Investigating options for economic cooperation between emerging markets: A case study on the Southern African Development Community (SADC) and Black Sea Economic Cooperation (BSEC).

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DECLARATION

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ABSTRACT

Emerging markets are often bearing the brunt of negative spill over effects from situations influencing global superpowers such as the US-China trade war. In order to hedge against becoming too dependent on these large markets, market diversification is posed as a potential solution for these smaller markets to hedge against these spill overs. It can be argued that in order for emerging markets to increase their resilience against such negative shocks, having a diversified trade base is important.

To date, few substantial studies exist on the value of trade diversification between emerging markets, let alone emerging trade blocs such as the Southern African Development Community (SADC) and the Black Sea Economic Cooperation (BSEC). The aim of this dissertation was to investigate whether the case study countries possess the needed infrastructure to engage in trade as well as to determine if economic cooperation can take place between SADC and BSEC amidst the Russo-Ukraine war. The primary research question of this paper was to determine the extent to which SADC countries could viably improve economic relations with BSEC, especially Georgia, Turkey and Ukraine.

This dissertation relied mainly on secondary data in the forms of documentary and archival research such as industry reports, newspaper articles and infrastructural datasets. In order to achieve the aim, data was collected by means of media sources-, documentary and archival research. This data was used to firstly determine the infrastructural landscape of each case study country with regards to transportation and logistics. This information presented a clear idea of each country's infrastructural and logistical challenges which in turn served to inform the extent to which trade is possible between SADC and BSEC. Secondly, data was collected regarding the Russo-Ukraine conflict in order to determine a potential way for the case study countries to still engage in some form of economic collaboration without resorting to physical trade which seems less practical regarding the dangers of operating in the Black Sea at present.

The key findings of this thesis indicated that the SADC case study countries' logistical and transport infrastructure ranked higher than those of BSEC in general. Although South Africa was a clear infrastructure leader, Namibia ranked very close to Ukraine and Georgia in some sections of Global Competitiveness and Logistics performance. It was found that all of the case study countries possessed the needed infrastructure to enable trade – but the extent to which the infrastructure in question was optimal, would depend highly on the commodity transported. The outbreak of the Russo-Ukraine conflict in February 2022, and the consequent infrastructure destruction rendered much of the information in Ukraine obsolete. However, this provided an excellent opportunity to research the spill over effects of this war on the emerging market case study countries. Some of the ways in which the emerging markets was affected by this conflict included pressure from the global community to choose sides, where their standing globally was consequently affected due to those choices. The SADC case study countries chose neutrality while the BSEC countries chose Pro-Ukraine outlooks.

With these positions in mind, this dissertation posed economic cooperation as a potential way to increase economic relations between the case study countries. It was suggested that this approach not only occur at a more formal, integrated level, but that this also precedes physical trade as estimator of the viability thereof. In conclusion, this dissertation achieved its aims and has determined that despite the conflict, SADC and BSEC could still potentially engage in economic cooperation to a large extent.

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However, what has been achieved through this dissertation has been much more than a mere piece of paper or mark. Just like any epic adventure, I have had to overcome serious challenges, each time having to become stronger or learn something new in order to move to the next phase. Some key points for me:
- working full time while doing this dissertation
- building a strong network of contacts in the international trade arena
- learning to cope with loss and suffering
- being the only female in the room (and practically building my seat at the table)
and lastly: having to rely on faith in moments when nothing else could pull me through.

Above all, I thank my saviour and creator, Jesus Christ, for providing me with the strength to tackle every day, for providing direction in the times of need and for allowing my path to cross with various amazing people, each on their own special journey.

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LIST OF ABBREVIATIONS

BRI	BELT AND ROAD INITIATIVE
BSEC	BLACK SEA ECONOMIC COOPERATION
CIS	COMMONWEALTH OF INDEPENDENT STATES
CTC	CAUCASUS TRANSIT CORRIDOR
EM	EMERGING MARKET
EEM	EMERGING EUROPEAN MARKET
EIU	ECONOMIC INTELLIGENCE UNIT
EU	EUROPEAN UNION
GCI	GLOBAL COMPETITIVENESS INDEX
GDP	GROSS DOMESTIC PRODUCT
GE	GEORGIA
IATA	INTERNATIONAL AIR TRANSPORT ASSOCIATION
JSGR	JS GEORGIAN RAILWAY
KSE	KYIV SCHOOL OF ECONOMICS
LOF	LIABILITY OF FOREIGNNESS
LPI	LOGISTICS PERFORMANCE INDEX
LSCI	LINER SHIPPING CONNECTIVITY INDEX
MNE	MULTINATIONAL ENTERPRISE
NATO	NORTH ATLANTIC TREATY ORGANISATION
NAC	NAMIBIA AIRPORTS COMPANY
NM	NAMIBIA
RU	RUSSIA
SA	SOUTH AFRICA
SADC	SOUTHERN AFRICAN DEVELOPMENT COMMUNITY
TRACEA	TRANS CAUCASIAN CORRIDOR
UA	UKRAINE
US/ USA	UNITED STATES
USPA	UKRAINE SEA PORTS AUTHORITY
USSR	UNION OF SOVIET SOCIALIST REPUBLICS

CHAPTER 1

INTRODUCTION

1.1 Statement Of Purpose

This dissertation's primary purpose is to investigate the extent to which SADC countries could viably improve economic relations with BSEC countries, especially Ukraine and Georgia to diversify their exports base in order to hedge against over dependence on a few large markets.

1.2 Background And Motivation

As international interconnectivity increases due to globalisation, countries become more interdependent on each other for survival. However, it could be argued that an overdependence on a few major trading partners could lead to emerging markets' overexposure and vulnerability to events within these large economies. This is evident through emerging markets' reactions to the USA-China trade war. According to the Financial Times, the escalation of this war in 2019 brought about a decrease of emerging market equities of more than 8%, where equities in developed countries only declined by about 4% (Tran, 2019). Therefore, it lies within reason to suggest that an overdependence on a few (mostly advanced) economies could lead to an inability for emerging markets to absorb market shocks (transferred by the major partners); the trade of a relatively small/select portion of the total goods available and missed opportunities to establish connections with new markets and countries.

Bertrand Russel's Induction Theory can be used to explain the general logic behind this reasoning. The main premise of Induction Theory lies in humans' tendency to draw generalised conclusions from specific observations. "*Experience has shown us that, hitherto, the frequent repetition of some uniform succession or coexistence has been a cause of our expecting the same succession or coexistence on the next occasion*" (Russel, 1912). Just because emerging markets have benefitted from trade with certain advanced economies in the past, does not mean that i) they will continue to do so (at the same scale) in future or ii) – they are guarded against any negative spill-overs from these major markets.

As a leading economy in Africa, and member of the Southern African Development Community (SADC), South Africa, is heavily reliant on international trade and moreover, trade with certain large economies. International trade accounted for 59.20% of the country's GDP in 2019 (MacroTrends, 2020). Furthermore, for that year, China, the United Kingdom, Germany, the United States and India jointly accounted for approximately 42% of total exports (Observatory of Economic Complexity, 2020a). On the imports side, China, Germany, the USA, India and Saudi Arabia accounted for approximately 44% of total imports (Observatory of Economic Complexity, 2020a).

Evidently, SA is heavily reliant on trade with a few major partners for economic growth. It is expected that the trade statistics for other SADC members will be similar to those of South Africa. With this in mind, Bertrand Russel's Induction Theory applies.

A practical explanation of Induction Theory is Nassim Taleb's anecdote of the turkey (a revision of Bertrand's chicken analogy), in illustration of this scenario (Taleb, 2008):

"Consider a turkey which is fed daily. Every feeding will strengthen the bird's belief that it is the general rule of life to be fed daily by friendly humans who are 'looking out for its [the turkey's] best interests'. On the afternoon of the day before thanksgiving however, something unexpected will happen to the turkey – it will incur a revision of belief. Essentially, this anecdote emphasises any situation where the same hand that feeds you can be the one that wrings your neck."

In terms of international interconnectedness, emerging markets can be seen as the turkeys. This does not mean that globalisation and global interconnectedness are bad for growth in emerging markets. Instead, export-market diversification is posed as a potential option to enable emerging markets to continue to reap the benefits of interconnectedness without being overexposed to the threats thereof. In order to achieve a sustainable economic growth, it could be argued that SADC emerging markets should build a trade portfolio consisting out of strong, advanced economies as well as other emerging markets. This is, in fact, one of the goals of the SADC (SADC, 2019).

Thus, using this trade-positive outlook of the Southern African Development Community, this study intends to research options for the turkeys to continue being fed while reducing their chances of becoming a meal on thanksgiving.

1.3 Aims And Objectives

The aim of this dissertation was to investigate possibilities for economic cooperation between the trade blocs of SADC and BSEC. The argument followed was that in increasing trade with one another, emerging markets could potentially hedge themselves against the negative spill over effects from being overly dependent on large markets. Focus was placed on the European continent, specifically on the Black Sea Economic Cooperation (BSEC) trade bloc within Eastern Europe. Within this bloc, the European Emerging Markets (EEMs) of Turkey, Ukraine and Georgia was used as case studies for trade with SADC. Research questions included the following:

1.) Are the necessary infrastructural networks in place (within the SADC and BSEC cases) to facilitate international trade?
2.) What is the influence of the Russo-Ukraine war on the case study countries and can economic cooperation still take place?

1.4 Significance Of Study

Emerging markets are often more vulnerable to the spill over effects of negative shocks in advanced economies. The exploration of various forms of economic cooperation with the goal of diversification between emerging markets is posed as a potential solution to lessen this vulnerability. It is important to conduct research in this field to contribute to the sustainable growth of the South African economy, as well as to discover methods of strengthening multilateral economic relations between SADC and BSEC trade blocs. This research could be valuable to the overall understanding of the extent towards economic cooperation between emerging markets is possible, as well as the benefits and challenges thereto.

1.5 Structure Of Dissertation

Chapter 2 marks the start of this dissertation with a literature review. The aims of this review were to compare the views presented in existing literature about the concepts of emerging markets' role in international trade. To achieve this aim, the review started off with a definition of international business and trade. The review thereafter discussed the various classical and modern theories on trade. Having established the common trade theories which guide modern day thinking, the next section explored the concept of exports diversification as well as its potential role for developing countries.

Following this section, the review discussed the potential value of trade diversification for South Africa (as member of the SADC trade bloc). Thereafter, taking a broader angle, the concept of emerging markets was researched and defined along the economic and institutional schools of thought. This definition was then applied to the European continent, where three potential case study countries in the BSEC bloc were analyzed. This analysis investigated the extent to which these countries met the academic definition of an Emerging European Market (EEM).

The review concluded with a summary on the most essential findings. Overarching, this review served as the start of an argument suggesting that a form of exports diversification could be used by developing economies to guard against the negative spill over effects from being largely reliant on major players.

Chapter 3 provided a detailed account of the dissertation structure and research process. A conceptual framework at the start of this section discusses the proposed layout of the dissertation. In elaboration of this structure, the next section provided the applicable research aims and objectives. Building on this follows a section describing the data required for each objective. Chapter 3 concluded with a detailed discussion of the methodology applied for each research objective.

Chapters 4 and 5 presented the infrastructural research findings after an analysis of the data collected as per the methods disclosed in Chapter 3. The theme of these chapters ware infrastructure. Here, the aim was to investigate the extent to which the trade and transportation infrastructure in each emerging market is capable of handling increased trade with the other emerging markets. Both of these chapters followed a quantitative data analysis approach in order to gain an objective, comparable idea of each country's infrastructural standing.

Chapter 4 started with a methodology section where aspects such as data collection methods, the timeframe applied, and chapter limitations were discussed. A key factor in determining the quality of infrastructure was the Logistics Performance Index (LPI) and the Global Competitiveness Index' (GCI). To accommodate both indices, this chapter has been divided into three sections. The first section is discussed in Chapter 4 and it is an analysis of the logistics performance of the four case study countries (South Africa, Namibia, Georgia, and Ukraine) as per the LPI and GCI. The second and third sections were discussed in Chapter 5. The second section was an in-depth analysis of each case study country's trade and transport infrastructure according to its quantity, quality, and accessibility. The last section was a conclusion and synthesis of the presented results.

Chapter 6 presented the market research findings after a data analysis as per the methods disclosed in Chapter 3. The aim of this chapter was to investigate the current Russia-Ukraine conflict. Here, the goal was to determine if and how economic collaboration between SADC (South Africa and Namibia) and BSEC (Ukraine and Georgia) could take place, albeit not physical goods/services trade. As the concept of physical exports between SADC and Ukraine has been made much more difficult due to the war effort (at least for the near future), the start of this chapter posed an expansion on the concept of trade to include other forms of interaction as well.

The next section provided detail on the RU-UA conflict by giving context on the invasion. Thereafter, possible reasons for the invasion from the aggressor (Russia's) side was provided. Building on this and central to this chapter, followed a discussion on the three positions towards this conflict (Pro-Russia, Pro-Ukraine, and Neutral). The successive section built on this by explaining the four case study countries' positioning as well as providing suggestions on why certain positions were chosen.

A key highlight of this investigation was the polarization of the world in response to the conflict, as well as the consequences and spillover effects due to this polarization. In application of the information presented thus far in Chapters 4 and 5, the punchline of this section suggested economic cooperation as a forerunner to physical exports diversification. Here, the concept of economic collaboration was visually depicted by means of a figure, and the process behind it thoroughly explained. This chapter ended with a conclusion on the information presented in this part.

Chapter 7 served as the conclusion of this dissertation. This section explained how the primary research question has been answered, namely to what extent can SADC and BSEC countries viably engage in economic cooperation as means to hedge against negative spill over effects from large markets.

This investigation consisted out of the following two research questions namely: 1) Are the necessary infrastructural networks in place (within the SADC and BSEC cases) to facilitate international trade?, and 2) What is the influence of the Russo-Ukraine war on the case study countries and how can economic cooperation still take place?

With regard to infrastructural networks, it is found that in spite of the varying infrastructural landscapes of each country, all of them has the necessary basic infrastructure in place to facilitate trade. However, the outbreak of the conflict between Ukraine and Russia in February 2022 saw the predictions of this dissertation (on the influence of negative spill overs on emerging markets) play out in reality. Given the damage done to Ukrainian infrastructure, much of the research done on transportation infrastructure in Ukraine in chapter 5 has been rendered obsolete.

Based on this, the structure of the sixth chapter, which was intended to be a market analysis of potential commodities for trade between SADC and BSEC, was altered. As for a solution to still engage in collaboration in spite of this war, economic cooperation was posed as forerunner to physical imports and exports.

The process of economic cooperation has been found to consist out of five steps, namely Exploration, Introduction, Investigation, Application and Realization. Having described this process theoretically, it has been recommended that future research (after the RU-UA conflict) be done to assess the effect thereof on emerging markets from an objective viewpoint.

CHAPTER 2

LITERATURE REVIEW

2.1 Review Objectives

The systematic review of the existing literature was conducted to set the foundation for this dissertation. The purpose of this chapter is firstly to provide a thorough understanding of international trade theories and exports diversification and secondly, to define Emerging Markets as applicable to this study. Thirdly, this chapter serves as an introduction to the planned case study countries selected to represent the two trade blocs of interest.

2.2 Review Methodology

Upon review and analysis of the abovementioned articles and information sources, the main contributing scholars within this field became clear, as well as the general line of thinking and reasoning relating to emerging markets' positioning within international trade. In terms of methodology, this review focussed on secondary data and information (information already compiled and analysed by other scholars and academics). To find the relevant secondary sources, this review utilised a combination of journal articles, reports and books. Using the names of the scholars, as well as deriving keywords from the main lines of reasoning, attempts were made to distinguish between relevant and irrelevant studies. Keywords used to find these sources were based on the dissertation objectives as stated in the research proposal. Various internet sources and search engines (i.e. Google, Google Scholar, JSTOR, Emerald and the Stellenbosch University Library) was used to find the relevant sources.

Furthermore, efforts were made to gain a holistic view of international trade, and studies within the timeline of 1970 – 2021 were found and analysed. This is to account for the cumulative nature of most studies and academics in general, where scholars use research and analysis to add value and new information to the existing case studies and literature. In some cases, reference was made to classic scholars which can be considered as 'out of date', but theoretically, their contribution to the field remains relevant. Older articles form the theoretical foundation for a line of thought which is still being used in the modern era.

Other sources for information was the Department of Trade and Industry and some consulting firms within the South African trade industry. Upon investigation of the various articles available on the topics of "trade diversification" and "emerging markets", the works of various key scholars became clear. Having identified these key contributors, their names were used to discover more related articles and documents. Although efforts were made to focus only on the most relevant and recent sources, the chosen timeframe for this review was longitudinal. This was done in order to analyse

and compare the reasoning regarding trade diversification for emerging markets over the years.

It is noted that references may become “outdated” or “obsolete” in time (or due to other circumstances such as new theories coming to light). However, in this review older sources were used with the sole purpose of showing the cumulative effect of reasoning between the older source and the new ones. Given that the topic of “trade diversification between emerging markets” can be seen as a relatively new concept, there were not an abundance of research to choose from. This literature review continued until the objectives of the review had been fulfilled, whereafter the analysis of the Emerging Markets for trade diversification started.

2.3 Review Structure

The review was designed with a strategic approach in-mind, starting with a broad analysis of international trade and ending with country-specific data to define emerging market. It started with investigating trade theories to understand why countries would engage in international trade in the first place. After that had been established, the role and definition of an emerging market was analysed in order to narrow down potential case study countries. Lastly, these case study EEMs are measured against the chosen definition as proof of their position and justification for their use in this dissertation.

2.4 Literature Review

2.4.1 Defining International Business and Trade

The concepts of international business and trade are often merged, confused or used interchangeably. For the purposes of this enquiry, these concepts will be defined separately, but the empirical research will focus on the joint definition – instead of choosing one above the other.

International business can be seen as an overarching goal, where trade is one method of achieving that goal. The former refers to business activities taking place across national borders, involving the transfer of resources (raw materials, capital and people), goods (finished assemblies and products), services (management, insurance, education etc.), knowledge and skills (managerial skills, intellectual property rights) or information (databases and networks) (Hill, 2008). In line with this definition, the core principle of trade is the exchange of commodities between parties. These commodities are most commonly goods or services, where supply and demand shape the need to conduct trade and the market acts as the medium in which these transactions take place. Therefore, international trade can then be seen as the exchange of commodities between countries.

However, this presents only one side of the picture, where trade is limited to any i) direct, ii) tangible transaction, when in fact international trade takes place on a much

broader scope (as seen in the international business definition). While the term 'trade' is often used to refer to goods and services exports and imports, it can be argued that the term encompasses a much broader range of activities. In substantiation of this argument, international trade should be seen as economic transactions made between countries (Allais et al., 2020). Some of the methods for companies (and countries) to conduct business [transactions] in the international market includes exporting, licensing, joint venturing and foreign investment (Buckley & Casson, 1998).

This dissertation will research various ways in which economic relations between SADC and BSEC can be improved. Although the expectation lies that most of the data will come from international trade in the forms of exports and imports, provision has to be made for the other categories of trade as well.

2.4.2 International Trade Theories and Developing Countries

In expansion of the different ways in which international trade can take place, this section aims to understand the importance of developing countries' methods and participation in international trade. An analysis of modern and classic trade theories will be conducted in Table 1 to identify that theory's positioning of trade between emerging markets and advanced economies.

TABLE 1: SUMMARY OF MAIN CLASSICAL AND MODERN TRADE THEORIES
Source: Table generated with information from (Wood et al., 1995).

Theory	Main Premise	Value in Modern International Trade
Absolute Advantage (Adam Smith – 1776)	- Absolute Advantage exists when one country is more effective in producing a certain commodity than any other country. - Countries should specialise in the production of goods in which they can produce the most of, with the least resource usage.	**Value:** This theory explains the benefits of specialisation and trading with other countries.
Comparative Advantage (David Ricardo-1817)	- Comparative Advantage exists when a country is more efficient in producing a certain commodity than other countries. - Countries should specialise in the production of goods which	**Value:** This theory focusses on the relative productivity difference between countries, thus presenting a more accurate version of

	they produce at a lower opportunity cost than other countries.	modern international trade.
Heckscher-Ohlin (Eli Heckscher & Bertil Ohlin- 1933)	- Comparative Advantage arises due to differences in national factor endowments. - Countries will export goods which they can produce most efficiently and in the largest quantities (given their abundant factor endowments).	**Value:** The theory serves to express one reason behind specialisation.
Country Similarity (Steffan Linder- 1961)	- Countries with similar characteristics are more likely to trade with each other. - When considering exports, companies will look for markets with similar qualities to their domestic market. - Some qualities include a similar per-capita income, - language, - economic development stage and – culture.	**Value:** Linder's theory established a key premise of companies' considerations when engaging in international trade.
Product Lifecycle (Raymond Vernon- 1966)	- As products move through different stages of their five-staged lifecycle, their optimal sales and production locations will change. - 5 Life Cycle Stages: Introduction, Growth, Maturity, Saturation, Abandonment.	**Value:** This theory accurately explains the international trade pattern, justifying the reasoning behind global export and import choices.
Global Strategic Rivalry (Paul Krugman & Kevin Lancaster- 1980)	- Due to economies of scale and increasing returns to specialisation, some industries will likely have a small number of profitable firms. - Firms with the first mover advantage will develop economies of scale and create barriers to entry for new entrant.	**Value:** This theory highlights the value of firms' positioning in their domestic environment as influencer of their ability to compete internationally.

2.4.3 Classical Trade Theories

A too narrow focus on the classical approach to trade could undermine the economic growth and development of developing countries. Traditional trade theories suggest that trade advances specialisation through the efficient reallocation of capital, employment and resources - in line with a country's absolute and/or comparative advantage (Oskawe, Santos-Paulino & Dogan, 2018). Critics of classical theory have argued that the 19th century pattern of international trade, where underdeveloped [developing] countries export raw materials and import manufactured goods, has been unfavourable to the economic development of those countries (Myint, 1958).

This pattern is still visible in the 21st century. One example is trade between Brazil and China, where most of Brazil's exports to China are raw materials and their imports from China are manufactured goods which come at a higher price (Observatory of Economic Complexity, 2020b). Furthermore, China is Brazil's largest trading partner (Macauhub, 2020). It can be argued that Brazil is largely exporting goods in which they have natural factor endowments, as well as a comparative advantage.

Given this argument, it lies within reason to assume that Brazil's economic growth is strongly dependent on the social, political, and economic decisions made by China. Based on this, the possibility exists that such a relationship can be leveraged by one country to gain influence over the other. International trade theory suggests that influence opportunities arise when trade interdependence is asymmetrical.

That is, if actor A gains more than actor B from their interdependent relationship, then B has more influence potential than A because B can threaten to deprive A of more utilities than the converse (Richardson & Kegley, 1980).

Although the Chinese and Brazilian markets are highly complementary, increased competition from China's for local Latin American industries [thus expanding their range of absolute advantage] can place Brazil in a compromising position. These concerns include the possibility of deindustrialisation, the increased privatisation of the region's exports and difficulties upgrading manufactured exports into higher technology products (Jenkins & Barbosa, 2012).

This phenomenon does not refute the importance of the absolute and comparative advantages in trade and production planning, but rather emphasises the need for industry development and market diversification. Consequently, trade diversification could be valuable for emerging markets within SADC – who are also expected to be relatively dependent on a few large trading partners.

2.4.4 Modern Trade Theories

Modern trade theories and -models tend to be more supportive of concept that trade can facilitate diversification. Teignier (2018) proves that productivity changes and trade barrier decreases influence sectoral reallocation, which in turn influences growth and transformation. Furthermore, trade openness can trigger structural transformations in an economy (Dessy, Mbiekop & Pallage, 2010).

According to Vernon's Product Life Cycle Theory, one country will start exporting products when they reach their Maturity stage. Supporting this theory, (Audretsch, Sanders & Zhang, 2017) employed a conditional latent class model to test the relationship between GDP growth and product export growth rates. Their study found that middle income countries with high growth rates grow faster by exporting more mature products that are in later stages of their lifecycle. Applied to diversification, it can be argued that emerging markets will be able to benefit more by searching to find new markets for products which are already mature.

The Country Similarity Theory and the Global Strategic Rivalry Theory can also be used to support trade diversification. Linder's theory states that countries should trade with any other countries which has similar characteristics to them (Table 1). Building on this, studies found that export diversification is greater between similarly endowed partners and that high transport costs decrease the bilateral export diversification (Regolo, 2013). Essentially, this supports trade diversification of emerging markets through trade with other emerging markets.

Following a firm-level approach to internationalisation, Krugman & Lancaster's theory states that some industries will be dominated by a select number of large firms, thus highlighting the value of the first mover advantage (Table 1). According to Lieberman & Montgomery (1988), a key factor of the First Mover Advantage (FMA) is the initial asymmetry among competitors, enabling one firm to achieve a head start over its competitors. Frynas, Mellahi & Pigman (2006), found that political resources can lead to significant FMAs in the international marketplace, by using case studies from different countries and industries.

In conclusion, it can be argued that market leaders should drive trade diversification to establish economic growth for and within emerging markets. To further enhance this diversification process, political resources such as linkages to government officials and political capital must be established between the home market and a potential trading partner.

2.4.5 Export Diversification and Its Justification for Developing Countries

In the finance world, the term diversification is often directly applied to investments and portfolio optimisation. A broad definition of diversification is provided by Merucci

(2009), where a well-diversified portfolio is one which is not heavily exposed to individual shocks [from its constituents]. Here, a key characteristic of diversification is its risk reduction qualities (Torrente & Uberti, 2021). By investing in a broad range of different assets, investors would be able to drastically decrease portfolio risk without significantly affecting portfolio returns (Gupta & Donleavy, 2009).

Building on this, export diversification refers to the degree to which a country's exports are spread across a large number of products and/or trading partners (UNCTAD, 2018a). Upon analysis of multiple studies and articles, the terms 'trade diversification' and 'export diversification' seem to be used interchangeably. Export diversification is generally divided into two dimensions namely product and geographical diversification. Essentially, export diversification is built on the principle of 'not putting all of one's eggs in the same basket'. In the turkey scenario, the turkey's inability to plan and account for positive and negative externalities affords the bird a prime spot in the oven.

Using this analogy as example, the question must be asked about how countries can use diversification to ensure that they are somewhat protected against external economic shocks.

There are two main dimensions of export diversification namely product and geographical diversification. Through an empirical analysis of exports diversification in developing countries, Amurgo - Pacheco & Pierola (2008) narrow down the definition of geographical diversification to the export of new products to existing markets, - old products to new markets and new products to new markets. Taking this one step further, Shepherd, (2010) argues that there are four ways way for developing countries to realize growth through export diversification, namely:

a) Increased trade in goods with existing trading partners (intensive margin)
b) Introduction of new product varieties (extensive margin)
c) An increase in the unit value of goods traded (quality margin)
d) Establishment of relationships with new trading partners (geographical margin).

There is a large amount of literature in support of the intensive margin (Helpman, Melitz & Rubinstein, 2008); (Agosin, Alvarez & Bravo-Ortega, 2012); (Parteka & Tamberi, 2013) & (Baglan & Yilmazkuday, 2018) as well as the extensive margin (Hummels & Klenow, 2005); (Chaney, 2008); (Persson, 2013). Presently, the study of the quality margin in exports diversification seems to be emerging, with the most prominent contributions coming from (Schott, 2004) & (Baldwin & Harrigan, 2011). Empirical studies on the geographical margin have only gained traction within the last 10 years, and there is much room for development. Moreover, the amount of research on the impact and strategies for geographic diversification between developing countries is highly restricted, not to mention studies from an African exporter point of view.

Given this restriction, it could be valuable to suggest a broader approach to the comprehension of 'exports diversification' by merging the concept of exports with the definition of international trade. The result would be that the term exports diversification is not attached to the diversification of physical goods/services traded, but to any knowledge, skills or information traded across borders as well. In taking on such a broad view of thinking regarding diversification, the emerging market turkeys are possibly being equipped with more options than just their freedom of the oven.

2.4.6 The Value of Trade Diversification for SADC

As global connectedness increases, it can be argued that countries become more dependent on each other for economic survival. Based on the export-led growth hypothesis, an increase in exports will lead to an increase in output, which will result in a multiplier effect to promote economic growth. In lieu of this interconnectedness, the value of trade blocs cannot be overlooked.

One of the key institutions facilitating economic growth in Southern Africa is the Southern African Development Community (SADC). Since its establishment in 1992, SADC has grown to include 16 member states as seen in Figure 1. In summary, these states are Angola, Botswana, Comoros, Democratic Republic of Congo, Eswatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, United Republic of Tanzania, Zambia & Zimbabwe.

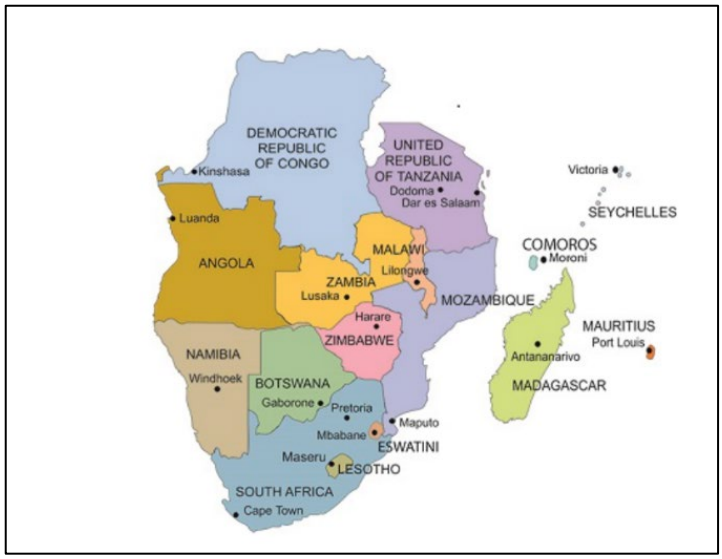


FIGURE 1: SADC COUNTRIES

Source: (SADC, 2019).

Together, these countries span a land area of 556 781 km², with a total population of 345 million (SADC, 2019). Their collective annual average GDP rate was 1.8% (2018) at USD $721.3 Billion. Considering this geographic and demographic information, the

strategic and economic value of this trade bloc as consumer-base (for imports) and production-source (for exports) is evident.

Building on this, trade diversification could be of value for SADC given their economic goals. The SADC uses regional integration to promote the following economic objectives (as per Article 5 of the SADC Treaty (1992)) (SADC, 2019):

- Achieve development and economic growth, alleviate poverty, enhance the standard and quality of life of the people of Southern Africa and support the socially disadvantaged through Regional Integration;
- Evolve common political values, systems and institutions;
- Promote self-sustaining development on the basis of collective self-reliance, and the inter-dependence of Member States;
- Achieve complementarity between national and regional strategies and programmes;
- Promote and maximise productive employment and utilisation of resources of the region.

This study will focus on researching the viability of geographical expansion for SADC businesses into various Emerging European Markets (and vice versa). One of the key findings within the geographical margin research is that in terms of the extensive margin, geographical expansion dominates product-expansion in poorer countries (Amurgo - Pacheco & Pierola, 2008).

Contrasting this, Besedeš & Prusa (2011) conducted an empirical analysis to compare export growth of 47 countries based on their performance at the different extensive and intensive margins, between 1975 and 2003. After an analysis of these results, they argued that the intensive margin is more important to economic growth within a dynamic sense.

From these divergent arguments, it can be assumed that each case for diversification takes precedence within a certain scenario. Exploring the evolution of export diversification of 156 countries over 19 years, Cadot, Carrère & Strauss-Kahn (2011) supports this argument by suggesting that the relative importance of the intensive and extensive margins depends on the exporting country's level of income, with the extensive margin being generally more important for poorer countries.

Besides the explicit benefits, export diversification (both intensive, extensive and geographic) has numerous benefits specific to emerging markets and developing countries. Firstly, exports diversification can act as a form of portfolio diversification for developing country exporters, thus helping to minimise risk for a certain level of return (Brainard & Cooper, 1968) and to mitigate liquidity constraints (Myles Shaver, 2011).

Secondly, in line with the Prebish-Singer thesis, exports diversification lessens the problem related to the constant deterioration of terms of trade for primary-product based economies (Carrasco & Tovar-García, 2020). Thirdly, countries focussing on a narrow range of low-technology goods experiences slow growth. Export diversification [implying a more intensive use of new technologies across different industries] requires trained labour – which in turn will produce new ideas, thus positively affecting economic growth (Agosin, 2008).

2.4.6.1 Defining Emerging Markets

The term “emerging market” was first coined in 1981 by economist Antoine Van Agtmael. He was investigating ways to reshape the idea of investing in rapidly developing countries. This definition was based on “progress, uplift and dynamism”, which reframed the picture of some third world countries (International Finance Corporation, 2021). Since the early 2000s, the concept of emerging markets started gaining increased attention from academics and business practitioners alike. This brought about the in-depth study of these markets, which led to a plethora of definitions and classifications for emerging markets.

Reviewing 323 articles to identify the most dominant definitions and characterisations of emerging markets conceptualisations, (Nielsen, Hannibal & Larsen, 2018) identified two schools of thought which provides the basis for defining and/or characterising emerging markets:

2.4.6.2 Economic School Of Thought

According to the Economic School of Thought, emerging markets are defined according to their prevalent economic characteristics – putting them in a higher class than other developing countries.

This line can be traced back to the works of (Arnold & Quelch, 1998). In their paper, they argued that no generally accepted definitions of emerging markets existed and that a loose definition classifies an emerging market as a low-income country producing growth rates higher than 5% in average annual GDP. Hoskisson, Eden, Lau & Wright (2000) built on this argument and provided the most influential contribution to the economic school of thought. They define an emerging markets as “low-income, rapid-growth countries using economic liberalisation as their primary engine of growth” (Hoskisson et al., 2000).

From this definition, they specify three criteria indicative of emerging markets namely a rapid pace of economic development, the installation of government policies in favour of liberalisation and a free-market system. This contribution has formed the basis for inquiry into emerging markets (e.g., Wright, Filatotchev, Hoskisson & Peng (2005); Peng, Wang & Jiang (2008) & Xu & Meyer (2012)). Applicable to this study,

and adding to the Hoskisson definition, Wright *et al.*, (2005) argued that the characteristics of emerging markets also involves "unique social, political and economic context". With this context in mind, they argued that emerging markets are divided into two groups namely developing countries in (1) Latin America, Asia [excluding China] and Africa and (2) the Middle East, China and countries within the former Soviet Union.

2.4.6.3 Institutional School Of Thought

This school of thought defines emerging markets according to their prevalent institutional settings. In this case, the term institution refers to a country's labour, capital, and product markets along with its administrative system and mechanisms of contract enforcement. The work of Khanna & Palepu (1997) provides a seminal contribution to this school of thought. In their paper, they argued that emerging markets "offers the prospects of substantial growth because they have developed at least some of the institutions necessary to encourage commerce.

But institutional voids are still common enough to cause market failures" (Khanna & Palepu, 1997). Essentially, the argument is made that the labour, capital, and product markets as well as the regulatory systems and mechanisms of enforcement in North America and Europe are well developed – whereas those in countries like China, Brazil and India are still in their growth stages (Chacar & Vissa, 2005). Within this line, two definitional variations for emerging markets exist, namely defining EMs according to institutional transitions and defining emerging markets according to institutional differences (Nielsen, Hannibal & Larsen, 2018).

The institutional transitions approach states that some emerging markets are in the process of social, political and economic regulatory change. As noted by Ezzamel & Xiao (2011), the terms 'transitional economies', 'emerging economies' and 'emerging market economies' are often used interchangeably and refer to economies other than those seen as 'advanced capitalist economies.

With this notice came arguments about the exact specifications of transition economies as well as their global classifications. In this case, the term institutional transition refers to the movement of a protected to an open economic structure, and the consequent strive to build accountability within the institutional system (Lenartowicz & Johnson, 2007). An example includes the former Soviet Union and Eastern bloc countries who regained their independence in 1991 and are now in the process of rebuilding their economies and re-establishing capitalism and free trade. "A noteworthy feature of post-communist emerging markets is the absence, following the decades of suppression of market exchange, of the universally recognised indigenous language of the market economy" (Kuznetsov & Kuznetsova, 2014).

In fact, “institutional transitions in some emerging markets, especially those moving from central planning to market competition (e.g., China, Poland, Russia), are so pervasive that these economies are simply labelled transition economies”. However, this is just one way to classify these post-communist countries within the broader category of emerging markets. Overall, it can be argued that the role of institutions in emerging markets are more important (as agents of change) than in advanced economies. This is because in the case of emerging markets, institutional transitions represent “fundamental and comprehensive changes… to the formal and informal rules of the game” (Peng, 2003).

The institutional differences approach focuses on the differences between the institutional frameworks of emerging markets and developed countries. This approach focuses on the existence of “institutional voids” as defining criteria of economic advancement (Khanna & Palepu, 1997). These voids are seen as imperfections within the institutional framework which leads to the ineffective operation of markets (Grosse & Meyer, 2018).

Within this line of thinking, one key concept is Liability of Foreignness (LOF). This refers to the costs that Multinational Enterprises (MNEs) incur due to aspects such as an environmental unfamiliarity, political, economic, and cultural differences as well as the need for coordination across geographic distances (Zaheer, 1995). It can be argued that the different socio-economic and political settings in emerging markets differ from those in developed countries. Taking this one step further, it should be stated that there is no general institutional framework for emerging markets and that each emerging markets has adopted a framework suitable to their unique setting.

2.4.7 European Emerging Markets: BSEC Trade Bloc

This study’s categorisation of emerging markets draws from both the economic and institutional schools of thought. In terms of defining emerging markets, the definition provided by (Hoskisson et al., 2000) takes precedence over Arnold & Quelch’s (1998) definition. The latter can be seen as somewhat restricting and narrow given its classification of emerging markets as having a GDP growth rate higher than 5%. In the case of defining Emerging European Markets (EEMs), it is important to keep in mind these countries’ pace of economic development, active drive towards liberalisation and actions to install a free-market system.

This study will research emerging markets within the Black Sea Economic Cooperation (BSEC) trade bloc. This bloc consists out of 13 member countries, namely: Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, North Macedonia, Russia, Romania, Serbia, Turkey & Ukraine. Some of the main objectives of this trade bloc includes (BSEC, 2018):

- To improve relations, dialogue and cooperation between Member States;

- To develop and diversify bilateral and multilateral cooperation in correspondence to the rules of international law;
- To develop economic collaboration in a manner that does not conflict with the international obligations of the Member States – including those deriving from their [Member States'] membership to international organisations or institutions;
- To encourage the participation in the creation of economic cooperation and relations within BSEC, for other interested countries, -international institutions and enterprises and companies.

Within this trade bloc, the countries of analysis will be Georgia, Turkey & Ukraine. These chosen countries meet the economic definition of Emerging Markets in the following ways:

2.4.7.1 Rapid Pace of Economic Development

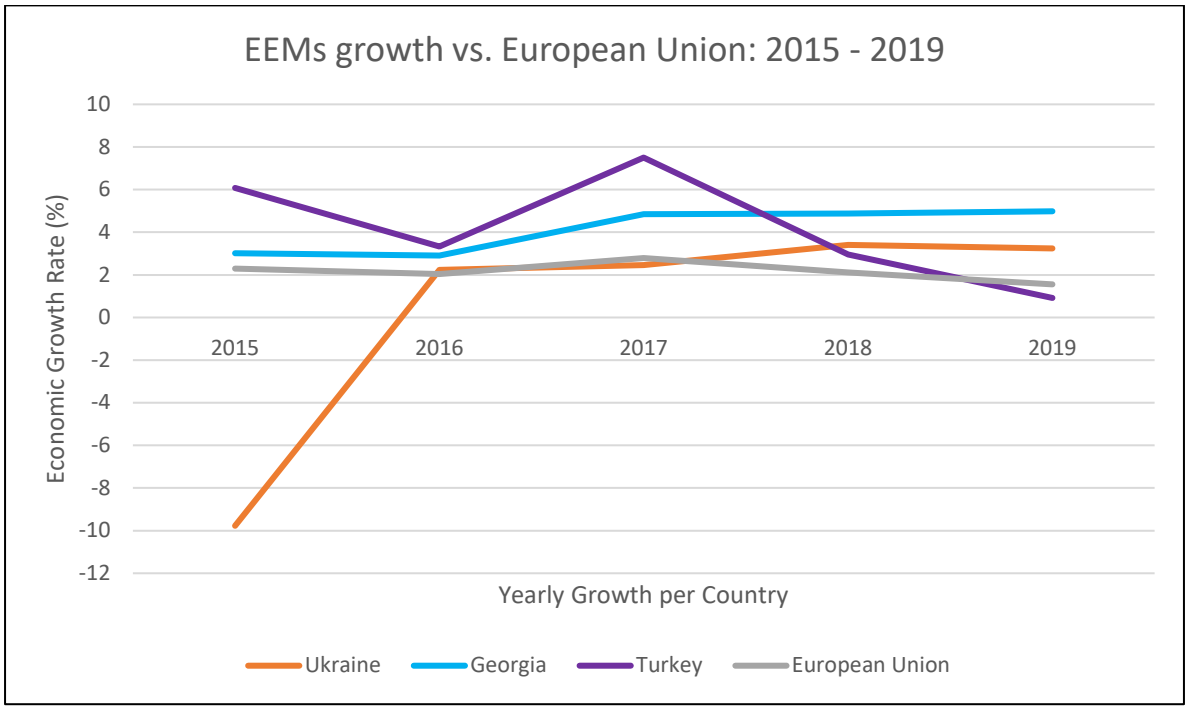


FIGURE 2: EEMS GROWTH VS. EUROPEAN UNION 2015-2019

Source: Created using information from (Worldbank, 2021).

Ukraine, Georgia and Turkey's fast pace of economic growth is visible in their relatively high GDP growth rates as compared to the overall growth of the European Union (used as benchmark for developed countries). In his book on inequality, French economist Thomas Piketty observes that economic growth "always includes a purely demographic component and a purely economic component, and only the latter allows for an improvement in the standard of living" (Piketty, 2014).

Building on this, the gross domestic product (GDP) can be used to measure a country's economic output – thus using it as a rough guideline of economic welfare and overall development. GDP is the measure of the market value of the final products and services produced within a country for a specific time period. Figure 2 shows the independent growth rates of the three case study counties and the European Union (EU) between 2015 and 2019. It is evident that in this time, these countries' GDPs were relatively higher than that of the mature EU. On average, Georgia had a growth rate of 4.12% and Turkey's economic growth was measured at 4.16%. This is relatively high compared to the European Union's average GDP being 2.16%.

To offer a different perspective on the BSEC trade bloc, Ukraine is also a point of interest – although their economic growth rate is one of the lowest within the BSEC bloc, at 0.19% on average for 2015 – 2019. However, their rating is not a true indication of their development status – as they have consistently realised a GDP of 2.20% since 2016. The biggest influencer of their negative GDP in 2015 (and consequent low average GDP), was conflict with Russia in the Eastern part of Ukraine. This resulted in disruptions in industrial production and exports, as well as broader indirect costs through its undermining of investor and consumer confidence (Moorty, Golovach & Eckardt, 2015). Building on this, Ukraine's consequent relatively high economic growth rates between 2016 and 2019 serves as clear indicators of their drive as emerging markets.

Thus it is evident that these countries' pace of economic development is on average higher than other established countries within the European Union – thus making them worthy of the first descriptor of Emerging Markets.

2.4.7.2 Active Drive towards Liberalisation

In order to quantify the proposed countries' drive towards liberalisation, the Economic Freedom of the World Index (EFW) will be used. This is because the term 'liberalisation' in this case is equated with economic freedom given that the EEMs in question are striving to break free from their old systems in search of independence. The EFW is a relevant choice of quantifying this liberalisation because aspects such as (1) personal choice; (2) freedom of market-entry and – competition and (3) security of the person and privately owned property forms the cornerstone of this economic freedom (Gwartney, Lawson & Hall, 2020).

Building on this, the EFW measures economic freedom across five broad categories namely: Government Size; Legal System and Security of People Rights; Sound Money; Freedom to Trade internationally and Regulation. Each country's score is indicated on a scale of 0 and 10 – with 10 being most economically free and 0 being the least/most restrictive countries.

TABLE 2: ECONOMIC FREEDOM RATINGS FOR 3 BSEC COUNTRIES
Source: Created using information from Gwartney et al. (2020).
*Each country's ranking out of 10 is displayed along with its global ranking in brackets.

Country	2010	2015	2018
Georgia	7.76 (21)	8.14 (9)	8.18 (8)
Turkey	6.56 (75)	6.82 (81)	6.62 (99)
Ukraine	5.87 (122)	5.38 (149)	6.06 (131)
Number of countries measured	**144**	**159**	**162**

In comparing the rankings for 2018 from Table 2, it is evident that Georgia (8th) ranked amongst the most economically free countries in the world. According to The Ministry of Economy and Sustainable Development of Georgia (2019), this position is greatly due to structural improvements in the fields of human rights, government transparency, freedom from corruption, market efficiency, favourable business environment and effective governance. However, just because Georgia has a high level of economic freedom does not make it a developed economy because it could be reasoned that other aspects are not yet sufficient to meet that category.

The other two BSEC case study countries, however, seemed to be much more economically restricting in 2018. One potential explanation for Turkey's low level of economic freedom is a clash between the ruling party's view on governance and those of the western world. Under President Tayyip Erdogan's Justice and Development Party (AKP), the country has followed an Islamist agenda which has eroded democracy (The Heritage Foundation, 2022a). However, it can be reasoned that just because there is a clash between styles of governance, the concept of economic freedom alone as indicator of emerging market status is not substantial.

In the case of Ukraine, a tumultuous history with Russia has a definite impact on the country's strive towards economic freedom and liberalisation. The maidan revolution marked a turning point in UA's history in the direction of liberalisation and democracy.

This is because according to (The Heritage Foundation, 2022b), UA's political landscape has been transformed where a generational change is in process despite opposition from rival business-political networks. Building on this, the Russian annexation of the Crimea as well as actions to destabilise the Donbas region could all be interpreted as damage to the liberalisation process of the UA economy.

In conclusion, it is evident that Turkey and Ukraine still has some way to go on the road to towards liberalisation. Altogether, it can be reasoned that their despite these three countries' varying levels of progress on this path, they are all Emerging European Markets as Ukraine and Turkey has not yet achieved substantial levels of

liberalisation. Georgia on the other hand, has substantial levels of liberalisation and economic freedom, however cannot yet be seen as a developed economy due to other aspects impeding their development.

2.4.7.3 Actions to Install a Free-Market System

The Economist Intelligence Unit's (EIU) yearly democracy index is a valuable indicator of each country's most current positioning. The EIU is the research and analysis division of The Economist Group.

They measure democracy on a scale of 0 – 10, based on the ratings of five different categories, namely (1) Electoral Process and Pluralism, (2) Civil Liberties, (3) The functioning of Government, (4) Political Participation and (5) Political Culture (The Economist Intelligence Unit, 2018). Based on their rankings, countries can be placed in one of four types of regimes i.e. Full Democracy, Flawed Democracy, Hybrid Regime and Authoritarian Regime (Table 3).

TABLE 3: DEMOCRACY INDEX 2018 BY REGIME TYPE
Source: (The Economist Intelligence Unit, 2018).

	No. of countries	% of countries	% of world population
Full democracies	20	12.0	4.5
Flawed democracies	55	32.9	43.2
Hybrid regimes	39	23.4	16.7
Authoritarian regimes	53	31.7	35.6

Note. "World" population refers to the total population of the 167 countries covered by the Index. Since this excludes only micro states, this is nearly equal to the entire estimated world population.

Source: The Economist Intelligence Unit.

Based on this table, all three of the BSEC case study countries, namely Turkey, Georgia and Ukraine, are classified as Hybrid Regimes. According to The Economist Intelligence Unit (2018), a Hybrid Regime is categorised by the following:

- Considerable irregularities in elections, which regularly prevent them from being both free and fair.
- Governmental pressure on opposition parties and candidates.
- Serious structural weaknesses being more common than in flawed democracies—in political culture as well as the functioning of government and political participation.
- Widespread corruption, a weak rule of law and civil society.

Turkey has an overall score of 4.37 – which was greatly influenced by the country's shift towards a presidential system of government and the election of Recep Tayyip

Erdogan as president (The Economist Intelligence Unit, 2018). This governmental shift greatly lessens the power of parliament, establishing the president as head of state and as head of the executive – with the power to appoint the cabinet of ministers as well as a large portion of high judiciary and high level officials without any parliamentary oversight (Aytaç, Çarkoğlu & Yıldırım, 2017). Currently, this governance system, as well as Erdogan's political stance deters western investors from developing increased economic cooperation and improving relations.

Georgia is also considered a hybrid regime, with a democracy ranking of 5.50 (The Economist Intelligence Unit, 2018). During 2018, they witnessed the steepest fall in rating due to relatively unstable economic conditions. This was due to the return of former Prime Minister, Bidzina Ivanishvili returning to politics and resuming leadership of the ruling party, Georgian Dream – Democratic Georgia. Despite not holding elected office, he managed to redirect government policy (Kupatadze, 2018).

In the case of the Ukraine, they have a democracy ranking of 5.69 (The Economist Intelligence Unit, 2018). It can be reasoned that they have done much since 2015 to fight for democracy and westernisation. One of their most notable actions to put them on the path of democracy, was the 2013/2014 Euromaidan protests. In December 2013, the then UA president, Viktor Yanukovich, struck a deal with RU President Vladimir Putin which allowed Russia to buy $ 15 billion in Ukrainian bonds – which decreased the price of natural gas by a third (Diuk, 2014). Although this move seemed to benefit UA, the opposite was true as the President was steering UA back to Russia and not on the western, democratic path wanted by the nation.

The local population countered this move with a series of civic protests. In fact, this was the largest series of civic protests since UA's independence in 1991 (Metzger & Tucker, 2017). These protests eventually led to the resignation of the ruling government, the exile of Viktor Yanukovich and indirectly to the secession of Crimea and the ongoing conflict in the eastern part of the country. Between 2014 and 2019, a lot of positive changes has followed. According to the CEO of the Centre for European Policy Analysis, Anna Polyakova (2019), Ukraine has reformed its energy sector, stabilized its economy and created various anti-corruption infrastructure [all active developments towards becoming more democratic and being accepted into the EU].

In spite of these rankings, it can be argued that Turkey, Georgia and Ukraine are all EEMs due to them fulfilling the largest parts of these definitions in a broad sense. Given that there is much ambiguity about the term EEM, a loose definition is applied as to accommodate real-life governing differences such as Turkey largely adhering to Islamist principles vs. Western principles applied in Ukraine and Georgia).

2.4.8 Summary and Conclusion

Based on this literature review, the definition of international business includes not only the trade of goods and services across border, but also that of knowledge and skills as well as of information. Given the global interconnectedness, engaging in international business is seen as a valuable tool for economic development according to various classical and modern trade theories.

In the case of developing economies, one way to achieve this development is through exports diversification. This term relates to the level of which a country's exports are divided amongst a number of products and partners in order to hedge against risk. Therefore, the argument is made that a form of exports diversification could be used by developing economies to guard against the negative spill over effects from being largely reliant on major players.

Consequently, this study was focussed on researching various methods of economic cooperation for developing economies. One potential way to achieve this goal could be via exports diversification along the geographic margin. Here, it was important to note the fluidity in which the term "exports" was applied – not narrowly referring to a good or service traded, but also implying in the broader sense some kind of knowledge, skills or information.

Furthermore, the SADC (Southern African Development Community) trade bloc was chosen as the research starting point, where the BSEC (Black Sea Economic Cooperation) bloc would be investigated in order to identify potential opportunities for exports diversification. The BSEC emerging markets have been identified by measuring various countries' applicability in line with a definition of emerging markets.

It was found that both Ukraine, Georgia and Turkey had sufficient paces of economic development, - drives towards liberalisation and actions to install a free-market system to be considered as Emerging European Markets. Although the Turkish government follows a policy closer in line with Islam than westernisation, it has been decided not to exclude Turkey on that basis as they are still one of the leading Black Sea Economies.

In applying the concepts of international trade and exports diversification to emerging economies, this dissertation analysed the transportation infrastructure and market landscapes of South Africa, Namibia, Ukraine, Turkey and Georgia (all emerging markets) in order to highlight potential ways to increase trade and diversify exports.

CHAPTER 3

EMPIRICAL STRUCTURE AND RESEARCH PROCESS

3.1 Introduction

This section contains the layout of the research process and the methodology behind it. First, the infrastructure networks within the case study countries was researched to identify the extent to which they can facilitate international business. Secondly, the initial plan was to investigate potential industries and commodities within the case study countries (from SADC and BSEC) to determine if there are complimentary markets for these commodities. However, the onset of the Russo-Ukraine war led to the alteration of the second objective – changing it to an analysis on the influence of the war on trade and economic growth in the case study countries instead.

3.2 Research Aims And Objectives

The following section will describe the goals and reasons for firstly conducting research on international business and trade diversification. Secondly, this dissertation will investigate the possibility of SADC and BSEC engaging in economic cooperation amidst the Russo-Ukraine war.

3.2.1 Research Aims

To investigate possibilities for economic cooperation between the trade blocs of SADC and BSEC as precursor to physical trade.

3.2.2 Research Objectives

1. To assess the infrastructural requirements needed for trade between SADC countries and the BSEC countries.
2. To analyse the influence of the Russo-Ukraine war on the case study countries in order to determine if economic cooperation can still take place in this time.

3.2.3 Primary Research Question

What is the extent to which SADC countries could viably improve economic cooperation with BSEC, especially Georgia, Turkey and Ukraine?

3.2.4 Secondary Research Questions

1. Are the necessary infrastructural networks in place (within the SADC and BSEC case study countries) to facilitate international business?

2. What is the influence of the Russo-Ukraine war on the case study countries and how can economic cooperation still take place?

3.3 Data Collection & Methodology

3.3.1 Data Collection

The specific data required to attain each research objective is provided in Table 4:

TABLE 4: SUMMARY OF DATA COLLECTION REQUIREMENTS PER OBJECTIVE
Source: Created by A. Esterhuizen (2021).

Research Objective	Type of Data Required	Data Collection Method
1. To assess the infrastructural requirements needed for trade between SADC countries and the BSEC countries.	Public records, scholarly articles and national statistics on the case study countries' infrastructural networks.	Trade statistics databases, academic journals & industry studies.
2. To analyse the influence of the Russo-Ukraine war on the case study countries in order to determine if economic cooperation can still take place in this time.	A combination of news/ ground level reports– and scholarly articles, as well as industry-level reports.	Governmental databases, social media and industry studies.

3.3.2 Methodology

a) To assess the infrastructural requirements needed for trade between SADC countries and the BSEC countries

To achieve this objective, each case study country's infrastructure will be assessed using secondary research. Using a combination of academic articles and industry reports, a profile will be drawn to depict the current layout and effectiveness of each country's trade infrastructure network such as electricity provision and transport networks. Information with regards to each country's main points of entry (via ports and airports), as well as their capacity will be gathered. One of the cornerstone reports for this objective will be the Logistics Performance Index of each country -accessed via the website of the World Bank.

Another important index is the Global Competitiveness Index where focus will be placed on the infrastructure pillar as applicable to the quality of roads, airports,

railways and maritime infrastructure. The goal of this section is to provide insights into each country's available logistics infrastructure. These insights should provide clarity for any interested party into the layout and challenges faced by each country in terms of logistics and transport infrastructure. In conclusion, this objective will provide a clear idea on the strategic value of different locations/points of entry and the ability of that country to facilitate the envisaged trade transactions.

b) To analyse the influence of the Russo-Ukraine war on the case study countries in order to determine if economic cooperation can still take place in this time

With the onset of the Russo-Ukraine war, this objective was altered. The layout of this chapter changed from market-research (to find complimentary commodities) to an investigation into the effects of this crisis on the case study countries. Here, the aim became to investigate ways in which SADC and BSEC countries could still engage in some form of economic interaction despite the war.

Firstly, this section will start by proposing an extension on the concept of trade. Secondly, the context of the war as well as Russia's reasons for the invasion will be investigated. Here, ground level sources such as newspaper articles and press releases are expected to be the primary sources of data. Thirdly, the various global positions regarding this war will be explored and applied to the case study countries. These country positions will serve to lay the groundwork from which the potential influences of this war on the selected case study countries will be researched.

The data for this research is expected to include industry reports, newspaper -, magazine and other media articles as well as some academic articles. Lastly, this section will conclude with a case study on economic cooperation. This case study is expected to indicate the potential applicability for economic cooperation between BSEC and SADC countries as precursor to physical trade.

3.4 Summary and Conclusion

This section served to explain the reasoning and plan followed to complete this dissertation. Some of the key aspects discussed were the research aims and objectives, as well as the primary and secondary research questions and methodology.

In short, this dissertation will have two key components, namely and infrastructure study and a case study. The infrastructure component will be an investigation into the infrastructural capabilities of each case study country in order to handle international trade. The case study component will be an investigation into the Russo-Ukraine war to ascertain if and how economic cooperation can still take place in these circumstances.

CHAPTER 4

INFRASTRUCTURAL REQUIREMENTS FOR TRADE BETWEEN SADC AND BSEC

4.1 Introduction

Emerging Markets' economic progress in the modern world is highly dependent not on their ability to achieve outstanding growth rates, but to bounce back from each shock stronger than they were before. The 21s century is classified by globalisation, where all countries' economic progress is strongly linked to their global connectivity. Globalisation can be defined as "*the process of creating networks of connections among actors at multicontinental distances, mediated through a variety of flows including people, information and ideas, capital and goods*" (Clark, 2000).

In line with this definition and the modern drive towards connectivity, it seems obvious that a common denominator among the fastest growing economies worldwide, is indeed their high levels of integration into the world economy (Commission on Growth and Development, 2008). In the case of emerging markets, there is often a shortage on capacity and resources (production factors) to dramatically boost their levels of global integration. Building on this, a case can be made for emerging markets facing greater vulnerability due to this global integration. This vulnerability is fuelled by aspects such as global value chains, unbalanced North-South trade and open trade regimes (Chia, 2010).

However, this puts the emerging markets in a difficult situation – where non-integration means severely restricting economic growth possibilities and rapid integration increases their risk of exposure to negative external shocks. In mitigating these two extremes, it can be argued that infrastructural improvements can contribute to strengthening these emerging markets' global positioning while also providing them with a local safety-net to better absorb any negative spill overs.

4.2 Relationship between Transportation Infrastructure, Economic Growth and Export Diversification

Theoretically speaking, infrastructural advancements pose a potential steppingstone for emerging markets to develop resilience (and potentially even develop antifragility) to negative spill overs from advanced economies. In environmental studies, resilience is recognised in an entity's capacity to restructure itself while retaining its core function; its ability to undertake the aforementioned restructuring as well as its capability to adapt within a hostile environment.

Building on this, the UN definition for quality infrastructure is: "the system comprising the organizations (public and private) together with the policies, relevant legal and

regulatory framework, and practices needed to support and enhance the quality, safety and environmental soundness of goods, services and processes" (United Nations Department on Trade Investment and Innovation, 2017). Such quality infrastructure is needed to unlock optimal performance in domestic markets, as well as to strengthen the country's reputation and allow entry into foreign markets. Building on this, the demand for transportation is a derived demand. This means that without transportation, very few economic activities would be able to take place as people would have a limited ability to reach the centres where these activities are performed.

Thus, the relationship between quality infrastructure and transportation provision can be posed as one of the factors which directly influences trade patterns and international transaction costs for emerging and advanced economies alike. This in turn influences countries' ability to participate in cross-border trade transactions and to enter foreign markets. It has been found that poor infrastructure accounts for 40% of predicted transport costs for coastal countries, and up to 60% for landlocked countries (Limao & Venables, 2001). In terms of cross hemispheric trade, low institutional and infrastructure quality [of countries in the Southern hemisphere] severely limits market access for exports from the North (Francois & Manchin, 2013).

Building on this argument, Behar, Manners & Nelson (2009) found that a one standard deviation improvement in logistics could increase exports by approximately 46% for an average-sized developing country. Therefore, it can be argued that where adequate infrastructure may enable cross-border trade in one country, the absence or ineffectively thereof can severely hinder trade in another.

4.3 Methodology

4.3.1 Objective

In the previous chapters, background was provided on the value of improving economic relations between emerging markets. This chapter will critically analyse the infrastructure of the emerging case study countries in order to make a clear distinction between theory and reality. This is needed to establish a profile of each country's logistical and infrastructural capabilities.

4.3.2 Data Collection

The research for each case study country was divided into three sections, namely: LPI, Transportation Infrastructure Assessment and Current Challenges.

Firstly, the Logistics Performance Index (LPI) was used as the base measure of logistics performance for this chapter. This is a benchmarking tool developed by the World Bank as a means for countries to measure and track their performance on trade logistics. This tool ranks each country's logistics performance on a scale of 0 – 5, with 0 being the worst/no logistics performance and 5 being absolute logistics competence

and performance. LPI data is gathered through a global online survey of logistics professionals on their experience of trade logistics along the six dimensions when dealing with eight preselected countries. This index is published every two years and contains data compiled two years before (i.e. since the previous bi-annual report). This data is then aggregated into a single indicator for each country – where these indicators can then be used to compare countries and regions. This index uses six indicators to analyse countries, namely (Arvis et al., 2018):

1. **Customs:** Measuring aspects such as agility in clearance processes. This includes the speed, simplicity and predictability with which formal actions are conducted by customs control institutions.
2. **Infrastructure:** Evaluating the quality of transport infrastructure for the different transport modes (i.e., air, rail, maritime and road). The survey focusses on respondents' perceptions of the efficiency and effectivity of these modes and their enabling infrastructures along with the storage and movement of goods.
3. **International shipments:** Calculating the ease of arranging shipments at competitive prices.
4. **Logistics quality and competence:** Measuring the quality of logistical services and related industries - such as transport operators and customs agents.
5. **Tracking and tracing:** Evaluating the ease and ability with which relevant parties can follow up on and locate shipments in progress. Here, all aspects of the good's supply chain play a role in its ability to be located.
6. **Timeliness**: Calculating the exact time of shipment delivery, as well as logistics and transport service providers' adherence to that timeslot. This aspect is considered relevant due to the high degree of competition within the logistics industry.

In the logistics and transport economics literature, these six indicators are all crucial in companies' international competitiveness (Coyle et al., 2016). The index makes an important statistical contribution by providing a harmonised measure for all countries (approx. 160). The value of this scale lies in its ability to identify the challenges faced by bilateral trade for each country, along with the different requirements imposed for logistics and related industries (Martí, Puertas & García, 2014).

Going further, LPI scores are classified into four categories which consists with their score quintiles. These categories are **Logistics Unfriendly (bottom quintile); Partial Performers (third and fourth quintiles); Consistent Performers (s**econd quintile) and **Logistics Friendly (top quintile).**

Secondly, a range of data sources was used to conduct a transport infrastructure assessment. To gain a better insight into the actual setup of the transportation infrastructure enabling logistics, the case study countries' physical quantity of

infrastructure points, - the quality thereof and the freight throughput levels was researched. The data sources used to research each measure is described below:
a) **Quantity:** The amount of infrastructure provided by various governmental or private entities. The data for this category was found on government websites as well as on private and public sector reports. In cases where neither of these sources provided the necessary information, the World Bank's databank (The World Bank, 2022) was used. Complimenting this category, a visual depiction by means of an accurate geographical map with each country's key transportation infrastructure links was developed.

b) **Quality:** The Global Competitiveness Index (GCI's) Quality of Infrastructure section was used indicate the standard of the different case study country's infrastructure per transportation mode as compared to the rest of the world. These figures were found on the website "The Global Economy", which groups the results of various global indicators in one place.

c) **Access:** This section dealt with the yearly capacities handled by each mode to ascertain the overall level at which business players make use of the provided infrastructure. Data for this indicator was found on the individual countries' governmental sites as well as some private sector reports. In cases where neither of these sources provided the necessary information, the World Bank's databank was used.

Furthermore, for this data collection it must be noted that, especially for the African countries and Turkey, scientific data was sparse. Therefore, it was decided to focus only on the two strongest SADC countries, namely South Africa and Namibia. On the BSEC side, the language barrier, along with the stringent security principles of Turkish websites, hindered access to important transportation information. Thus, it has been decided to exclude Turkey as well, and to focus only on Ukraine and Georgia.

4.3.3 Timeframe

The timeframe applied for this analysis was greatly impacted by the data source used as well as by the availability of data for each case study country. As a rule, for the LPI and transportation sector analyses, no data earlier than 2007 was accepted, and no data later than 2018. This range was chosen to correlate with the LPI's establishment (2007) as well as to provide insight on a time period before the COVID-19 pandemic. 2007 was also the year of the Great Recession – which, in context of this study, is viewed as one large, external economic shock – with dramatic consequences to all countries across the globe.

Where 2007 served as the lower bound for data sources, discrepancies in the availability of data for certain countries led to the upper bound (I.e. using 2018 as base year) being somewhat flexible. For example, LPI data was not available for Namibia

for 2018, which led to the application of their 2016 LPI scores in that category. As mentioned, one aim of this timeframe selection was to exclude the effects of the COVID-19 pandemic (2020 – 2021). This is because the pandemic was viewed as a recent outlier and not enough information exists yet on each country's recovery from this period. Thus, such an outlier without sufficient data on recovery could negatively impact the findings of this chapter.

Although the abovementioned timeframes served to provide insight into the past efficiency and capabilities of the case study countries transportation modes, it failed to highlight their most recent challenges. Such insight is necessary to gain a clear idea of what happened to each country's transportation sector between 2018 and 2022. Thus, for the last research section (i.e., current challenges), the timeframe between 2018 and 2022 was preferred. However, in many cases limited data was available in this timeframe, and earlier challenges (which are continuing) were listed.

To account for this data scarcity, as well as to include a perspective on the reality (as opposed to mere academic data), ground-level sources such as newspaper articles and industry reports from 2019 – 2021 in combination with previous data on challenges have been used. Here, recent data sources were used to substantiate the current appearance of the challenge in question – even if the data source citing the challenge dated back some time.

4.3.4 Transportation Infrastructure Assessment: Summary of Data Sources

Table 5 highlights the timeframe applied to the Transportation assessment conducted on each case study country. Since this section was the most research-intensive, as well as being the most dependent on accurate data, it is crucial to understand the rationale behind each measure applied.

TABLE 5: TRANSPORT INFRASTRUCTURE ASSESSMENT STRUCTURE
Source: Generated by A. Esterhuizen.

Dimension	Rail Transport	Air Transport	Maritime Transport	Road Transport	Timeframe
Quantity	Total Rail Network length	Total number of airports	Liner Shipping Connectivity Index	Total Road Length Conditions of Classified, Primary, Secondary and Tertiary Road Systems	2017 - 2018

Quality	Global Competitiveness Index (GCI): Quality of Railroad Infrastructure	Global Competitiveness Index (GCI): Quality of Airport Infrastructure	Global Competitiveness Index (GCI): Quality of Port Infrastructure	Global Competitiveness Index (GCI): Quality of Road Infrastructure	2017 - 2018
Access	Amount of goods transported via rail	Air transport, freight	Liner Shipping Connectivity Index	Amount of goods transported via road	2017 - 2018

4.3.5 Chapter Limitations

Some of the main limitations to this chapter included data scarcity, the language barrier and the researcher's available time. Initially, it was decided that five SADC and three BSEC countries would be researched. However, in time it became evident that limited data existed on the transportation sectors of Mozambique, Tanzania, and Malawi (SADC countries). As for Turkey (BSEC), the language barrier deemed to be a sizeable challenge as many official documents were in Turkish and required a translation in order to be of use.

Another challenge on data collection for Turkey included stringed government security – in many cases blocking foreigners from entering their public databases. These challenges, along with the limited time constraints assigned to the scope of a master's degree, led to the exclusion of these countries for this study.

It is recommended that future researchers include a broader series of countries when assessing potential economic relations between the SADC and BSEC trade blocs. This should provide greater accuracy in terms of the viability and feasibility of increased trade and economic cooperation. Another recommendation is to locate and make use of a professional translation service – which would allow for the translation of other foreign languages in both SADC and BSEC blocs. Lastly, it could be beneficial for future researchers to allocate a bigger timeframe for research.

4.3.6 Chapter Structure

In the first two chapters, background was provided on the potential limitations of overdependence on trade with big/established economies. From this potential limitation, the argument was posed that it could be beneficial for smaller emerging trade blocs to increase economic cooperation with other trade blocs in similar positions. In doing so, the first step has been to see if the relevant countries have the necessary transport and logistics capabilities to facilitate such trade. Thus, the aim of

this chapter (objective one) was to analyse the logistics requirements needed for trade between SADC and BSEC EEMs.

To fulfil this objective, this chapter started with an exploration of each case study country's positioning on the LPI. Here, the case study countries' positioning on the aggregated LPI (2007 – 2018) was determined, as well as their logistics performance progress over the years. These figures were used to provide a broad overview of each country's logistics position as compared to a global average.

Building on this, the case study countries' most recent LPI results (2018 – SA, UA and Georgia and 2016 – Namibia) was used to provide insight into their performance in the six LPI categories. This was done to provide clarity on each country's logistics strengths and weaknesses.

Thereafter, to tie logistics capabilities with infrastructure capabilities, a summary of each country's performance on the 2018 GCI was created. Here, the case study countries' performance per transportation mode (rail-; road-; ports- and airports quality) was assessed.

Following this section was an in-depth analysis on the LPI of each country as well as on their Transportation Infrastructure and their Current Challenges. Besides the GCI summary, a one-page document of each country's findings was also presented along with a detailed map of every country's key infrastructure points.

4.4 Research Findings

4.4.1 Case Study Countries' Positioning On Aggregated LPI

The Aggregated LPI was used to gain perspective on the case study countries overall logistics performance. The World Bank calculated these aggregates by assigning a weight to each country's yearly score per category e.g., 6.7% (2012); 13.3% (2014); 26.7% (2016) and 53.3% (2018). Note that any missing values were filled in according to the previous years' scores.

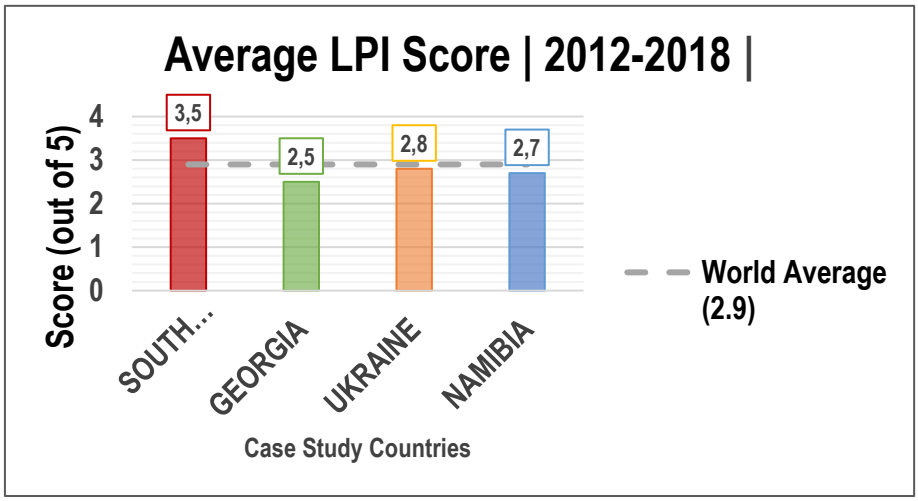


FIGURE 3: AGGREGATED LPI SCORES, 2012-2018
Source: Generated by A. Esterhuizen with data from (The World Bank, 2021a).

According to Figure 3, the world average LPI from 2012 to 2018 was 2.9 (for 167 countries). Performing approximately 0,6 points above the world average, as well as being the only case study country to perform higher than this average, South Africa has established itself as the logistics top performer for this study.

Furthermore, when looking at the remaining countries, it is evident that Ukraine (2.8) also has a relatively good LPI. This is because they are lagging only 0.1 point behind world average – an interesting fact given their tumultuous history with Russia. As for the outstanding two case study countries (with weaker logistics scores), it can be argued that they do not yet have the necessary logistics infrastructure and trade systems in place to facilitate ordinary logistics transactions.

To conclude, South Africa is a strong global logistics performer, where the remaining case study countries are all performing below average. However, these scores can only be used as a benchmark and in order to gain more information on each country's positioning, the year-on-year LPI has to be determined as well as the state of each country's current transportation infrastructure network.

4.4.2 Overall LPI 2012-2018

This section focusses on providing insight into the year-on-year movements of each country's LPI, as an indicator of logistics stability.

Using data from the World Bank, Figure 4 and Table 6 was created by plotting each case study county's LPI scores from 2007 to 2018.

A world average was also calculated for each year to use as a benchmark. This world average consists out of the total yearly LPI scores of all surveyed countries (160 -167 depending on the year), excluding those of the case study countries.

TABLE 6: OVERALL LPI 2012-2018

Source: Generated by A. Esterhuizen with data from (The World Bank, 2021b).

	2007	2010	2012	2014	2016	2018	% VAR Country VS World Avg.	Min	Median	Max.
South Africa	3.5	3.5	3.7	3.4	3.8	3.4	18%	3.4	3.5	3.8
Georgia		2.6	2.8	2.5	2.4	2.4	-13%	2.4	2.5	2.8
Ukraine	2.6	2.6	2.9	3.0	2.7	2.8	-3%	2.6	2.8	3.0
Namibia	2.2	2.0	2.7	2.7	2.7	-	-8%	2.0	2.7	2.7
World Average	2.74	2.87	2.87	2.89	2.88	2.87		2.7	2.9	2.9

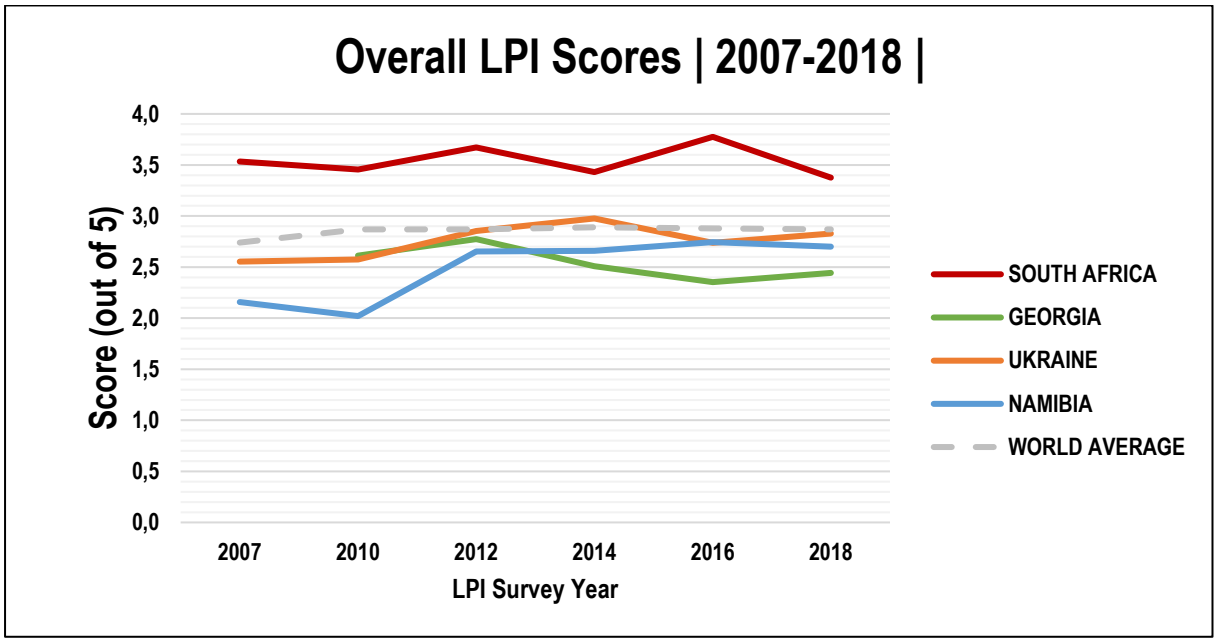


FIGURE 4: OVERALL LPI SCORES, 2007-2018

Source: Generated by A. Esterhuizen with data from (The World Bank, 2021b).

In interpretation of Figure 4, it is evident that South Africa performs on average 0.5 points above the rest of the world and the other case study countries. This is a stark contrast to the other case study countries, who, on average performs much closer to (most often below) the world average. This is substantiated by Table 6, showing the exact LPI scores for the timeframe in question.

Focussing on individual country performance, South Africa performs 15% on average better than the global standard, whereas Ukraine (3% less) and Namibia (8% less) perform moderately against this benchmark. Georgia appears to be an outlier, being the worst performing case study country. They also have the sharpest year-on-year logistics performance decline (Figure 4) as well as performing the weakest against world average, namely 13% less on average (Table 6).

Looking at South Africa, it is evident that the country reached a logistics peak in 2016 (3.8), and a trough in 2014. According to the logistics barometer, SA's logistics costs equated to 11.2% of GDP (i.e. 51.5% of transportable GDP) in 2014 (Havenga et al., 2016). Some potential arguments for the formation of this trough include low economic growth forecasts during that time as well as a decline in export commodity prices and high levels of political uncertainty. Despite this downturn, South Africa recovered relatively quickly, and reached a performance peak in 2016.

Being the second highest performer of the case study countries, Ukraine stands out due to their relatively gradual increase in logistics performance. An interesting observation is their high LPI in 2014 (3.0), which also happens to be the year that Russia annexed the Crimean region. In cases of such military conflict, a countrywide increase in logistics seems unexpected. But, then again it can be argued that during times of conflict, efficient logistics networks are more important than ever. Building on this argument, it can be reasoned that militaristic involvement in a country deteriorates logistics performance in the long run.

This is substantiated by a study conducted by Maiboroda, Bezuhla, Gukaliuk, Shymanska, Momont & Ilchenko (2020), where they argue that the ongoing armed conflict and military operation diminishes logistics performance over time. They also argue that Ukraine has some of the most expensive logistics costs on an international scale. Some reasons for this includes a relatively small market of logistics operators within the country, as well as the interconnectedness between economic development and opportunities for transport, - infrastructure and logistics growth (Maiboroda et al., 2020).

In the case of Namibia, their weakest LPI performance was in 2010. It can be argued that one reason for this is the aftershock of the 2007/8 recession – where weakened economic performance and – global demand dramatically decreased the use of logistics services. When looking at Namibia's peak years, it should be noted that they have succeeded in keeping a very stable LPI between 2014 and 2018. This attests to the various governmental and private sector efforts to enable growth within the country, for example the Walvis Bay port development initiative.

Lastly, looking at Georgia, their lowest scores occurred between the years of 2016 – 2018. This makes their troughs the most recent in a chronological sequence as compared to the other countries. It can be argued that this is indicative of economic

challenges facing Georgia in recent times. In particular, Georgia has been faced with various regional politic and economic issues – leading to a sharp decline in the volume of total tonnage transported (Asian Development Bank, 2017).

Another challenge for Georgia which led to the decline in demand for road, sea and rail transport is outdated infrastructure and competition from other transit corridors. This is because the Georgian transport network represents the shortest distance to transport goods overland from China to Europe (i.e. via the Southern Caucasus), but also has some of the highest transport costs in the region, as compared to other emerging transit corridors through Russia and Kazakhstan (Shepard, 2016).

Here, the potential interplay between old infrastructure and high transport costs cannot be missed. Two years before this, Georgia experienced their peak (2012). This is fascinating as it indicates a very strong comeback after the global recession of 2007/8 as well as dramatic growth since their Rose Revolution.

4.4.3 2018 LPI: Ranking Per Category

While the past two LPI sections provided a broad oversight about the case study countries' logistics performance, section 3.2.3 will narrow down on their most recent progress. Figure 5 was created by plotting each case study country's 2018 LPI in one of the five quintiles devised by the LPI Commission. These quintiles each have their own unique characteristics, namely:

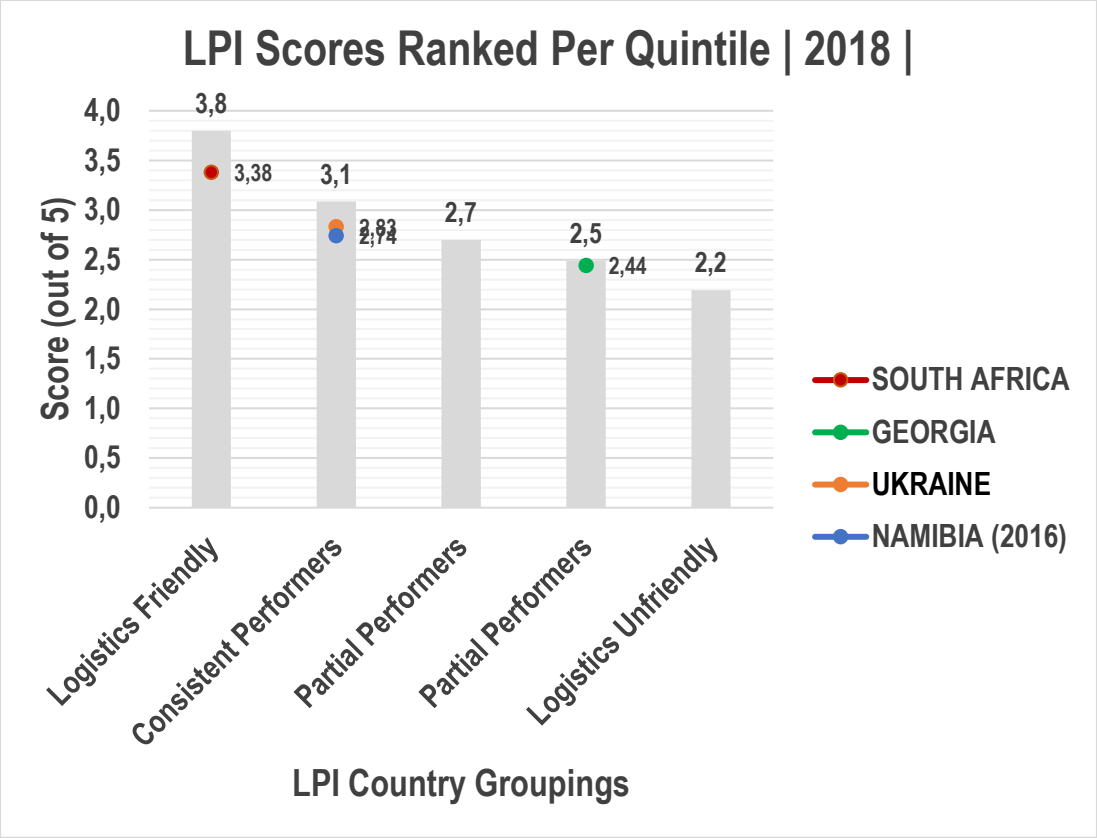


FIGURE 5: LPI SCORES RANKED PER QUINTILE, 2018
Source: Generated by A. Esterhuizen with data from (The World Bank, 2021b).

Quintile 1: Logistics Friendly Countries
Top 10: Germany; Netherlands; Sweden; Belgium; Singapore; United Kingdom; Japan; Austria; Hong Kong; United States.

Scores: 4.20 – 3.41

As global connectivity increases, the value of efficient logistics, and the link between logistics performance and economic growth becomes more important. Over the years, it has been found that a positive relationship exists between improvements in the logistics sector [and transport infrastructure investments] and economic growth (Berechman, Ozmen & Ozbay, 2006); (Martí, Puertas & Garcia, 2014); (Aydas, Ross & Parker, 2020). With this relationship in mind, it can be argued that the countries with some of the highest LPI's, also make up the world's most advanced economies. Given the strong historic performance of European countries in the supply chain industry, this list is not surprising. However, the strong logistics performance of Asian countries must also be noted – especially against the background of development.

In terms of economic development, SA and China are the only two BRICS countries listed in the top quintile. Furthermore, SA is the only case study country to rank in this category – which substantiates the assumption that SA has the best logistics and transportation infrastructure out of all four case study countries.

Quintile 2: Consistent Performers
Top 10: Thailand; Malaysia; Estonia; Turkey; Iceland; Slovenia; Chile; Panama; India; Lithuania.
Scores: 3.32 – 2.84

This quintile contains countries which show a strong logistics infrastructure development process. Developing European countries dominate this quintile – with two of the Baltic countries (Estonia and Lithuania) being top performers in this quintile. Furthermore, three out of the 12 countries on the South American continent are consistent performers, namely: Chile; Brazil and Argentina.

Half of the case study countries rank within this quintile. They are Ukraine (2.83) and Namibia (2.74). This means that despite their internal logistics challenges, the Ukrainian and Namibian logistics infrastructure are of

Quintile 3: Partial Performers
Top 10: Cote d'Ivoire; Tanzania; Serbia; Ukraine; Ecuador; Colombia; Uganda; Brunei; Peru; Uruguay
Scores: 2.82 – 2.58

As mentioned earlier, the Partial Performers' quintile contains logistics constraints most often seen in low to middle income economies. Quintile three represents the higher-performing grouping of these countries. Two out of the four case study countries fall within this category – namely Ukraine (2.83) and Namibia (2.73). The largest number of countries within this quintile are situated in Africa. However, this amount (10) is relatively small given that Africa has 54 countries – with Egypt being listed as transcontinental as it has territory in Asia. Furthermore, five other South American countries are partial performers, namely: Ecuador; Colombia; Peru; Uruguay and Paraguay.

Quintile 4: Partial Performers
Top 10: Bangladesh; Ghana; Mozambique; Nigeria; Tunisia; São Tomé and Príncipe; Honduras; Algeria; Nicaragua; Mali
Scores: 2.58 – 2.36

Quintile four represents the lower grouping of the Partial Performers Group.

Quintile 5: Logistics Unfriendly Countries
Top 10: Fiji; Venezuela; Bolivia; Madagascar; Gambia; Myanmar; Chad; Senegal; Turkmenistan; Democratic Republic of the Congo
Scores: 2.36 – 1.95

In direct contradiction to the advanced economies, this quintile comprises of some of the least developed countries worldwide. According to the 2018 LPI results, African countries and other countries in isolated areas dominate this selection. These are either fragile economies influenced by political instability, armed conflict or natural disasters or landlocked countries which faces geographical or economies of scale challenges in connection to the outside world (Arvis et al., 2018).

4.4.4 2018 LPI, Scores per Category

This sub-chapter presents an in-depth focus on the case study countries' most recent LPI performance. The 2018 LPI data has been drawn from the World Bank database – except for Namibia, where 2016 data was used as no 2018 LPI exists. The case study countries' scores have been stacked against each other in a histogram to enable comparison. In order to enable a clearer view of each country's scores per category, a table with the consequent scores have been created also. While this chapter provides a broad focus, an in-depth explanation of each country's transportation and logistics infrastructure has been provided in Chapter 5.

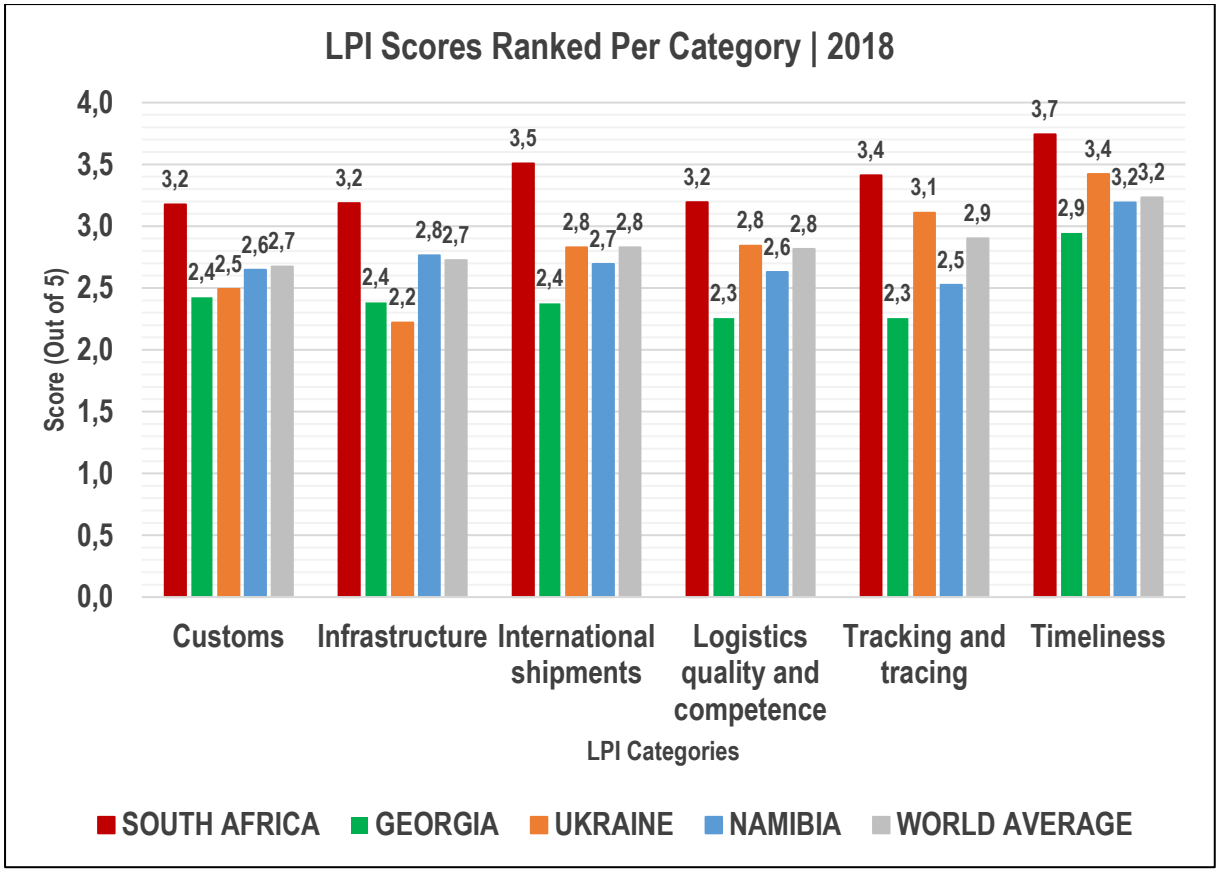


FIGURE 6: LPI SCORES RANKED PER CATEGORY, 2018
Source: Generated by A. Esterhuizen with data from (The World Bank, 2021b).

TABLE 7: 2018 LPI SCORES PER CATEGORY
Source: Generated by A. Esterhuizen with data from (The World Bank, 2021b).

	Customs	Infrastructure	International Shipments	Logistics Quality and Competence	Tracking and Tracing	Timeliness
South Africa	**3.2**	**3.2**	**3.5**	**3.2**	**3.4**	**3.7**
Georgia	2.4	2.4	2.4	2.3	2.3	**2.9**
Ukraine	2.5	2.2	**2.8**	**2.8**	**3.1**	3.4
Namibia	**2.6**	**2.8**	2.7	2.6	2.5	3.2
World Average	2.7	2.7	2.8	2.8	2.9	3.2

a) Customs

When looking at the customs score's comparison (Figure 6), South Africa has the highest customs score, whereas Georgia has the lowest. Furthermore, reflective of the findings of the average LPI from 2007-2018, South Africa performs higher than the world average, whereas the other countries are performing lower. However, customs still rank amongst three of SA's worst performing categories for the 2018 LPI. From the two BSEC case study countries, Ukraine seems to be the stronger performer in the Customs Section. Furthermore, this is one of categories where the world average is the lowest – indicating that Customs is a challenge to countries worldwide.

b) Infrastructure

With infrastructure being the focus of this chapter, the countries' infrastructure LPI scores are of great importance. Referring to Table 7, it should be noted that logistics infrastructure is in the bottom three categories for the top performing two case study country (SA), yet above world average. Infrastructure is also Ukraine's lowest scoring category – however they are performing 0.5 points less than world average.

This makes them the weakest performer in terms of infrastructure out of the four countries. Conversely, Namibia and Georgia's infrastructure are not in their bottom three categories, but both countries perform lower than the world average. However, in comparing infrastructure across all case study countries, the SADC region countries performs better than those of BSEC. Similar to Customs, the world average for this section is at its lowest – hinting at global difficulty in establishing and maintaining efficient and effective logistics infrastructure.

c) International Shipments

South Africa scores the highest in the international shipments section, as well as scoring above world average. On par with world average is Ukraine's score for international shipments. Thus, given their low logistics infrastructure quality ranking, it can be assumed that they are optimising other areas of the logistics supply process to compensate for that handicap. Namibia and Georgia perform below world average. At this point, it is difficult to pinpoint the exact reasons for these countries' low scores in this category – as their counterparts are performing relatively well and they face similar challenges.

d) Logistics Quality And Competence

In this category, the top performers are Ukraine and Namibia, with the former performing on par with the world average and the latter performing less than the

standard with 0.2 points. This category is most difficult for South Africa and Georgia. Relatively speaking, the difference between SA's top and bottom score is 0.5, where this difference is 0.6 for Georgia. It could be argued that this hints at the drastic need for improvement in this category for both countries. However, where SA still performs above the world average, Georgia is performing lower than this average – which suggests that they have the most improvements to make to reach average competence.

e) Tracking And Tracing

Here, South Africa and Ukraine are top performers – both performing above world average. In Georgia and Namibia's case, this is one of their bottom three (Georgia) or worst (Namibia) performing categories. Some potential suggestions on the reasons for these bad scores include a lack of supporting infrastructure and/or educated personnel to perform this function.

f) Timeliness

This is the top performing category for all countries for 2018/2016 (Namibia). All countries are performing above world average except Georgia, scoring 0.1 point below this average. In context, this is still an improvement as Georgia scores on average at least 0.4 points below this score. When comparing the world average scores for all categories, it must be noted that Timeliness is the highest performing category. Thus, it can be assumed that all countries who took part in this survey prioritized logistics timeliness.

A trend in the performance of the case study countries can be detected in terms of overall and 2018 logistics performance. Based on the above discussion, it is clear that South Africa and Ukraine are the strongest performing countries for the SADC and BSEC groups. Furthermore, South Africa is in general the highest performing case study country, with Georgia being the worst performing country according to these indices.

4.5 Infrastructure Assessment: Global Competitiveness Index

The Global Competitiveness Index (GCI) is an annual report published by the World Economic forum. The goal of the GCI is to determine how a country uses their available basket of resources. This in turn is influenced by various institutions, policies, and factors.

Combining these latter factors, the GCI sees competitiveness as being made up out of 12 pillars namely: Institutions; Infrastructure; Macroeconomic Environ; Health and Primary Education; Higher Education and Training; Goods Market Efficiency; Labour

Market Efficiency; Financial Market Development; Technological Readiness; Market Size; Business Sophistication and R&D Innovation.

In line with the purpose of this chapter, this section focusses on the infrastructure pillar. To research each country's quality of infrastructure, their GCI scores for this pillar have been rated and compared against the world average.

a) Quality of Railroad Infrastructure

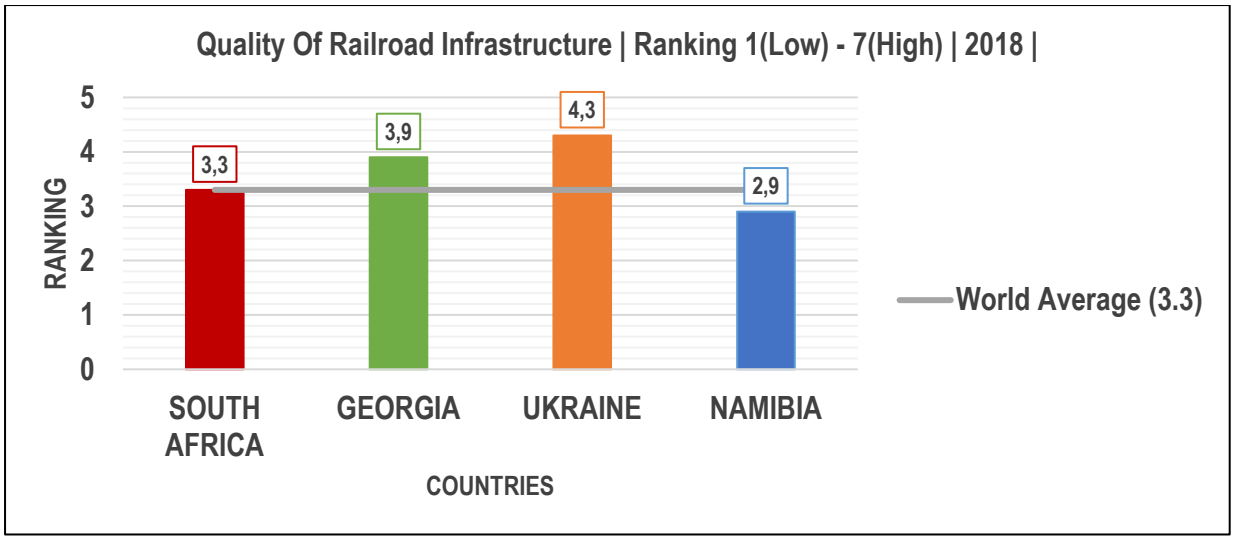


FIGURE 7: QUALITY OF RAILROAD INFRASTRUCTURE, 2018
Source: Generated by A. Esterhuizen with data from (The Global Economy, 2018a).

According to Figure 7, BSEC countries trumps SADC when it comes to railroad infrastructure quality. Ukraine (4.3) has the third largest rail network in Europe and is the top performer in this section. Georgia's (4.3) railway network is also of high quality. A potential reason for these countries' strong network qualities could be the high value of rail transport in the USSR – where these countries built forth on this system only under democratic rule. South Africa (3.3) performs on par with the world average (3.3), however, it can be argued that the South African railway network is confronted with various operational challenges which directly threatens this score. Namibia (2.9) is the worst performer in this category and performs 0.5 points below world average. Their railway network ranks in the bottom quartile of the 2018 GCI rankings for this category.

b) Quality of Roads

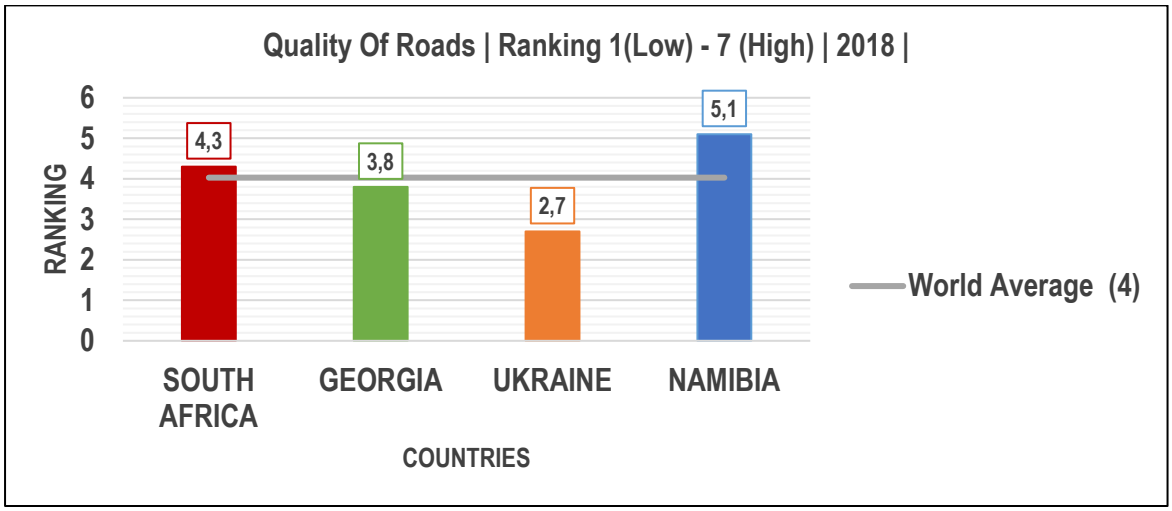


FIGURE 8: QUALITY OF ROADS, 2018

Source: Generated by A. Esterhuizen with data from (The Global Economy, 2018b).

According to Figure 8, the SADC countries score higher in terms of roads quality than the BSEC countries. Namibia (5.1) has the highest quality roads on the African continent, as well as out of the four case study countries. Although their network is by far not the most expansive, those roads that are asphalt are in very good condition and their gravel roads are very well maintained. South Africa (4.3) also ranks above the world average (4). Georgia (3.8) ranks 0.2 points below world average, with Ukraine (2.7) being the worst performer in this section. Ukraine has one of the lowest roads qualities out of the 137 GCI countries- ranking 127th.

Thus, it can be concluded that the SADC case study countries have a higher roads quality than the BSEC countries. It can be argued that a higher quality road network dramatically improves logistics efficiency as freight forwarders are not hindered by infrastructural challenges such as potholes or a lack of access. However, as described in the Annex, Georgia and Ukraine are both committed towards improving their roads networks through various strategies. Here, the potential influence of the Chinese Belt and Road Initiative (BRI) must also be considered. As more countries sign the Memorandum of Understanding with China, thus becoming part of this network, they also increase their chances of benefitting from the trade movements across the globe.

In South Africa and Namibia's case, they would serve as gateways into Africa, as well as connecting Southern Africa with the East and West via the BRI. In Ukraine and Georgia's case, they could benefit by forming logistics hubs for the transfer of goods between Europe, Russia, Scandinavia and the East.

c) Quality of Port Infrastructure

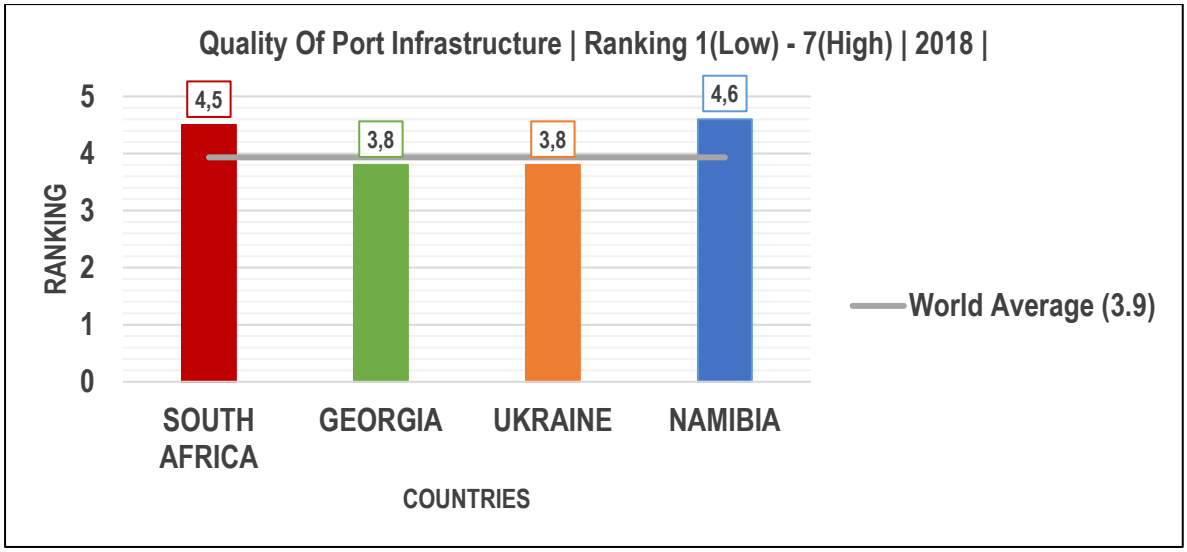


FIGURE 9: QUALITY OF PORT INFRASTRUCTURE, 2018

Source: Generated by A. Esterhuizen with data from (The Global Economy, 2018c).

In 2018, the SADC countries ports performed higher in the infrastructure category than their BSEC counterparts as seen in Figure 9. Where the Namibian (4,6) and South African (4,5) ports scored close to one another – and at least 0.5 points above world average (3.9), Ukraine (3,8) and Georgia (3,8) both scored 0,1 point below world average.

One potential reason for the lower BSEC GCI scores in this category could be funding constraints – thus limiting infrastructure maintenance and improvement projects as is the case for Georgia's Ankalia port development project. Also, with both Ukraine and Georgia's ports being situated in the Black Sea, the Bosporus strait could be viewed as a potential deterrence for maritime traffic given the strict entry requirements.

It can be argued that this strait essentially hinders Ukraine and Georgia's maritime sectors from accessing other maritime regions, thus limiting their operations to the Black Sea. Although these countries can and does partake in further maritime activities elsewhere, they arguably have to do more to reach those areas as they are not directly connected to them via a large ocean like SA and Namibia are connected to Asia via the Indian Ocean.

d) Quality of Air Transport Infrastructure

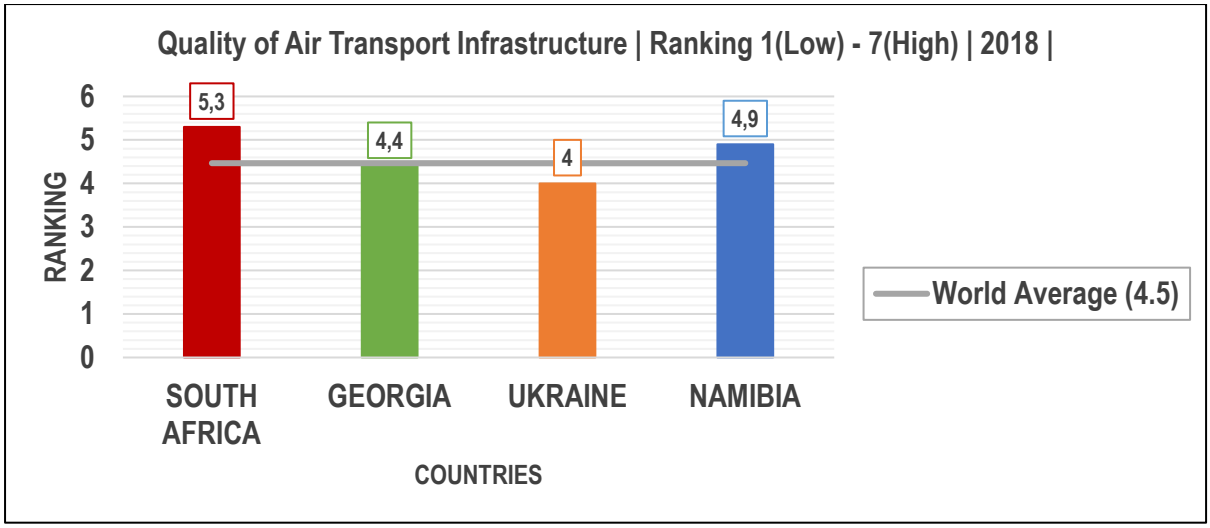


FIGURE 10: QUALITY OF AIR TRANSPORT INFRASTRUCTURE, 2018
Source: Generated by A. Esterhuizen with data from (The Global Economy, 2018d).

According to Figure 10, the SADC countries outperforms BSEC when it comes to air transport infrastructure quality. South Africa (5.3) is the top performer in this section, with air transport infrastructure ranking in the top quartile of the 2018 sample. Namibia's airports quality (4.9) also scored well above world average (4.5). Georgia (4.4) and Ukraine (4) both performed below the world average. Elaborating on these scores, it must be noted that the pandemic has dramatically impacted all countries' ability to improve on their scores.

However, it can be argued that the case study countries could see an uptick in the demand for air transport as the world's borders are gradually reopening. According to IATA, in 2021 air cargo volumes rose by 18.7% year-on-year, making this the second best yearly performance to date, behind 2010 – as well as having volumes 3.5% higher than before the pandemic (IATA, 2021). Focussing on the SADC and BSEC countries, this could arguably mean more opportunities for trade and relations development as the world gradually re-opens its borders.

e) GCI Conclusion

TABLE 8: GCI 2018 SUMMARY
Source: Generated by A. Esterhuizen.

Country	Quality of Roads	Quality of Railroad Infrastructure	Quality of Port Infrastructure	Quality of Air Transport Infrastructure
South Africa	**4.3**	**3.3**	**4.5**	**5.3**
Georgia	3.8	**3.9**	3.8	4.4
Ukraine	2.7	**4.3**	3.8	4
Namibia	**5.1**	2.9	**4.6**	**4.9**

World Average	4	3.3	3.9	4.5

Table 8 presents a holistic approach to each country's GCI scores per transportation mode. Building on this, it is evident that the SADC case study countries have higher quality transportation infrastructure in general. This is because South Africa and Namibia ranks higher than their BSEC counterparts in three out of the four GCI Infrastructure categories, namely: Roads -; Ports and Airport infrastructure. The only sector where BSEC trumps SADC is railroad infrastructure. Furthermore, where South Africa and Namibia usually performed above the world average, Ukraine and Georgia on average performed below world average.

It could be argued that this is indicative of many opportunities for growth and improvement in these lagging sectors in the BSEC case study countries. Lastly, while the infrastructure of these countries are being compared against one another, it should be noted that the final goal of this study is to investigate potential opportunities for increased trade and involvement. Therefore, these comparisons of infrastructural quality should be seen as a guideline to influence future chapters instead of a final separator between SADC and BSEC.

CHAPTER 5

IN-DEPTH ANALYSIS OF SADC AND BSEC TRANSPORTATION INFRASTRUCTURE

5.1 In-Depth Analysis of SADC & BSEC Infrastructure: Summaries

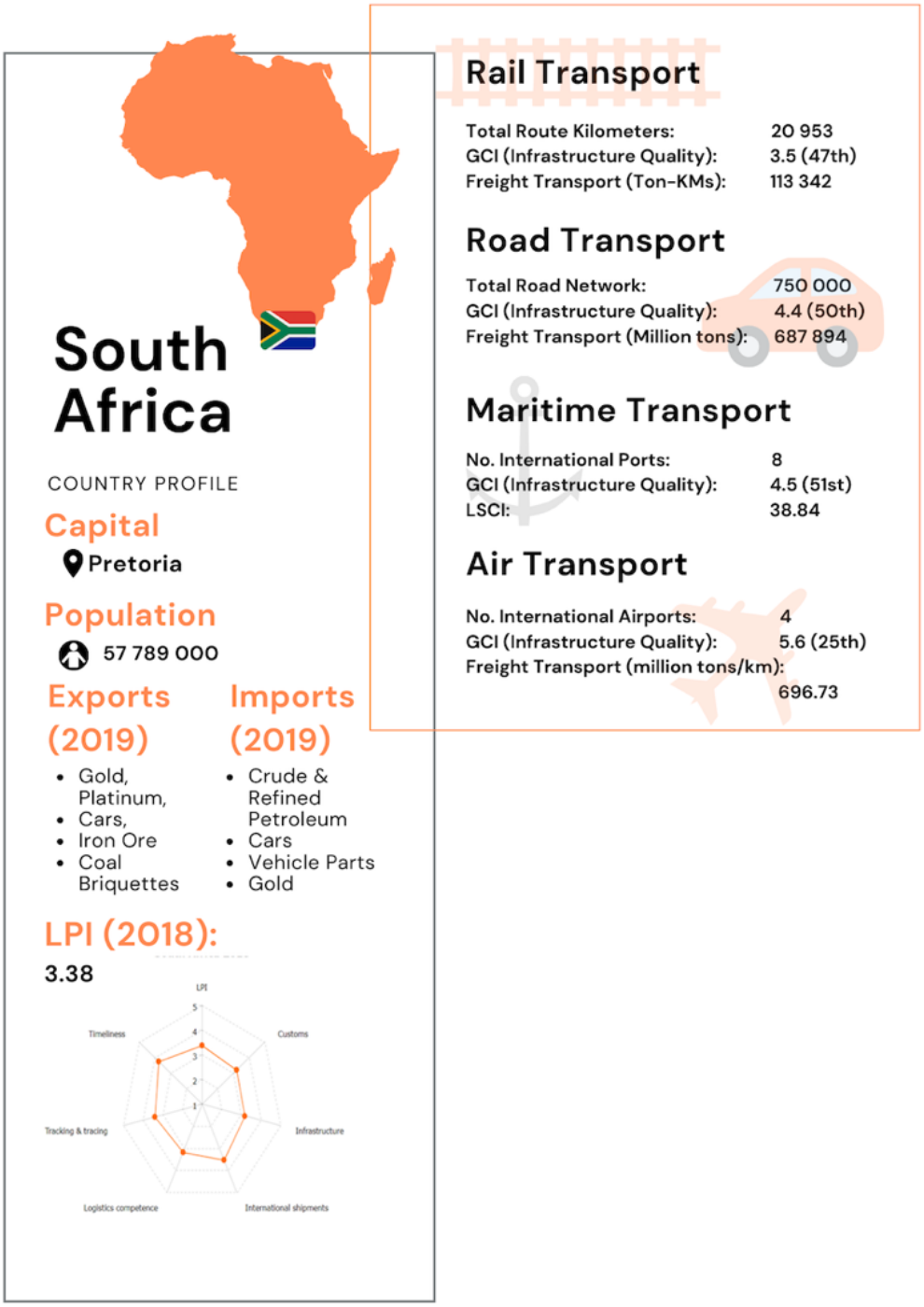


FIGURE 11: SUMMARY OF SOUTH AFRICA'S TRANSPORT INFRASTRUCTURE
Source: Generated by A. Esterhuizen with data from Chapters 4 & 5.

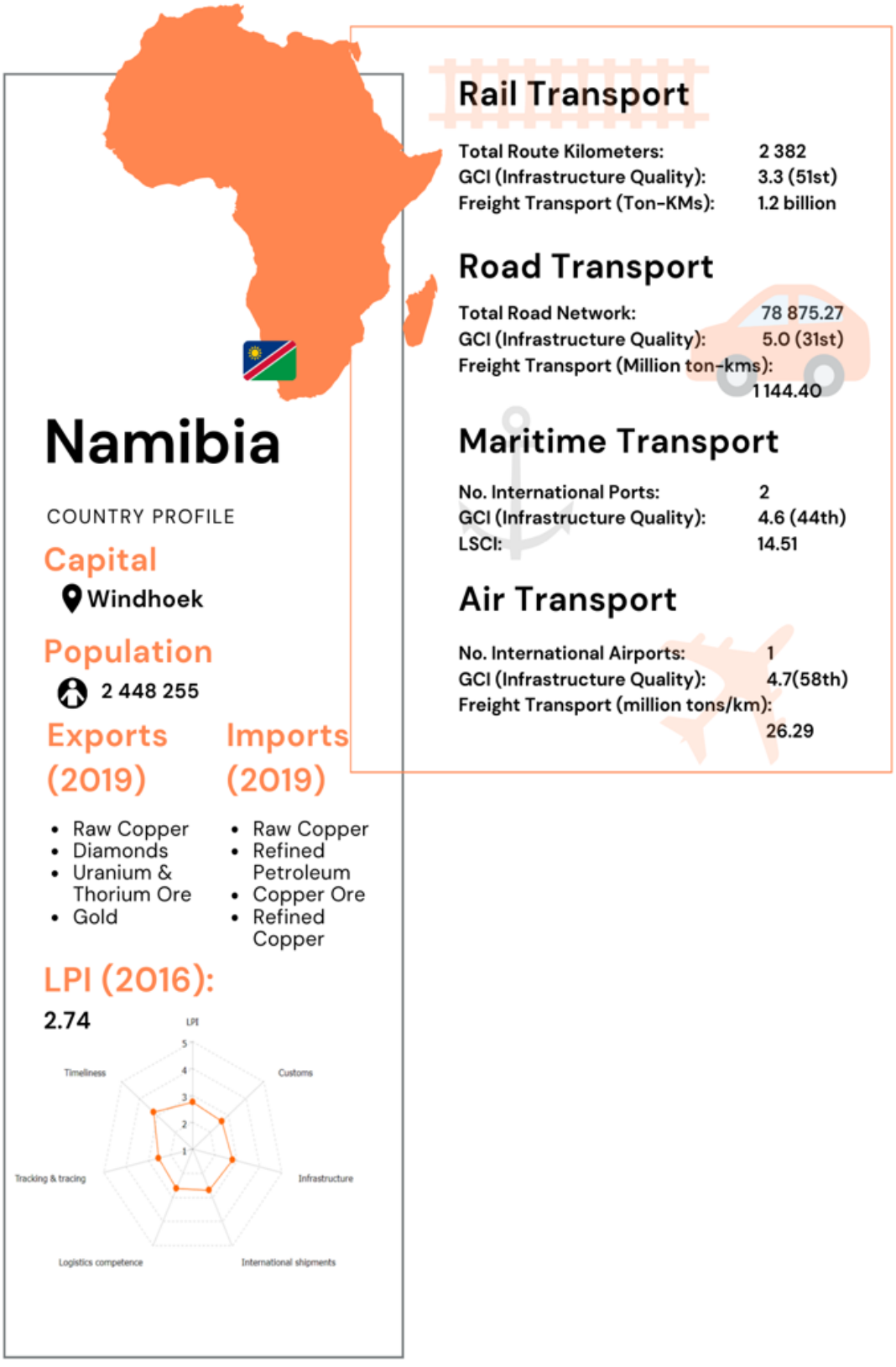


FIGURE 12: SUMMARY OF NAMIBIA'S TRANSPORT INFRASTRUCTURE
Source: Generated by A. Esterhuizen with data from Chapters 4 & 5.

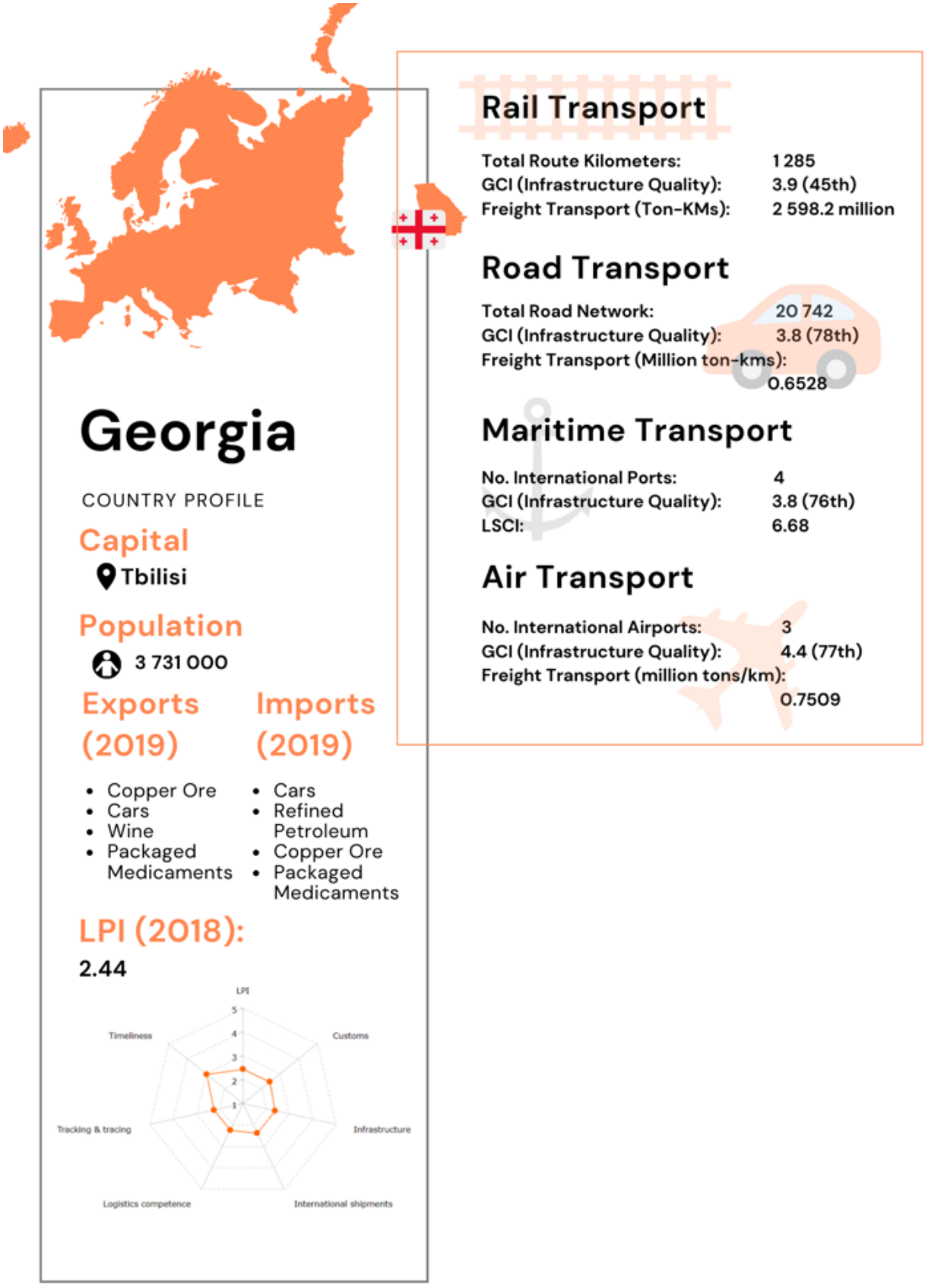


FIGURE 13: SUMMARY OF GEORGIA'S TRANSPORT INFRASTRUCTURE
Source: Generated by A. Esterhuizen with data from Chapters 4 & 5.

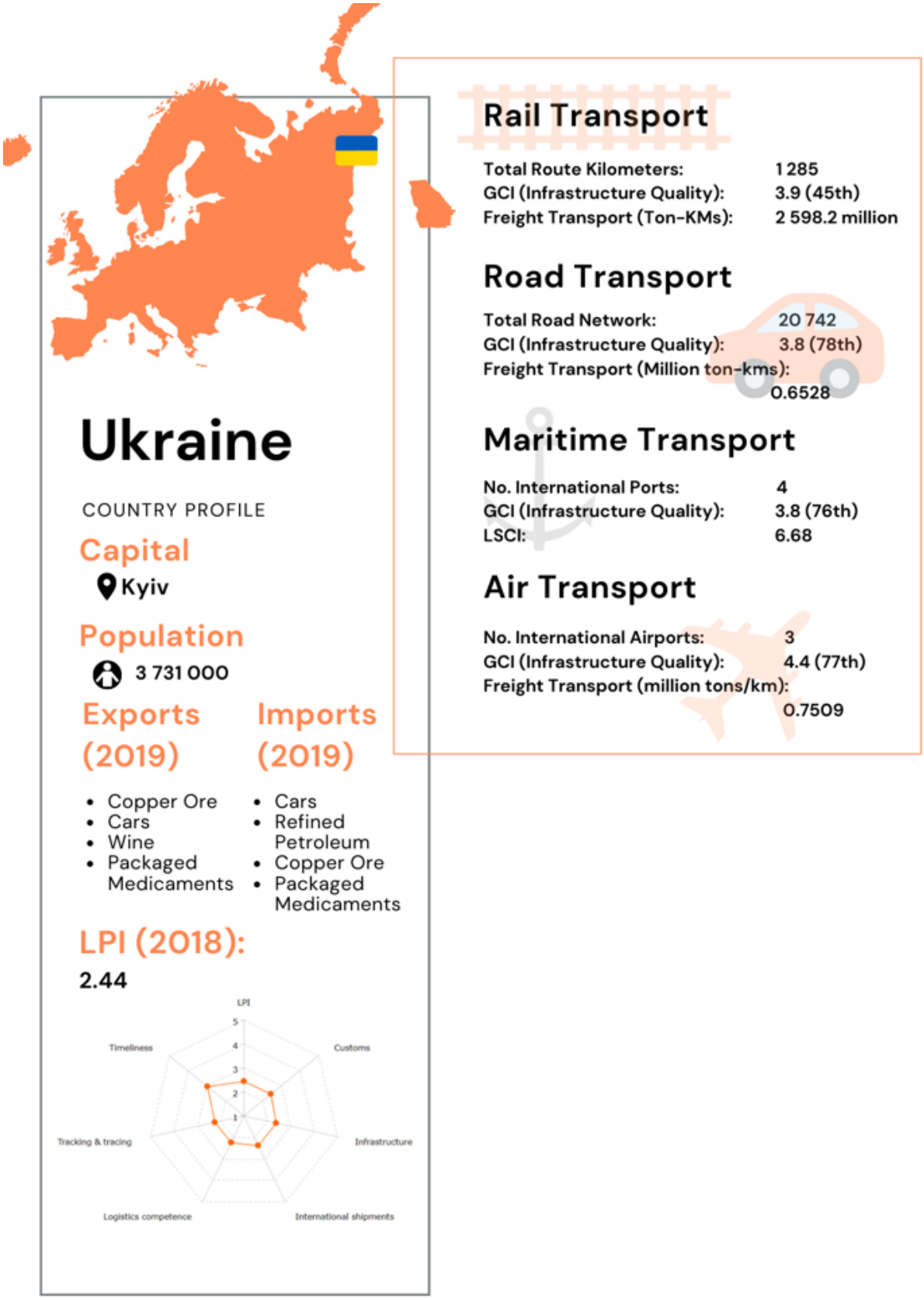


FIGURE 14: SUMMARY OF UKRAINE'S TRANSPORT INFRASTRUCTURE
Source: Generated by A. Esterhuizen with data from Chapters 4 & 5.

5.2 In-Depth Analysis of SADC & BSEC Infrastructure per Case Study Country

5.2.1 South Africa

FIGURE 15: MAP OF KEY TRANSPORT NETWORKS IN SOUTH AFRICA
Source: Generated by A. Esterhuizen

South Africa sits at the Southern tip of the African continent and is bordered by the Atlantic and Indian Oceans, as well as sharing land borders with Namibia; Botswana; Zimbabwe and Mozambique. The country has an estimated population of 59.31 million. As per Figure 15, some of the largest cities include Pretoria (capital), Johannesburg, Cape Town, Durban and Bloemfontein. South Africa is one of the most affluent countries in sub Saharan Africa, as well as in Africa. The country is rich in natural resources such as gold, ore and coal. Their economy is considered as developing and falls within the Low to Medium income level.

LPI

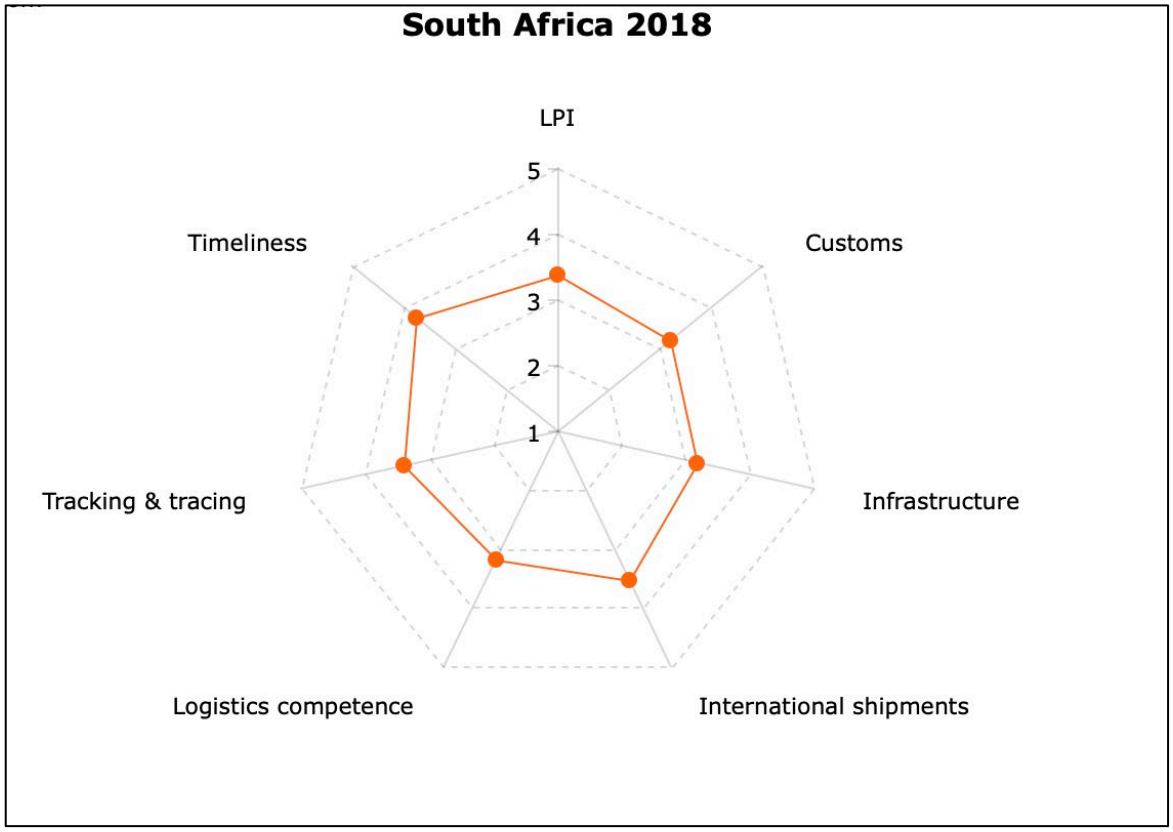


FIGURE 16: SA LPI 2018
Source: (The World Bank, 2018a)

In terms of logistics performance, SA ranks at the top of all the SADC and BSEC case study countries. Furthermore, South Africa's LPI score of 3.38 places this country 33rd out of 160 countries in 2018. This is a decline of 0.40 points out of the 167 countries measured in 2016. However, holistically speaking, South Africa is seen as a logistics over performer and (along with China) the only emerging market listed in the global top 30 for a timeframe of 2010 – 2018.

Ranking performance by category, Figure 16 shows SA's LPI scores for 2018. SA's Timeliness category has the highest rating (3.85), followed by Tracking & Tracing (3.56); International shipments (3.53); Logistics Competence (3.42), Infrastructure (3.29) and Customs (3.29). From these ratings, it is evident that infrastructure ranks in the bottom quartile. Given SA's over performer LPI status, this bottom quartile ranking should be interpreted as a benchmark to measure future performance against, instead of being viewed as singular facet.

However, this low infrastructure ranking is still a major improvement from 2014, due to increased spending from the government and private sectors helped the infrastructure quality score increase to 3.29 from a score of 3.20 in 2016. Furthermore, it can be argued that South Africa's overall logistics performance is on par with other

BRICS countries – where SA consistently ranks second (behind China) in all categories for 2018.

In focussing on the infrastructure category, some of the challenges in SA's infrastructure and logistics landscape include:

a) **Geographic and Economic Constraints:** According to Havenga, De Bod, King & Braun (2016), SA's long distance from trading partners; long inland transport distances [geographic constraints] & an overreliance on un-beneficiated exports as well as an economy which is much smaller- and growing at a slower pace - than other BRICS countries [economic policy constraints] drastically influence logistics competence. Building on this, SA produces less than 0.5% of the world's GDP, but requires 2% of the world's surface freight tonne-kilometres to do so (Havenga & Pienaar, 2012).

   Furthermore, one third of South Africa's gross value-add is concentrated in Gauteng, which is 570km from the Port of Durban (which hosts the largest container terminal in the country). Also, most of SA's non-containerised export activity (minerals and metals) occurs inland. Thus, it can be argued that these geographic result in the erosion of comparative advantages in resources and other areas by high transport costs.

   The economic constraints has an indirect impact on transport infrastructure provision as it limits the country's ability to provide and maintain transportation infrastructure, as well as placing further pressure on the private sector to compensate for these shortcomings.

b) **2000's Recession:** One of the most noteworthy external shocks for SA is the 2008 – 2010 financial crisis, where various market factors limited and still limits SA's ability to fully absorb and overcome this shock. The effect of this shock is visible in South Africa's economic growth rates. This is because before the crisis, South Africa was achieving economic growth rates of over 5%, where in the period thereafter (2010 – 2018), maintaining a rate of 2% is a challenge.

   It can be argued that some of the main causes of SA's restricted growth [and an inability to bounce back] can be attributed to insufficient infrastructure. Other factors such as a highly concentrated product market, a lack of business confidence, labour market problems and poor governance are also contributors. Of these factors, the infrastructure gap is of particular concern due to underinvestment from the South African government's side.

   According to Dr Rashad Cassim of the South African Reserve Bank, before the crisis SA was already only investing and equivalent of 23% of GDP into infrastructure – where a minimum of 30% was required for SA to meet its

developmental needs (Deloitte, 2018). This caused a snowball effect where, after the crisis (where the infrastructure was needed most to support and uplift the country), it was unavailable.

In linkage with the LPI, it is important to note that although SA has a relatively high score, much can and must still be done to ensure the right amount of investments are made into infrastructure as a means to ensure long term growth and development.

Therefore, in synthesising the above information, although SA ranks relatively high in terms of logistics performance, infrastructure still remains a large area of improvement. Within this context (as compared to 2008 where the available infrastructure contributed to a high economic growth rate), SA's transportation and trade infrastructure still warrants an investigation. This is needed to gain a better understanding of the current infrastructure landscape, as well as to highlight future areas for improvement. The following section will investigate quantity, quality and overall accessibility of South Africa's transportation infrastructure.

South Africa Logistics Infrastructure Landscape

TABLE 9: SOUTH AFRICA LOGISTICS INFRASTRUCTURE LANDSCAPE
Sources: Table created with data from (International Union of Railways (UIC), 2018); (World Economic Forum, 2018); (The World Bank, 2018b); (Transnet, 2019); (UNCTAD, 2018b); (IATA, 2021), (The Global Economy, 2018d); (The Global Economy, 2018c); (The Global Economy, 2018a); (The Global Economy, 2018b); (UNCTAD, 2018b).

Mode of Transport	Total Network	GCI Infrastructure score and rank	No. of Goods Transported
Rail	**20 953** Route Km	**3.5 (47th)** Out of 101 countries	**113 342** Million Ton-Kms
Road	**750 000** Km	**4.4 (50th)** Out of 137 countries	**687 894** Million Tonnes
Sea	**8** International Seaports	**4.5 (51st)** Out of 137 countries	**38.84** Avg. LSCI 2018
Air	**4** International Airports	**5.6 (25th)** Out of 137 countries	**696.730006** Million tonnes/km

Rail Sector

South Africa has one of the most extensive rail networks on the continent. The public sector freight and passenger rail sectors are respectively managed by two state-owned organisations namely Transnet and the Passenger Rail Agency of South Africa. Transnet Freight Rail is one of the main divisions of Transnet, and oversees the management, maintenance, and operation of the national freight network. Five rail freight corridors (Figure 15) make up the South African rail network, namely: Cape Corridor, Central Corridor, Natal Corridor, North Corridor, North-East Corridor and a dedicated Ore Line. This freight rail network consists of 30 400 track kilometres and 20 953 route kilometres (International Union of Railways (UIC), 2018). The core network spans 12 801 km, with branch lines spanning 7 278 (Transnet, 2021).

Furthermore, 1 500 kilometres of the core network comprises heavy haul lines for the export of coal, iron ore and manganese (Transnet, 2021). These lines are of great importance as enablers of the bulk export of iron ore, coal and manganese.

According to the 2018 Global Competitiveness Index, South Africa's rail infrastructure quality had a score of 3.5 – ranking 47th in the world (Table 9). Although the railway in South Africa is of average quality, the two heavy haul lines (Saldanha-Sishen & Johannesburg -Richard's Bay) for coal and iron exports accounts for 60% of the volume density (tonne/km) and 56% of total domestic tonnage (Pieterse et al., 2016). In 2018, SA's rail freight shipments amounted to 113 342 million ton-kilometres and up until 2016, South Africa handled approximately 74% of Sub-Saharan freight traffic (Transnet, 2016).

Thus, given the importance of the two heavy haul lines, it can be argued that any constraints to/ and disruptions of these railway lines can have a drastic impact on the country's economy. This also links with South Africa's ports performance. Looking at Rail and Sea trade infrastructure in Table 9, it can be argued that a mismatch between rail and port capacity would further impede export performance of the country.

Between 2019 and 2020, Transnet recorded a 34.9% decrease in net profit to R3.9 bn, despite an increase in revenue of 1.3% to R 75 bn. During this time, some of the largest influencers of this revenue drop include (Burroughs, 2020):

- A 1.3% decline in freight volumes and a 2.4% drop in port container traffic.
- Weakening economic conditions and reduced demand (especially in the construction and manufacturing industries) ;
- Poor operational performance (drastically influenced by electricity shortages, deficient electrical signalling and telecommunications challenges) and
- Poor network conditions on key corridors which is influenced by rising security challenges, maintenance backlogs and adverse weather conditions.

Road Sector

South Africa's has the 10th longest road network in the world. The South African Roads Agency is responsible for the management of this network. This network spans 750 000 km – of which 158 124 km (21.08%) are paved, 459 957 km (61.3%) are gravel and 131 919 km (17.5%) are un-proclaimed (SA Departement of Transport, 2016). Therefore, it is evident that the largest part of the South African road network is unpaved – which naturally poses some accessibility and sustainability constraints to exporters.

According to the 2018 GCI, SA's roads rank 50th globally, with a score of 4.4 (Table 9). Although scientific evidence is limited, SANRAL has argued that the proportion of the national road network which is older than its initial design-life has increased from 36% in 2008 to 78% in 2014 – with an estimated maintenance backlog of R 197 billion (Kannemeyer, 2014). This increasing maintenance backlog could be one influencer of South Africa's decreasing road quality rank – having dropped 12 ranks between 2007 (38th) and 2017 (50th).

Building on this, the prominence of road transport industry in SA is largely due to the country's unique geographical characteristics and a decline in demand for rail transportation. This is because SA's primary centres of production are located inland. In 2018, the road network accounted for the majority of inland freight transportation at 687 894 million tonnes being transported (Table 9). However, one of the major drawbacks of countries like SA's spatial distribution is the high costs associated with transportation. According to the 2014 logistics barometer, inland logistics costs accounted for 42% of total international trade logistics costs for South Africa (Havenga et al., 2016).

Ports Sector

South Africa has 8 major international ports, all of which are operated by Transnet National Ports Authority. As seen in Figure 15, all of these ports can be accessed via the three main national roads namely the N1, N2 and N3. The cargo handling capabilities of each port are as follows (Transnet, 2019):

Port of Cape Town: Containers; Automotive & Bulk.
Port of Saldanha: Break-Bulk & Bulk.
Port of Mossel Bay: Bulk.
Port of Port Elizabeth: Containers; Automotive; Bulk & Break – Bulk.
Port of Ngcura: Containers & Bulk.
Port of East London: Containers; Automotive; Bulk & Break & Bulk.
Port of Durban: Containers; Automotive; Bulk & Break & Bulk.
Port of Richards Bay: Break-Bulk & Bulk.

In terms of container transport, the ports of Durban and Cape Town handle the most containers in SA. On the other hand, the ports of Richard's Bay and Saldanha are two of the main break-bulk ports. The latter ports handles the export of many of SA's natural resources such as iron ore, manganese, and coal. Together, all of these ports accounted for a combined container throughput of 4.9 million TEUs (CEIC, 2019).

Expanding on this, the South African ports infrastructure obtained a score of 4.5 in 2018 (Table 9). This places placing the SA ports in the same league as those of China (47th); Croatia (48th); Italy (49th); Jamaica (50th); Switzerland (inland ports infrastructure – 52nd) and Turkey (53rd). However, this score of 4.5 is a decline of 0.4 points since 2016 (4.9).

Although the SA ports have a relatively high ranking worldwide, some of the challenges faced by these ports include:

a) **Sub-Par Container Port Performance:** In 2020, the ports of Durban, Ngqura and Cape Town were rated amongst the worst-performing container ports in the world. This is significant because before the COVID-19 pandemic, Durban was Southern Africa's busiest container port. Furthermore, it is a bad sign that three of SA's eight ports are listed amongst the global worst performers. According to Bloomberg, some of the key contributors to these ratings include a lack of efficiency and the high costs of logistics (Burkhardt, 2020).

   In a World Bank study of 10 African container terminals (including Durban), it was found on average these terminals are less than half as productive as the most efficient ports in the world (Humphreys et al., 2019). Furthermore, it is estimated that moving a unit (such as a container) is 1,5 to 3,5 times more expensive in Africa than in other comparable high-volume trade routes over a similar distance (Botes & Buck, 2018).

b) **Government Level Inefficiency and Corruption:** It can be argued that this shortcoming leaves SA ports vulnerable to various forms of exploitation. It is estimated that the average South African firm spends six percent of their overall management time capacity in dealing with government officials (Aterido & Hallward-Driemeier, 2010). Some sources argue that this inefficiency is greatly due to the unorganised structure in which government tasks are allocated and monitored in SA. It is well known that corruption is a common issue in SA (and on the African continent), where it is estimated that yearly bribes are equivalent to a 14% rise in total shipping costs (Sequeira & Djankov, 2014).

c) **Cyber Security:** Another drastic example of exploitation is the July 2021 cyber-attack on the container terminals of Cape Town-; Durban-; Port Elizabeth-; and Ngcura. According to the South African Institute for Security Studies, this attack was the most drastic in the South African maritime history. That is because it

disrupted the Navis container operating system – which controlled the acceptance and release of containers (Reva, 2021). This forced the ports to fall back on manual processing. Evidently, this limited the efficiency of port operations and led to an extended backlog and increased cargo dwell times.

Airports Sector

The four main international airports in South Africa are: O.R. Tambo International (Johannesburg); Cape Town International (Cape Town); King Shaka International (Durban) and Bram Fischer International (Bloemfontein). The Airports Company South Africa owns and operates nine principal airports in SA, of which these airports form part of. In terms of infrastructure quality, SA ranks 25th out of 137 countries (Table 9). This places the country within the top quartile in terms of global airport competitiveness.

The air-freight sector plays a key role in SA's economic development. As seen in Table 9, air freight accounts for approximately 696,73 million tons per km (The World Bank, 2018b). According to International Air Transport Association (IATA), the SA air transport industry (including airlines and related supply chains) accounts for approximately US $5.2 billion of GDP (IATA, 2018).

In 2018, air freight accounted for the transportation of approximately 696.73 million ton-kilometres (Table 9). Therefore, the overall value of this industry cannot be overstated. This is true especially given SA's position in the Southern hemisphere, making air transport a valuable mode for passengers and freight from the Northern hemisphere (where the bulk of global transport flows lie).

Given this strategic importance, it is crucial for this sector to remain operational and to identify and overcome challenges as they appear. At present, some of the main challenges to the air transport sector in SA include:

a) **Business Rescue Of South African Airlines (SAA):** After a lengthy process of bankruptcy proceedings (where its planes were grounded for over a year and the workforce was decreased by 80%), SAA has announced the sale of this airline in June 2021 (Sguazzin, 2022). Thus, the placement of SA's national carrier in business rescue not only limited passenger and freight movements from/into SA, but also impacted investor confidence. Although the future path of SAA is unclear, it arguably plays a key role in Southern Africa's air transport market. This means that its absence would undoubtedly be felt by consumers.

b) **Liquidation Of Comair:** On June 9 2022, Comair, South Africa's oldest airline as well as British Airways franchisee, filed for liquidation after a struggle to raise the needed funds to remain operational (Phakathi, 2022). Besides scheduling flights for British Airways, Comair also ran a low-cost subsidiary named Kulula

Airways. After Safair, Comair was the country's second largest operator and it is estimated that the country has lost a third of its domestics flight capacity, along with 19 000 domestic flights between June 2022 and December 2022 (Pearson, 2022).

c) **Low Air Connectivity within The African Continent:** Although many African countries adopted the Yamoussoukro Decision of 1999, the implementation thereof has been slow and limited. This has arguably caused the potential benefits of liberalising intra-African air markets to remain largely unrealised (InterVISTAS Consulting Ltd., 2014). Building on this, the business rescue of SAA and the liquidation of Comair has arguably made a negative impact on the accessibility of these destinations. Both of these carriers offered flights to other important destinations in such as Harare, Windhoek and Gaborone.

In conclusion, it is evident that the SA logistics and transport sectors are important contributors to economic growth and enablers of international trade flows. Here, some of the key challenges include connectivity issues, management and government inefficiency as well as poor network conditions. In order for these sectors to improve operations in future, the challenges mentioned above will have to be addressed.

5.2.2 Namibia

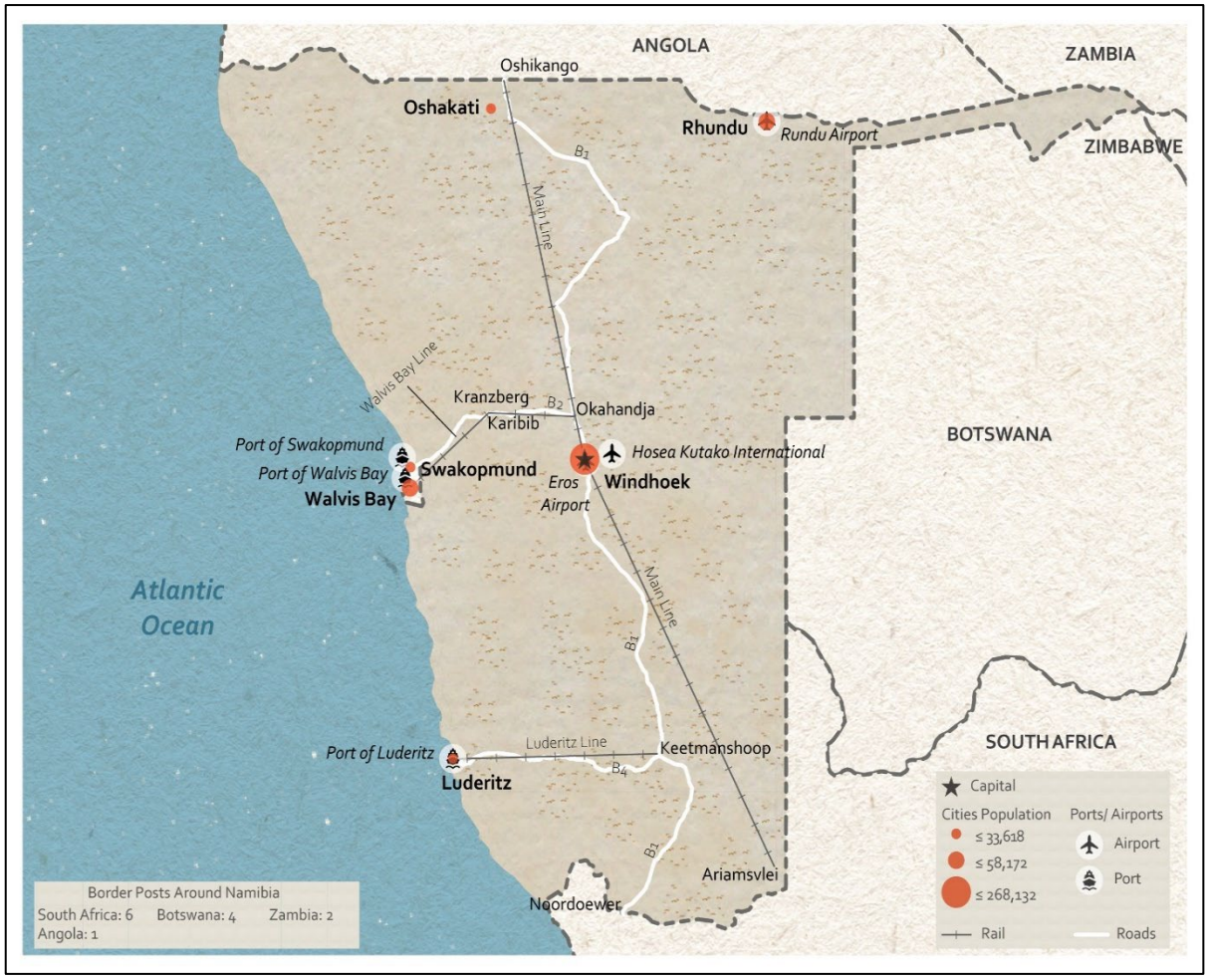


FIGURE 17: MAP OF KEY TRANSPORT NETWORKS IN NAMIBIA
Source: Generated by A. Esterhuizen.

Namibia is in Southern Africa, bordering the Atlantic Ocean to the west, and sharing land borders with Angola; Zambia; Botswana and South Africa. Their population was estimated at 2 448 million in 2018. Windhoek is the capital city and two other prominent cities are Swakopmund and Walvis Bay. Namibia is also considered to be the driest country in Sub Saharan Africa. It is rich in mineral resources such as uranium and diamonds. Their economy is considered as developing and falls within the Low to Medium income level.

LPI

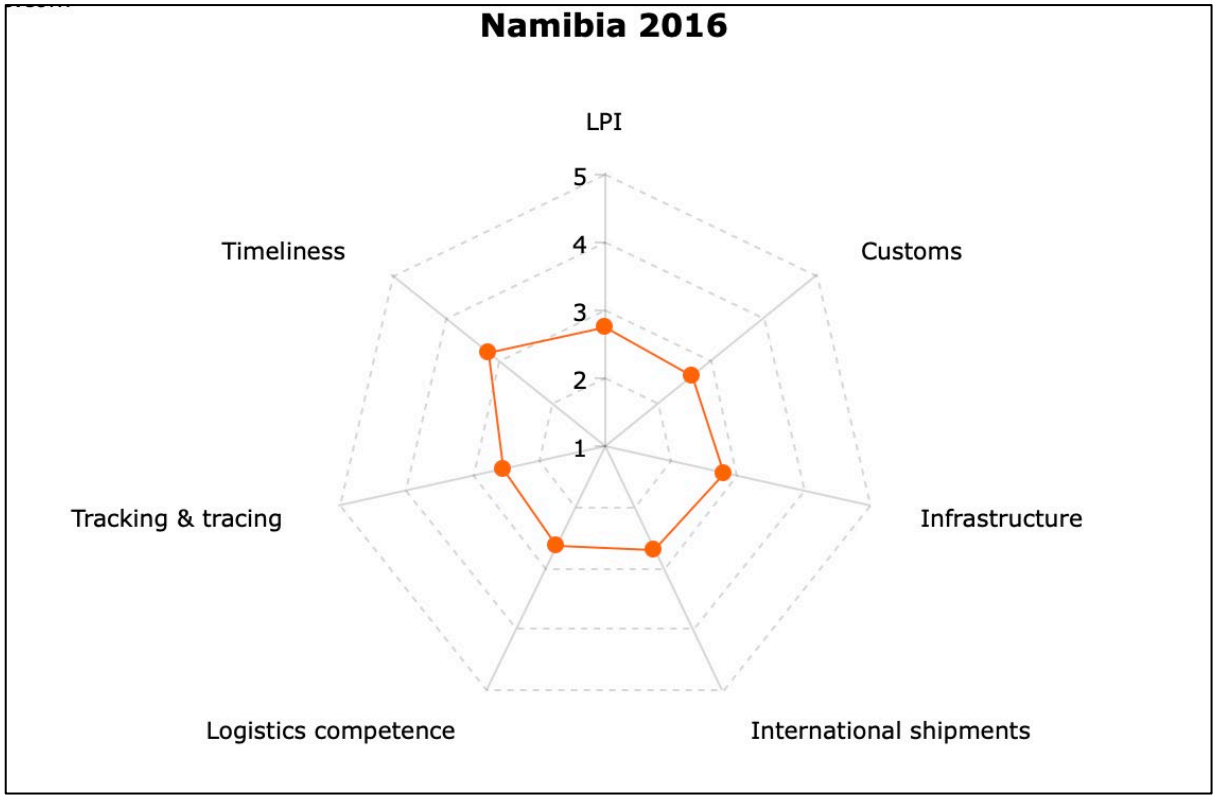


FIGURE 18: NM LPI 2016
Source: (The World Bank, 2016)

Given the unavailability of data for the Namibian LPI in 2018, the LPI for 2016 was used.

In 2016, Namibia's overall score on the LPI was 2.74, ranking 79th out of 160 countries. This placed Namibia in the second quartile of global logistics performance. Compared to 2014, Namibia's LPI increased with 8 points (from a score of 2.66 and rank of 93). Focussing on the individual 2016 data, Namibia scored accordingly in each category (Figure 18): 1 - Timeliness (3,19) , 2- Infrastructure (2,76) , 3- International Shipments (2,69) , 4 - Customs (2,65) , 5 - Logistics Competence (2,63) , 6 - Tracking & Tracing (2,52).

Here, it is evident that Namibia has a comparatively high infrastructure score. This means that the available infrastructure within the country (as compared to the other performance indicators) is deemed as effective in facilitating the necessary movement of goods. This score places Namibia's overall infrastructure performance on par with the other sub-Saharan countries (with the exception of South Africa and Mauritius, which are high performers in terms of infrastructure in Africa).

Some of the main challenges to the Namibian logistics and infrastructure landscape include:

a) **Population Sparsity & Long Distances Between Cities:** Namibia is one of the least densely populated countries in Sub-Saharan Africa, with an average density of 2,5 people per square kilometre – as compared to 34 per square kilometre for the region as a whole (The World Bank, 2009).

   It can be argued that this sparse population, together with the long distances between cities (Figure 17) serve to increase transportation and logistics costs. A severely underdeveloped public transport system potentially exacerbates these issues since passengers and freight are competing for the same road space. Another factor influencing this goods movement is the geographical layout of Namibia, where the Namib desert takes up the largest part of Western Namibia.

b) **Heavy Reliance on South Africa to Facilitate the Movement of Goods for Domestic Consumption (And Exports):** This geographical limitation, along with strong trade connections between Namibia and SA means that imports from SA forms a cornerstone of the Namibian economy. These South African goods are important to Namibians on both a domestic and international level. This is because many South African products are either consumed by the locals or transformed into new products and exported.

   In general, South Africa is Namibia's main source of imports, accounting for approximately 45.3% of total imports (Namibian Statistics Agency, 2019). Although Namibian regulation specify that a small percentage of fresh produce must be bought domestically, Namibian locals argue the artificiality of this regulation as many of the local suppliers import most of their produce from South Africa in anyways (Savage, Fransman & Jenkins, 2013). In line with the core reasoning of this study, Namibia can be seen as over reliant on trade with South Africa and therefore it could be beneficial for the country to expand their export and import basket.

Although limited research exists on the influence of external shocks on the Namibian economy, some studies have concluded on the reasons why Namibia is vulnerable to these shocks. During the Global Financial Crisis of 2008-2010, the Strategy and Policy Unit of the World Bank (2010) determined the four main channels through which Namibia is vulnerable to external shocks. In applying these channels to the 2007-2018 timeframe, the following table denote the present-day reality for Namibia (United Nations Development Programme, 2010)[1]:

[1] After experiencing economic growth on par with other SADC countries between 2009-2015, Namibia fell into a recession in 2016 – and has struggled to recover ever since. This explains any potential discrepancy between the channels argued by the World Bank (2010) and the current realities faced (2015 – 2018).

a) **High Degree of Economic Openness:** In 2018, Namibia recorded a foreign trade to GDP ratio of 81.60% (MacroTrends, 2018). This means that the Namibian economy is highly dependent on trade with other countries for growth. However, this very high ratio hints at an overdependence.

b) **High Dependence on Trade in a limited pool of commodities, with a few major partners:** In 2018, South Africa was Namibia's largest single market import partner and second largest market for exports (Observatory of Economic Complexity, 2018).

   Other major partners for Namibia include China, the European Union and countries within the SADC region. Mineral exports is one of Namibia's key contributors to GDP. This sector is seen as the backbone of the Namibian economy – making one of the largest contributions to GDP; job creation and foreign exchange earnings in the country (Nambinga & Mubita, 2021).

c) **High Reliance on Foreign Direct Investments (FDIs):** Although this was the case before Namibia's 2016 recession, in the timeframe between 2016 and 2018, FDI in Namibia has decreased with an average of 20% per year (MacroTrends, 2018). Given the fact that the Namibian population is already small, along with their relatively small profit producing industries, the value of FDIs for Namibia cannot be overstated. However, the fact that these FDI's are declining can be deemed as a challenge to Namibian economic growth in future.

d) **High Reliance on SACU Transfers:** The Southern African Customs Union (SACU) is an agreement between countries in Southern Africa focussed on increasing free trade and economic prosperity. An added benefit of this union is a revenue sharing initiative, where member countries contribute to a collective revenue pool. This revenue is then shared amongst members according to the SACU revenue sharing formula. Although this initiative was developed to alleviate poverty and encourage trade, many countries like Namibia have grown highly reliant on SACU transfers.

   In fact, since the 2008/9 recession up until 2017, the level of public debt of Namibia increased with 26% of GDP (The World Bank, 2018c). In 2016, SACU transfers accounted for 10.6% of total GDP. This, along with Namibia's high level of public debt, can directly hinder economic growth and prosperity in future if left uncurbed.

Namibia Logistics Infrastructure Landscape

TABLE 10: NAMIBIA LOGISTICS INFRASTRUCTURE LANDSCAPE
Sources: (TransNamib, 2018); (Roads Authority, 2018); (International Union of Railways (UIC), 2018); (The World Bank, 2018b); (World Economic Forum, 2018); (Namport Group, 2019); (Namibia Airports Company, 2021); (The Global Economy, 2018d); (The Global Economy, 2018c); (The Global Economy, 2018a); (The Global Economy, 2018b); (Namibian-German Centre for Logistics, 2018); (UNCTAD, 2018b).

Mode of Transport	Total Network	GCI Infrastructure score and rank	No. of Goods Transported
Rail	**2 382** Route Km	**3.3 (51st)** Out of 101 countries	**1.2 billion** Ton-Km
Road	**48 875.27** Km	**5.0 (31st)** Out of 137 countries	**1 144.4** Million Ton-Km
Sea	**2** International Seaports	**4.6 (44th)** Out of 137 countries	**14.51** Avg. LSCI 2018
Air	**1** International Airports	**4.7 (58th)** Out of 137 countries	**26.294** Million Tonnes/Km

Rail Sector

Namibia's freight rail network consists out of 2382 route kms and is managed by TransNamib Holdings (TransNamib, 2018). According to the 2018 GCI, the Namibian rail infrastructure quality ranks at 3.3 – placing them 51st out of 101 countries worldwide (Table 10). This ranking could be interpreted as average rail infrastructure. However, should Namibia increase investments in rail infrastructure, this ranking should improve as accessibility improves. In terms of accessibility, as seen in table 10, there were 1.2 billion ton-kms of freight transported in 2017. There are 6 railway lines in Namibia: Walvis Bay-Kranzberg, Kranzberg-Tsumeb, Kranzberg-Windhoek, Windhoek-Keetmanshoop, and Tsumeb-Otjiwarongo. Together, these lines can be grouped in 3 corridors namely:

a) **Main Corridor:** Stretching from Ariamsvlei (South African Border) to Oshikango (Angolan Border) – including the towns of Keetmanshoop; Mariental; Windhoek; Tsumeb and Oshikango.
b) **Walvis Bay Corridor:** Between Windhoek and Walvis Bay – including the towns of Windhoek; Kranzberg; Erongo; Swakopmund and Walvis Bay.
c) **Luderitz Corridor:** Between Keetmanshoop and Luderitz.

The two lines to the ocean ports of Luderitz and Walvis Bay are of strategic importance as facilitators for bulk exports and imports.

Given Namibia's status as rising logistics hub of Southern Africa, two challenges currently impacts the freight volumes carried by Namibian rail:

a) Railway Capacity: At present, the volumetric composition of freight by rail is as follows: Bulk Liquid (25.6%) and Building Materials (25.6%); Bulk Fuel (19%); Mining (14.6%), Containers (7.4%); Agriculture (6.4%) and General Cargo (1.3%) (Namibian-German Centre for Logistics, 2018). In order to handle increased volumes, Namibian railway will have to invest in its capacity. At present, 60% of rail freight traffic is generated by the Port of Walvis Bay, with only 6% being generated by cross border traffic (Namibian-German Centre for Logistics, 2018). Thus, by upgrading railway capacity, the traffic share by port could be divided more equally between Walvis Bay and Luderitz.

b) Cross-Border Rail Connections: As seen in Figure 17, Ariamsvlei has the only cross border railway connection which connects Namibia with South Africa. This connection is made possible because of a rail-line sharing agreement between TransNet and TransNamib. There are no other railway sections connecting Namibia with other countries. This means that Namibia has to connect via South Africa with other countries such as Botswana and Zambia.

It can be argued that these long rail route distances (along with other inefficiencies) makes imports and exports to countries besides SA extremely difficult. Even in terms of trade with SA, rail volumes are constrained by a route distance of 43% longer than the Trans-Kalahari route to Gauteng along with very long transit times (Dempsey, 2016). Therefore, it is evident that if Namibia strives to overtake South Africa's position as "the gateway to Africa", then the establishment of more, and efficient cross-border railway connections is imperative.

Road Sector

Road transport is the most common mode of freight transportation in Namibia. This accounts for more than 80 percent of total ton-kilometres of goods transported throughout Namibia (including transit cargo) (Namibian-German Centre for Logistics, 2018). The most prominent routes in Namibia are the B1, B2 and B4 (Figure 17).

According to Namibia's Roads Authority (2018), their road network spans 48 875.27 km. Of this amount, the greatest part is unpaved (i.e. gravel, earth and salt roads for 39 662 km - 81.15% of the total network). Furthermore, only 7 892.7 km (16.7%) is paved roads (bitumen).

However, despite this low tar to gravel ratio, Namibia has some of the highest quality roads on the African continent (and even globally). They rank 31st on the World Competitive Index's roads infrastructure quality rating for 2018 as seen in table 10. This puts Namibia's bitumen roads in the same category as those of Qatar, Bahrain and Great Britain. In terms of accessibility, approximately 1, 144 400 tonne kilometres are transported via road per year (Namibian-German Centre for Logistics, 2018).

Given the country's sparse population, the long distances between settlements and coupled with the fact that most major air and seaports are located in big centres such as Windhoek, Walvis Bay and Lüderitz, the heavy reliance on road transportation is logical.

In looking at the present state of the Namibian road sector, the following challenges stands out:

a) **New Road Development and Maintenance:** Given the pressure placed on the Namibian government due to the 2016 recession, followed by the COVID pandemic, it can be argued that funding towards the road sector is limited. In Namibia, as is common to other African countries, it can be argued that the road sector competes with social sectors funds allocation. Such competition for funding leads to a substantial backlog of deferred maintenance on existing roads, as well as limiting the country's ability to undertake new road and infrastructure development projects. It was found that addressing road maintenance expenses remains a challenge in most African countries (Mostafa, 2018).

b) **Road Safety:** Namibia has one of the highest levels of road traffic injuries in Southern Africa, with this region also having the highest number of road traffic related deaths worldwide (World Health Organization, 2018). In Namibia, road traffic injuries are the third main cause of death, after HIV/AIDS and Malaria, and accounts for up to 36% of all injury related deaths in the country (Ncube et al., 2013).

   It must be noted that an array of factors such as road environment -, vehicle and human factors all contribute to a driver's chances of making an accident or getting caught in one. This places a direct influence on road freight movement as companies operating in Namibia would have to take extra cautionary measures to plan for possible contingencies.

Ports Sector

As shown in Figure 17, Namibia has two international ports, namely Lüderitz and Walvis Bay. Both of these ports are managed by Namport – the official Namibian Ports authority. Walvis Bay [the largest port] handles on average 98.6% of total throughput – whereas Lüderitz only handles 1.4% (Namport Group, 2019). These two ports serve different strategic purposes. Lüderitz Port is geared to cater for Namibia's southern regions as well as providing access into South Africa. This port serves as a valuable transit point for the export of manganese – from South Africa's Northern Cape Province.

Walvis Bay port is geared towards international (non-bilateral) trade connections – serving routes to Europe, America and Asia. In terms of quality infrastructure, Namibia obtained a score of 4.6 for 2018 – which is a steady decrease of 0.6 points from 2016 (5.2) (Table 10).

However, Namibia still has the highest quality of ports infrastructure in Southern Africa – having achieved the highest GCI ports ranking in 10 consecutive years. Other countries with a score of 4.6 include the Dominican Republic (38th); Egypt (49th); Greece (40th); India (41st); Israel (42nd); Lithuania (43rd); Russia (45th); and Saudi Arabia (46th). From this list, Namibia ranks between Lithuania and Russia.

Lastly, for 2018, Namibia achieved an LSCI score of 15.3 and a ranking of 80th out of 178 countries. This is a slight decrease from a score of 14.9 (rank 78) in 2017. South Africa (44) and Angola (65) achieved higher ranks than Namibia in the 2018 LSCI.

One reason for this relatively high LSCI is the fact that Namibian ports provide a transit point for various natural resources. These resources include copper, wooden products, salt and tobacco – of which Namibia's ports forms a vital part of these products' global supply chain (Namibian-German Centre for Logistics, 2018).

Besides the transhipment of these goods, the port of Walvis Bay also provides a strategic link to Africa – with mainline carriers such as Maersk, MSC and Cosco making weekly calls. Furthermore, maritime transportation accounted for 59% of Namibia's total exports, and 35% of their imports in 2018 (Namport Group, 2019).

In light of Namibia's planning for Namibia to become a logistics hub, the following maritime infrastructure challenges threaten the viability of such an objective, namely:

a) **Capacity Planning and Port Infrastructure:** At present, the Namibian ports lacks the needed capacity to keep up with future demand. One step towards increasing port capacity was for Namport to start building a new container terminal in Walvis Bay. This project started in 2014 and has been estimated to increase throughput capacity to 750 000 TEUs per annum (Namport Group, 2019).

This terminal was completed in 2020. However, it can be reasoned that the COVID-19 pandemic thwarted any plans for an influx of trade through Walvis Bay Port. Building on this argument, the real value of this additional terminal will be seen in the years to come.

Furthermore, this is only one infrastructure development project. It can be argued that infrastructural upgrades and improvements should be a continuous endeavour.

b) **Geographic Location and High Port Fees:** With Namibia being in the Southern hemisphere, the country is not close to any trade lines and there are long distances between Namibia and other markets. This, combined with the fact that Namibia's container and cargo tariffs are much higher than South Africa's, serves to render Namibia a less viable option for many shippers (Economic Association of Namibia, 2019).

Airports Sector

There is one international airport in Namibia, namely Hosea Kutako International. As seen on Figure 17, this airport is situated in Windhoek. Furthermore, Eros Airport (Windhoek), Walvis Bay Airport (Walvis Bay) and Rundu Airport (Rundu) are the three other popular airports - having less flight destinations than Hosea Kutako, but more than the rest of the airports in Namibia (Namibia Airports Company, 2021).

These four airports, along with another four (less popular in terms of flight destinations) make up Namibia's total airport network. This network is managed by the Namibia Airports Company (NAC). In terms of air infrastructure quality, Namibia has increased by 4 ranks since an all-time low in 2014 (62nd worldwide) (Table 10). Its rank for 2018 is 58th – with a score of 4.7.

However, similar to the case of South Africa, Namibia still has not been able to improve on their all-time high rank of 50th (out of 137 countries) from 2008. This current score is testament to the drastic influence of both external and internal shocks on the Namibian economy. It simultaneously highlights the value of quality infrastructure for national economic development.

In looking at the contribution of air transport to economic growth, in 2018, the air transport sector transported 26,3 million ton-kilometres (The World Bank, 2018b). By the end of 2018, air transport accounted for 6% of total imports and 21% of total exports (Cross Border Road Transport Agency, 2018).

Some of the main challenges for air transport as identified by NAC include:

a) **Decreased Demand for Air Transport:** Since the world financial crisis in 2008, the contribution of air transport to overall GDP decreased dramatically, only to recover after 2012. In 2016, the value added of air transport reached an all-time high of N$554.1 million before it declined to N$510.7 million in 2017, a decrease of 7.83 percent (Namibian-German Centre for Logistics, 2018). Furthermore, it can be assumed that the Namibian aviation industry has taken another hit in 2020-2021 with the worldwide COVID pandemic.

b) **Outdated Aviation Infrastructure: U**pgrade of aviation infrastructure, the Looking at infrastructure shortcomings, the current runway of Hosea Kutako can only accommodate 2 large aircraft (Airbus 330) and 3 medium sized (Boeing 737 or Airbus 319) at present (Namibian-German Centre for Logistics, 2018). Some of the upgrades proposed by the Namibian Airports Company include: Developing a hotel as part of the airport attraction; expanding the terminal building (by adding/upgrading cargo handling and conferencing facilities) (Namibia Airports Company, 2021).

In conclusion, it is evident that there are much challenges to the Namibian logistics and transport sectors. Some of the ley challenges include infrastructure capacity, cross-border connectivity, road network safety and supply and demand issues. On the positive side, it is argued that each infrastructural improvement could go a long way to boost the sectors mentioned in this analysis.

5.2.3 Georgia

FIGURE 19: MAP OF KEY TRANSPORT NETWORKS IN GEORGIA
Source: Generated by A. Esterhuizen

Located Eastern shore of the Black Sea, Georgia marks the intersection of Europe and Asia. Georgia shares land borders with Russia; Azerbaijan; Armenia and Turkey. The native name for Georgia is Sakartvelo. Although having declared independence in 1989, Georgia has been officially liberated from USSR rule in 1991 with the collapse of the Soviet Union. This means that Georgia can be seen as a relatively modern democracy – still going through the traditional growing pains on their way to becoming a leading global economy. Tbilisi is the capital city, with the cities of Poti and Batumi also being some of the economic centres in the country.

LPI

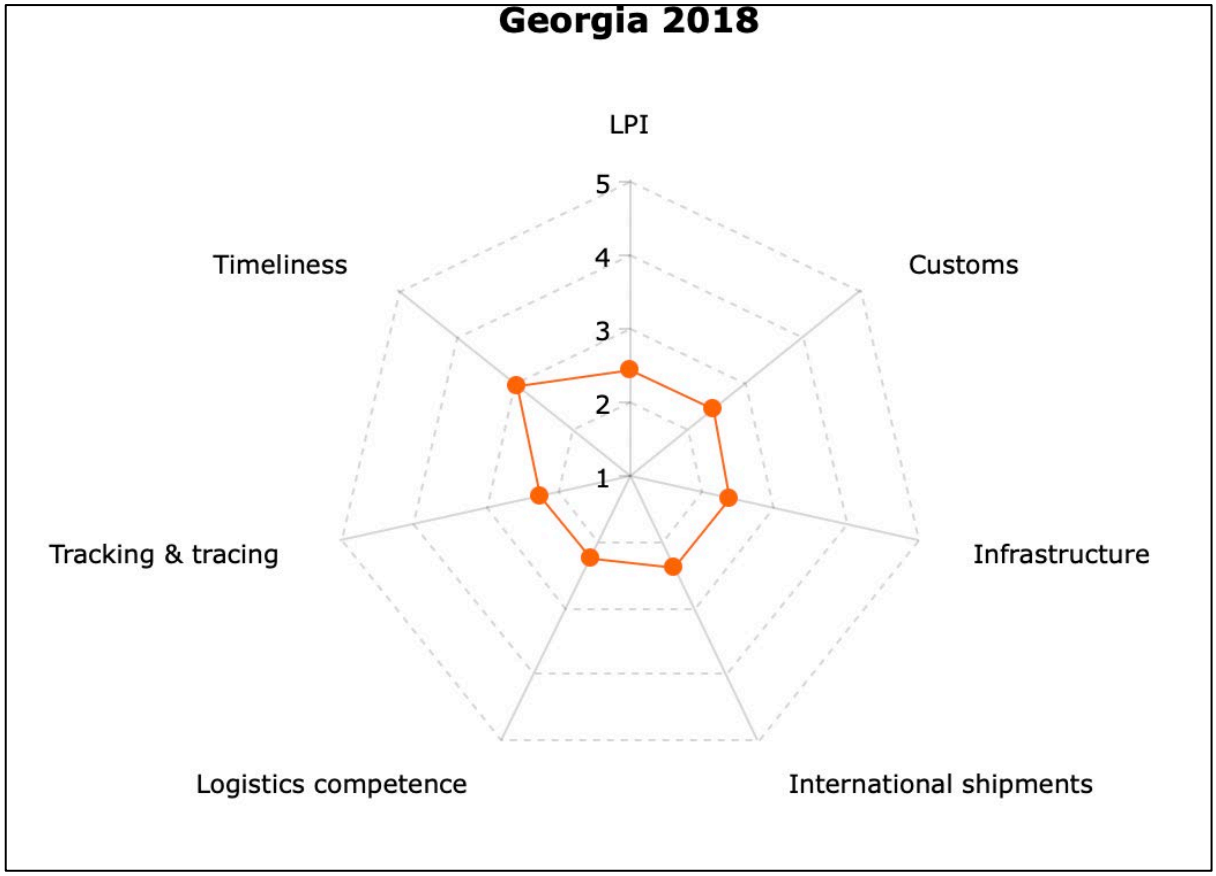


FIGURE 20: GE LPI 2018
Source: (The World Bank, 2018d).

In 2018, Georgia obtained a LPI score of 2.44 and a global ranking of 119th. This places Georgia in the same category of Togo (118th) and the DRC (120th). Viewed in context, this is an increase of 11 places from 130th in 2016. However, it can be argued that there is still much room for improvement in their overall logistics and transportation industry in order to bolster economic growth.

Upon assessment of the individual LPI indicators, it is evident that there is much room for growth in this sector. Georgia performed accordingly in 2018's LPI (Figure 20): Timeliness (2.95); Customs (2.44); Customs (2.42); Infrastructure (2.42) & International Shipments (2.38) and Logistics Competence (2.26).

These rankings indicate a shrinkage from a peak in 2012 (rank: 77th, score: 2.77). Although Georgia experienced a declining LPI from 2014 (2.61) to 2016 (2.35), the 2018 ranking reflects a slight increase of 9 points from 2016. Whether this increase reflects a positive trend, or a slight fluctuation as part of their economic growth cycle will only be visible with time. However, it can be assumed that negative externalities such as the COVID-19 pandemic will have a diminishing influence on the Georgian LPI and state of logistics growth in general.

Building on this, it is somewhat counterintuitive that Logistics Competence is Georgia's worst ranking category – while Timeliness is their best performer for 2018. In offering a potential explanation for this occurrence, this may hint at the overall inefficiency of the logistics and transport sector in Georgia– especially compared to those of other post-soviet states like Latvia, Estonia, Lithuania, Ukraine and Moldova.

The state of this performance index is linked to drawbacks in areas such as the Georgian transport system assets & network optimisation; operational output; strategic planning of human resources; coordination between transport modes and management efficiency (Gochava, 2021). Thus, it appears as if Georgia lacks a synchronised, national level approach to transportation and logistics. Where their current haphazard, disintegrated approach unfortunately leads to multiple challenges and drawbacks.

Upon investigating various causes for their LPI state (especially considering negative externalities), the following reasons are identified as key contributors:

a) **Geographic Factors (inherent characteristic):** Georgia is a small country located in the Northern hemisphere on the Black Sea. Where a country like Turkey has multiple oceans surrounding it (Black Sea and Mediterranean Sea), and thus various points of maritime access, Georgia only has one ocean for maritime entry. It can be reasoned that this creates a maritime constraint where ships wishing to dock at Georgia are only able to reach the country via the Bosporus strait (which restricts ships' size and speed of movement) or through one of the European inland waterways like the Donau (which is not accessible al year-round).

   This makes shipping difficult – especially cross hemispheric shipping as considered in this study. In spite of this maritime challenge, Georgia's strategic location at the crossroads between East and West makes Georgia a natural logistics and transit hub along the Belt and Road Initiative (BRI) - linking Asia and Europe via the Caucasus (United States Department of Commerce, 2021).

   According to the Asian Development Bank, the BRI is a *"transcontinental long-term policy and investment program which aims at infrastructure development and the acceleration of the economic integration of countries along the route of the historic Silk Road"* (Belt and Road Initiative, 2013). Thus, it is evident that Georgia's geographical location holds both advantages and disadvantages. This could drastically affect the country's future growth and prosperity. In conclusion, this potential drawback must be noted – but not regarded as the only factor contributing to a country's trade feasibility.

b) **Spill over effects of conflict with Russia:** As one of the strongest Black Sea economies (and a pervious world power), Russia remains a strong influencer

on the Black Sea economic basin. Proof of this influence is their simultaneous conflict with both Georgia (Abkhazia and South Ossetia annexation) and the Ukraine (Annexation of Luhansk and Donetsk as well as of the Crimea). In 2008, Russia invaded Georgia and caused two provinces, namely Abkhazia and South Ossetia to break away. It can be argued that this has led to a hybrid war-like scenario [not unlike a cold war] where Russia is using economic and psychological strategy to undermine Georgian democracy.

According to Georgian member of parliament, David Bakradze, Russia is continuing the process of creeping annexation – including the incorporation of local, so-called institutions into the Russian federal structures as well as attempting to eradicate any Georgian heritage in the region (Detch, 2020). They are also strengthening their militaristic position within the area by turning Georgia's occupied regions into modern military bases (Center for Strategic and International Studies, 2021). It can be argued that this leads to socio-political and economic uncertainty which affects Georgia's pace and direction of growth.

c) **High Dependence on Tourism for Economic Growth:** Tourism accounts for 26% of Georgian GDP, including direct and indirect activities as well as creating 28% of the total jobs and 39% of export earnings (Coface, 2021). These high percentages, coupled with the fact that Georgia has low economic diversification, and a severely underdeveloped regional connectivity & transport infrastructure serves to exacerbate Georgia's dependence on travellers for economic growth. In using the current COVID-19 pandemic as example, the dramatic effects of a worldwide lockdown and travel restrictions on such a dependent economy would be devastating. This highlights the need for Georgia to branch out in search of new trade and industry development opportunities.

Georgia Logistics Infrastructure Landscape

TABLE 11: GEORGIA LOGISTICS INFRASTRUCTURE LANDSCAPE

Sources: (The World Bank, 2018b); (The World Bank, 2018e); (The Global Economy, 2018d); (The Global Economy, 2018c); (The Global Economy, 2018a); (The Global Economy, 2018b); (JS Georgian Railway, 2020); (Invest In Georgia, 2018); (International Union of Railways (UIC), 2018), (UNCTAD, 2018b).

Mode of Transport	Total Network	GCI Infrastructure score and rank	No. of Goods Transported
Rail	**1 285** Route Km	**3.9 (45th)** Out of 101 countries	**9 991** Million Ton-Km
Road	**20 742** Km	**3.8 (78th)** Out of 137 countries	**0.6528** Million Ton-Km

Sea	**4** International Seaports	**3.8 (76th)** Out of 137 countries	**6.68** Avg. LSCI 2018
Air	**3** International Airports	**4.4 (77th)** Out of 137 countries	**0.7509** Million Tonnes/Km

Rail Sector

The Georgian railway network was initially developed under the Russian Empire's Transcaucasia Railway and has after the fall of the USSR become known as the Caucasus Transit Corridor (CTC). According to the World Bank's database, the total rail lines for Georgia in 2018 were 1 285 route km (The World Bank, 2018e). However, the most recent data from Georgian Railway (GR)[2](the official railway provider in Georgia) suggests that the total length of railway lines are 1 441.66 route kilometres (JS Georgian Railway, 2020).

This discrepancy suggests that new infrastructure improvements and additions have taken place since the World Bank's last data collection date. In 2018, rail traffic accounted for 3.6% of exports and 9.4% of imports Furthermore, more than 95% of GR's revenue comes from freight operations- of which more than half of this stems from operations on the CTC (Central Asia Regional Economic Cooperation Program, 2021).

In terms of infrastructure quality, Georgian rail ranks 45th in the world – with a score of 3,9 according to the 2018 GCI (The Global Economy, 2018a). Countries with the same score as Georgia include Ireland (46th); Italy (47th); New Zealand (48th); Saudi Arabia (49th) and Tajikistan (50th). Poland (4.00 – rank: 44th) is the closest higher category after Georgia. For 2018, Georgia transported 9 991.5 tons of rail-freight (National Statistics Office of Georgia, 2019).

Strategically, GR performs a much more important function than mere transit, namely as alternative communication network between the regions of the Caspian Sea, Central Asia and Europe. The railway lines depicted in Figure 19 serves to link Georgia's ports and terminals with the of Azerbaijan, Russia and Turkey – as well as providing a transit point into the Black Sea basin (serving countries like Ukraine, Bulgaria and Romania) (Gitolendia, 2018). These connections are also crucial in establishing a transport link between Georgia and the Far East as part of the BRI.

[2] An interesting point to note is that JSGR is the largest employer in the country, with over 12 000 employees (JS Georgian Railway, 2020).

Linking to this objective, the Caspian Sea rail ferry links Kazakhstan and Turkmenistan with Azerbaijan, where the cargo destined for Europe naturally moves through the transport networks of Georgia and Turkey (Kenderdine & Bucsky, 2021).

In line with exploiting these opportunities, the Baku-Tbilisi-Kars railway was opened in 2017. This 826 km line has the capacity to carry 6.5 million tons of freight per year and 1 million passengers (Colliers International, 2019). Essentially, this project is aimed at further deepening trade relations with China and establishing Georgia as a primary link between Europe and Asia. Thus, this strategic location serves as an important counterweight to Georgia's limited ocean access – enabling the country to potentially become an important logistics hub between East and West.

However, despite the numerous growth opportunities for Georgian railway, some of the most pressing challenges include:

a) **Transit Bottlenecks:** The main bottlenecks in Georgia can be categorised into two categories namely i) Geographical Bottlenecks and ii) Capacity & Performance Bottlenecks.
   i) **Geographical Bottlenecks:** The rail section between Zestafoni-Moliti-Khashuri (nicknamed the "Gorges Section") is experiencing a natural bottleneck. This is due to traffic growth and the inability of the mountainous region to accommodate much further expansion. Given this mountainous terrain, speeds are restricted to 60 km/h, with the annual freight throughput being limited to 27 million tons (Central Asia Regional Economic Cooperation Program, 2021). To overcome this challenge, JSCGR is implementing a Railway Modernisation Project. This project involves there construction of the Zestaphoni-Kharagauli line (23 km) as well as constructing a new line from Khashuri to Moliti.

   ii) **Capacity & Performance Bottlenecks:** Georgia's existing inland terminals along the CTC are outdated and inefficient. This is because many terminals often cannot receive whole trains – which leads to higher terminal charges. The Georgian government is planning on developing multimodal logistics terminals at Kutaisi and Kumisi via public-private partnership concessions. Linking to the above point, many of the JSGR's wagon fleet is old, defective and the mix of wagon types does not always supply the market needs (Central Asia Regional Economic Cooperation Program, 2021).

b) **Decline in Rail Freight:** This issue is partially due to higher tariffs charged (because of infrastructural inefficiencies) but also relates to external developments. One of the key challenges here is Georgia's reliance on trade from the Commonwealth of Independent States (CIS) countries for trade. In 2018, 81% of Georgia's freight went to of came from one of those states.

> However, many of these states are characterised by tumultuous socio-political and economic spheres. This drastically affects Georgia – where recent geopolitical conflicts between Russia and the Ukraine has led to international sanctions against Russia and Iran – thus indirectly contributing to slower traffic growth in CIS countries (Georgian Railway, 2018).

However, it can be argued that with Georgia's membership of China's New Silk Road, rail transport will increase as more trains carry goods to and from China.

At its core, this issue is linked to infrastructural shortages and port management policy. This bottleneck is caused by Georgia's two main Black Sea Ports namely Poti and Batumi (Figure 19). Some problems affecting optimal performance include (Central Asia Regional Economic Cooperation Program, 2021):

- Depth Restrictions (where the ports can only accommodate container feeder vessels up to 1500 TEUs)
- Frequent port closures due to bad weather. To explain the magnitude of this issue, Poti had an average downtime of 27% in 2018.
- Poti's severely restricted infrastructure (due to previous underinvestment) – e.g. the port does not have an on-dock rail terminal and containers for rail transfer has to be stored at off-dock terminals some 7 km away.
- Batumi having little scope for further development and
- Limited competition between ports (which leads to high port charges).

To overcome this bottleneck, the government has encouraged the private sector to construct a new deep-water port on the Black Sea. The port of Ankalia was initially considered – with the government having launched a public-private partnership scheme hoping to attract proposals to build a port, special economic zone and Logistics Park at Ankalia. However, due to irreconcilable differences between the government and private sector, this initiative was cancelled.

The government is currently exploring other options. One alterative is the proposal of the port operating concessionaire at Poti to develop a new container terminal. It is estimated that this new container port will have an annual capacity of 1 million TEU and the financial investment required will be $350 million (Ankalia Development Consortium, 2021).

Furthermore, much of the JSGR's wagon fleet is old, defective and the mix of wagon types does not always supply the market needs (Central Asia Regional Economic Cooperation Program, 2021). It can be argued that this insufficient infrastructure is a contributor – thus exacerbating the effects of the bottlenecks explained above.

Road Sector

The operational Georgian Road Network spans 20 742 kilometres Georgia has five main international roads, of which the S1, S2 and S3 form part of (Figure 19). Building on this, the S5 (known as the Kakheti Highway), spans 160 km and connects Tbilisi to the Azerbaijan border near the town Leselidze.

Two of these five roads (crossing the S roads, and named E60 and E70), are known as Georgia's East–West Highway. These roads are part of the Europe-Asia corridor stretching through the Caucasus Mountain range. They stretch north from the Turkish border at Sarpi, to the Black Sea ports of Batumi and Poti, then east past Kutaisi to Tbilisi, and then southeast to the border with Azerbaijan at Red Bridge, a total distance of more than 400 km (Asian Development Bank, 2014).

The Roads Department manages all international and secondary roads, with district administrations being responsible for local roads. In terms of roads quality, the Georgian roads scored 3.8 in 2018, with a global rank as 78th out of 137 countries (The Global Economy, 2018b) . Other countries within this bracket include Cape Verde (76th); Gambia (77th); Montenegro (79th); Sri Lanka (80th) and Tunisia (81st). Overall, the Georgian highways accounted for the of 31 085.6 tons of freight (National Statistics Office of Georgia, 2019).

According to the Asian Development Bank, some of the largest challenges to the Georgian roads network include:

a) **Lack of cohesive Policies and Planning:** According to ADB, the Georgian transportation sector lacks an explicit policy to lead development in an integrated manner (Asian Development Bank, 2014). This is because the coordination of transport modes occurs loosely and at legislation, -foreign funding, project implementation and technical standards levels. With such broad focus [often overlooking ground-level challenges and aspects], the Georgian transport regulation is seen as imperfect and/or vague (Kharaishvili et al., 2021).

b) **Infrastructure and Logistics:** Infrastructure ranked in the bottom half of the 2018 LPI. According to the European Investment Bank, relatively poor transport infrastructure and quality of logistics services hinder integration with external markets (European Investment Bank, 2021). Despite the expansion of roads in Georgia, the extent thereof does not match its quality. Building on this, the importance of road transport for hinterland freight transportation is highlighted as a key facilitator of movement between Eastern Countries and Western Countries.

   Here, the East-West highway project (ongoing – to be finished in 2023) plays a major part. Some challenges regarding this project include a lack of a clear financing strategy and restructuring the railways industry to compliment rather than

compete with road transportation. At present the division of freight between road and rail is not optimal, with the Caucasus Transit Corridor moving about twice as much containers as railways (Benmaanar, Keou & Saslavsky, 2015). Furthermore, there is a need for improved intermodal logistics connections, for logistics skills training and education centres as well as the development of strategic logistics centres across the country. The Tbilisi region's catchment area constitutes more than half of the national demand for containerised goods, making it a strategic location for a logistics hub (Benmaanar, Keou & Saslavsky, 2015).

c) **Road Safety**: Georgia scores worse than the regional average when it comes to road safety. In analysing fatalities by vehicle type, Georgia scored higher in all categories than the regional mean(Global Road Safety Facility, 2016). In 2013, Georgia's road mortality rate (11.5 deaths per 100,000 of population) was 4 times higher than that of the best global performer (2.8). This was also more than two times higher than the average death rates across all EU countries (United Nations Development Account, 2016).

   Furthermore, between 2013 – 2016 road fatalities in Georgia increased at a trend of 8.2%, where Georgia had an estimated 599 road fatalities for 2016. This is equal to a fatality rate of 20.06 per 100 000 population. Some of the main reasons for road fatalities include drunk driving, over-speeding, and illegal manoeuvring (USAID, 2017).

   The Georgian government has been investigating and developing various measures to make Georgian roads safer. Amongst others, this list of measures includes the draft of a National Strategy on Georgia's road safety and Action Plan (2010 – 2013); a draft Injury Prevention and Control National Strategy and Action Plan (2014-2018) , as well as exploring synergies with the TRACECA Regional Road Safety Strategy (Société Anonyme Française d' Etude de Gestion et d' Entreprises, 2011).

Port Sector

The Georgian ports network consists out of a combination of sea ports and oil terminals. Batumi and Poti are the country's major seaports, where the Supsa and Kulevi oil terminals. At present, the port of Sokumi is in the Abkhazia province – which is under control of Russia and is thus not recognised as part of Georgian territory. Between the two sea ports, Poti is the larger one (with 15 berths where Batumi only has 11 berths).

Furthermore, in comparison of draft accommodation, Poti (8-12 m) can handle a slightly shallower draft than Batumi (9-12 m) (Invest In Georgia, 2018). These draft depths unfortunately means that the Georgian ports cannot accommodate ships larger than 1300 TEUs. This is a very limiting factor as it essentially prohibits Georgia from

fully capitalising on any trade generated from the belt and Road network and the Trans Caucasian corridor (TRACEA). TRACEA is a multinational project established to connect the Black Sea countries with the landlocked countries in the Caspian region and in central Asia via the Caucasus Mountain range. Linking to this, the Port of Poti is of strategic importance as a crossing point within this corridor.

The before mentioned Georgian ports network is managed by various private firms reporting to the Maritime Transport Agency, which in turn reports to the Ministry of Economy and Sustainable Development. This ministry is responsible for the policy development and strategic planning of all transportation sectors in Georgia (Asian Development Bank, 2014). The pipeline management and regulation rests with the Georgian Oil and Gas Corporation – a semi-state institution. In 2018, the Georgian ports infrastructure ranked 76th globally – with a score of 3.8.

This is an improvement of 0.2 points from a score of 4.00 in 2016. Other countries with a GCI score of 3.8 include Guatemala (77th); Tanzania (78th); Ukraine (79th) and Vietnam (80th). What is interesting about this rank is that 3 of the 7 case study countries have obtained a ranking of 3.8 in terms of ports infrastructure quality. It can be argued that this ranking is indicative of a similar level of maritime sector development and infrastructural spending.

The average LSCI for Georgia in 2018 was 6.68. This reflects an average increase of 1.53 points from 2016. Seeing a potential strategic strength, the Georgian Government is currently researching strategies and projects to increase their maritime presence in the Black Sea in the hopes of becoming a major logistics hub and connector between the East and the West.

In their investigation of potential solutions, the Georgian Government identified one key shortcoming in their ports sector. This shortcoming is the absence of a deep-water port. The Ankalia Port initiative was developed in 2015 to counter this shortcoming, however, due to various factors this initiative collapsed in 2020. Although there are various reasons for the Ankalia project's collapse, a dramatic investment deterrent was a money laundering case against a Georgian Bank invested in this ports project. TBC Bank's founders (one of the largest banks in Georgia), M. Khazaradze and B. Japaridze, were investigated by the Georgian National Prosecutor's Office.

The investigation confirmed money laundering activity through two subsidiary companies in April and May 2008 (Transparency International, 2020). Other potential influencers of the decision to halt the Ankalia development project included a lack of singularity amongst investors on the project's details (where vested interests were said to play a key role), as well as uncertainty about whether the government would support the project with a state guarantee on its loan (Hess & Otarashvili, 2020).

Although this port project (and finding solutions to this challenge) is a major goal for the Georgian government, they are also focussing on the expansion of Poti port as well as the development of logistics centres by attracting private investors. These objectives are ongoing with the government researching various strategies of approach.

Airports Sector

Georgia has three international airports, namely Shota Rustaveli Tbilisi International Airport (Tbilisi) and Batumi International Airport (Batumi) and Kutaisi International Airport (Kutaisi). This airport is managed by TAV Airports Holding – a Turkish company managing 11 other airports, including Batumi Airport (domestic flights within Georgia) and airports within the Netherlands; -Macedonia; - Turkey and Tunisia.

On a global scale, the Georgian airports infrastructure obtained score of 4.4, ranking 77th worldwide. Other countries with similar scores include Armenia (73rd); Brazil (74th); Bulgaria (75th); Colombia (76th); Kazakhstan (78th); Moldova (79th); Montenegro (80th); Sri Lanka (81st) and Tajikistan (82nd). A noteworthy aspect of this score group is that half of these countries are in Europe – primarily Eastern Europe with the exception of Montenegro (Southern Europe). Building on this international score, air freight transport accounted for

Recently, the Georgian air transport sector has been fully liberated, however, although this decision led to a direct increase in passenger traffic over 6 years, freight traffic remained modest in comparison. Building on this, three of the largest challenges for the Georgian air freight transport sector include:

a) **Institutional Improvements:** Generally speaking, there is a lack of opportunities for obtaining technical – level accreditation in the aviation industry in Georgia. Georgia has one specialised University, named the Georgian Aviation University. This institution awards undergraduate and graduate degrees in aviation management and – engineering, along with some technical and administrational diplomas and certificates (Asian Development Bank, 2014).

   However, it can be argued that one institution limits Georgia's ability to produce enough aviation specialists to keep up with future demand. In 2019, the global air freight market was valued at $ 270.2 billion and, despite a drastic decline during the Coronavirus pandemic (2021), this industry is projected to reach $ 376.8 billion by 2027 – registering a compound annual growth rate of 5.6% (Halmare & Mutreja, 2021).

   One main reason behind this is technological improvements which are leading to the evolution from old, mainframe systems to more adaptable interfaces for aviation. With the development of these new technologies comes the demand for

skilled workers to operate these programs etc. Although Georgia's institutions are global role models in some sectors, further progress is required in judiciary and local level performance.

b) **Infrastructural Improvements to optimise their connections with the New Silk Road:** The rise of China's Belt and Road Initiative has brought an increased need for Georgia to further develop their transportation sector. It can be argued that significant improvements in Georgia's assets base (i.e. physical infrastructure, institutional policies, and human capital) are required for them to fully exploit this initiative. Some of these improvements include establishing new cargo and passenger traffic connections along the BRI. One initiative of the country was the United Airports of Georgia hosting the Routes Silk Road project in 2014. This project was aimed at attracting new airlines into the country and in the process improving regional connectivity (Malsen, 2014).

To conclude, Georgia is faced with various transport and logistics challenges. At its core, some of these main inefficiencies can be narrowed down to infrastructure and institutional issues. Should the necessary reforms take place, Georgia could become a transit hub on the black Sea due to their strategic location.

5.2.4 Ukraine

FIGURE 21: MAP OF KEY TRANSPORT NETWORKS IN UKRAINE
Source: Generated by A. Esterhuizen.

Ukraine is situated on the North-Western shore of the Black Sea and the Sea of Azov. The country borders Russia; Belarus; Poland; Slovakia; Hungary; Moldova and Romania. Kyiv is the nation's capital, with other prominent cities being Odessa, Kharkiv, Dnipro, Donetsk and Zaporizhia. Ukraine spans a total area of 603 628 sq. miles and has a population of 41.3 million. These figures means that Ukraine is the second largest country in Europe (after Russia) and boasts the eighth largest population. However, they are also the second poorest European country, which is exacerbated by severe corruption levels. Despite these negative aspects, Ukraine has extensive fertile farming land, helping them become one of the world's leading grain exporters (Société Générale de Surveillance, 2020). Furthermore, they have one of the largest militaries in Europe (after Russia and France).

LPI

FIGURE 22: UA LPI 2018
Source: (The World Bank, 2018f).

In 2018, the LPI score for Ukraine was 2.83, placing them 66th out of 160 countries for 2018. This rank places the Ukrainian logistics system in the second quintile – scoring ahead of Namibia.

Looking at 2018, Ukraine scored as follows in the six LPI categories (Figure 22): 1) Timeliness (3.42); 2) Tracking & Tracing (3.11); 3) Logistics Competence (2.84); 4) International Shipments (2.83); 5) Customs (2.49) and 6) Infrastructure (2.22).

Referring to the 2018 LPI, the low infrastructure performance represents a clear area of improvement in the logistics chain. Given Ukraine's relatively recent liberation from the USSR in 1991 and their economic and political change towards democracy, the comparison of the Ukrainian logistics infrastructure against other western countries is arguably unrealistic. However, the country's geographic location presents a promising advantage, one on which Ukraine plans to capitalise by establishing themselves as logistics hub between Europe, Russia, and the Middle East (via the black Sea).

Focussing on the Ukrainian current economic and political circumstances, some of the main external and internal challenges for this country include:

a) **Economic Volatility:** Since their independence from the USSR, Ukraine's growth trajectory has been greatly inconsistent. Some factors affecting this includes a delayed response to political social and economic reforms, coupled with the high costs associated to the reallocation of resources from traditional to competitive sectors and the severely limited domestic savings to fund the needed reforms (Smits et al., 2019).

   Expanding on this, it can be argued that another factor affecting Ukraine is the regular conflicts with Russia (e.g. 2011 – Luhansk and Donbas annexation; 2014 – Euromaidan protests; 2014 – Crimea Annexation; 2021/22- Russia tensions). Besides the dramatic impact such conflict has on investor relations, one could reason that the impact on domestic resources and cash flow is even greater.

   In spite of these negative factors standing in Ukraine's shadow, the Ukrainian government has embarked on a widespread reform agenda aimed at fostering greater private sector involvement in key industries, strengthening institutional governance and fully establishing Ukraine in the international trade sphere.

b) **Inadequate Transportation Infrastructure:** Some aspects influencing this include dated Soviet-era infrastructure; a lack of system reforms and sectoral developments within the transport industry and a lack of/limited financing for transportation infrastructure development projects (Kolodiichuk, Cherevko & Popivniak, 2020).

   Potential reasons for this limited governmental financing include high transport system maintenance costs (due to the large expanse of the UA transport network as compared to a relatively low population density); a low purchasing power of the UA citizens and a relatively small logistics and transportation fleet (Chernyavskaya, 2010). It can be argued that this leads to increasing gaps between transportation infrastructure supply and demand.

c) **Tensions with Russia:** The Russian influence puts Ukraine in a difficult position as they are not the sole/greatest influencer of their own economic, social, and political circumstances. This is because the level of Ukraine's integration into the global economy (as democratic, capitalistic country) is greatly affected by the country's ability to successfully resolve internal conflict situations while complying with the requirements of international agreements and ensuring the safety and protection of their citizens (Fleychuk & Babets, 2020).

   Not only does instances of Russian aggression threaten the sovereignty of the Ukrainian people, but also serves to deter international investments and the entering of Ukraine into the international trade sphere. Concentrating on the latter, it can be deduced that this conflict might hinder some countries from working with Ukraine out of fear of Russian retaliation (either politically or economically). In

conclusion, it is evident that Russia casts a stern shadow over Ukraine thus influencing their economic, political, and social decisions to a great extent.

Ukraine Logistics Infrastructure Landscape

TABLE 12: UKRAINE LOGISTICS INFRASTRUCTURE LANDSCAPE
Source: (Knoema, 2018); (The Global Economy, 2018b); (The World Bank, 2018b); (Ministry of Infrastructure of Ukraine, 2022); (Indexmundi, 2017); (Ministry of Infrastructure of Ukraine, 2021); (Ministry of Infrastructure of Ukraine, 2022); (Ukranian Sea Ports Authority, 2021); (UNCTAD, 2018b).

Mode of Transport	Total Network	GCI Infrastructure score and rank	No. of Goods Transported
Rail	**21 626** Route Km	**4.3 (38th)** Out of 101 countries	**191. 914 (2017)** Million Ton-Km
Road	**169 652** Km	**2.7 (124th)** Out of 137 countries	**-** Million Ton-Km
Sea	**5** International Seaports	**3.8 (79th)** Out of 137 countries	**27.512** Avg. LSCI 2018
Air	**6** International Airports	**4.0 (103rd)** Out of 137 countries	**75.264** Million Tonnes/Km

Rail Sector

Ukraine's railway network is state owned and operated. It is one of the most extensive of its kind in Europe, while being fourth largest on the Eurasian continent and 13th largest in the world. The network is managed by Ukrainian Railways (Ukrzaliznytsia) and consists out of a total route km of 21 626 (Knoema, 2018). In terms of quality, Ukrainian rail infrastructure is of relatively high quality, ranking amongst other first world countries. In the 2018 GCI for rail infrastructure quality, Ukraine obtained a score of 4.3, ranking 38th worldwide. Countries with similar scores include Australia (33rd); Canada (34th); Denmark (35th); Iceland (36th) and Kazakhstan (37th). Rail transportation in UA accounts for 82% of all freight transported (Ministry of Infrastructure of Ukraine, 2021). The total value of goods transported via rail for 2017 accounted to 191 914 million ton-kilometres (Indexmundi, 2017).

With the aim of identifying areas of improvement, the following aspects pose challenges to the current UA railway system (Ministry of Infrastructure of Ukraine, 2021):

a) Modernisation and renovation of fixed assets [infrastructure]
b) Increasing capacity in line with future demand forecasts
c) Aligning UA railway network operation and policies to those of the EU
d) Lack of sources for funding (to enable the needed reforms)
e) The need to reform Ukrzaliznytsia i.o.t. enable greater transparency via the formation of a vertically integrated management system, and
f) A Lack of government support to for new innovative solutions to current challenges as well as -support for attracting investments.

Road Sector

The Ukrainian roads network spans about 170 000 km (Ministry of Infrastructure of Ukraine, 2022). This network consists out of 76.7% hard-surface roads (such as asphalt-concrete) and 24.3% of roads with transition types of materials (such as gravel). Some of the key international roads in UA are the M06, M07 and M03 (Figure 21). Building on this, the Ministry of Infrastructure of Ukraine (2022) estimates that 90% of these general purpose roads have not been maintained due to funding shortages.

This estimation supports the low Ukrainian GCI for Roads Infrastructure. With a score of 2.7 for 2018, UA ranks 124th out of 137 countries (The Global Economy, 2018b). Other countries with the same score include Burkina Faso (122nd); Costa Rica (123rd) and Zimbabwe (125th). Thus, it is clear that UA has some of the worst quality roads out of the whole GCI sample size.

No data was available on the 2018 road network and ton-km transportation figures for Ukraine. The most reliable road network information stems from a 2022 report. However, the most reliable data for road ton-km transportation stopped at 2012. This leaves a period of 6 years between the focus year and year stopped.

Focussing on current challenges, some of the main issues for the Ukrainian road network are:

a) **Outdated Infrastructure:** To conclude form the above analysis, the Ukrainian road network is grossly dilapidated and in need of urgent reparation and reforms. A series of government sources and individual reports estimate the proportion of road infrastructure in need of repair to be between 90% and 97% (Cabinet of Ministers of Ukraine, 2019)(Kozak, 2019).

Besides infrastructural repairs, some other areas targeted for reform are the decentralisation of the road management as well as the establishment of an independent road construction quality control institution. The Ukrainian government's broad aim for transportation infrastructure developments is to align such progress and projects with EU and international standards.

b) **Eastern Orientation:** With the aim of road infrastructure reform and reparation comes the task to change the outlay of the Ukrainian road network from an Eastern orientation to a Western orientation (Kozak, 2019). Under the USSR, most of the traffic in UA flowed to Russia and the other satellite states in Eastern Europe. However, with UAs independence and democracy, they have worked hard to align themselves with Europe and the West – in social, political, and economic terms. This includes an increase in trade with central and Western Europe.

   At present, trade with the European Union accounts for roughly 40% of UAs GDP (United States International Trade Administration, 2021). Such changes in orientation would include the movement of road traffic support infrastructure (i.e., fuel stations, hotels etc.) to accommodate traffic coming from the West.

c) **Regulation of trucking sector:** Given the country's road network challenges, the overloading of trucks and other vehicles act as an accelerator for degenerating road quality and usability (Cabinet of Ministers of Ukraine, 2019). This means that even the slightest excess of maximum laden mass on trucks and other vehicles moving through UA has an eroding effect on the already dilapidated road surface. The trucking sector is also characterised by low levels of regulations, making it easier for such breaches to occur.

Ports Sector

Ukraine has thirteen ports overall, of which five are international traders. As per Figure 21, these five ports are located in Yuzhnyi, Chornomorsk, Mariupol, Mykolayiv and Odessa. The Ukrainian port network is managed by the Ukrainian Sea Ports Authority (USPA). This is one of the largest state owned enterprises in UA, and also a part of the Ministry of Infrastructure (Ukranian Sea Ports Authority, 2021). According to the 2018 Infrastructure GCI, these port perform quite poorly in terms of infrastructure quality – scoring 3.8 and ranking 79th globally.

Other countries with this score include Georgia (76th); Guatemala (77th); Tanzania (78th) and Vietnam (80th).

While the GCI measures infrastructure, the LSCI focusses on the international trade connections via container shipping to be made from the ports within each country. In UAs case, they scored 27.5 in the 2018 LSCI. This is a relative decline from an all-

time high in 2017 (28.18). Although high for UA, these scores generally translate to below average performance, with the world average range being between 41.59 and 63.40. Compared to these scores, it is evident that there is much room for growth and improvement for container shipping in UA.

While these rankings provide a snapshot of UAs current maritime position, it does not explain their history. With funding from the Soviet Union, UA was recognised as a maritime force in the Black Sea – known for their diversified industry made up of shipbuilding, river transportation and a gas and oil industry. The collapse of the USSR had a ripple effect, diminishing UA's maritime competitiveness.

It can be argued that although UA became independent from Russia, they faced new challenges of transforming into a democracy and instating a capitalistic system. These two endeavours take both time and money – which meant that some industries were most likely neglected in order to focus on others. Here it must be mentioned that the Russian withdrawal also led to a withdrawal of funding in many sectors – leaving satellite states like UA to fend for themselves and to establish new relations from scratch. Consequently, UAs maritime sector took a huge plunge.

However, the only way to improve the current infrastructural and quality standing of a country, is to tackle key challenges head on to pave the way for a better future. According to Ivan Niyakki, vice president of the Ukrainian Maritime Chamber, some of the key challenges to the Ukrainian maritime industry include (Niyakii, 2022):

a) **Maritime Education:** Niyakki (2022) believes that there is a relatively large section of Ukrainian seafarers with fake documentation. It can be argued that this not only decreases international confidence in the Ukrainian sea-trade sector, but also dramatically impacts the efficiency and effectivity of the sector. The Ukrainian government is focussed on unearthing such schemes – as well as in the process of establishing more maritime training institutes to allow people the option to enter the trade legally.

b) **High Port Costs:** The Ukrainian ports have some of the highest docking fees in the Black Sea. According to the Ukrainian Centre for Transport Studies, "the cost of a vessel to call at the Yuzhnyi port is 4.2 times higher than the average cost for Black Sea ports and 4.5 times higher than the cost at competing ports [i.e. ports in other developing economies such as Brazil]" (Lopakhin, 2016).

   It can be argued that this diminishes UAs attractiveness as port of call – especially in the Black Sea where cheaper ports such as Constanta are relatively close by. Furthermore, given that USPA is one of the largest organisations in the country, the value of such a large employee basis comes into question. It can be argued that this business structure is unnecessarily inflated – thus negatively affecting investments for future growth. This view is

reiterated by the European Business Association (EBA) (2020), who estimates that up to 90% of all profits from port dues and other maritime activities are allocated by USPA to running and operational costs.

Airports Sector

Ukraine has 8 key airports, of which 6 are international airports namely Kyiv Boryspil International Airport; Hostomel International Airport; Lviv International Airport; Dnipro International Airport; International Airport Zaporizhzhya and Odessa International Airport (Figure 21). Of these six, Boryspil International is the largest airport in Ukraine (for both freight and passenger transport) and is situated near country's capital of Kyiv.

Airport management in Ukraine seem disorganised according to the available information. While Boryspil and Lviv airports are state owned and operated, other airports belong to territorial communities relying on various private and government forms of investment.
In terms of passenger traffic, Borypsil International was 14th amongst Europe's 15 busiest airports (competing against 341 airports) and served over 5.5 million passengers (United States International Trade Administration, 2021).

The 2018 GCI Airports Infrastructure score for Ukraine was 4.0, with the country ranking 103 out of 137 countries. Based on this score and rank, the Ukrainian air transportation infrastructure quality can be interpreted as below average as compared to the rest of the world. Other countries with a rank of 4.0 include Algeria (101st); Laos (102nd) and Vietnam (104th). However, in spite of the substandard infrastructure quality, air freight transport amounted to 75 264 million tons per km in 2018 (The World Bank, 2018b). Out of the four case study countries, this is the second highest score.

In grouping some of the pressing issues in the Ukrainian aviation sector, the following issues stand out (Zhavoronkova, Zhavoronkov & Volvach, 2018):

a) **Political Challenges:** Weak State Regulation of Competition within the Aviation Industry (often encouraging the monopolisation of this industry and serving to block low-cost carriers from effectively competing). Another weak point is a low level of congruence between Ukrainian domestics and international aviation standards such as those developed by the Civil Aviation Organization, the EU, and the European Organization for the Safety of Air Navigation (EUROCONTROL).

b) **Economic Challenges:** Low population income level and GDP (serving to deter people from making use of aviation for freight or passenger transport as there are cheaper modes available i.e., road or rail transport).

c) **Technological Challenges:** Outdated rolling stock infrastructure as well as an insufficient level of infrastructural development of domestic and international

aviation facilities (leading to decreased efficiency and effectivity at transporting passengers and freight).

Responding to these outlined challenges, the Ukrainian government plans to strengthen the low-cost air transport sector (via a series of regulations and private sector involvement); globalising their air transport sector by aligning with international standards and supporting infrastructural and logistics developments to accelerate the efficiency of high speed transport modes for passenger and freight transport (Ministry of Infrastructure of Ukraine, 2018). On significant improvement is a 30% increase in low cost carriers share in international air transport service from UA (Cabinet of Ministers of Ukraine, 2019).

In conclusion it is evident that some of the major challenges to the Ukrainian transport and logistics sectors are funding, poor network conditions and operational constraints. However, nit is evident that the Ukrainian government is aware of these issues and are in process of tackling them systematically.

5.3 Summary and Conclusion

In light of the presented information for Chapter 4, each country's current (2018) infrastructural capacity and shortcomings should be evident. This chapter found that the two SADC case study countries have higher infrastructure quality than their BSEC counterparts according to the 2018 GCI. However, in terms of logistics competence, South Africa (of SADC) is a category leader – but against all odds Ukraine (of BSEC) is also a relatively strong performer despite their infrastructural challenges.

The analyses of each country's transportation infrastructure served to provide clarity on the infrastructural challenges experienced per mode of transport per country. These challenges should not be interpreted as a reason not to engage in trade, but instead for these emerging markets to have a map to approach trade more strategically in spite of these challenges.

On 24 February 2022, the Russian army invaded Ukraine under the pretext of a "special military operation". With these activities in progress, it should be assumed that Ukraine is suffering heavy infrastructural (amongst other) losses. This means that much of the information presented on the country in Chapters 4 and 5 has become either obsolete or outdated. Drawing on the turkey argument, this chapter concludes with a question to the other emerging market turkeys: To what extent can SADC and BSEC still engage in some form of economic interaction without making powerful enemies out of the ruling powers i.e. the Turkey farmers?

CHAPTER 6

MARKET REQUIREMENTS FOR TRADE BETWEEN SADC AND BSEC: A CASE STUDY ON THE RUSSO-UKRAINE CONFLICT

6.1 Introduction

"Politics is war without bloodshed, while war is politics with bloodshed."
– Mao Zedong (Ratcliffe, 2017)

"War is an act of force, and to the application of that force there is no limit. Each of the adversaries forces the hand of the other, and a reciprocal action results which in theory can have no limit."
- Carl von Clausewitz (Von Clausewitz, 2011)

In interpreting Nassim Taleb's theory, it can be argued that the onset of a Black Swan would be just as surprising as the new directions developed from its existence. Where Chapter 6 was planned to be a market-analysis of a specific commodity between one SADC and one BSEC country, the Russo-Ukraine conflict changed the direction of this dissertation. As what worth would it have been to explore the theory behind black swans only to ignore them in practice?

One of the cornerstones of this dissertation is the extended effect that leading world powers have on smaller economies – especially emerging ones who are trying to reach higher levels of development. In this strife for development, it can be reasoned that the weaker economies have more to lose in case of warfare. This is arguably the case not only for countries directly involved in the conflict, but also for ones indirectly involved as the world rally behind opposing views. Finally, in this state of development and the consequent degradation of such development through warfare, it can be argued that the little guy, the man on the ground becomes the turkey. This turkey suffers far more greatly from the losses orchestrated and perpetuated by the farmers/ i.e. the people orchestrating this war.

It is here that the effect of Horace's famous line, "*dulce et decorum est pro patria mori*" becomes tangible, leaving countless bodies, displaced families and ruined infrastructure in its wake.

It would seem as if Ukraine has become the turkey, being ruthlessly attacked by Russia, the powerful farmer – and the whole world is experiencing the spill over effects of this conflict.

With this grim reality in mind, the objective of this dissertation has shifted from focussing on goods and services to trade between SADC and BSEC, to investigating

alternative methods of cross border economic engagement which can take place in spite of this war.

6.2 Methodology

6.2.1 Objective

This chapter assessed potential opportunities for South Africa and Namibia (representing SADC) to increase economic cooperation with Ukraine (representing BSEC) in light of the Russo-Ukraine crisis. Focus was placed on the eco-political positioning of various key global players, as well as some emerging markets affected by this war. This was used as a starting point from which potential options for economic cooperation were investigated.

6.2.2 Data Collection

As the crisis was occurring in 2022 which coincided with the writing of this dissertation, most of the data sources was of primary nature and often eye-witness and ground level reports. This included real time news articles, organisational reports, governmental speeches and press releases. These sources were found on governmental websites, public news articles (e.g. Al Jazeera, BBC News) and organisational websites (e.g. The World Bank, The Heritage Foundation).

6.2.3 Timeframe

A cross-sectional timeframe was applied. Data from 2021 and 2022 was used to assess the crisis. In cases were conclusions had to be drawn on economic progress, data no older than 2010 was considered.

6.2.4 Chapter Limitations

One of the biggest limitations of this chapter was a lack of objective information. As the crisis was happening in real time, the researcher only had access to current data sources which might contain either conscious or subconscious bias. Given the complexity of the situation, it can be argued that more data over a longer timeframe would be needed to draw truly objective conclusions. Another key limitation to this chapter is a time constraint. Due to this constraint, it was decided to focus on the markets of South Africa, Namibia, Georgia and Ukraine as representative for SADC and BSEC.

To truly understand the influence of this black swan on smaller emerging economies, it is recommended that this study be repeated after a few years, where more data and information will be available. Furthermore, a broader study is recommended, which includes a detailed investigation into the spill over effects of this crisis on all SADC

and BSEC countries. This will provide clarity and objectivity on the effects of this crisis on the two trade Blocs.

6.2.5 Chapter Structure

Previously, the aim of this chapter (objective two) was to conduct a market analysis on the involved case study countries to pinpoint certain commodities for increased trade. Given the unforeseen occurrence of the crisis, as well as its direct influence on the case study countries, the structure of this chapter has been altered:

Starting off, this chapter explored the expansion of the definition of trade in order to accommodate the present circumstance. Where SADC and BSEC's large distance gap was a logistical challenge at first, with the war in Ukraine (and the consequent heightened danger of traversing the Black Sea), building on the concept of exports diversification was less attainable.

Thereafter, the Russia-Ukraine conflict was researched in order to understand its origins, its scope as well as the current influence on the world. In continuation of this research, Russia's (as the aggressor) main reasoning behind the attack was investigated. The goal of this section was to provide information on the conflict, as well as to make sense of Russia's choices to launch such an attack in this modern era (especially with the grim history of World Wars 1 and 2 not more than a decade ago).

The following section dealt with the global polarisation in response to the conflict. The three most prominent stances, namely Pro-Russia, Pro-Ukraine and Neutral was analysed. These analyses also mentioned the sides chosen by various global powers. Principal to these powers' positioning, was the exploration of the Emerging Market case study countries' stances towards this conflict. Thus, the stances of South Africa, Namibia, Georgia and Ukraine was investigated with the aim of highlighting some potential spill over effects in each country (often due to their stance).

Building on this, the next section focussed on the economic and infrastructural effects of this conflict on the Ukrainian economy. As the main country of focus for this objective, it was imperative to understand the ground-level situation before any suggestions for trade, exports or economic cooperation between SADC and BSEC could be made.

Lastly, potential opportunities for economic cooperation between SADC and BSEC (Ukraine) have been explored. As mentioned earlier, the onset of this black swan has changed the viability of exports between SADC and BSEC at least for the near future. Therefore, additional methods of contact for economic benefit and development was explored. The goal of this section was to provide the emerging markets with an alternative to goods and services trade (at least on the short run) in order to increase their resilience to spill over effects like the conflict.

6.3 Research Findings

6.3.1 An Expansion on the Concept of Trade

With the onset of the war, and the gross destruction of Ukrainian infrastructure, the concept of trade between SADC and BSEC had to be re-assessed**.** International trade is seen as the exchange of goods and services between countries. Building on this, it is important to distinguish between these two forms of trade by means of a definition:

i) **Trade in Goods:** The trade of physical, produced items where economic ownership can be passed from one institutional unit to another by engaging in transactions (Organisation for Economic Cooperation and Development, 2022).

ii) **Trade in Services:** A transaction between a resident and non-resident. According to the WTO, there are four modes of service trade supply, namely (World Trade Organisation, 2022):
   a) **Cross Border Trade:** From the territory of one member into the territory of another member.
   b) **Consumption Abroad:** Within the territory of one member to the service territory of any other member.
   c) **Commercial Presence:** By a service supplier of one member, through commercial presence, in the territory of another member.
   d) **Presence of Natural Persons:** By a service supplier of one member, through the presence of natural persons of a member in the territory of any other member.

Where the above definitions applies to the flow of goods and services across borders, two other forms of trade exist, namely the movement of people across boarders (migration) and the movement of capital across borders (foreign direct investment). It is with these concepts in mind, that the movement of information across borders can be seen as a precursor to the forms of trade described formerly.

According to The Oxford Handbook of Economics and Trade, the international trade structure is inherently a network – where countries are connected via trade linkages e.g. individual exporting firms working with importing firms in other countries and migrants knowing people from different countries (Chaney, 2016). Within this network, it can be argued that the two main factors enabling this movement is infrastructure and information. It could be argued that this is much harder to track and model due to its tendency to become obsolete or diffuse between participants in the information chain.

Building on the concept of information sharing, this dissertation suggests that a hybrid, broader form of trade be considered between SADC and BSEC. This concept should include the sharing of information as predecessor for any form of trade. This suggestion entails combining the concept of trade with that of economic interaction.

Due to the lack of a substantive definition and a concrete name, this concept will be referred to as ‘economic cooperation’ throughout this dissertation. Here economic cooperation refers to the sharing of information across borders with the aim of enabling economic growth and development as precursor to trade.

6.3.2 Current Global Market Circumstances: 2022 Russo-Ukraine Conflict

The Russo-Ukrainian crisis is a black swan which is dramatically transforming the current global market. Since October 2021, Russia started amassing troops and weaponry at the Ukrainian border, as well as sending troops to the Belarussian side of the Ukrainian border (Al Jazeera, 2022a).

To counter this potentially aggressive stance, the Ukrainian military started rallying their troops, conducting military exercises, and calling for support from the global community. In this turmoil, fears of a possible invasion ran high, as Russia sent a series of demands to the global community. Some demands directly concerned Ukraine, such as the Minsk agreement, the potential recognition of independence of the Donbass and Luhansk regions in Ukraine and the Nordstrom pipeline. Meanwhile other demands were directed at the global community at large, especially the North Atlantic Treaty Organisation (NATO) – such as concerns over their expansion close to the Russian territory.

One of the main concerns to the Western community was Russia’s argument that they were feeling threatened by NATO’s expansion over the years.

This position is satirically depicted in Figure 23 (next page), which represents a line of thought followed by some Westerners, where it is expected that Russia should have voiced their concerns calmly and diplomatically, instead of amassing troops as if prepared for warfare.

In line with this reasoning, the Russian demands were met with a series of counter demands from Ukraine and other involved parties such as NATO. This caused a polarisation in the free world, not unlike the one seen between the Allied and Axis powers in World War 2. There were countries opposing the aggressive Russian stance (mostly NATO members such as the European Union and Japan, led by the United States), and countries rallying behind Russia (either directly or indirectly such as some Middle Eastern countries as well as some African and Asian countries).

Amidst this polarisation, the different parties have various interests – arguably all contributing to push this crisis into the grey instead of having clear black and white lines. Between December 2021 and February 2022, the global diplomatic community was sent into a flurry in trying to disentangle these interests, all while maintaining open dialogue between the opposing sides as well as a sense of professionalism and

decorum. This diplomatic trice reached an apex when the Russian President, Vladimir Putin, formally recognised the Ukraine-located, pro-Russian regions of Donbass and Luhansk as independent on 21 February 2022 (Euronews, 2022).

Using this as casus belli, Russia launched a full-scale invasion into Ukraine on February 24, 2022. The West reacted with severe sanctions on Russia as well as sending militaristic and humanitarian aid to Ukraine. It can be argued that the West's reaction to this invasion is to isolate and punish Russia in the long run. Russia reacted to these sanctions with countersanctions against some Western companies and individuals. Thus, it is evident that the current conflict is polarizing the world and the long run effects of this action remains to be seen. Building on this, it can be argued that the new situation which has emerged is a hybrid war against the West, with Ukraine being the point of convergence and physical warfare.

FIGURE 23: WESTERN VIEW: "UKRAINE PROBLEM" BY GUY PARSONS
Source: (Parsons, 2022).

6.3.3 Investigating Russia's Broad Interests in Ukraine

To many, Putin's decision to invade Ukraine goes against all logic of the 21st century. It can be argued that the burden of World War 2 on the world has been heavy, with many countries still bearing those scars. In light of this bloody history, Russia's choice

to send troops into Ukraine and to launch air raids on their cities, seems illogical. One could reason that Russia surely knows that the world will not accept this and will demand a heavy price that could cripple the Russian economy.

However, this reasoning is from a Western, democratic mindset. It cannot be assumed that those in power in Russia follows the same kind of thinking. This is because logic is, in itself, a highly relative concept, differing according to individuals' perceptions, experiences, religion and other factors. Taking this idea one step further, Beziau (2015) argues that "the variety of logical systems may reflect not only the various ways to understand reasoning at different stages of the history (syllogistics vs first-order logic) and various aspects (modalities, quantifiers, positive logic) of one real reasoning but also the variation of this one reasoning itself through different ages (children/adult) and different cultures".

With this fluid understanding of the concept of logical reasoning, it can be argued that Putin's perspective and choice to invade Ukraine was based on a different set of logic than those of a pro-Western society. Historically speaking, Russia has deep-rooted economic, social, and political ties with Ukraine, all potentially influencing the current Russian regime's decision to launch the current "special peacekeeping mission". According to the US Council on Foreign Affairs, some of the most explicit reasons for this invasion are (Masters, 2022):

a) **Cultural Proximity**

The facts that Russia and Ukraine have a close geographic proximity, interwoven history, shared identity, and cultural similarity, are some of the key drivers of Russia's aggressive stance. On 12 July 2021, President Putin released an easy titled "On the Historical Unity of Russians and Ukrainians". This essay explored the shared heritage of the two nations and outlined the historical basis for Putin's claims that Russians and Ukrainians are "one people". Thus, according to the Russian view, this war is to re-form this brotherly unity between the countries as well as to protect the Russians currently living in Ukraine.

Shining a different light on the Kremlin's argument of cultural unity, is the potential downside of cultural unity. In an article on the Washington post in April 2014, Doctor Akos Lada states that "countries with shared identities often go to war with each other. This is most likely when two countries are culturally similar but differ in political institutions" (Lada, 2014).

Some aspects contributing to this cultural similarity could include a shared religion (Eastern Orthodox Christianity), ethnic homogeneity as well as a shared history. With Ukraine openly supporting westernization and democracy, as direct contrast to the communistic Russia, academics such as Dr. Lada argues that it is this cultural closeness which threatens the communistic state. The key argument here is that the

democratic Kyiv could potentially serve as an example for the Russian locals, urging them to rebel against the communistic Moscow given their Ukrainian counterparts' success and growth.

b) NATO Borders

The North Atlantic Treaty Organization is an alliance established in 1949 with the goal of ensuring security and freedom for all member states through political and militaristic means. This organization was created by the Allied forces in the aftermath of World War 2, and (in embodiment of their values) democracy was the cornerstone of this alliance. Because of this, NATO directly contrasted with the communist dogma and therefore was not supported by the USSR. At the time, one of NATOs key goals was to counter the expansion of the Soviet regime. Since then, NATO has gradually included more and more countries over the years, totaling at 30 member states in 2020 (Figure 24). Adding to this, there are also three partner countries, who aspire to join NATO. These countries are Georgia, Ukraine, and Bosnia & Herzegovina.

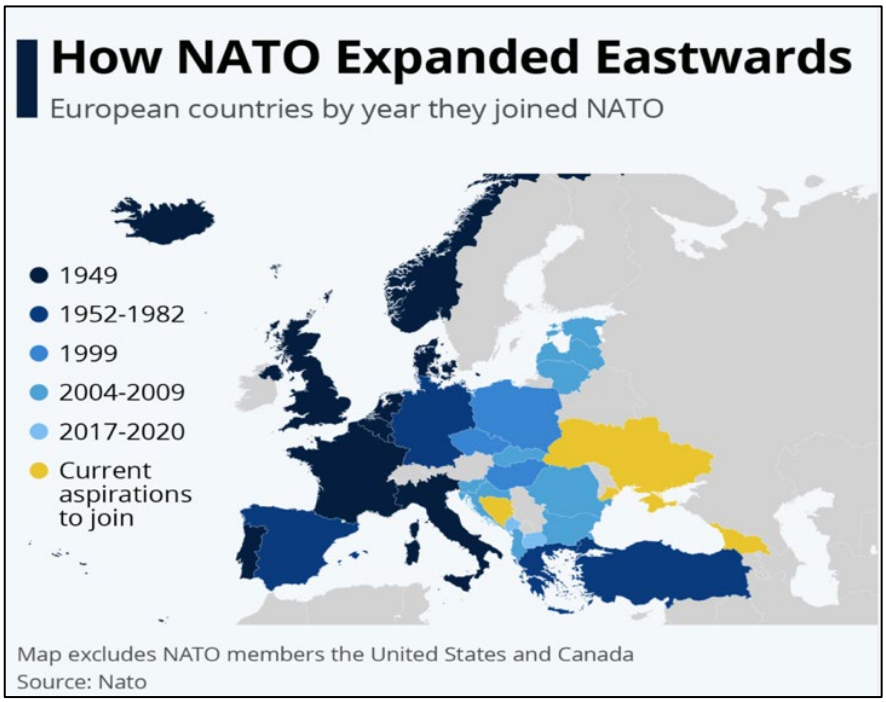


FIGURE 24: HOW NATO EXPANDED EASTWARDS
Source: (Statista, 2022).

From a Ukrainian perspective, this makes sense as such a membership would bolster their defensive strength as well as potentially attracting greater foreign investment due to investor beliefs about economic security.

However, from a Russian perspective, the NATO expansion is seen as a threat to their system. Putin argued that the West has betrayed Russia by breaking alleged verbal commitments at the end of Cold War that NATO would not expand eastwards (Al

Jazeera, 2022b). Putin also demanded security guarantees from NATO that Ukraine would never be allowed to join the alliance.

In response, NATO denied the existence of any such verbal promises as well as arguing that it was against their mandate to bluntly refuse any member without sufficient reason. But the chance of Ukraine joining NATO anytime soon is slim because the alliance believes that Kyiv has not yet done enough to eradicate corruption and meet their other military, economic and political criteria. Furthermore, as the war dragged on, the Ukrainian president, Volodymyr Zelensky went as far to state that Ukraine would let go of any plans to join NATO (Harding, 2022).

This choice was made from two views, one being that a key hidden aspect hindering Ukraine's NATO membership is the alliance's goal of avoiding a large-scale conflict with Russia, and the second being that this membership is one of Russia's reasons for invasion – where Ukraine's step back should be seen as a direct call for peace and dialogue.

c) Crimea

Another key Russian objective is to reunite the Crimea under Russian rule. According to the US Council on Foreign Affairs, in 1954 the Soviet leader Nikita Khrushchev gave the Crimea to the Ukrainians in order to promote and strengthen "brotherly ties between the Ukrainian and Russian peoples" (Masters, 2022). The Crimean capital of Sevastopol is also home to Russia's Black Sea Fleet. This region was annexed with the 2014 Russian invasion of the Crimea.

FIGURE 25: AREAS OF RUSSIAN MILITARY CONTROL IN UKRAINE IN JUNE 2022
Source: (The Visual Journalism Team, 2022).

However, upon analysis of Russia's current militaristic movements, the common argument is that they are presently trying to establish a land-bridge between the Russian-separatist controlled areas of Donetsk and Lugansk and the Crimea. In the creation of this corridor, the towns of Mariupol and Kherson have great strategic significance (Figure 25).

d) Energy

Russia is one of the world's largest energy suppliers, being the world's third largest producer of oil and second largest producer of natural gas. In fact, fossil fuels exports accounted for 63.2% of Russia's exports in 2017. However, in 2020, due to the pandemic, this share of exports decreased to 49.6% (OECD, 2022).

Focusing on natural gas, this commodity (Liquefied Natural Gas – LNG) is transported to the recipient countries via pipelines. On average, considering the timeframe from 2015 to 2020, some of the European countries with the highest dependency on Russian gas were Latvia, Hungary, Czech Republic and Bulgaria (Figure 26). In the supply of this gas, Ukrainian pipelines have served a strategic purpose for Russia in the transport of gas to consumers in Central and Eastern Europe.

In order to facilitate this gas transit, Russia pays a lot of money yearly to Kyiv. The Nord Stream 2 pipeline project, stretching under the Baltic Sea to Germany, would have allowed Russia to become less dependent on the Ukrainian pipelines (Masters, 2022). Therefore, it is evident that the supply of Energy is an important commodity in the Russian export-arsenal. From a European perspective, $ 11 billion project would have taken some pressure off European consumers, especially in the face of record energy prices and increased costs of living after the pandemic (Marsh & Chambers, 2022). In solidarity with Ukraine, the Nord Stream 2 project was frozen in February 2022 by Germany.

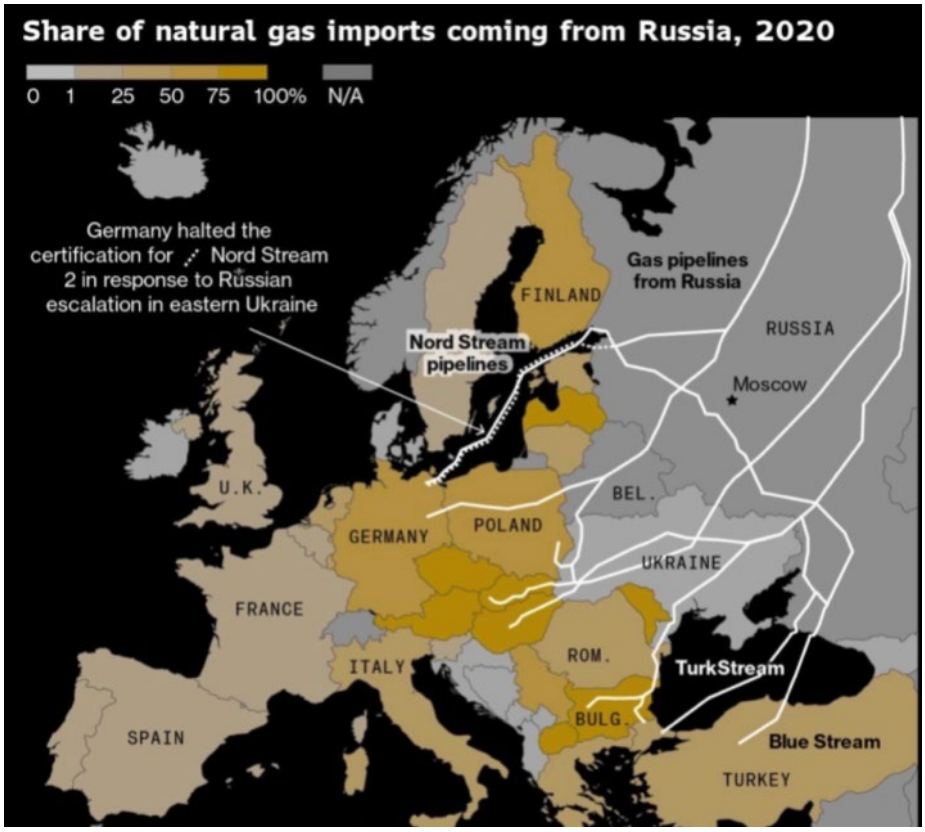


FIGURE 26: SHARE OF NATURAL GAS IMPORTS COMING FROM RUSSIA, 2020
Source: (Krukowska & Brambilla, 2022).

At present, it is impossible to specify what Russia's interest in Ukraine is from an energy perspective. Strategically speaking, it makes sense that Russia would want to establish other gas transportation networks (bypassing Ukraine), in order to save costs. However, the launch of an invasion into Ukraine does not make economic sense. This is because the outcome of an invasion, i.e., global sanctions against Russia and their alienation from numerous global supply chains, does not benefit Russia economically.

Unless there is more to this offensive than meets the eye. Taking a different angle, it could be argued that Russia's offensive in Ukraine is both an attempt to damage their

infrastructure, as well as to annex their energy-sources. The Donetsk and Lugansk regions are amongst the most energy - rich in the country. In fact, most of Ukraine's hydrocarbon resources are located in three regions, of which two are in the East surrounding Donbass, (namely: Dnieper-Donetsk region and Black Sea, Sea of Azov regions). Furthermore, most of Ukraine's coal reserves are also in the Donbass region (encompassing Donetsk, Lugansk and Dnipropetrovsk) (International Energy Agency, 2020).

The fact that Russia's troops are now concentrated in these areas, could be seen as supporting this opinion. According to political risk analyst David Knight Legg (2022), if Russia were able to control the largest section of Ukraine's energy, they would own second-largest gas reserves in Europe - adding an oil infrastructure network to the value of $400 billion to their reserves, as well as gaining control over the sixth-largest coal reserve base worldwide.

It can be argued that this invasion is made more complex due to the interplay of various interests and parties. In this case, each player (be it the Western Allies, the Ukrainian government, Vladimir Putin, the Russian and Ukrainian locals, the armies involved etc.) have their own forms of reasoning – thus influencing their perspectives and actions. However, one thing which must be noted explicitly is the suffering of the local men and women at the hands and decisions of the powerful.

6.3.4 Countries' Positioning In Relation To the Crisis

In today's society, very few countries remain unaffected by this crisis. Here, the argument can be made that the extent of the effects of this crisis on a country is greatly determined by factors such as its level of global integration and it's positioning towards this conflict. Elaborating on this view, it can be reasoned that the large global powers of Russia and the US have distinguished themselves as rule makers in this conflict.

Thus, these rule makers are setting the pace and direction in which events are unfolding, where smaller, emerging economies like South Africa being left exposed to the spill over effects of these choices. In this instance, the amount of emerging market turkeys slaughtered before thanksgiving is determined by the global superpower farmers.

By determining the positioning of each involved country, the effects of the conflict on the applicable economy as well as their level of adaptability can more easily be ascertained. In line with current global news, there are three common stances a country can take, namely Pro Ukraine (condemning the attack), Pro Russia (supporting the attack) and neutral (neither condemning nor in support of the attack) (Figure 27). However, there is also a small contingent who remain silent on this conflict, such as Turkmenistan, Azerbaijan and Ethiopia to name a few.

FIGURE 27: WHERE RUSSIA'S ATTACK ON UKRAINE WAS CONDEMNED
Source: From an article on Statista written by Buchholz (2022).

Pro Ukraine Stance

This position is taken by countries denouncing Russia's aggression in Ukraine and supporting their territorial sovereignty. Broadly speaking, this group consists out of pro-Western, democratically minded countries such as the Germany, France and other members of the European Union, -the United States, -Japan, -Canada, -Australia to name a few. This statement of Ursula von der Leyen (President of the European Union) reflects the essence of the pro Ukraine position (Figure 28).

> We are at a watershed moment. And the three of us, standing here together, is yet more proof of how closely the European Union and NATO are responding to the Kremlin's actions. The world can see that unity is our strength.
>
> Early this morning, President Putin ordered atrocious acts of aggression against a sovereign and independent country, and innocent people. We will hold Russia accountable for this outrageous violation of Ukraine's sovereignty and territorial integrity. And what is at stake is not just Donbas, it is not just Ukraine. What is at stake is the stability of Europe and the whole international order, our peace order. President Putin chose to bring war back to Europe. In a determined and united response, the European Union will make it as difficult as possible for the Kremlin to pursue its aggressive actions.

FIGURE 28: STATEMENT BY PRESIDENT VON DER LEYEN AT THE JOINT PRESS CONFERENCE WITH NATO SECRETARY GENERAL STOLTENBERG IN BRUSSELS ON 24 FEBRUARY 2022
Source: (European Commission, 2022).

Together with the EU, the United States and has played a leading role in attempts to punish Russia for their actions by means of various political, economic and social actions. The core aim has been to isolate Russia from the global community as well as to hold them accountable for their actions. Some of the means that these countries used to have support Ukraine to date include various sanctions packages, stopping the development the Nordstrom 2 Pipeline project, cutting Russia off from the international SWIFT banking system and sending billions of dollars' worth of weapons and humanitarian aid to Ukraine.

From a Western perspective, one of the key aspects influencing their position is the past conflict between Capitalist and Communist ideologies, with NATO playing a main role in these countries' reasoning. This is because besides standing for freedom and sovereignty, one of the cornerstone principles at the heart of NATO's founding treaty is collective defence. Enshrined in Article 5 of the Washington Treaty, collective defence means that an attack on one NATO ally is an attack on all allies (NATO, 2022a). Given that Russia actively cited NATO expansion as a reason for invading UA, as well as all NATO members' pro-UA stance, the movements of this alliance can be seen as critical to the outcome of this war.

To date, these countries has avoided direct conflict with Russia, instead opting to send militaristic, financial and humanitarian aid to UA. As explained in Figure 29, the main reason has been to support UA in their fight for independence without potentially triggering a third world war.

> When it comes to forces – so NATO is not part of the conflict. We provide support to Ukraine, but we are not part of the conflict. We help Ukraine with upholding their right for self defence which is enshrined in the UN Charter. But NATO will not send troops into Ukraine. We have to understand that it is extremely important to provide support to Ukraine and we are stepping up, but at the same time it is also extremely important to prevent that this conflict becomes a full-fledged war between NATO and Russia. And therefore it has been a very clear message from NATO Allies that we will not send troops to Ukraine.

FIGURE 29: NATO'S OUTLOOK ON SENDING TROOPS INTO UKRAINE
Source: (NATO, 2022b).

Pro Russia Stance

This position has proven to be more complex than a mere public support of the war. On the one hand, many Russian allies called for a halt in this conflict, but on the other

hand, these allies also tread lightly as not to offend and endanger any political, social and economic ties between Russia and themselves.

Stepping into their shoes, it could be argued that going against Russia could do these countries more harm than good in some cases, and in other, it could be reasoned that their choice to support Russia comes from similar communist ideologies and other socio-eco-political reasons. According to ABC News (Australia), some of the main countries taking this stance includes China and India, with smaller countries like Pakistan, Uzbekistan, Kazakhstan, Kyrgyzstan and Tajikistan (Diss, 2022).

In depiction of the Pro-Russian view, Figure 30 represents China's outlook on this crisis. Although this view is less popular in the eyes of the West, it must be noted that speaker Hua Chunying highlights some valid points.

Some of these points include questions about the methods used to end the conflict as well as about the US's involvement in Eastern countries in the past. In conclusion, their counter argument portrays the US (and indirectly the West and NATO) as hypocrites given their past arguably illegal actions in the East. They also indirectly portray the United States and NATO as warmongers, not set on a truly peaceful alternative.

AFP: The Russians said they would not attack cities and they announced they were clearly targeting military targets. So is it okay for you to invade another country as long as they are hitting on military targets and not cities? And then you also said that the US has been supplying ammunition to Ukraine. But is it not the right of any sovereign country to buy arms and ammunition wherever it wants in order to protect itself?

Hua Chunying: I'm sure you have noticed that Russia stated that in its special military operation in Ukraine, its armed forces will not conduct any missile of artillery strikes on any Ukrainian city.

As to the definition of "invasion", it brings us back to how we view the current situation in Ukraine. As we have stated repeatedly, the Ukraine issue has a very complicated historical background and context. The current state of affairs is not what we would hope to see. It's hoped that all sides will work in concert to give peace a chance and strive to ease the situation as soon as possible through dialogue, consultation and negotiation.

As to the right of sovereign countries to buy arms, I have a question for you. If two people near you are arguing and a fist fight seems to be coming next, what will you do? Hand one of them a gun, a knife or some other sorts of weapon? Or break up the fight with persuasion first and then get to know the whole story leading to the argument and helping them resolve the issue peacefully? It's as simple as that. Weapons can never solve all problems. This is not the time to pour oil on the flame, but to put our heads together to come up with a way to put out the fire and safeguard peace.

Here is another question. Western media used the word "invasion" for Russia's operation. When the US took illegal unilateral military operations in Iraq and Afghanistan without the mandate of the UN and caused massive civilian casualties, did you use the word "invasion" or some other word?

FIGURE 30: CHINA'S STANCE ON THE CONDEMNATION OF RUSSIA'S WAR IN UKRAINE
Source: Ministry of Foreign Affairs of the People's Republic of China (2022).

Neutral Stance

This position entails neither supporting nor condemning any party in the Russia-Ukraine conflict. The neutral stance is reflected in the words of Brazilian Ambassador to Ukraine, Ronaldo Costa Filho to President Jair Bolsonaro (Figure 31):

Therefore, we reiterate our call for an immediate cessation of hostilities, for full respect to humanitarian law, and for a renewed attempt within the Council for the promotion of, and support to, a process of dialogue between the parties involved, a role that the Council is inherently better equipped to provide in order to bring a peaceful solution to the Ukrainian conflict. The Security Council and General Assembly must work together.

As we renew our calls for an immediate ceasefire, we also appeal to Ukraine and Russia to facilitate the withdrawal of all persons who want to leave the Ukrainian territory. Brazil already wishes to express its gratitude to Poland, Slovakia, Hungary, Moldova, Romania and others who are facilitating the exit of people fleeing the conflict, in particular Brazilians and Latin Americans.

Let us be exceedingly cautious in moving forward in the General Assembly. The supply of weapons, the recourse to cyberattacks, and the application of selective sanctions, which could affect sectors such as fertilizers and wheat, with a strong risk of famine, entail the risk of exacerbating and spreading the conflict and not of solving it. We cannot be oblivious to the fact that these measures enhance the risks of wider and direct confrontation between NATO and Russia. It is our duty, both in the Council and in the General Assembly, to stop and reverse this escalation. We need to engage in serious negotiations, in good faith, that could allow the restoration of Ukraine's territorial integrity, security guarantees for Ukraine and Russia, and strategic stability in Europe.

FIGURE 31: STATEMENT BY THE PERMANENT REPRESENTATIVE AMBASSADOR RONALDO COSTA FILHO IN THE SECURITY COUNCIL DEBATE ON THE QUESTION OF UKRAINE
Source: (Ministério das Relações Exteriores, 2022).

Expanding on the above, it can be reasoned that one way to measure neutrality, is to look at a country's choices under pressure. More specifically, when placed under pressure from the international community, a country will arguably make the choice which optimizes their own socio-eco-political survival and welfare in future.

In this case, the UN General Assembly's resolutions calling on Russia to end hostilities immediately was chosen as basis to measure neutrality. Thus, those countries choosing to abstain from voting at the 2 March 2022, would be seen as neutral for the purposes of this dissertation.

This resolution received 93 votes in favor of the resolution, with 24 voting against it and a total of 58 abstentions (UN Affairs, 2022). Some of the countries abstaining from this resolution was Brazil, India, South Africa (note – three of the BRICS countries), Egypt, Saudi Arabia, UAE, Pakistan, Thailand and Mexico. Of all the neutral countries, the large neutral contingent on the African continent was significant. Of the 54 African member states, Eritrea voted against the resolution, while 16 countries (including South Africa) abstained from voting and 9 other countries did not vote at all. This means that a total of 25 African countries either abstained or did not vote at this Assembly.

Elaborating on this stance, it can be argued that each country has their own reasons for choosing neutrality over a direct black or white stance. According to Ajala (2022), lecturer in politics and international relations at Leeds Beckett University, some of the most common reasons for neutrality on the part of African countries include:

a) **Skepticism regarding NATO:** Countries such as South Africa views NATO in part as the aggressor with its eastward's expansion – with President Ramaphosa stating that NATOs unchecked expansion would undoubtedly lead to greater instability in the region (Cocks, 2022). It can be argued that a view of Western greed and exploitation for their own benefit is not uncommon in Africa. This view was also held by Dr. Sam Nujoma, former Namibian president (2012),

who argued that NATO's overthrow of Libya's Muammar Gaddafi was directly linked to the destabilization in North Africa and the Sahel (Ndjebela, 2011).

b) **Military Alliances with Russia:** Over the past decade, various African countries such as Libya, Ethiopia, Mali and Nigeria have developed strong military alliances with Russia. In many of these cases, these allegiances have been formed to curb insurgencies in times where the West refused support. In 2014, Nigeria turned to Russia for weapons supply after the United States refused to sell lethal weapons to fight Boko Haram (militant Islamists) (BBC News, 2014). At present, as seen in Figure 32,, Russia is Africa's largest arms-supplier, and accounts for roughly 39% of the continent's defense imports between 2009 and 2018 (Russell & Pichon, 2019).

FIGURE 32: RUSSIA'S MILITARY PRESENCE IN AFRICA
Source: (Russell & Pichon, 2019).

c) **Economic ties with Russia:** Some African countries depend on Russia for fertilizers and wheat. In fact, the Southern African region [mostly SADC countries] is a net importer and price-taker of wheat and fertilizers from Russia and Ukraine. In terms of wheat imports from Russia, the following countries ranked under the global top 25 in 2020: South Africa ranked 8th (586,000 tons), Tanzania 13th (430,000 tons), DRC 19th (212,000 tons), Mozambique 21st (172,450 tons) and ROC 24th (152,820 tons) (World Food Programme, 2022). Furthermore, this is only considering the impact of the crisis on Southern Africa, not to mention the effect on the rest of the continent.

In summary, it is evident that the RU-UA conflict has a polarizing effect on the world. Besides the various stances assumed by these countries in relation to Russia, it can be argued that these positions will greatly affect how these countries are viewed in the rest of the world. Case in point, China has refused to criticize Russia for this war along with refraining from even referring to this “special military operation” as such (McCarthy, 2022). One line of reasoning is the similar leadership styles by Chinese President Xi Jinping (regarding Taiwan) and Russian President Vladimir Putin (regarding Ukraine).

These similarities as well as a similar background rooted in communism might be driving forces behind these countries’ alliance. The West’s response to this has been definite, with some leaders including Jens Stoltenberg (President of the European Commission and NATO Secretary General) referring to China and Russia as a joint threat (Stoltenberg, 2022). Given the scope of the sanctions packages (extending well beyond the Russian borders), it can be argued that a very real possibility exist for China to also receive sanctions in future should the conflict escalate.

6.3.5 SADC & BSEC Case Study Countries’ Outlooks toward the War

In taking a pro-Russian, pro-Ukrainian or neutral stance, it can be argued that a country’s international status will be affected. Here, the argument is made that the extent of the effects of this crisis on a country is greatly determined by its level of global power as well as its positioning towards this conflict. The large global powers of Russia and the US have distinguished themselves as rule makers in this conflict, setting the pace and direction in which events are unfolding through their eco-socio-political choices. In line with the turkey analogy, and given the recent polarisation of the world in response to it, it is probable that smaller, emerging economies like South Africa and Ukraine are left exposed to the spill over effects of these choices.

Thus, it could be that possible the option of trade diversification (port-crisis) have become extremely limited as countries engage in tit-for-tat actions to punish opposing sides. However, given the interdependence brought about by globalisation, many smaller economies cannot afford such actions, and have to carefully balance relations with all existing partners. This arguably reinforces the need for subtle diversification of

these smaller players in order to hedge against potential economic shocks (by means of sanctions).

In order to determine the influence of this crisis on the case study countries, their positions as well as the present visible spill over effects has to be investigated:

a) South Africa

> "There have been some who have said that in abstaining from the vote condemning Russia's military operation in Ukraine, South Africa has placed itself on the wrong side of history," he said. "Yet, South Africa is firmly on the side of peace at a time when another war is something the world does not need, nor can it afford. The results of these hostilities will be felt globally and for many years to come."

FIGURE 33: SA'S POSITION ON THE RU-UA WAR (PRESS RELEASE BY PRESIDENT RAMAPHOSA)
Source: Bloomberg (March 21).

South Africa's response to the Russo-Ukraine crisis has been divisive. Efforts have been made to remain neutral in spite of calls from both sides to choose a side. Initially, the head of the South African Department of International Relations, Dr. Naledi Pandor's response to the Ukraine crisis, was to issue a strong statement, condemning the war and asking Russia to withdraw from the conflict (Fabricius, 2022).

However, this approach was quickly railed back by the South African government. The new stance was more neutral in its calling for global commitment towards dialogue and diplomacy as seen in Figure 32 (Richardson, 2022). Building on this, South Africa was also amongst those countries who chose to abstain from the United Nations' vote to condemn the Russian invasion of Ukraine.

Historically speaking, South Africa has a long history with Russia. The Russians provided support against the imperialist West in the early 1900s as well as having provided training and education to many prominent anti-apartheid leaders in the late 1900s. This neutrality is in line with the positioning of the African Union as well as with South Africa's previous stance on the Crimean annexation. With its establishment in 1963, the Organisation of African Unity (OAU), has adopted the principles of non-interference in the affairs of States and the inviolability of borders (Organization of African Unity, 1963).

Its successor, the African Union, has adopted this same principle of non-interference. This, in part, dictated South Africa's position on the Russian annexation of the Ukrainian Crimea in 2014. In 2014, South Africa's (as member of the AU) stance on this invasion was one of neutrality. In line with the AU's policy of non-interference, SA called for dialogue and cooperation between Ukraine and Russia (Figure 34).

Press Statement on the Situation in Ukraine

The South African Government reiterates its concern regarding developments in Ukraine.

South Africa calls upon both the Russian Federation and Ukraine to engage in dialogue and cooperation in the interest of the stability of the broader region.

South Africa is of the view that the escalation of hostile language, the imposition of sanctions and counter-sanctions, the use of threat of force and violent actions do not contribute to the peaceful resolution of the situation and the economic stability of Ukraine and the region.

South Africa encourages the various parties to strengthen all diplomatic efforts to produce a sustainable and peaceful solution, including through appropriate international fora. It is essential that a political path be supported by a united, cohesive international effort towards a negotiated political settlement reflective of the will of the people aimed at establishing a democratic pluralistic society, in which minorities are protected.

We further encourage regional initiatives aimed at resolving the crisis and in this regard welcome the deployment of the Organisation for Security and Cooperation in Europe's (OSCE) Special Monitoring Mission to Ukraine.

South Africa will continue to follow developments in the region.

FIGURE 34: SA'S POSITION ON THE RUSSIAN ANNEXATION OF THE CRIMEA IN 2014
Source: (Department of International Relations and Cooperation, 2014).

Another influencer of this neutral position is SA's relationship with Russia, China and other BRICS countries. BRICS is an anti-imperialist grouping made up of five emerging market leaders, i.e. Brazil, Russia, India, China and South Africa. Thus far, all four of the BRICS members have positioned themselves as neutral to the conflict, calling for diplomacy and dialogue instead of open warfare and sanctions.

It can be reasoned that this caution is aimed at maintaining a strong relationship with Russia as well as with the Western community – as potentially severe consequences could be felts by these members should they clearly choose sides. Building on this, there are some who are of the opinion that the sanctions against Russia is beneficial to the emerging market economies. The most common argument for this line of thought is that the market areas targeted with sanctions can be replaced with innovations from these emerging markets. For example, China and Russia has started their transition from a dollar-based trade structure in 2017.

Andrei Akopian, head of Caderus Capital explained this move to Reuters as follows; "if we talk about trade and investment, it makes a lot of sense for both countries not to trade in US Dollars because you have double conversion, in addition to other difficulties" (Shen & Galbraith, 2022). Despite some heavy economic hits such as inflation and higher fuel prices, SA could potentially benefit from this crisis in terms of primary commodity exports. Some of the main commodity markets poised to potentially gain from this issue is the South African gold and palladium markets –

where Russia is the world's largest producer of palladium, and South Africa the second largest.

Elaborating on this positioning, and line with the dependent turkey analogy, some of the main spill-over effects of this crisis onto South Africa is the following:

a) **Higher fuel, - unemployment and -food prices:** South Africa's growth forecast for 2022 was already anaemic at the start of 2022, with the IMF estimating a growth percentage of 1.9. This figure is especially worrying given South Africa's record high debt-to-GDP ratio as well as record high unemployment rate. According to Dawie Roodt, chief economist at Efficient Group, SA's fiscal accounts are already under a lot of strain and he is doubtful that the country will be able to withstand any further hits. In his words, " If there's a sudden increase in food prices, we simply do not have the capacity to subsidise food" (Philipas, 2022).

b) **Potential primary commodities market boom or economic slump:** There are two potential spill-over effects of this crisis on SA. On the positive side, it could be that demand increases for South African primary commodities (as the heavy sanction package takes its toll on Russian exports). The primary commodity demand most expected to influence SA includes the demand for gold, palladium and coal. Although coal exports from Russia have not been banned yet, the EU has plans to do so by mind-August (Tan, 2022) as part of the fifth round of sanctions on Russia.

   Should this round take place, analysts such as Exxaro Resources expects South Africa to rank high on the EU's list of potential coal suppliers (Steyn, 2022). However, on the other hand this war could trigger an economic slump as higher fuel and food prices leads to higher interest rates, thus curbing spending and domestic demand dramatically. It could be that due to various factors, including SA's close ties to the East and the West that the EU decides to overlook SA in their search for primary commodities.

However, building on this, it can be argued that a third option could be perhaps an increase in foreign investments and investor confidence. Arguably, in the face of the current global market turmoil, it could be that negative factors such as the country's political instability is overshadowed by the uncertainty of war (and other aspects like COVID) across the European continent – thus attracting greater foreign investments.

b) Ukraine

Contrasting to South Africa, Ukraine's response to Russia's "special military operation" has been decisive, united and pro-Western. Placing a high value on democracy,

westernisation and independence, Ukraine chose a path of defiance against this invader. Acting as primary spokesperson for his country, it can be argued that President Vladimir Zelensky's role in this conflict is tripartite.

Firstly, he acts to inform the world about Russia's atrocities and Ukraine's progress. Secondly, he collaborates (at high level) with NATO, the EU and other partners to organise the supply and delivery of weapons and other needed goods. Thirdly he works to guide and motivate the locals (military and non-military alike) to resist the ongoing invasion.

> For this crime there will definitely be a tribunal. International. This is a breach of all conventions. No one in the world will forgive you the murder of peaceful Ukrainian people. Here is Ukraine. Here is Europe. Here is 2022. Evil, armed with rockets, bombs and artillery, must be stopped immediately. Destroyed economically. We must show that humanity is able to protect themselves. I believe that it is necessary to consider the full closure of the sky for Russian missiles, airplanes, helicopters. In five days of invasion, already 56 missile strikes have been carried out against Ukraine. 113 cruise missiles were fired. This is their "fraternal friendship". And the world knows what to do. I spoke about this with partners today.
>
> The state committing military crimes against civilians cannot be a member of the UN Security Council. The entrance to all ports, channels, airports in the world must be closed for this state . Such a state must not receive hundreds of billions for energy exports. Buying Russian goods now is to pay money for murdering people.

FIGURE 35: ADDRESS BY PRESIDENT ZELENSKY ON 28 FEBRUARY 2022
Source: (President of Ukraine, 2022).

These roles are present in his speech on 28 February 2022 (Figure 35).

Building on this, it can be argued that President Zelensky serves as a mouthpiece for his people, voicing to the world the general united Ukrainian perspective on this war. According Mark Cancian, senior adviser in the international security program, one big reason for the Russian's invasion was due to the idea that Ukraine was divided. According to Cancian (2022), various independent polls and demographics before the invasion showed this division:

- **Ethnicity:** Approximately a quarter of Ukraine were Russian speakers (Greek Orthodox) and living in accordance to the Russian culture. Two-thirds were Ukrainian speakers (Catholic) and living in accordance with Western culture/s.
- Overall, the country was faced with a heavily declining population (after a peak in 1991).
- **Economically:** Ukraine ranked amongst the top five poorest countries in Europe.

- According to local polls, the majority of the country believed that Ukraine was headed in the wrong direction, with 40% saying that they would not defend the country in case of an attack.

Thus, if these polls and studies were to be a reflection of reality, then Putin's decision to invade would have been rational (albeit immoral). However, the events in reality turned out to be quite different from the polls and demographic research. In reality, Ukrainians united in various ways to resist the invasion. Despite these factors, it can be argued that devastating influence of this war on Ukraine cannot be overlooked.

c) Georgia

Georgia's response to the conflict has been a balancing act between solidarity with UA and caution towards RU. This stance should be interpreted from both a political and historical perspective. In his address to the US Ambassador and troops stationed in Georgia, Prime Minister Irakli Garibashvili expressed the country's full support for UA in line with international laws (Figure 36).

Furthermore, it can be argued that Georgia (as a pervious USSR satellite, with the Russian annexation of Abkhazia and South Ossetia in 2009) has a better idea of Russian aggression than many other countries as hinted by the Prime Minister.

> Let me begin by stressing that humanity is witnessing tragic and consequential actions orchestrated by the Russian Federation in Ukraine. The war has shaken not only regional, but also global security, stability, and peace. For our nation, which experienced its own Russian invasion back in 2008 and 20% of our sovereign territory remains occupied, let me be clear, there is no alternative to peace. Georgia, understanding the atrocities that come with war, from the very first days has been demonstrating full support and solidarity with the Ukrainian people and state. Today, like never before, international cooperation and a consolidated approach are crucial to preserving the international rule-based order as we know it.

FIGURE 36: ADDRESS BY PRIME MINISTER GARIBASHVILI ON 24 MARCH 2022
Source: (Prime Minister of Georgia, 2022).

> "I want to clearly and unequivocally state that Georgia, taking into account our national interests and the interests of our people, is not going to participate in financial and economic sanctions, as this will only cause great harm to our country and our population".

FIGURE 37: VIEW OF PRIME MINISTER GARIBASHVILI ON SANCTIONS AGAINST RUSSIA
Source: (Narimanishvili, 2022).

Despite their history, there appears to be divide in opinion by the Georgian government as well as in the local populace regarding the extent to which Georgia should go to support UA. Since the outbreak of this conflict, Georgia has been emphasising their intention not to impose sanctions against Russia (Narimanishvili, 2022). Similar to

South Africa, the Georgian Prime Minister argues that such an action would severely influence their economic and social development (Figure 37).

This view contrasts sharply with the view of the Georgian President Salome Zurabishvili. She argues that Georgia is indeed complying with the international sanctions packages (Figure 38):

> "I can honestly say that I would not make such a statement", Salome Zurabishvili said in an interview with France-24 on March 2. She later told CNN that the claim that Georgia did not join the sanctions was untrue and that the problem could lie in "the vocabulary used by the government":
>
> "We participate in all international financial sanctions, and this is something unusual for Georgia's financial sector... At the same time, we [Georgia] have joined all international resolutions in support of Ukraine... We [together with Ukraine] have experienced two centuries of Russian aggression and we know what it is like", Salome Zurabishvili told Christiane Amanpour, the CNN anchor.

FIGURE 38: VIEW OF PRESIDENT ZURABISHVILI ON SANCTIONS AGAINST RUSSIA
Source: (Narimanishvili, 2022).

Based on these figures it is evident that there is some level of divergence in the Georgian government on Georgia's role in UA's fight against RU. This divergence could potentially put the government in a negative view – with the public equating non-sanctions and governmental ambiguity with a pro-Russian outlook. In fact, after Georgia's reluctance to take a stronger stance against Russia (in the public's eye), anti-war and anti-government protests in Tbilisi has flared (Kincha, 2022).

Despite negative public views, it could be reasoned that the Georgian government, due to a long history of trade and intertwined relations with Russia, has ample reason to be weary of sanctioning RU. This could explain why Georgian PM Mr. Garibashvili was unwilling to have his country be dragged into the conflict, stating that "there will be no second front in Georgia, we will not allow this and will continue to protect our citizens and our state" (Agenda.ge, 2022).

d) Namibia

Namibia's response to the conflict has been muted and taciturn. To date, the Namibian Presidency has not released any statement about this conflict. However, on February 15 2022 (before the escalation of the conflict from cold to hot war), the Namibian Ministry of International Relations and Cooperation released the following statement on social media (Figure 39):

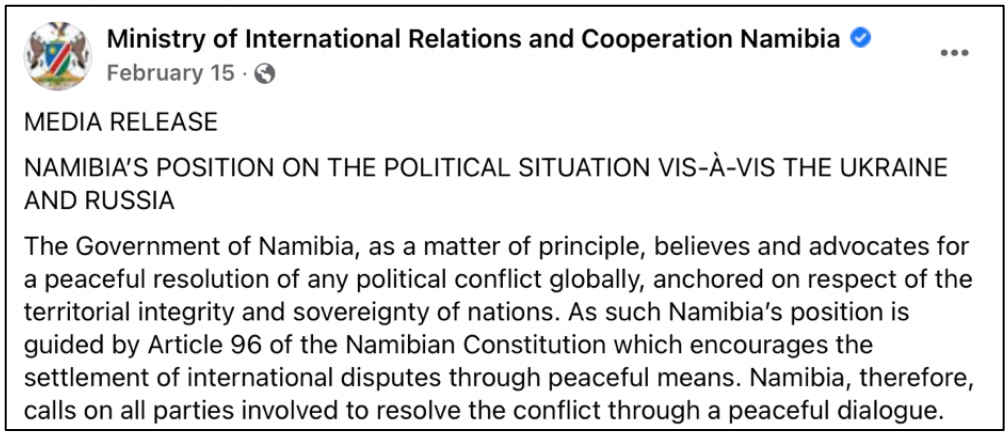


FIGURE 39: NM'S POSITION ON THE RU-UA CRISIS

Source: Accessed on Facebook on the account of Ministry of International Relations and Cooperation Namibia (2022).

From this statement, it seems as if Namibia is taking a neutral stance by calling for the peaceful resolution of this conflict. This neutral stance has been carried onward to the point of Namibia's abstention on the UN's vote on the RU-UA crisis.

In line with South-Africa's stance, it can be argued that one reason for both these SADC countries' reluctance to defy Russia has to do with the USSRs key role in the liberation of these countries (Moffat, 2022). In terms of the impact of this conflict on Namibia, it can be seen as indirect – where the spill over effects of this war has a definite impact on the country's operations.

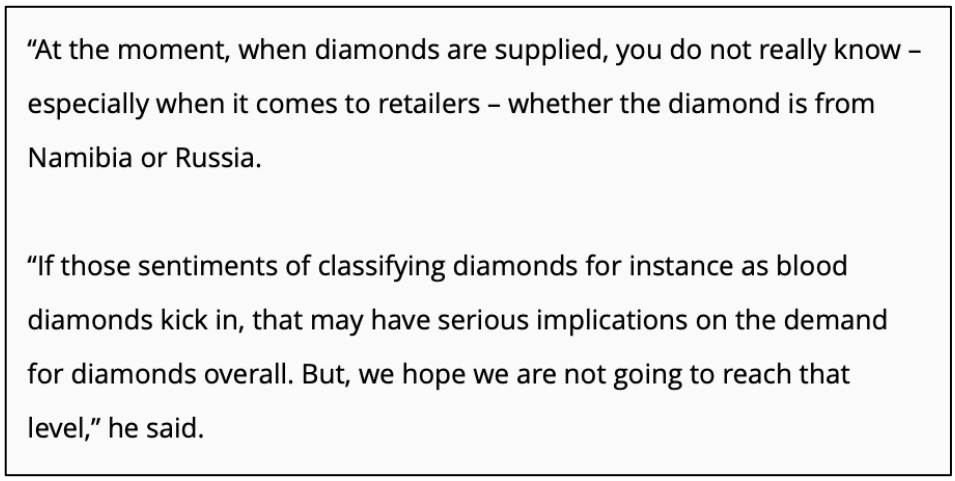


FIGURE 40: GOVERNOR OF BANK OF NAMIBIA'S CONCERNS OVER RUSSIA'S BLOOD DIAMOND EXPORTS

Source: Quote extracted from an article written in The Namibian by Petersen (2022).

Albeit that Namibia has a very small share of trade with Ukraine, the country expects to be impacted by the global wheat and grain shortage, -increases in fuel prices as well as the global demand for diamonds (Petersen, 2022). A key problem here, is the fine line between the uses of the money generated from Russia's diamond sales.

Although there are various definitions of blood diamonds, here, the broader version applies as put forth by Bruffaerts (2015), seeing blood diamonds as

"…all rough diamonds directly associated with organised or institutionalised violence, irrespective of the perpetrator."

Thus, if the money from Russia's diamond sales in any way are used to fund Russia's illegal actions in Ukraine (or elsewhere), then they will be considered as blood diamonds. According to Johannes !Gawaxab, governor of the Bank of Namibia, a key concern with regards to these diamonds is the possibility of Russia using Namibia as a proxy to export/sell their blood diamonds (Figure 40). Thus, it is possible that the governor envisions a scenario where Russia uses their political ties in Namibia, as well as the global ambiguity of diamond classification to their advantage in their sale of blood diamonds.

6.3.6 Influence of Russian Invasion on Ukrainian Economy and Infrastructure

Despite the various economic, political and social narratives influencing various countries' positioning during the conflict, the damage being made to Ukraine is a reality. With application to this dissertation, it can be reasoned that much of the infrastructure highlighted in Chapter 4 and 5, has either been damaged or destroyed completely. Thus, in order to understand if and how SADC could potentially engage in some form of economic cooperation with BSEC in future, it is crucial to grasp the scope of the damage to the Ukrainian system from an economic and infrastructural point.

a) Economic Influence

The impact of this war on the Ukrainian economy could be considered as severe and wide-ranging. In substantiation of this view, the World Bank predicts that the Ukrainian economy will contract with 45% in 2022 (Torkington, 2022). Looking at UA's economic development since 2012, it is evident that in a timeframe of 10 years, they have been hit with three recessions so far (with the war expected to trigger another) (Figure 41).

The first two years of negative economic growth were triggered by the Russian annexation of the Crimea in 2014/2015, whereafter COVID19 triggered the third recession and the ongoing war is expected to trigger a forth. As a developing economy, Ukraine already faced two large contractions in 2014/2015 and 2020 – and will arguably have a long and challenging road of recovery ahead after the expected 2022 contraction. Furthermore, it can be argued that with each contraction, the road to recovery is elongated due to damage to industries, development and so forth.

Elaborating on this, the UA Ministry of Economy and Kyiv School of Economics (KSE) estimated the total economic losses of at the start of the war (i.e. from February to the

end of March) ranged between USD 543 billion to USD 600 billion (Kyiv School of Economics, 2022). Note that these figures accounted for direct losses as reported by their project, as well as indirect losses such as GDP decline, labour outflow, withdrawals of investments and FDI, extra defence and social support costs).

According to the estimations of the European Bank for Reconstruction and Development, between 30 to 50 percent of Ukrainian businesses have halted their activities completely (Bennett, 2022). In line with the KSE estimations, it can be reasoned that this would dramatically influence the levels of unemployment and automatically put more strain on government resources (which is already heavily strained due to the conflict).

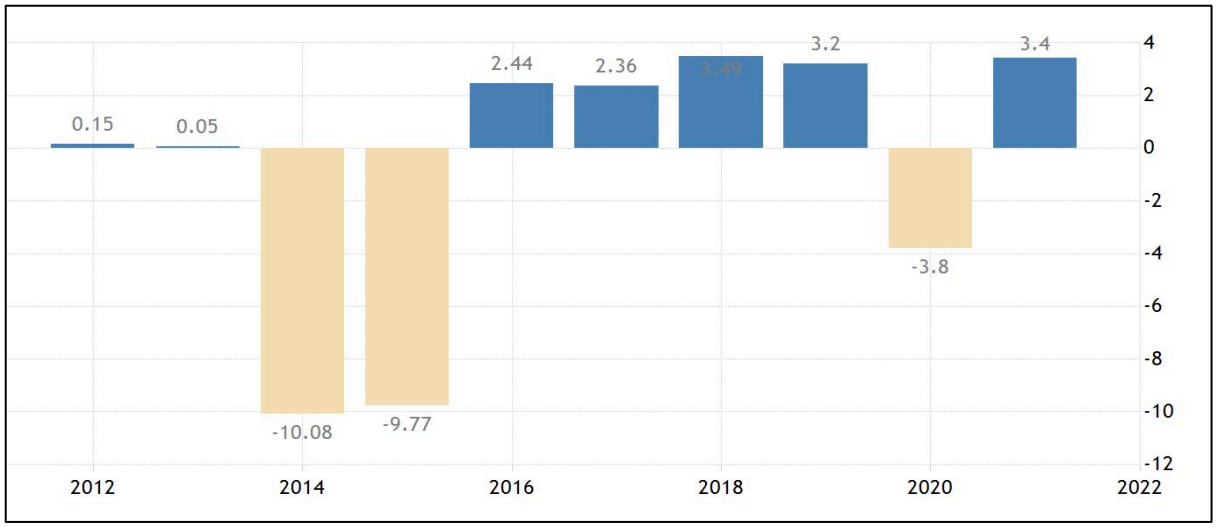


FIGURE 41: UKRAINE EXPECTED GDP GROWTH IN 2022
Source: (Trading Economics, 2022).

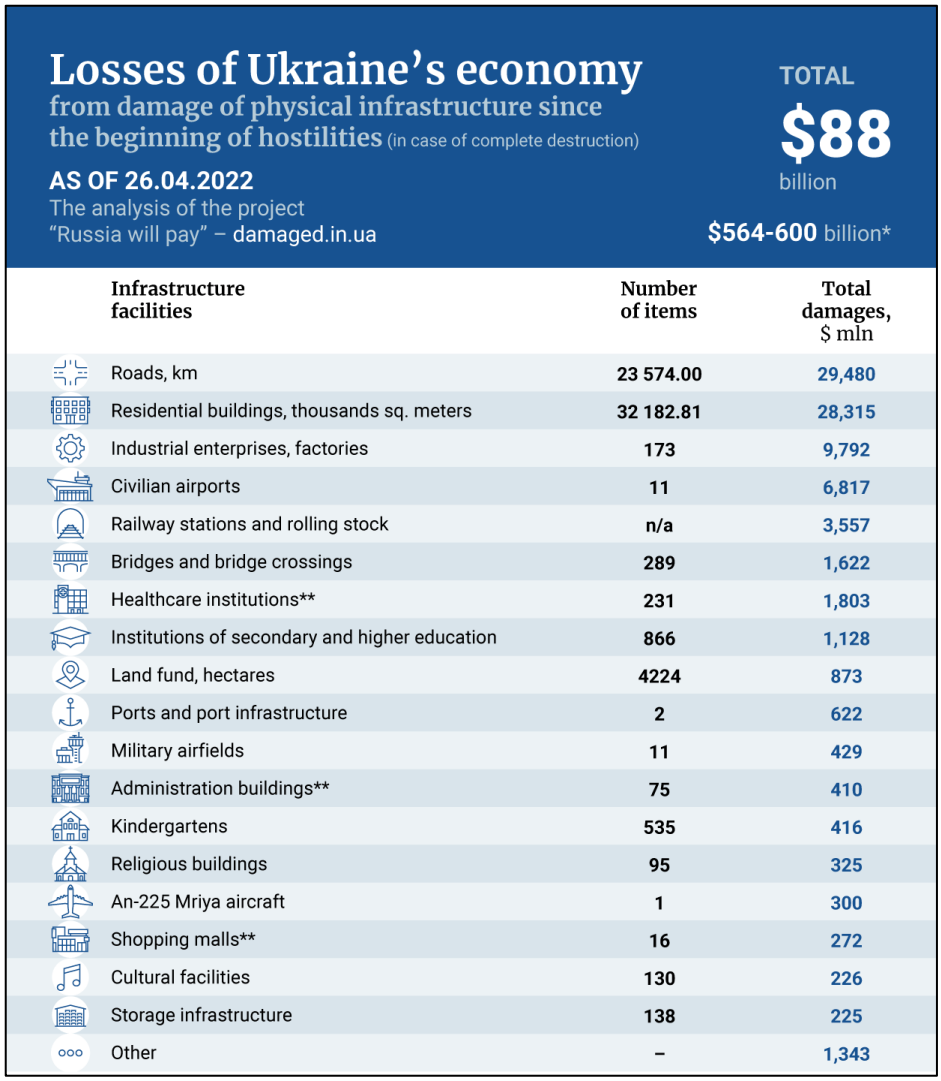
Furthermore, given Russia's blockade of Ukrainian ports (France24, 2022) amongst other factors, this war is arguably worsening global food security and contributing to heightened food and fuel prices. This is because Ukraine is deemed the "bread basket of Europe" and is a global net exporter of wheat, corn and sunflower oil. Here, the continuation of the conflict raises concerns on aspects regarding the production and export of these products – where port closures, a lack of access to fuel and logistical difficulties arguably play a key role.

b) Infrastructural Influence

In its wake, this conflict has left volumes of damaged residential, trade and other non-military infrastructure along with damaged or destroyed military targets. At the start of the war, Russia pledged to only strike military targets. However, as events dragged on, they have not remained true to their word – damaging and destroying scores of residential, cultural, educational and trade infrastructure.

According to Reliefweb (2022), in the city of Chernihiv alone, some non-military infrastructural destruction included the bombing of an apartment complex (killing 47 civilians), - attacking a supermarket bread line (which led to the death of 17 people) and launching two separate attacks on hospitals (in one attack of which the widely banned cluster munitions was used). Moreover, it can be inferred that the loss of infrastructure has and is continuing to tear down the economic development which has taken place since 1991.

According to KSE (Figure 42), the direct damage to UAs infrastructure due to the war stood at USD 88 billion (i.e. in excess of UAH 2,6 trillion) on 26 April 2022 (Kyiv School of Economics, 2022).



Losses of Ukraine's economy

from damage of physical infrastructure since the beginning of hostilities (in case of complete destruction)

AS OF 26.04.2022

The analysis of the project "Russia will pay" – damaged.in.ua

TOTAL **$88** billion

$564-600 billion*

Infrastructure facilities	Number of items	Total damages, $ mln
Roads, km	23 574.00	29,480
Residential buildings, thousands sq. meters	32 182.81	28,315
Industrial enterprises, factories	173	9,792
Civilian airports	11	6,817
Railway stations and rolling stock	n/a	3,557
Bridges and bridge crossings	289	1,622
Healthcare institutions**	231	1,803
Institutions of secondary and higher education	866	1,128
Land fund, hectares	4224	873
Ports and port infrastructure	2	622
Military airfields	11	429
Administration buildings**	75	410
Kindergartens	535	416
Religious buildings	95	325
An-225 Mriya aircraft	1	300
Shopping malls**	16	272
Cultural facilities	130	226
Storage infrastructure	138	225
Other	–	1,343

FIGURE 42: ESTIMATED INFRASTRUCTURAL DAMAGE IN UA ON 26 APRIL 2022
Source: (Kyiv School of Economics, 2022).

Figure 42 provides further clarity on the extent of damage done to physical infrastructure up until April 2022. As the war rages on, these figures can only be expected to rise. As seen on the figure, it is evident that the biggest damage thus far

have been done to road infrastructure ($ 29 480 million) followed by residential infrastructure ($ 28 315 million).

Given that transportation infrastructure is a key enabler of trade (and indirectly economic development), it can be argued that the destruction of roads and other key economic infrastructure in Ukraine renders the map drawn in Chapter 4 and 5 as obsolete. This accounts for Eastern and Southern Ukraine especially – where the Russians as focussing on the areas of Donbas and Lughansk as well as slowly making their way to Odessa.

Case in point, critical export routes connecting UA's Black Sea ports with the mainland have been cut off. Furthermore, the city of Mariupol has been destroyed and Odessa is under a naval blockade by Russian forces. According to Torkington (2022), these routes accounted for up to 50% of UA's total external trade, and 90% of its grain trade.

Therefore, looking at the Economic and Infrastructural impact of this conflict, it is evident that the concept of goods and services trade with Ukraine from South Africa (or other SADC countries) has become less viable and much more difficult. However, this does not mean that all options are off the table. Here, it can be reasoned that economic cooperation between South Africa (representing SADC) and Ukraine (representing BSEC) is still viable, and perhaps a means for smaller economies to help one another grow by means of skills transfer.

6.3.7 Options for Economic Collaboration between SADC & BSEC

Given the tense global division with regards to the RU-UA conflict, the opportunities to trade with Ukraine or Georgia has either been narrowed down or changed shape. Besides the fact that cross-hemispheric trade (between Southern Africa and Eastern Europe) has always posed an expensive logistical feat, this feat has become much more dangerous with the possibility of floating mines in the Black Sea. Floating mines from the Soviet-era have been found on various locations in the Black Sea (Ellyatt, 2022). Although these mines are suspected of belonging to Russia and being used as part of their blockade on grain exports, Russia and Ukraine are trading accusations as neither wants to be seen as accountable.

Besides the political instability within the region due to the conflict, as well as the fact that Georgia (as previous USSR satellite) is a potential future target for Russia, it can be reasoned that conventional trade via imports and exports between SADC and BSEC is less viable at present.

A potential solution and starting point for future trade is with the focussed implementation of economic collaboration. Drawing in the definition suggested earlier in this dissertation, economic collaboration via the sharing of knowledge, skills or technology could be an important step towards forging new relationships between

SADC and BSEC without having to undergo the massive expenses of physical imports/exports.

The case study in ANNEX A can be used to explain and substantiate this argument:

Avondale was the first South African wine farm to use the ancient Georgian wine storage clay vessels (called Qvevri) in their wine production. However, this is not the focus or reason for including this case study. Here, the fascinating part it the process which led to the usage of these Qvevri by Avondale in the first place. This process is visually depicted in Figure 43. As explained by Avondale proprietor Jonathan Grieve, the Qvevri first attracted his attention on a visit to Georgia in 2017 (step 1).

According to the case study, he learnt about this process while there, and then sought out the master potter later on to learn more about these vessels (step 2). After having learnt more about the value of using Qvevri, Mr Grieves started planning on its incorporation to his own wine farm's production process (step 3). This included ordering 24 qvevri from Georgia. From these qvevri, Avondale has made two vintages, namely Chenin Blanc (white wine) and Mouverdre, Syrah, Grenache (red blend) (Figure 44).

FIGURE 43: EXPLAINING THE PROCESS OF BRINING QVEVRI TO SA
Source: By Ansonette Esterhuizen (2022).

FIGURE 44: AVONDALE'S WINES FROM QVEVRI
Source: (Wine Cellar, 2019).

In the world of trade and development, it could be argued that countries do not always have the luxury of waiting for chance events to discover valuable produce, knowledge or learn important new skills. With this in mind, this dissertation suggests a different (but not novel) approach to bilateral and even multilateral trade, namely economic cooperation. Although this has been practiced loosely by diplomats and various institutions, the scope and magnitude of such a process (if implemented at formal, larger level) could be enormous.

Economic cooperation is not posed as a substitute for international trade, but instead presented as the forerunner and catalyst for this process. At theoretic level, this activity is depicted in Annexure A.

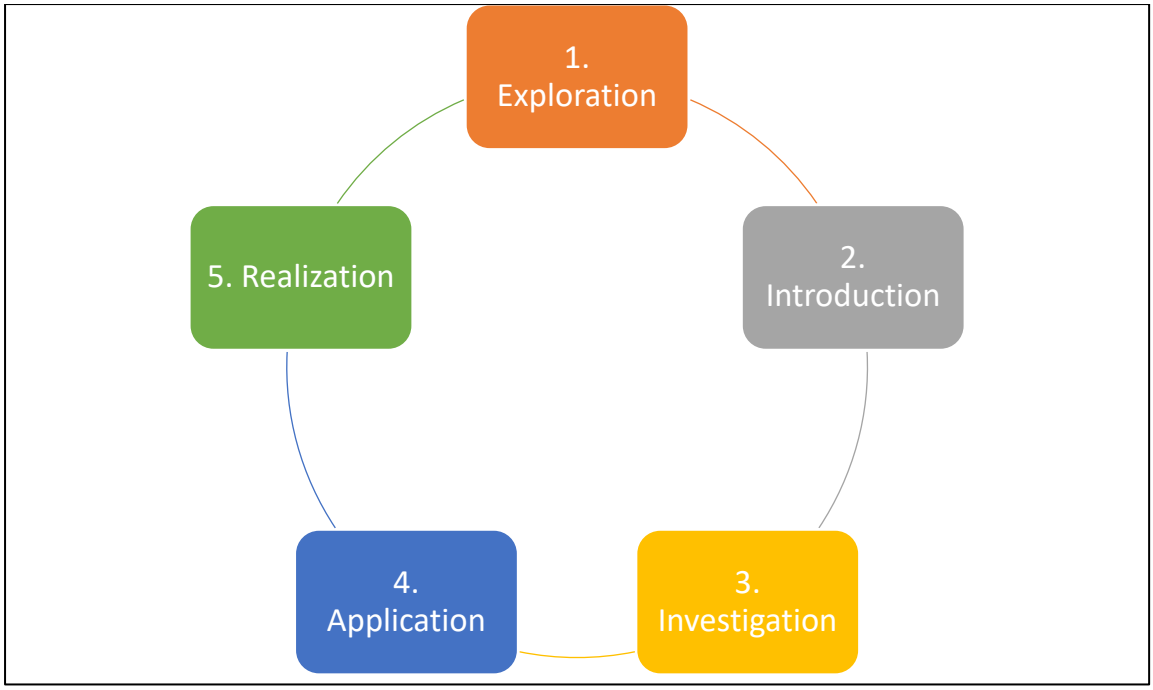


FIGURE 45: ECONOMIC COOPERATION IN THEORY
Source: By Ansonette Esterhuizen (2022).

Breaking down the steps proposed in Figure 43, economic cooperation occurs as follows:

1. **Exploration:** When Mr. Grieves visited Georgia initially, he could not have foreseen the discovery of Qvevri. In reality, the exploration phase is rarely intentional, with many businesses etc. learning new skills (etc.) from stumbling on them by chance. Thus, it can be reasoned that the exploration phase need not always be the catalyst for economic cooperation, but, if this activity was to be proposed in a formal manner, then intentional exploration could be valuable.
2. **Introduction:** This is the point where Mr. Grieves learnt about the Qvevri for the first time while visiting the leading natural wineries. In terms of economic cooperation, this is the point where diplomats or businesses either tell counterparts about new knowledge, skills or information (KSI) or any other way in which members of one country learn about something in another country. There are numerous ways in which this can occur, either formally or informally such as via the internet, at social functions, through business conferences and trade shows.
3. **Investigation:** In the case study, this is where Mr. Grieves went to visit the master Qvevri manufacturer to learn more about these vessels (and investigate the potential application of them in South Africa). Where the exploration and introduction phases can arguably be seen as unintentional, the exploration phase is a commitment from the interested party to learn more about this discovery with the aim of determining if it holds value for them.
4. **Application:** At this stage, Mr. Grieves ordered 27 Qvevri and had them imported from South Africa. In terms of economic cooperation, application does not always

have to be a physical import/export. This phase relates to the application of this discovery to the country of the party of interest. A key point to note here is that there will most likely be 'school fees' in the process to learn to apply the knowledge, skills etc. associated with this discovery.

5. **Realization:** This stage refers to the wines which has successfully been made using Qvevri, and is now being sold to Avondale's market. In terms of economic cooperation, this stage can be seen as reaping the benefits of the application of the discovery.
6. Building on these five steps, it can be argued that one option to make such a process more intentional (instead of haphazard) is by means of organised efforts between diplomats and the community such as chambers of commerce between South Africa and various other countries.

6.4 Summary & Conclusion

From this section, it is evident that the war in Ukraine is leaving countless damaged infrastructure and bodies in its wake. This sector has proven that in such dire circumstances, it is the smaller countries (the turkeys) who are often hit the hardest due to their vulnerability to spill overs such as Africa's vulnerability to a world food crisis and the rising fuel prices globally due to this war.

Where physical trade between SADC and BSEC has become less viable, economic cooperation is posed as a potential forerunner for trade – where countries can engage in information sharing initiatives. Such actions would lead to inform various parties about knowledge, information or technology abroad which could potentially be applied in the other. This process of economic cooperation has been found to consist out of 5 steps, namely Exploration, Introduction, Investigation, Application and Realization.

Thus, it has been proposed that SADC and BSEC countries engage in the process of economic cooperation in the meantime, in order to learn more about one another so that it would be easier to identify commodities of interest and to trade effectively when it becomes more viable.

CHAPTER 7

DISSERTATION CONCLUSION

This dissertation intended to investigate the extent to which SADC countries could viably improve economic relations with BSEC countries, especially Ukraine and Georgia. The reasoning behind this was that emerging markets could protect themselves (at least partially) against negative spill over effects from over dependence on large markets like the US and China. This investigation consisted out of two research questions namely: 1. Are the necessary infrastructural networks in place (within the SADC and BSEC cases) to facilitate international trade? And 2. Are there any complimentary industries/markets between SADC and BSEC? What does these internal market structures look like and is there a demand for these complimentary commodities?

With regard to infrastructural networks, it was found that in terms of logistics performance, the SADC countries (South Africa and Namibia) performed higher than their BSEC (Georgia and Ukraine) counterparts on average. Upon analysis of the transport-infrastructural challenges faced by each country, it was discovered that each country has a unique transport-infrastructural setting with different factors of influence. One aspect that remained similar to all the emerging market case study countries is a heavy dependence on their governments for infrastructural, financial and political support. Based on these discoveries, it was argued that in spite of the varying infrastructural landscape of each country, all of them had the necessary basic infrastructure in place to facilitate trade.

The outbreak of the conflict between Ukraine and Russia in February 2022 saw the predictions of this dissertation (on the influence of negative spill overs on emerging markets) play out in reality. Some of these examples include a potential global food shortage (due to a marine blockade by Russia on Ukrainian ports), as well as the global hike in fuel prices. This has already been felt in South Africa (to name one example) and the influence of this war on the case study emerging markets has already proved to be negative.

Given the occurrence of this unexpected event, the world was thrust into a frenzy in trying to contain the situation. Given the damage done to Ukrainian infrastructure, much of the research done on transportation infrastructure in Ukraine in chapter 4 has been rendered obsolete. Based on this, the structure of the fifth chapter, which was intended to be a market analysis of potential commodities for trade between SADC and BSEC, was altered.

The conflict has made it virtually impossible for SADC and BSEC to trade as this danger has been added to a list of already difficult challenges such as the long distance between the Southern and Northern hemispheres. With this in mind, chapter

five became an analysis of the influence of this conflict on SADC and BSEC. The key research questions here were: 1.) How is this war influencing the case study countries? and 2.) How can these countries still engage in some form of collaboration without using physical trade? It was found that there were three predominant viewpoints regarding this conflict, namely a Pro-Russia, Pro-Ukraine and Neutral stance.

Based on a country's chosen stance, it was argued that their global standing was influenced accordingly. The example of China's support for Russia was used, where China has adopted a Pro-Russia stance and was therefore branded as co-conspirator by some in the international community. With regards to the positions of the case study countries, it was found that the BSEC countries both adopted a Pro-Ukraine stance while both SADC countries followed a Neutral stance. The some reasons behind the BSEC countries' positions was the fact that both were Soviet satellites under the USSR and did not want to go back to that reality. As for the SADC countries, it has been argued that although there are various reasons for their neutrality, one potential influencer is the influence of Russia in several of Africa's liberation struggles. As for a solution to still engage in collaboration in spite of this war, economic cooperation was posed as forerunner to physical imports and exports. The process of economic cooperation has been found to consist out of five steps, namely Exploration, Introduction, Investigation, Application and Realization.

Having described this process theoretically, it is recommended that future research (after the RU-UA conflict) be done to assess the effect thereof on emerging markets from an objective viewpoint. One thing which influenced the objectivity of this dissertation was access to relevant information because the most used sources for chapter five was ground level newspaper articles which were naturally prone to bias. Furthermore, another area for future research could include the break-down of the steps needed to make economic cooperation more formal and structured.

Although economic cooperation was posed as a potential solution and forerunner to trade, this process has not been studied in-depth and thus warrants further inquiry and analysis. In this inquiry, some sections to potentially consider includes assessing the legal and logistical aspects related to economic cooperation to determine its overall value to society (i.e. is it actually legally valuable? What will it cost to initiate such a process? What are the steps needed to make this learning possible at larger scale?). Furthermore, this study was bound by a time and capacity constraint, and in order to increase objectivity, future research could include a larges sample size of emerging markets as each country's internal situation is different.

To conclude, this dissertation has attained its primary objective as it has found that, despite the conflict in Ukraine, SADC (South Africa and Namibia) and BSEC (Georgia and Ukraine) could improve economic relations to a great extent by engaging in economic cooperation.

Thus, it was found that the emerging market turkey's path to greater resilience and even antifragility does not include the complete destruction of relationships with the super power farmers, but rather the process of working together to steel themselves and grow from the process to contribute towards the freedom of future generations.

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ANNEXURE: A

Case Study 1: Avondale Qvevri

[Leading biodynamic estate Avondale has become the first winery in South Africa to introduce clay qvevri into the cellar, marking another milestone on this family-owned winery's pioneering journey of sustainable organic viticulture and natural wine-making.

These egg-shaped earthenware vessels used for fermenting and ageing wine hail from the European country of Georgia. Sandwiched between Turkey, Azerbaijan and Russia, on the shores of the Black Sea, Georgia is widely regarded as the cradle of modern viticulture, with a tradition of wine-making dating back more than 8000 years. Such is the importance of qvevri in the history of wine-making, in 2013 the United Nations Educational, Scientific and Cultural Organization (UNESCO) inscribed their use on the Representative List of the Intangible Cultural Heritage of Humanity.

Qvevri – pronounced *kwe-vree*– have long been a crucial aspect of that wine-making heritage. And while these vessels may have ancient roots they are set to bring a brand new dimension to the terroir-driven wines of Avondale.

"*The qvevri are new for us, but they are also a progression from our use of locally hand-crafted clay amphora, which we have been utilising for years, and tie in perfectly with our natural winemaking philosophy*," adds Avondale proprietor Johnathan Grieve.

Qvevri first caught the imagination of Grieve, and Avondale's winemaker Corne Marais, in 2017. In June last year Marais spent a week in Georgia, visiting leading natural wineries in the winemaking regions of Kakheti and Imereti.

"*I soon realized that if this is the quality of wine that's made in qvevri, Avondale has to have some!*" says Marais.

With the help of John Wurdeman – winemaker at Pheasant's Tears Winery outside the Georgian town of Sighnaghi, and a passionate proponent of qvevri – Marais was able to visit a number of qvevri masters.

"*I eventually settled on Nodari Kapanadze, a qvevri master in a village in the Imeretian Mountains*," explains Marais. "*The region is famous for its pottery, and this has been a family-run business for generations, with the knowledge now handed down from grandfather to grandson*."

Avondale's 24 qvevri arrived just in time for the 2018 harvest, and the cellar team has been hard at work experimenting with these ancient vessels.

The qvevri at Avondale each hold between 800 and 1000 litres, and "*because these are handmade vessels each one is unique, and slightly different in shape and size*," explains Marais. "*At this stage we've brought our learning from the amphorae and fermenting the Chenin Blanc in three ways; whole-bunch, de-stemmed with skins, and lastly pure pressed juice. Naturally the reds will only make use of whole-bunch and de-stemmed methods. For now we're really enjoying experimenting to see what characters the qvevri brings to the wine*."

As with clay amphorae, natural micro-oxygenation is a key aspect of working with qvevri. Though the qvevri's lower firing temperature make the vessels more porous, this is countered by the application of a beeswax lining, and the fact that each qvevri is buried in soil for stability.

While the first grapes to grace the qvevri come from a late-ripening block of Chenin Blanc, the team will also work with Rhône varietals as the harvest progresses.

"*On Avondale our Rhône varietals are all aged in large older barrels, because we don't want too much oak influence*," explains Grieve. "*With their excellent potential for micro-oxygenation without any wood influence, the qvevri are ideal for our Syrah, Mourvèdre and Grenache*."

Aside from adding a new dimension to the natural wine-making on Avondale, the worldwide enthusiasm for qvevri is also helping to revive a traditional craft once in danger of dying out.

"*The use of qvevri has really exploded on the natural wine-making scene. In fact, the qvevri master who made our vessels now has a waiting list of two years!*" says Marais. By that time the first wines from Avondale's qvevri may just about be ready for release. Inspired by this ancient tradition, yet guided by the estate unique biodynamic approach, Avondale's motto of *Terra Est Vita* – Earth is Life – has certainly found an exciting new expression in these ancient earthenware vessels from the ancestral home of wine-making.]

Source: (Avondale, 2018).