD 22

Figure 6: DHL Global Connectedness Index 2001-18..... 23

Figure 7: DHL Global Connectedness Index decomposed 2001-18..... 24

Figure 8: Smiling Curve (personal re-elaboration) 27

Figure 9: Growth of Offshoring by function (%) 1990-2007..... 28

Figure 10: GDP per capita, 1820 to 2018 - Maddison Project Database 29

Figure 11: Global Incidence curve -HBR..... 31

Figure 12: International percentage of the total of macro level indicators of trade, capital, people and information flows (Ghemawat, 2018)..... 35

Figure 13: An example of the application of the Hofstede Model 37

Figure 14: CAGE comparator. German merchandise export 38

Figure 15: CAGE comparator: United States Merchandise export 39

Figure 16: Percent increase associated with change in CAGE variable (Ghemawat, 2018)
..... 40

Figure 17: Personal arrangements of the results of the study made by Rugman and
Verbeke 42

Figure 18: Average distance traversed by merchandise trade flow 1950-2015..... 44

Figure 19: Intra-regional trade share with respect to total trade - United Nations
International Trade Statistics Yearbook..... 45

Figure 20: Economic regions in the world..... 46

Figure 21: US-China trade war timeline 50

Figure 22: Level of tariffs in the period between 2017-2020..... 51

Figure 23: Current influence of the two forces: US and China..... 53

Figure 24: Countries which share greater trade with: US, China, No Data - The Economist
..... 53

Figure 25: Cases of Coronavirus divided according to WHO Regions 60

Figure 26: Global merchandise trade volume and value (percentage) 61

Figure 27: Export decline in the three major economies - by industry (USD Billion) 62

Figure 28: Growth in world manufacturing output 63

Figure 29: Covid-19 vaccine doses administered per 100 people as of May 2021 64

Figure 30: Stay-at-home requirements during the Covid-19 pandemic 65

Figure 31: US job announcements by year, reshoring and FDI, 2010-2020 72

Figure 32: Set of 6 regional strategies. Rs are different regions, the • are product types 78

Figure 33: Regional or home focus strategy 79

Figure 34: Regional portfolio strategy 81

Figure 35: Regional hubs strategy 82

Figure 36: Regional platforms strategy 84

Figure 37: Regional mandates strategy 86

Figure 38: Regional network strategy 87