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The assessment of various foreign policy strategies in
buffer states. How do they alter the economic
dependence of the country? A case study approach¹.

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Abstract

Due to the Ukraine-Russia conflict, the US-China trade war, and the COVID crisis there is increased awareness for the (economic) dependence of countries. This study attempts to identify the direction and size of the relationship between the foreign policy strategy and the economic dependency factor of a buffer state. With a case study on six buffer states, this study answers the following question: how does a foreign policy strategy affect the economic dependence of a buffer state? The research question is divided into two parts. First, it is established whether the economic dependency of foreign policies differ via the Kruskal-Wallis test and the Dunn test. The second part elaborates on the contrasts per foreign policy. These differences are analysed by a regression and a yearly relative change in economic dependency. Three conclusions are drawn: the foreign policy strategies differ significantly from each other, there is a positive relationship between the predilection & third-power strategy and the economic dependency factor, and the volatility of economic dependency is the largest in the third-power strategy and the smallest in the multivector approach. The positive relationships show that an implementation of those policies increase the economic dependence of the buffer state. A higher volatility of this economic dependence can result in a higher volatility of tax revenue, an unstable domestic economy, and inefficient interest rates. Policy makers of buffer states but also foreign companies, investors, or immigrants looking to join the buffer state must incorporate the implications of the chosen foreign policy into their personal consideration. Further research should be conducted on this relationship to simplify this consideration for the involved parties.

Keywords: Economic dependence; foreign policy; buffer state; case study

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1. Introduction

In 1883, Afghanistan acted as a buffer state between the British colonial forces and the Russian Tsarist imperium. The foreign policy of neutrality put in place by Afghanistan to sustain stability only resulted in weak institutionalism and a high dependence on external economic and military aid. In the following 130 years, many similar cases have developed. However, looking at Afghanistan, the question whether they could have adopted another foreign policy strategy arises. More specifically, are there any other foreign policy strategies Afghanistan could have taken which would have led a different level of economic dependence? This study tries to find the answer to this question. In other words, it attempts to identify the direction and size of the relationship between a foreign policy strategy and the economic dependence of a buffer state.

The importance of understanding and measuring this relationship stems from multiple reasons. The first reason corresponds with some of the most recent crises in the world, such as the African debt traps, the Ukraine-Russia conflict, the US-China trade war, and the COVID pandemic. These crises completely shifted the thought on the economic dependence of a country. Reshoring and insourcing are back on the agendas of many companies, institutions, and governments. This affects all kinds of international relations across the world. Moreover, these previous crises show that the greater the dependence on things as Foreign Direct Investment (FDI), export, or Global Value Chains (GVCs), the more difficult it is to find a substitute for it (Armstrong, 1981). If these outlets for FDI, exports, or GVCs fall away, the economy faces severe mandatory adjustments.

Before this study dives deeper into the consequences of a change in economic dependence, a short introduction on the topic is required. The economic dependence of a country or region is studied with regularity. Theories and empirical research indicate that this specific form of interconnectedness is largely influenced by three pillars: FDI, international trade, and external debt (Rubinson, 1977; Bornschier et al., 1978; Richardson, 1978; Chase-Dunn, 1975; Ragin & Bradshaw, 1992; Shen & Williamson, 2001). Multiple indicators per pillar are used in previous research, but no defined set of indicators per input is specified. Studies acknowledge, however, that other factors with a political, economic, or practical background background can affect the economic dependence of a buffer state. Also, Delcour (2016) and Langbein (2016) show that the changes in a country's economic dependence can only be partially explained by external players, such as the neighbouring countries or any other investing party. The extent to which an external player can affect the inputs of the

economic dependency factor of another country has changed over time. In times of colonialism, the economic dependence of the colonised countries reached sky-high levels, but the two World Wars damped the evolution towards more globalised and integrated world, and thus to higher economically dependent countries. This level of economic dependence has gone up again after the fall of the Iron Curtain. Trade tariffs dropped massively, FTAs developed, and FDI increased by 900% from 1984-1998 (Chukwuogor, 2003; Vanham, 2019), which led to a more interconnected national economy. Considering these recent changes, the buffer state's external oriented policies remain an important factor in the development of the pillars of economic dependence.

In line with the additional attention economic dependency gets because of the recent crises, more scholars return to classical geopolitical debates on buffer states. They agree to a large extent with the original descriptions of a buffer state laid out in the 80s and 90s of the twentieth century. Those scholars state that on either side of a buffer state, there is a rival force. These rival forces are characterized by the following: they have a geographical distance from each other, their powers are roughly in balance, they have strategic interests in the buffer region, they have a constant fear of the rival's progress into the buffer state, and they can have expansionistic policies in place. Due to the dominance of the neighbours, the country in-between is forced to operate as a buffer state (Hafeznia et al., 2012). Scholars conclude that a buffer state does not have to be marginal in size, but history shows that buffer states generally are weaker than the two buffered states surrounding it. Moreover, a buffer state can originate from various types of disputes, which can be categorized on the basis of their geopolitical, natural, and cultural nature (Chay & Ross, 1986; Hafeznia et al., 2012). Furthermore, it can have multiple foreign policy strategies, such as the third-power policy, the multivector policy, the predilection policy, and self-sufficiency. Regardless of the application of a strategy, the pure existence of a buffer state implies various consequences for the state. Ziring (1987) concludes that the 'buffer status' slows down economic growth, enhances corruption, and precludes efficient management.

However, the world has changed drastically since the Cold War, and the reach of weapons, communications, and transport has extended considerably. Whereas a buffer state previously served both a psychical and psychological buffer between rival powers, it currently often only serves the latter function (Chand, 2018). Moreover, globalisation increased the outward view of countries which resulted in broader and more interconnected trade agreements (Lynch, 2010; Martin & Ianchovichina, 2001; Urata et al., 2012). A relatively long time of peace in the Western world, but also the focus on Free Trade Agreements (FTA)

and specialisation, shifted the thought on buffer states, the morality of neutrality, and international relations in general. Also, the thought of citizens has changed. A higher need to determine their own future and that of their country led to a bigger call for sovereignty. This call sometimes just focusses on independence from their dominant power, but it can also be a call for a wider and deeper interconnected economy.

Despite the changes over time, buffer state's international relations remain very interesting. Due to the unstable political and economic nature of a buffer state, a fragile balance of powers is established. The consequence of this power balance is that policy makers must carefully form their foreign policy strategy. A constant examination of the distribution of power is needed to maintain their status as a buffer state.

Previous research dives into various components of this power balance struggle. First, the three pillars which largely determine the economic dependency are researched thoroughly as an independent feature, but studies largely steer away from analysing its relationship with a country's foreign policy strategy. Only Richardson (1978) combines the two, but he focusses on the effects of dependency on a foreign policy choice. Furthermore, the types of foreign policies are well established in literature (Partem, 1983; Hafeznia et al., 2012; Gnedina, 2015), but no research is conducted on the consequences of a foreign policy strategy on the economic dependency of a country, rest aside the consequences on an already fragile country such as a buffer state. Especially considering the fragile balance of power of a buffer state, the relationship between a foreign policy strategy and the economic dependence of a buffer state is extremely interesting to analyse. Therefore, the following research question is examined:

How does a foreign policy strategy affect the economic dependence of a buffer state?

This research question is studied with the use of a case study approach. Nepal, Kosovo, Mongolia, Jordan, Belarus, and Finland are the cases used during this research. The research question is divided into two parts. First, this study establishes whether there is a difference in economic dependence across the foreign policy strategies via the Kruskal-Wallis test (KWT) and the Dunn test, and then the differences in direction and size of that relationship are identified via the regression output and the yearly relative changes in economic dependence.

The KWT and the post hoc Dunn test show that there is a significant difference in mean ranks between the third-power and predilection strategy and between the third-power and multivector group. Furthermore, a significant positive relationship between the third-power strategy and the economic dependency factor of a buffer state is observed. Another positive

relationship between the predilection strategy and economic dependency factor is seen, yet no significant relationship between the multivector policy and economic dependency is distinguished. To identify the stability of a buffer state's economic dependence, a yearly relative change per strategy is calculated. The largest volatility per year is seen in the third-power group, followed by the predilection strategy, and the lowest volatility is discovered in the multivector policy. This study is the first to identify the size and direction of the relationship between a foreign policy strategy and the economic dependency of a buffer state. The considerations from this study can help lay the foundation for future research on economic dependency. This attention for this field of research is growing due to many crises in the last decade.

In Chapter two, a literature review on existing research regarding economic dependency, buffer states, and foreign policy strategies is worked out. In Chapter three, the method of this research is elaborated on. Chapter four is the core of this study in which the data analysis on the effect of foreign policy strategies on the economic dependency factor of buffer states is laid out. The findings of the latter section are presented and discussed in Chapter five. The practical implications, limitations, and further recommendations of this research are also established in Chapter five. In Chapter six, while keeping in mind some assumptions which are discussed later, an overall conclusion on the research is given.

2. Literature review

In this literature section, relevant literature on economic dependence, buffer states, foreign policy strategies, and the case studies is reviewed. First, literature is addressed to introduce the concept of economic dependency. Then an introduction on the global trends of a country's economic dependency during the twentieth and twenty-first century is provided. Afterwards, literature shows the origin and function of buffer states. The third part focusses on the foreign policy strategies. Apart from showing the four strategies, this segment also elaborates on the thought that economic dependency and foreign policies are more important for buffer states than for regular countries. The fourth part dives deeper into the cases, which aims to build a good base for this study to develop upon. Finally, expectations of the relationships between the foreign policy strategies and the economic dependence of a country are established and hypotheses are derived from them.

Economic dependency

Scholars have argued for decades that the economic dependence of a country stems from three dimensions: FDI, international trade, and external debt (Rubinson, 1977; Bornschier et al., 1978; Ragin & Bradshaw, 1992; Shen & Williamson, 2001). Huang (2003) discovers that some dimensions are intertwined. His proxies for external debt are also related to foreign investment. An example of this interconnectedness is seen in Africa where local governments borrow money to build infrastructure needed for FDI (Huang & Słomczyński, 2003). Still, all dimensions increase or decrease with a change in the degree of an outward-looking policy by a country regardless of their interdependency. Therefore, it is obvious that intergovernmental economic relations play a huge role in this argument. However, this is not the only influencing element. Other factor with a political, economic, or practical background such as economic growth, exchange rates, interest rates, tariffs, inflation, trade barriers, and transportation costs can affect the economic dependence of a country (Brewster & Girvan, 1973; Rubinson, 1977; Dubravka & Sira, 2015; Waheed, 2017). Delacroix and Ragin (1981) add another type of determinant for economic dependency. In their paper they implement two forms of participation: primary products specialization and commodity concentration. These variables, along with the export or FDI concentration on one country, examine a country not on their quantitative dependency, but on their form of participation. While this type is likely to influence the economic dependency of a buffer state, it is not analysed in this research due to a lack of data. In this paper the following definition of economic dependence is applied: the extent to which a region or country is substantially dependent on foreign factors, such as Foreign Direct Investment, international trade, and external debt. In the following paragraphs, a short history on one of the main theoretical concepts of this study is provided. This historic summary is mandatory to expose the effects of a megatrend (Mittelstaedt et al., 2014) on a country's economic dependence.

During the last decades, countries' appetite for economic relations has known his ups and downs. After the fall of the Iron Curtain, hyperglobalisation (Allen et al., 2014, pp. 216–272) became apparent to the not widely connected areas, such as emerging Asia and Eastern Europe. Trade tariffs dropped massively, which had a plummeting effect on exports and imports (Vanham, 2019). Former Soviet countries established multilateral organisations and FTAs as a result of lowered tariffs (Khabarov, 1995). These agreements served as a counterfactual against the ongoing Russian influence in the region. The FTAs shifted the economic dependency of developing states from primarily a Russian focus towards a more global orientation. Some other trends presented itself on a world level. Foreign investment

increased by 900% from 1984-1998 (Chukwuogor, 2003), world trade represented 50% of global GDP (Vanham, 2019), and non-resident held debt rose significantly since the 1980's (Mitchener, 2018). This significantly altered the economic dependence of many countries.

Another form of economic dependence manifested itself in the post-Cold War era. The intensifying integration of global value chains (GVCs) among countries partially stems from the focus on trade in services (Roelfsema, 2021). For developing countries, trade in services is a dominant export component and thus a driver of international trade. A reversing trend is seen, however. COVID-19 and the conflict in Ukraine cruelly illustrate the vulnerabilities of the intricately interwoven GVCs and that of production specialization. Supply chain problems (Zhu et al., 2020), immense shortages of certain goods (Aday & Aday, 2020, pp. 167–180), and skyrocketing transport prices (Notteboom et al., 2021) reveal the value of a limited economic dependence for a nation. These complications, along with the greater need for customized products and a rise in costs of low income countries (KVK, 2020), accelerate the trends of 'reshoring' and 'insourcing' by countries, institutions, and companies, which can reduce FDI and international trade (ILO, 2015; Arvanitis et al., 2017). Other recent developments modify the thought on economic dependence and interconnected economic activity in the world as well. Examples are: the US-China trade war (Bolt et al., 2019; Li et al., 2018), shortages due to the Ukraine-Russia crisis (Sleptova, 2010), and the reduced size of Chinese infrastructure projects in Africa (Baker McKenzie, 2021). Irrespective of any trends in the economic dependency lust of countries, the stability of the dependency remains of crucial importance. A high volatility of the economic dependency factor is related to multiple important factors affecting a country such as the tax revenue volatility, the stability of the domestic economic activity, and the interest rates (Gourinchas et al., 2011; Gnanngnon, 2020). Consequently, a stable level of economic dependency is desired by governments. This stability allows long-term policies set by the authorities to have an effect. The overload of crises in the last decade wearied the goal of a stable level of policies for countries. Moreover, the recent trends are even more pressing for already unstable zones.

Buffer states

An example of one of these unstable zones is a buffer state. Buffer states are touched upon in the introduction, but a brief extension on the second theoretical concept is required. First of all, there is plenty of research on buffer states. Their characteristics, foreign policy strategies (Chay & Ross, 1986; Hafeznia et al., 2012), and place in the geopolitical world is studied extensively (Menon et al., 2017). For a nation to be labelled with the terminology 'buffer

state' it must suffice to three components laid out by Hafeznia et al. (2012): it must be a nation or region located between two larger rival countries who are in some sort of a power balance, with a somewhat neutral foreign policy, and an independent and sovereign political system. The rivalry between the two buffered states can stem from a geopolitical, natural, or cultural aspect. Countries such as Nepal, Iran, and Belgium owed their buffer status to the invasion routes or point of contact between different groups of people. Therefore, these buffer states arose from geopolitical aspects (Chay & Ross, 1986). Second, naturally created buffer zones are formed in proximity to impassable lands, demographic dispersion, or the existence of transportation routes (Hafeznia et al., 2012). These existed in Mongolia, Afghanistan, and Austria (Ziring, 1987; Jargalsaikhan, 2015). Last, cultural, also known as ideological, differences can result in tension between rival powers and eventually the creation of a buffer state. Prime examples are Belarus, Finland, Jordan, Kosovo, and Lebanon (Allison et al., 2005; Marleku, 2013; Mouritzen, 2017; Balanche, 2017).

Foreign policy strategy

More important than the origin, is the type of foreign policy strategy a buffer state incorporates. In Eskanazi's (2015) study, a conceptualization for a foreign policy strategy is set which is also applied in this study. In the former study is it seen as a region's foreign policy goals, and their political and military position in the international community. Fundamentally, buffer states have four foreign policy options: the self-sufficiency policy, the multivector policy, the third-power policy, and the predilection policy. If a buffer state decides to follow the self-sufficiency policy, an internal focussed approach is taken to reduce the economic, political, and cultural dependency as much as possible. This is done to absorb any exogenous shocks (Partem, 1983). Keynes (1933) already discusses this strategy extensively and observes that the comparative advantages in terms of production efficiency were slinking. He concludes that the advantages of an interconnected country did not enormously outweigh the negative consequences of this strategy. The recent development of AI, computer chips, and hyperglobalisation, tilt this scale in favour of the advantages. For that reason, not many followers of the self-sufficiency policy strategy are left. Due to these developments, the full application of this approach is a thing of the past. Because this study focusses on time frames in the last decennials, no extensive elaboration on this strategy is made. This means that this study does not contain any case studies that applied this approach.

The first strategy included in the data set is the multivector foreign policy strategy. A multivector oriented buffer state aims to take advantage of the rival's powers by extracting

aid, assistance, and favourable (trade) agreements (Blank, 2009). Contessi (2015) describes multivectorism as “a state’s pursuit of diplomatic contacts across the board without committing to a specific external partner”. Kazakhstan translates this policy into reality by diversifying their economic and political ties to major powers such as the EU, USA, and China.

Afghanistan executed the third-power policy during the first World War and the Interbellum, where the local government dealt with Germany as a counterforce to both Russia and England (Hafeznia et al., 2012). This strategy entails that the buffer state continues to interact with a distant country as a counterbalance to its neighbours (Partem, 1983). It can act as a counterbalance because the third-power is often not allied with the buffered states and thus can act independently.

The fourth strategy is the predilection foreign policy strategy. A buffer state that applies the predilection strategy prefers the FDI, trade, and external debt of one neighbour. Belarus is a prime example of a country that applies the predilection approach as their foreign relations are mainly focussed on Russia (Coes, 2021). In contrast to the first three strategies, the fourth can transform a buffer state into a quasi-buffer state or even lead to the abolishment of the buffer state (Hafeznia et al., 2012). The predilection strategy can distort the fragile balance of a buffer state and have serious effects on the political ties with the other buffered state (Partem, 1983). Nevertheless, many buffer states opt for this strategy throughout their existence as a buffer state.

The economic dependency and foreign policy strategy of buffer states are exceptionally interesting to study due to various important aspects of social behaviour within a buffer state. Within a buffer state there is an increased level of nationalism and radical movements, there is a tendency of people for isolation and seclusion, and the citizens have a cynical attitude against the government and the greater powers surrounding it (Hafeznia et al., 2012). The nationalistic and radical movements can undermine the power of the government and alter the foreign policy towards more protectionism. Examples are in abundance: Make America Great Again by Trump, the Brexit, and Putin’s Russia. On the other hand, Mearsheimer (2018) illustrates the power in the nationalistic (radical) movements. Naturally, states have an incentive to stimulate national unity as it increases the loyalty of the natives. Nationalism, keen for national units, can therefore encourage the creation of national economies and a productive population, thereby increasing the potential of the country. Besides, the cynical view of citizens is likely to alter their perspective on the state’s foreign policy. Brewer and Steenbergen (2002) indicate that cynical people are more likely to validate an isolationistic

foreign policy than non-cynical people. In combination with a tendency of people for isolation and seclusion, these differences from a regular state can significantly change the view on foreign policy. Thus, the foreign policy strategy and economic dependency of buffer states are even more relevant.

Case studies

With the help of the case studies, this study analysis the effect of a foreign policy on the economic dependence of a buffer state. However, a short summary of the case studies' histories is given to develop a global understanding of their foreign policy strategies. The first in-depth case study is focussed on Nepal and its neighbouring countries China and India. This case checks off all the boxes of a classical buffer state defined by Hafeznia (2012). The proposed time frame starts just after the democratization of Nepal in 1990, when its parliament focussed on domestic development and maintaining the balancing act of foreign policies (Chand, 2018). After the democratization, Nepal shifted away from pro-Chinese policy towards an equal treatment of all neighbours. The military coup by Gyanendra in 2005, which raised intense criticism by the government of India but not by China, started the shift of Nepal's role as a buffer state (Mage, 2007; Destradi, 2012). The self-appointed king Gyanendra presented himself as a 'China-versteher' and even though he handed back power to the parliament in 2006 because of massive domestic and international pressure, a pro-Chinese foreign policy was set in motion (Chand, 2018). Moreover, the monarchy's political power maintained through the national army. With the end of the monarchy in 2008, a multi-party democracy filled the space left by the monarchist system. The volatility of the foreign policy pursued by these parties forces this study to mark 2008 as the end of this time frame. Nepal has pursued the multivector policy during the 1990-2008 time frame, in which the political players tried to balance the strong historical, cultural, and economic ties with India by leveraging with other parties such as China and the US.

Another important buffer state to look at is Kosovo. Whereas the country is recognised by almost all Western countries, a large proportion of the Balkan still see it as a Serbian province (*Worldpopulationreview, 2022*). Throughout the years it has seen many battles: the civil war, the fight for autonomy in 1974, and most importantly the Kosovo war in 1998-1999 (Malcolm, 1998). The historical, cultural, and linguistic ties between the neighbours Albania and Serbia, which stood at the base of these wars, create tension magnetic fields. Kosovo tries to cool these tensions by making bilateral agreements with its direct neighbours. Furthermore, they have the tendency to rely on other large players as well (Marleku, 2013). Its rather

violent affairs with Serbia are addressed by pursuing a detailed, structured, and transparent agreement. With this strategy, Kosovo commits to no specific external partner. Kosovo's independence in 2008 is the start of this multivector strategy and it runs up to today. Nevertheless, 2019 is used as the end of the time frame for each case study to exclude any COVID-19 related effects on the dependency factor.

Mongolia is the third case study. The two buffered states - Russia and China - both share a large border with Mongolia. After the fall of the Soviet Union, Mongolia was in-between two stools. It was dependent on Russia because of its huge debt position and on China due to their close economic ties (Cheng, 2003; Ministry of Foreign Affairs of Mongolia, 2022). To counter this dependency, Mongolia signed multiple strategic agreements with the EU, the US, and Japan (Lhamsuren, 2012; *EU, 2016*; United States Department of State, 2022). In geopolitical terms this approach is called the third-power policy, as Mongolia attempts to balance the dependency on its neighbours by enacting with geographically distant counterparties. With the abolishment of the People Republic of Mongolia, which ceased to exist in 1992, the third-power foreign policy begins. Mongolia's third-power policy ends in 2019 with the signing of a next level agreement with Russia including military technical assistance to Mongolia (Lkhaajav, 2021). This agreement disregarded the assumption of a buffer state. Mongolia pursued the third-power policy from 1992 to 2019.

Jordan is the fourth case study at hand. Its intertwined history with Israel and Iraq caused uproar in the Arabic world. The two buffered states are in a constant state of hostilities due to Iraq's non-recognition of Israel and because of the Gulf war. Recently, Jordan has been acting as a buffer between the two. First, the buffer state signed a peace treaty with Israel in 1994, followed by a trade treaty in 1996 (Barari, 2019). On the other hand, Jordan also tries to close the ties with Iraq. Jordan supported Iraq politically and financially during the Iran-Iraq war, but the economic bond between the former two lies deeper. Jordan enjoys being the gateway for Iraq in terms of labour, money, and governance, but the country must bear the burden of the relationship as well. The economic damage because of the fall of Saddam Hussein illustrates that this relationship also has its downsides (Lasensky, 2006). In an attempt to tackle the local power struggles and reduce the country's tensions, Jordan aligned with a third foreign power that can help maintain peace: the US. Many bilateral agreements took place, such as the FTA (2001) and the 2018 non-binding memorandum of Understanding. Nonetheless, US' economic support and military assistance already started in 1991 (Schenker, 2003). Because Jordan signed the peace treaty with Israel in 1994, this is seen as the start of

the buffer state Jordan with an application of the third-power foreign policy strategy. Jordan pursued the third-power strategy from 1994 to 2019.

Fifth, Belarus has been a quasi-buffer state for a long time. Russian forces were still active in Belarus after the fall of the Soviet-Union. Moreover, Russian influences increased drastically over the last thirty years, but the country still acted as a quasi-buffer between Western Europe and Russia. Belarus applied the predilection strategy after the fall of the Soviet Union which led to the establishment of the quasi-buffer state. Its political dependency under the regime of Lukashenko increased until the 2020 elections, when it degraded itself to an autocratic-led country due to a fixed election program. The starting year that is used is 1995, as this is the start of free trade between Russia and Belarus, after which many agreements and treaties followed (Nice, 2013). 2019 marks the end of this time frame to exclude any COVID mediating effects. Belarus has implemented this predilection strategy from 1995 to 2019.

Finland is the last case study under investigation. During the Cold War, Finland experienced tensions between Western Europe and its direct neighbour, Russia. Whereas Finland followed the original goal of neutrality to minimize any military consequences, their economic focus laid on the West. This is shown by the FTA with the European Economic community (EEC), the Kevsoks agreement (1978), and their large proportion of trade to members of the EEC and EFTA (Krosby, 1976; Mettälä & Ståhlberg, 1994). In regard with Russia, Finland did not, apart from the 1948 Treaty of Friendship and Mutual Assistance (Browning, 2008), agree to any FTAs during the Cold War. The analysis of the development of Finland's economic dependence starts in 1975, as that year marks the first year where all necessary data is available. The time frame ends with the termination of the Cold War (1991), because the existence of Finland as a buffer status came to an end at this right moment. Finland implemented the predilection strategy from 1975 to 1991.

Hypotheses

Before the theory is translated into policy-specific hypotheses, a main hypothesis is derived. The following hypothesis is formulated to test whether there is a significant difference between the economic dependence of buffer states that apply different foreign policy strategies.

H₁: There is a significant difference between the economic dependency factor of buffer states that apply the multivector, third-power, or predilection foreign policy strategies.

Next, theory is reviewed to grasp the effect of a certain foreign policy approach on the economic dependency inputs. As this study specifically addresses buffer states, a brief extension is made on the difference between a buffer state and a non-buffer state with regard to the proposed relationship.

It is widely known that the multivector strategy gives a state the opportunity to play foreign countries off against each other and leverage whatever advantages they possess (Walton, 2007, p. 48). The variety of players helps the home country to attract foreign investment, because each foreign country is interested in regional security (Vanderhill et al., 2020). This regional security can be acquired via foreign capital. Investing in infrastructure, as the Chinese are doing in Africa, gives the foreign country leverage over the domestic country. Also, investing in highly dense products, often done in mineral-rich countries, can give foreigners grip over the domestic government. International trade with the home country is deemed as interesting for foreign countries is light of this argument as well. Nevertheless, a more marginal relationship is observed as export and import give less direct control than a foreign investment. No direct link between the multivector approach and a change in external debt is discussed in previous theory. The dependency theory argues that the forms of dependency are intertwined and together determine a country's economic dependence (Huang & Słomczyński, 2003; Agbebi & Virtanen, 2017, pp. 429–451). Regardless of whether the multivector strategy increases the economic dependence of a country, it does broaden the state's international affairs. This reduces the volatility of the economic dependency factor in the long run. On top of that, a foreign country's need for regional security is larger in a buffer state than a non-buffer state. This increases the magnitude of the relationship between the multivector policy and the economic dependency inputs, meaning a larger effect on the economic dependency factor is expected. All in all, it is expected that the multivector foreign policy strategy increases the economic dependency of a buffer state. The visualization of this relationship between the multivector approach and the economic dependency is shown in graph 1 (in appendix).

The same line of argument holds in terms of the third-power strategy. The third-party strategy can act as a counterbalance against the neighbours and create an improved bargaining position for the home country. Consequently, to gain regional stability, the third-power is likely to invest which ups the FDI to GDP ratio. Nonetheless, Hafeznia (2012) states that a third-power has a lower tendency to control the buffer state than the buffer state's direct neighbours but is more likely to expand the (economic) relations. The effect on the FDI to GDP ratio is therefore expected to be positive, yet smaller in size than the case of the

multivector policy. As is seen in Jordan and Mongolia, a buffer state is likely to extract a reasonable amount of aid from the third-power, some of which are gifts and others are loans. The amount of foreign aid provided by third-powers is larger than other countries in the predilection or multivector strategies. Durbarry et al. (1998) and Rahnama et al (2017) show that a large amount of aid can lead to economic growth, which builds the potential for better economic relations. The fact that third-powers are more concerned about improving the economic relations with the buffer state than dominant buffered states in the predilection strategy, shows the reason for the high level of foreign aid. Whereas the multiple parties in the multivector strategy group are also concerned with the economic welfare of the buffer state, their individual stake in the game is lower. Thus, it can be expected that throughout the years of dealing with a large third party, the external debt to GDP ratio has increased. There is no evidence to show that a third-power approach leads to a significant change in the international trade pillar. One remark must be added though; the fragile system of a buffer state can be disturbed by the inclusion of a distant third-power. This can lighten up tensions, leading to worsened economic circumstances. The political instability that comes with these tensions also significantly increase the volatility of economic dependence. Consequently, the economic dependence of a country is more prone to exogenous shocks. Overall, it is expected that the third-power foreign policy strategy shifts the economic dependency factor upwards, with a higher volatility than the multivector policy. Graph 2 shows the visualisation of this relationship.

Last, the effect of the predilection strategy on the inputs is regarded. This strategy increases a state's export concentration, which on its behalf makes the trade to GDP ratio more volatile. Meilak (2008) shows that especially for small and less developed states this is more relevant. The fact that explicitly buffer states are examined turns this case upside down. Turmanidze (2009, p. 11) elaborates that a quasi-buffer may be used by one of the great power, not to maintain peace, but to defend itself from a rival attack or to attack itself from one. The buffer state is therefore just seen as a convenient time buffer if the enemy attacks or as a strategy attacking option. This reduces the incentive for a dominant buffered state to economically develop the quasi-buffer. Moreover, it denies any attempt by other states to increase their potential influence in the region. Also, the political, economic, and humanitarian instability due to the constant threat of an escalation of the conflict makes the area is a far less interesting investment area (Levis, 1979; Bitar et al., 2019). This uncertainty increases the chance of a banking crisis and therefore ups the risks of loaning out money to these states as well (IMF, 2020). Therefore, it is expected that the increase levels of FDI and

foreign aid (inherent with external debt) are reasonably low. The quasi-buffer state remains the property of the dominant buffered state. Scholars assume therefore that a predilection foreign policy strategy only has a limited positive effect on the economic dependency factor of a buffer state. The volatility of this approach is hard to estimate, but it is expected to be lower than the third-power foreign policy. A visualisation of this relationship is shown in graph 3.

To conclude, scholars suggest that the volatility in the economic dependency factor of a multivector oriented buffer state is likely to be lower than the economic dependence in the buffer states that apply a different foreign policy strategy, which suggests the following hypothesis:

H_{2a}: The yearly percentual change in economic dependency of a buffer state that applies the multivector strategy is smaller than the yearly change of a buffer state that applies any other strategy.

Another hypothesis is established. Studies show that the third-power strategy can lead to an unstable situation with a high volatility of the economic dependence. This suggests the following hypothesis:

H_{2b}: The yearly percentual change in economic dependency of a buffer state that applies the third-power strategy is larger than the yearly change of a buffer state that applies any other strategy.

3. Method

This part of the study specifies the research strategy, data collection, dependent and independent variables, and explains the methodology to test the hypotheses derived in the literature section.

3.1 Research strategy

This study aims to test the hypotheses set in the previous section which indicates a deductive research approach is undertaken. With the answers to the statistical tests performed in Chapter four, a discussion regarding the topic is pursued. The research onion of Saunders (2009) is followed throughout this methodology section to find the philosophy, type of research strategy, and time horizon that fits the research question. First, a positivism philosophy is pursued as the data on the economic dependency is independent of the subject being studied and is not multi-interpretable. As discussed before, this study uses data on six case studies (Nepal, Kosovo, Mongolia, Jordan, Belarus, and Finland) over the course of multiple years.

Therefore, both longitudinal and cross-sectional data is used. This case study approach allows a more in-depth analyse needed to answer the how and why portions of the research question. On the other hand, this research strategy complicates the generalization of the results.

3.2 Data collection and sample

As the research question includes the examination of the economic dependence of a buffer state, country-level data on FDI, international trade, and external debt is used. These inputs are conceptualized as determinants of the economic dependence of a country. The data corresponding to these three pillars generates an overall level of economic dependency which is used to answer the research question. Due to the lack of previous research on this topic and the non-existence of an economic dependency scale, this study formed its own dependency factor based on the three inputs previously discussed. This scale is used to discover an overall trend among in the dependency of buffer states.

The six case studies under investigation are chosen by purposive sampling. By reading many scholar's papers a list of buffer states is created. Further specific research into the individual cases deemed necessary to identify the buffer state's foreign policy strategy throughout the years. Then, specific case studies are chosen for their relevant and clear application of the foreign policy strategies under the assumption of available information on the FDI, international trade, and external debt of that country.

To ensure the credibility of the data, well-known databases are used. The databases that are used are the Worldbank, TradingEconomics, UNCSTAD, and CEIC. These are deemed suitable for this study as it contains all info on the three pillars relative to GDP. Table 1 (in appendix) illustrates which data source is used in the analysis of each buffer state. By analysing the data in a percentage of GDP, absolute differences in size are disregarded, which ensures a more accurate comparison across countries and time. To be able to make a coherent, all-encompassing, and clear analysis of the economic dependence of the case studies, an adequate time frame of approximately 15 years is chosen. The only exception here is Kosovo, which has been a buffer state for 12 years now. This case study is still chosen as it perfectly entails the multivector strategy. Irrespectively of their length, the time frames end in 2019 to eliminate any changes in economic dependency due to the pandemic. With this data, the hypothesis will be answered, and conclusions on the interpretation of those answers are given. Table 2 (in appendix) illustrates the buffer states, their corresponding time frame under investigation by this research, and their foreign policy strategy.

3.3 Variables and measures

3.3.1 Dependent variable

Based on this data collection, the dependent variable is the economic dependency factor. This variable is composed out of three inputs: the FDI to GDP ratio, the international trade to GDP ratio, and the external debt to GDP ratio. Naturally, the scale starts at 0, but it can move up to values well above 100, as the external debt and international trade ratios regularly reach levels up to above 100% to GDP as well. Nevertheless, these ratios often stay well below 100%. To address the difference in variance of the scales of the inputs, an approach also taken by Kogut and Singh (1988) is applied. In this method the variables are divided by the total variance in each variable and then the average of these weighted variables is taken. In this way it is ensured that a variable with a larger variance does not have a greater influence on the economic dependency factor than an input with a lower variance. For example, the external debt to GDP ratio has a higher maximum in comparison to the FDI to GDP ratio and would influence the economic dependency ratio more if not corrected for variance in scale. This would lead to incorrect estimations.

The correction in variance still allows for a precise estimation over time. It is clear that the economic dependency of a country is high if the country has a high FDI, international trade, and external debt to GDP ratio. Nonetheless, the changes throughout the time frame are of utter importance for this research. The importance of the changes requires this study to compare various data sets to ensure correct data on the pillars is retrieved. However, these inputs can still be biased if they are provided by the local governments of the buffer states. Overarching sources such as the Worldbank are used to eliminate that bias.

3.3.2 Independent variables

The main independent variable is the foreign policy strategy. In essence it's a country's foreign policy goals and their political and military position in the international community. This variable is expressed in categorical factors. For this study, the variable is divided into three groups, each corresponding to a number. A multivector strategy is coded with a 1, a third-power strategy with a 2, and predilection with a 3. All case studies are thoroughly analysed in the literature review and appointed to one group (see table 2 in appendix). Unlike dichotomous or continuous variables, categorical variables cannot directly be used in a regression equation. In this case, dummy recoding is most meaningful regarding the

hypotheses of this study. Therefore, the dummy variables ‘multivector’ and ‘thirdpower’ are added to the model’s equation. Each observation that applies the multivector approach is indicated by the ‘multivector’ variable by a one. Each observation that applies the third-power strategy gets awarded with a one by the ‘thirdpower’ variable. The predilection strategy is indicated by a ‘0’ for each of the above-mentioned variables.

Previous studies have included control variables in the equation to ensure the elimination of biases. The impact of domestic capital formation on international trade and FDI inflows must be addressed by adding a control variable. Chase-Dunn (1975) shows that a low domestic capital formation ratio can cause an increase in FDI flows. The explanation is simple; if domestic investments for new opportunities are low, foreign capital can flow in to take up the opportunities at hand. On top of that, a high value of domestic capital formation indicates extra consumption which is inherent with a rise of the international trade ratio. Therefore, to avoid a spurious relationship between the foreign policy strategy of a buffer state and its economic dependency factor, the control variable Domestic Capital Formation ratio is added to the database. Data on this ratio, which is denoted in percentage of GDP, stems from the Worldbank. During this study, the following definition of domestic capital formation is used: the net increase in the fixed assets by the household, public, and government sector of a country or region within a year in percentage to GDP.

Moreover, this study also controls for differences in mining and petroleum specialization. Again, Chase-Dunn (1975) add a variable which indicated the percentage of GDP produced in the mining or petroleum industry to the regression. Jaffee and Stokes (1986) elaborate on the thought that countries which are rich in minerals tend to have more inward FDI flows. Besides, natural resources are for a large part not consumed by the home country. Therefore, the presence of minerals has a positive relationship with international trade. As the FDI to GDP and the international trade to GDP ratios are important inputs for the dependency factor, this must be taken into account. Studies do not show any evidence that a specific level of specialization of mining and petroleum leads to a certain foreign policy strategy as well. Nevertheless, the control variable specialization in mining and petroleum is composed of three inputs: mineral rents to GDP, oil rents to GDP, and natural gas rents to GDP. The data on these inputs is provided by the Worldbank. This variable is therefore defined as ‘the total amount of mineral rents, oil rents, and natural gas rents of a country or region per year in percentage to GDP.’

3.3.3 Data analysis

The three indicators of economic dependence are utilized as quantitative data. This data is used to analyse whether the foreign policy strategy of a buffer state affects a country's economic dependence. More importantly, how does the choice of a foreign policy strategy change the economic dependence throughout the existence of a buffer state? As this study holds data on various buffer states across several years, it is a panel data set. Nonetheless, the data is not normally distributed due to the limited size of the data set. Therefore, non-parametric tests are used.

Three hypotheses are formulated in the literature review. These hypotheses assume that the foreign policy strategies are of critical importance with regard to the economic dependency of a buffer state. They state that there is statistical evidence of a difference between the economic dependence of buffer states that apply different strategies. Therefore, prior to the analysis of H2a and H2b, the Kruskal-Wallis test is carried out.

A non-parametric Kruskal-Wallis test is chosen to assess the variance of the economic dependence of buffer states that apply various foreign policy strategies. The KWT is most appropriate to test for difference between categorical groups within a non-parametric data set (McKight & Najab, 2010). To correctly apply the KWT, the data set must meet four assumptions: the dependent variable is measured at an ordinal or continuous level, the independent variable consists of two or more categorical and independent groups, there is independence of observations, and the distributions within each group must have the same shape. Whereas the first three can be established without any statistical program, the fourth assumption must be checked via excel. This is done in section 4.1. As the dependent variable (economic dependency factor) is formed on a continuous level, assumption one is met. Second, the foreign policy strategy consists of three different groups and buffer states can only implement one policy during each time frame. Therefore, assumption two is fulfilled. The third assumption follows the same line of argument. As every case study is focussed on a buffer state that applies only one strategy, no participant is present in more than one group which indicates the independence of observations.

Since the study meets the first three assumption, the data set allows for the usage of the Kruskal-Wallis test. The next step is to look at the correct way of interpreting the results. This test aims to show whether there are statistically significant variations in economic dependence between a buffer state that applies a multivector, third-power, or predilection strategy. For this test H_0 is defined as follows: there is no difference in variance in means of the economic dependency of a buffer state with different foreign policy strategies and H_1

states that H_0 is not true. Next, the Kruskal-Wallis test can be run in Stata. Also the post hoc Dunn test is executed to established pairwise comparisons. This test is most common after the KWT (Ruxton & Beauchamp, 2008). Prior to the execution of the KWT, this study tests for heteroskedasticity, multicollinearity, serial correlation, and unit roots to ensure that the regression output is correctly interpreted. By computing the economic dependency, regressing the data in Stata, and analysing the output, this study can establish how a multivector, third-power, or predilection strategy influences the economic dependency of the buffer state. Previous research can give some guidance towards an estimation of the size and direction of these effects.

Next to that, the data on the economic dependence of buffer states is used in a different way. With the help of excel, the yearly percentual change is composed. Table 1 (in supplementary data) entails the yearly relative change in economic dependency of the buffer states. All combined it can be transformed into a foreign policy specific yearly change. This yearly change is compared with the other averages for each foreign policy strategy to answer hypothesis 2a and 2b. The regression output and the yearly relative change allow this study to identify the size of the relationship between a foreign policy strategy and the economic dependency factor of a buffer state with a certain degree of statistical certainty

4. Data analysis

This Chapter deals with the analysis of the quantitative data on the economic dependence of the case studies. It consists of various quantitative actions, the interpretation of the regression output, and a comparison of the yearly relative change in economic dependence.

Section 4.1 of this Chapter focusses on the quantitative analysis of the foreign policy strategies. All data on the FDI, international trade, and external debt of the case studies is gathered and accumulated to an economic dependency factor for each year of every time frame (see table 1 in the supplementary data). First, the interpretation of results is researched. In Chapter 3.3.3, the first three assumptions for a KWT are fulfilled. Nevertheless, assumption four is tested to guarantee a correct interpretation of the results. Afterwards, stationarity, heteroskedasticity, serial correlation, and multicollinearity within the model is tested. Finally, the KWT and a post hoc Dunn test is executed. When the appropriate regression model is established, the regression output is analysed closely. There are three important things to look at: the R^2 , the beta coefficients, and the means of each category.

The latter part of this section elaborates on the yearly relative change in economic dependency with regard to the different policy approaches. This part is indispensable while

addressing hypothesis 2a and 2b. An average yearly change for each categorical group is established in table 21.

4.1 Econometrical data analysis

Assumption four is situated around the shape of the distributions in each group of the main independent variable. In other words, do the distributions of scores of the third-power, multivector, and predilection strategy have the same shape (which also means the same variability). If the question can be answered in a positive matter, the KWT to compare the medians of the dependent variable can be carried out. However, if one group is shaped differently, the test can only compare mean ranks. The results are shown in tables 3,4, and 5. Without the answer to this question, neither the hypothesis whether the economic dependence of the foreign policy strategies significantly differ from each other nor the question on how they differ can be answered.

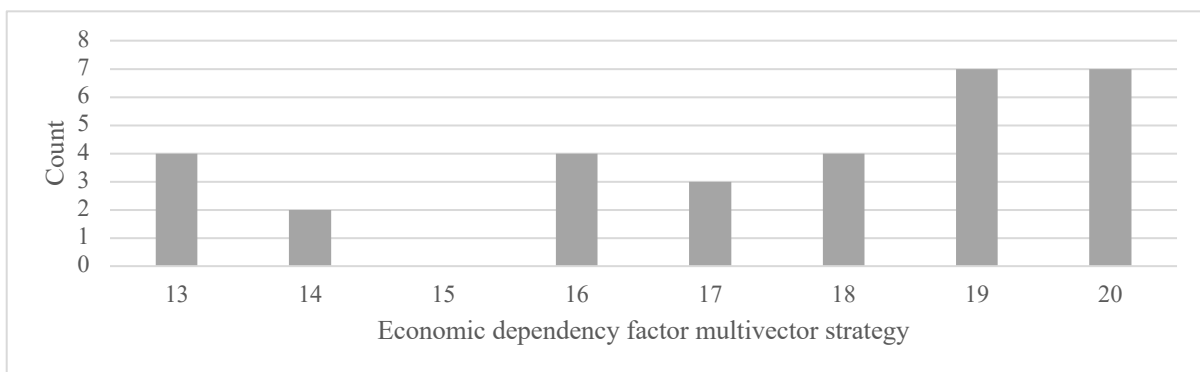


Table 3: the distribution of economic dependency scores of the multivector strategy group

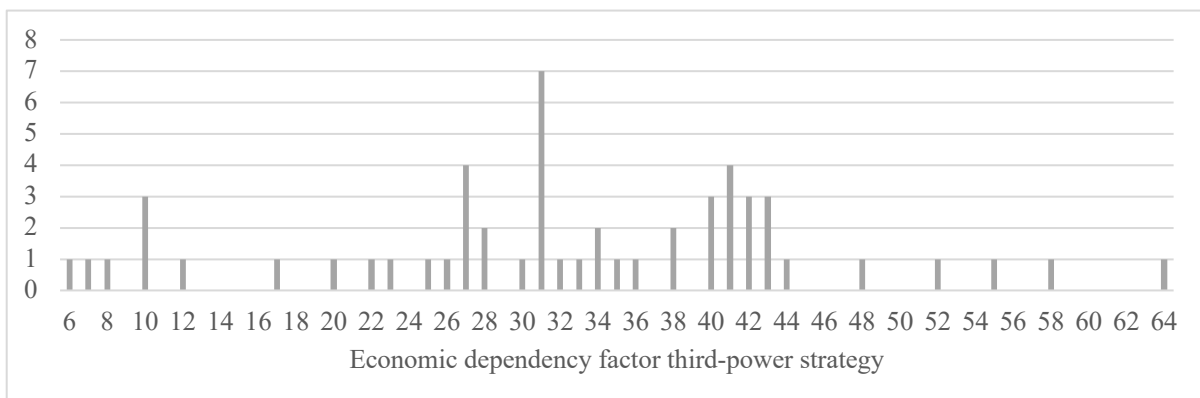


Table 4: the distribution of economic dependency scores of the third-power strategy group

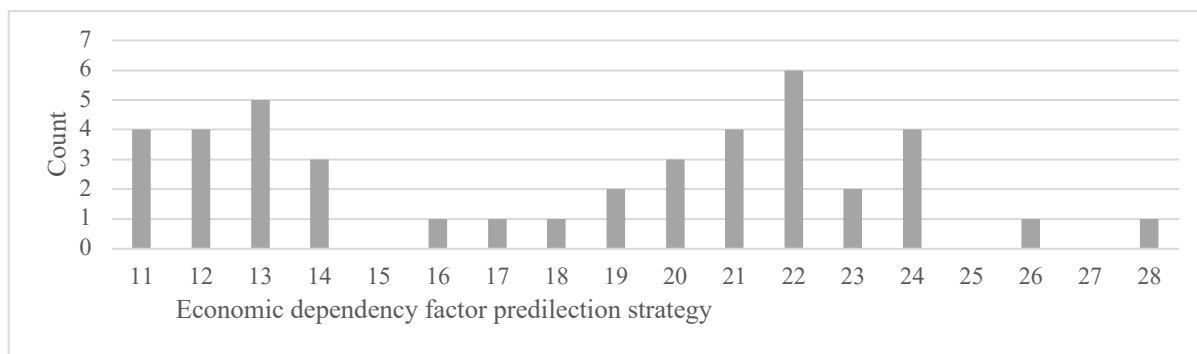


Table 5: the distribution of economic dependency scores of the predilection strategy group

From the tables it is established that the categorical groups have different shapes, thus during the KWT only the mean ranks can be compared.

Before it can be proved whether the categorical groups significantly differ from each other, a general analysis on the data set is performed. As this study measures the economic dependency factor of buffer states over a course of time, this study works with a panel data model. It has a delta of one unit with unbalanced time periods t and individuals i . Even though it is not the main aim of this study to use previous observations to predict the economic dependency factor of buffer states, attention is put on the size, direction, and magnitude of the relationship between a foreign policy strategy and the economic dependency factor.

Therefore, the last section of this subchapter contains an interpretation on the beta coefficients of the main independent variable. The study refrains from any interpretations of the control variables as studies show that these are unlikely to have a causal explanation (Hünermund & Louw, 2020).

Nevertheless, before the quantitative data is analysed, the data set is tested for a time trend. Various tests exist, but only the Fisher-type and the Im-Pesaran-Shin test allow for unbalanced data sets (STATA, 2022). Both tests are created to examine stationarity, which is roughly speaking achieved when the mean and the variance of the variable do not change over time. The null hypothesis that there is a unit root must be rejected for a model to be stationary (no time trend). These tests are applied to every dependent and independent variable, except for the variable ‘foreign policy strategy’. Due to the categorical (nominal) nature of this variable, neither the mean nor the variance is defined, thus a unit root test is useless. Various statistical tests are performed in the following section to see whether the absolute value of the test statistic is higher than the critical value (at a 5% significance threshold). If the test statistic is higher than the critical value, one can reject the null hypothesis, meaning there are some panels (Im-Pesaran-Shin) or at least one panel is stationary (Fisher-type). This statistical

step is taken to ensure that the estimators are efficiently constructed and the conclusions regarding the hypotheses are correct.

```
. xtunitroot ips Economicdependencyfactor, trend lags(1)

Im-Pesaran-Shin unit-root test for Economicdependencyfactor
-----
Ho: All panels contain unit roots      Number of panels      =      6
Ha: Some panels are stationary         Avg. number of periods = 21.17

AR parameter: Panel-specific          Asymptotics: T,N -> Infinity
Panel means:  Included                sequentially
Time trend:   Included

ADF regressions: 1 lag
-----
                Statistic      p-value
-----
W-t-bar        -1.8852         0.0297
-----
```

Table 6: the Im-Pesaran-Shin test for stationarity in the variable 'Ecodepfactor'

The Im-Pesaran-Shin test in table 6 is the average of the augmented Dickey-Fuller test statistics. The absolute value of the W-t-bar test statistic (-1,8852) is bigger than the crucial value at a significance level of five percent. This concludes: one can reject the H_0 , so the variable economic dependency factor has some panels that are stationary. With regard to the limited time and selective focus of this study, it is assumed that this test suffices to the expectation of stationarity.

```
. xtunitroot ips Domesticcapitalformation, trend lags(1)

Im-Pesaran-Shin unit-root test for Domesticcapitalformation
-----
Ho: All panels contain unit roots      Number of panels      =      6
Ha: Some panels are stationary         Avg. number of periods = 21.17

AR parameter: Panel-specific          Asymptotics: T,N -> Infinity
Panel means:  Included                sequentially
Time trend:   Included

ADF regressions: 1 lag
-----
                Statistic      p-value
-----
W-t-bar         0.7542         0.7746
-----
```

Table 7: the Im-Pesaran-Shin test for stationarity in the variable 'Domcapform'

Table 7 shows a different story. With a test statistic that is lower (0,7542) in absolute values than the critical value, H_0 cannot be rejected. This test concludes that the control variable domestic capital formation does contain unit roots. Therefore, a new variable with the log differences ($\log x_t - \log x_{t-1}$) is created to allow the variable to be stationary. Blackburne and Frank (2007) explain that including a new variable of the log differences can solve the problem of unit roots in a panel data set. This new variable is called 'logdifdomcapform'. Table 8 (in appendix) shows the stationarity of the new variable². This new variable is included in the model's equation for the remaining part of this research.

² Table 8 shows an absolute test statistic (-4.2385) that is larger than the critical value. H_0 is rejected at a 0.01 significance threshold.

Fisher-type unit-root test for Specializationinminingandpet
Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots Number of panels = 7
Ha: At least one panel is stationary Avg. number of periods = 18.29

AR parameter: Panel-specific Asymptotics: T -> Infinity
Panel means: Included
Time trend: Included
Drift term: Not included ADF regressions: 1 lag

		Statistic	p-value
Inverse chi-squared(12)	P	30.6338	0.0022
Inverse normal	Z	-2.3092	0.0105
Inverse logit t(29)	L*	-3.2215	0.0016
Modified inv. chi-squared Pm		3.8036	0.0001

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

Table 9: the Fisher-type test for stationarity in the variable 'Specminpet'

Specialization in mining and petroleum is analysed via the Fisher-type test as the Im-Pesaran-Shin test does not give any clarification. The null hypotheses of the inverse chi-squared, inverse normal, inverse logit t, and the modified inv. chi-squared can all be rejected at a five percent level of statistical significance. Therefore, it is concluded that at least one panel of the second control variable is stationary. In comparison with the previous unit tests this assumption for stationarity is weaker. Nevertheless, as this variable is only used as a control variable, it is assumed this test suffices to the expectation of stationarity.

The next step is to execute a heteroskedasticity test. Generally, this test is performed to make sure the error terms are not correlated over time. Heteroskedasticity only has an influence on the standard errors and tests statistics and not on the coefficients. Therefore, the reliability and preciseness of this study its conclusions can be affected. For that reason, further attention is devoted to this test. The test is executed in the following fashion. First, the residuals of the model are predicted, after which a new variable named uhat2 (uhat*uhat) is generated. With this information, the White's test is performed and presented in table 10.

```
. predict uhat, resid
(6 missing values generated)

. gen uhat2=uhat^2
(6 missing values generated)

. reg uhat2 Frgnpolstr Specminpet Logdifdomcapform c.Frgnpolstr#c.Frgnpolstr c
> .Logdifdomcapform#c.Logdifdomcapform c.Specminpet#c.Specminpet c.Frgnpolstr#
> c.Specminpet c.Frgnpolstr#c.Logdifdomcapform c.Specminpet#c.Logdifdomcapform
```

Source	SS	df	MS	Number of obs	=	121
Model	1509141.18	9	167682.353	F(9, 111)	=	4.30
Residual	4327773.95	111	38988.9545	Prob > F	=	0.0001
				R-squared	=	0.2586
				Adj R-squared	=	0.1984
Total	5836915.13	120	48640.9594	Root MSE	=	197.46

Table 10: White test in Stata to test for heteroskedasticity

Table 10 shows a value of Prob(F) of 0.0001, so the null hypothesis is rejected. It is noticed that this data set deals with significant heteroskedasticity. Many solutions to this problem exist, and the easiest one is applied; the command 'robust' is added to the regression

to increase the width of the standard errors. This provides the study with a more accurate measurement of the true standard errors of the regression coefficients.

Next, serial correlation is tested for. In statistic terms a variable contains serial correlation if it is correlated with its past values over the course of a time interval. Again, it does not alter the unbiasedness or consistency of the estimators, but it does have an influence on its efficiency. Hence, it can reduce the significance of the results. The command ‘findit xtserial’ written by David Drukker installs the ‘xtserial’ command which is used to test for autocorrelation (serial correlation) in the dependent and independent variables. This test is also executed within the Stata statistical program.

```
. xtserial Ecodepfactor Frgnpolstr Specminpet Logdifdomcapform

Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
    F( 1,      5) =    480.662
      Prob > F =      0.0000
```

Table 11: Drukker's 'xtserial' test for serial correlation

It is clear from the table above that the variables are serial correlated as the P-value is 0.000. Once more, the solution is clear. By adding ‘cluster’ to the equation, Stata robusts the standard errors of all sorts of serial correlation, and at the same time deal with the previous problem of heteroskedasticity.

Moreover, Stata tests for multicollinearity between the independent variables. Multicollinearity can have serious effects on the regression output. If the variables show a sign of high intercorrelation between each other, confidence intervals widen which can lead to skewed or misleading results. An obvious example in the model of this study would be the relationship between domestic capital formation and domestic savings, as they have a clear negative relationship. In this model, the assumption of no multicollinearity is tested via the Variance Inflation Factor (VIF). This factor measures the overall model variance to the variance of a model that includes only a single independent variable. A ratio of higher than five is regarded as unusually high. First, the Collin command constructed by Phillip Ender is downloaded. Then the VIF values are generated by the applying the ‘Collin’ command in Stata. Table 12 shows the VIF in the regression model.

```
. collin Frgnpolstr Specminpet Logdifdomcapform
(obs=121)
```

Collinearity Diagnostics

Variable	VIF	SQRT VIF	Tolerance	R- Squared	
Frngpolstr	1.00	1.00	0.9969	0.0031	
Specminpet	1.01	1.00	0.9920	0.0080	
Logdifdomcapform		1.01	1.01	0.9892	0.0108
Mean VIF	1.01				

Table 12: the Variance Inflation Factor (VIF) test via the Collin command in Stata to test for multicollinearity in IVs.

As is seen in table 12, the VIF value for the log differences of domestic capital formation is 1.01, which indicates a low level of multicollinearity. Specialization in mining and petroleum has a value of 1.01. Last, the foreign policy strategy has the lowest value, namely 1.00. Consequently, the correlations between the independent and dependent variables are not severe enough to require further attention. Therefore, there is no multicollinearity, and the independent variables stay in the data set.

With this information, the regression model is correctly specified. It aims to test the hypotheses set in Chapter two and is formulated as followed:

$$Ecodepfactor_{it} = \beta_0 + \beta_1(Frngpolstr)_{it} + \beta_2(Specminpet)_{it} + \beta_3(Logdifdomcapform)_{it} + \alpha_i + \mu_{it} \text{ for } t = 1975, \dots, 2019 \text{ and } i = \text{Belarus}, \dots, \text{Finland}.$$

Within this regression model $Ecodepfactor_{it}$ is the dependent variable, $\beta_1(Frngpolstr)_{it}$, $\beta_2(Specminpet)_{it}$, and $\beta_3(logdifdomcapform)_{it}$ are the independent variables, α represent the individual effects, and μ is the idiosyncratic error.

Now that the regression model is specified and the data's interpretation is known, the Kruskal-Wallis test is performed in Stata. The economic dependency factor (a combination of FDI, international trade, and external debt) acts as the dependent variable and the foreign policy strategy (categorical variable with three options; multivector, third-power, and predilection) as the independent variable. First, the mean statistics of each category are presented to show the absolute differences, after which the KWT is executed to test whether these means also significantly differ. The outcome of this test lies at the base of answering hypotheses 1, 2a, and 2b.

```
. sum Ecodepfactor Specminpet Logdifdomcapform if multivector==1
```

Variable	Obs	Mean	Std. Dev.	Min	Max
Ecodepfactor	31	17.36934	2.40686	12.60485	20.13842
Specminpet	31	.0721034	.1199096	0	.4561368
Logdifdomc~m	29	-.0174183	.0853081	-.1928093	.1714675

Table 13: summary statistics of the relevant variables for the multivector foreign policy

```
. sum Ecodepfactor Specminpet Logdifdomcapform if thirdpower==1
```

Variable	Obs	Mean	Std. Dev.	Min	Max
Ecodepfactor	54	32.34917	12.92238	5.554235	64.3278
Specminpet	54	5.269768	6.033226	.0093113	23.65528
Logdifdomc~m	52	-.0132102	.1664707	-.4151366	.3399038

Table 14: summary statistics of the relevant variables for the third-power foreign policy

```
. sum Ecodepfactor Specminpet Logdifdomcapform if Frgnpolstr==3
```

Variable	Obs	Mean	Std. Dev.	Min	Max
Ecodepfactor	42	18.15979	4.896566	11.26907	27.71069
Specminpet	42	.5926582	.5115916	.0172181	1.738437
Logdifdomc~m	40	-.003831	.0825606	-.1823044	.13871

Table 15: summary statistics of the relevant variables for the predilection foreign policy

In tables 13,14, and 15, the mean statistics of each category of the independent variable is presented. For the multivector policy the case study consists of 31 observations with a mean of 17.37, whereas the third-power group has a much higher mean of 32.35 (54 observations). Belarus and Finland (predilection strategy) are in the middle with a mean of 18.16. This mean is calculated over 42 observations. The degree to which a buffer state is dependent on foreign powers appears to differ quite a lot between each strategy. Also the standard deviation of the economic dependence is widely spread. The multivector approach shows a standard deviation of 2.41 points, the third-power approach 12.92, and the predilection strategy 4.90.

```
. kwallis Ecodepfactor, by ( Frgnpolstr)
```

Kruskal-Wallis equality-of-populations rank test

Frngpolstr	Obs	Rank Sum
Multivector	31	1285.00
Third-power	54	4829.00
Predilection	42	2014.00

```
chi-squared = 45.389 with 2 d.f.
probability = 0.0001
```

```
chi-squared with ties = 45.389 with 2 d.f.
probability = 0.0001
```

Table 16: Kruskal-Wallis test for the economic dependency factor with grouping variable 'frngpolstr'

Table 16 showcases that the Kruskal-Wallis test is statistically significance. The significance that the economic dependency factor differs across different foreign policy strategies is 0.0001, which is far below the significance threshold of .05. As such, it is

established that there is a difference in mean ranks of the economic dependency factor of buffer states that apply different foreign policy strategies.

However, the KWT just shows that there is difference across the categorical variable. A post hoc test is required to define those specific differences between the groups. This can create more clarity on the precise dissimilarities, especially in light of hypothesis 1. Various types of tests exist such as the Wilcoxon-Mann-Whitney, Nemenyi, and the Dunn test. Also, multiple adjustments exist: the Bonferroni, Šidák, Holm stepwise, or the Holm–Šidák stepwise adjustment. The Dunn test is used in this study as this is the appropriate procedure after conducting a Kruskal-Wallis test. Dinno (2015) shows that the null hypothesis of each pair-wise comparison is that the probability of observing a random value in the first group that is larger than a random value in the second group equals one half. In other words, the data comes from the same distribution. The alternative hypothesis explains that H_0 is not true, therefore indicating that one of the distributions is more likely to draw a larger value than the other.

Dunn's Pairwise Comparison of Ecodepfactor by Frgnpolstr (No adjustment)		
Col Mean- Row Mean	Multivec	Third-po
Third-po	-5.784433 0.0000	
Predilec	-0.745920 0.2279	5.476976 0.0000

Table 17: Post hoc Dunn test for the economic dependency factor per foreign policy strategy

Three pair-wise comparisons for the three foreign policy strategies are provided in table 17. This table also shows the z-test statistics, the p-values, and that the Dunn test has defaulted to no adjustments. If one takes a closer look to the p-values of the multivector and third-power and the third-power and predilection comparisons, it is concluded that they are both significant with a significance threshold of 0.01. Nevertheless, for the remaining comparison, namely predilection and multivector, the null hypothesis cannot be rejected with a significance value of 0.1. To conclude, for the multivector and third-power and the third-power and predilection categorical groups it can be concluded that there is a significant difference in economic dependency between them.

Statistical tests show that some groups in the foreign policy strategy variable differ significantly from each other. Yet, a closer look in the way they differ is necessary. The following parts dive deeper into this subject. Whereas section 4.2 analyses the yearly relative change in economic dependency of buffer states, the first part focusses on the general

interpretation of the regression output. Both these parts play a role in answering hypothesis 2a and 2b.

The fact that this study uses a panel data series indicates that three models can be used. The pooled OLS, fixed effects (FE), and random effects (RE) models exist. According to Wooldridge (2010), a pooled OLS is unbiased if the sample is different for each time period. This research's case studies are observed throughout multiple periods, meaning that the pooled OLS method is not applicable. To choose between the remaining two models, a Hausman test can be performed. Essentially, the test inspects whether there is a correlation between the unique errors and the independent variables. The null hypothesis tells that there is no correlation and RE needs to be used, and the alternative hypothesis suggests using the FE model due to correlation between the unique errors and the independent variables (Wooldridge, 2013). Nonetheless, the nature of the main independent variable throws a spanner in the works. Foreign policy strategy is a time-invariant variable and therefore is omitted from a FE model. With a time-constant regressor in the equation it is not possible to use FE to estimate the effect of a foreign policy strategy on the economic dependency factor of a buffer state. Therefore, the RE model is relied on. With the implementation of the random effects model, it is assumed that the unobserved effect is uncorrelated with the independent (control) variables. To be able to fully back this observation, the foreign policy strategy would need to be set randomly each year. Backing this observation is difficult as these strategy policies are outcomes of choice processes and are likely to be correlated with the unobserved effects illustrated by a_i . This study relaxes the latter assumption by including the control variables domestic capital formation and specialization in mining and petroleum. Nevertheless, the full exclusion of this assumption requires a large refinement of the regression equation. Generally, there is a large refinement of the regression equation in the form of time-constant country-specific controls. Examples would be the size of the country, whether a country is landlocked, or whether a country has a history of colonialism. While keeping in mind the limited time and focus of this study, these latter adjustments are discarded, and the original regression is used.

With regard to the above-mentioned statistical conclusions, the regression equation in Stata is altered. There is a proof of heteroskedasticity and serial correlation, so the command 'cluster' is added to the equation. On top of that, the unit root test illustrates that the panels in the control variable domestic capital formation are not stationary. As is already explained in the previous part, this is corrected for by including a new log differences variable. This variable is called 'logdifdomcapform' and replaces 'domcapform'. These adjustments reform

the regression equation in Stata to *'xtreg Ecodepfactor Multivector Thirdpower Specminpet Logdifdomcapform, re cluster (Country1)'*

Now that the regression model is correctly specified, it is run in Stata. Table 18 showcases the regression output for the model.

Random-effects GLS regression	Number of obs	=	121
Group variable: Country1	Number of groups	=	6
R-sq:	Obs per group:		
within = 0.0624	min =		11
between = 0.8610	avg =		20.2
overall = 0.4606	max =		27
	Wald chi2(4)	=	2086.01
corr(u_i, X) = 0 (assumed)	Prob > chi2	=	0.0000
(Std. Err. adjusted for 6 clusters in Country1)			

Ecodepfactor	Robust		z	P> z	[95% Conf. Interval]	
	Coef.	Std. Err.				
Multivector	.0684362	3.977156	0.02	0.986	-7.726647	7.863519
Thirdpower	18.64899	3.803042	4.90	0.000	11.19516	26.10281
Specminpet	-.7040029	.0930404	-7.57	0.000	-.8863587	-.5216471
Logdifdomc~m	.9423881	5.853754	0.16	0.872	-10.53076	12.41553
_cons	17.86312	3.767815	4.74	0.000	10.47834	25.2479
sigma_u	6.7236671					
sigma_e	8.1153822					
rho	.40703041 (fraction of variance due to u_i)					

Table 18: regression output for this study its model

The independent variables of this study partially explain the variance in the dependent variable. Since the random effects model is used, the overall R^2 is looked at. With an overall R^2 of 0.4606 the foreign policy strategy and the incorporated control variables specialization in mining and petroleum and domestic capital formation significantly affect the economic dependency factor of a buffer state. The R^2 tells us that 46.06% of the variance in the economic dependency factor is explained by the regression model. No attention is put on the adjusted or the predicted R^2 , which related studies do, as the random effects model is used (STATA, 2022B).

Apart from the differences in mean ranks, each strategy's effect on the economic dependency factor varies significantly as well. The multivector policy's beta coefficient is 0.068 but shows no statistical significance. On the other hand, the third-power dummy shows statistical significance on a 0.01 threshold. Its beta coefficient illustrates the following: if a buffer state would apply the third-power foreign policy strategy, its economic dependency factor would go up by 18.65 points ceteris paribus. The last strategy is shown by the 'cons' row (the constant) and is also statistically significant at a 0.01 level. It entails that if a buffer state would apply a predilection foreign policy strategy, its economic dependency factor would increase by 17.86 points ceteris paribus.

4.2 Yearly relative change in economic dependency

In this latter section the yearly change in the economic dependency factor is explored. This variable is regarded as relative since all inputs are in percentage to GDP. A yearly average percentual change is calculated for each strategy where each year and case study are weighted equally. It is of crucial importance for the discussion to examine and compare the volatility of the economic dependency factor for the multivector, third-power, and predilection strategy.

Case study	Yearly average relative change economic dependency factor	Yearly average per strategy
Nepal	4.851%	
Kosovo	3.811%	Multivector
Mongolia	26.327%	
Jordan	5.423%	Third-power
Finland	8.116%	
Belarus	9.162%	Predilection

Table 19: a summary on the yearly average relative change in economic dependency per case study and strategy

A large distinction between the most right-handed column is observed. This column indicates the average yearly change in economic dependency factor for each strategy. Buffer states that attempt to balance both its neighbouring countries, bilateral agreements, and multilateral agreements tend to have a volatility of economic dependency of 4,33% per year. Out of the three foreign policy strategies a buffer state under investigation, the multivector strategy has the lowest volatility. In comparison, when a buffer state executes are far more biased strategy, in this study denoted as the predilection strategy, its volatility doubles to a yearly volatility of 8,64%. Whereas the multivector policy does not have any major outliers (above 25% change in one year) in terms of yearly chances in economic dependency, Finland contains one (1991) and Belarus two (1997 & 2011). The highest yearly change in the economic dependency ratio is associated with the third-power policy. For these buffer states an average volatility of 15,86% per year is expected, which is almost four times more volatile than the multivector strategy. A remark is added; these two case studies hold six outliers. These size and causes of these outliers need to be considered during the discussion on the average yearly change in economic dependency per foreign policy strategy.

Furthermore, as the T and N of this study are relatively marginal in size, direct interpretations of the averages are hard. Events that significantly influence the FDI, international trade, or external debt ratios during the time frame are not controlled for, as this is seen as a breach of efficient sampling. However, this means that this sample data cannot be

seen as a representation of the whole population. The discussion elaborates further on this remark.

5. Discussion

The data analysis worked out in Chapter four of this study presented the econometrical tests, various comparisons, and the statistical interpretation of the data. During this discussion, the economic interpretation of the tests, hypotheses, and data plays a crucial role. While addressing the economic interpretation, the robustness and generalizability of the conclusions is also elaborated on. The hypotheses are answered in numerical order, beginning with hypothesis 1 which states that there is a significant difference between the economic dependency factor of buffer states that apply different foreign policy strategies. Afterwards, the question in what way the foreign policy strategies differ is answered by looking at hypothesis 2a and 2b. Moreover, the results are compared with previous research to identify the strengths and limitations of this study. It is important to look past the scientific contribution and towards the practical implications. This practical significance is therefore also elaborated on. The discussion ends by highlighting the unanswered questions and the recommended future research.

The research question - in which way does a foreign policy strategy alter the economic dependency of a buffer state - seeks to address the role of a foreign policy choice for an unstable region or country. Despite the relative long period of peace in the Western world, many conflicts emerged outside the Western countries. Some case studies experienced these first-hand. The main rationale for raising the question lies in the fact that buffer states generally have a special appetite for economic dependency and find it difficult to balance foreign relations. For this exact reason, this study analysed the relationship between the economic dependency and the foreign policy strategy in Chapter four.

The latter Chapter starts with the Kruskal-Wallis test. This test is executed to validate the first hypothesis. The statistical conclusion, that the mean ranks of the foreign policy strategies are significant different from each other, is already established. Also, for the ANOVA post hoc Dunn test, two groups experience a statistically significant difference. Economically, a different conclusion is drawn. The joint significance of the KWT entails that the economic dependency factor in the multivector, third-power, and predilection foreign policy strategy of the case studies differ between the strategies. The post hoc Dunn test dives deeper. It states that the chance that the economic dependency factor for a specific year in one of the multivector or third-power groups is larger than the remaining group is more than half. This

test also tells that the chance that the economic dependency factor for a specific year in either the predilection or the third-power group is larger than the remaining strategy is more than half. With this analysis of tables 17 and 18, hypothesis 1 is accepted. The first finding of this study is that there is a significant difference between the economic dependency factor of buffer states that apply the multivector, third-power, or predilection foreign policy strategy. There are two more empirical findings worth summarizing: the regression equations and the relative yearly changes in economic dependency per foreign policy. For the first time, these findings provide quantitative cross-national evidence on the relationship of the multivector, third-power, and predilection strategy on the economic dependency factor of a buffer state. The second finding of this study is that implementing the third-power foreign policy has a significant positive effect on the economic dependency factor of a buffer state. Chapter two already foresaw this relationship based on theory of Durbarry et al. (1998), Hafeznia (2012), Rahnama et al. (2017), and Vanderhill (2020). Besides, another interesting relationship emerges from the regression output. The predilection policy strategy and the economic dependency of a buffer state have a positive relationship as well. This third finding was already expected in the literature section, however a smaller effect for the latter relationship was anticipated. It turns out that in this study the predilection strategy has a relatively large significant positive relationship with the economic dependency factor. Last, no significant relationship between the multivector foreign policy and the economic dependency of a buffer state is found.

The positive relationships of two of the foreign policy strategies is an expansion on the results of Richardson (1978). Whereas Richardson did find evidence of trade dependency on foreign policy, this study finds evidence of foreign policy on trade, investment, and debt dependency.

Furthermore, the yearly average change in the economic dependency factor per strategy is analyzed. This analysis helps with answering hypothesis 2a and 2b. The first hypothesis that the multivector approach leads to the lowest yearly change in economic dependency is approved. Hypothesis 2b is also approved within this specific data set. The third-power strategy almost doubles the volatility of the predilection foreign policy, which means the third-power strategy has the highest average yearly change in economic dependency in this case study.

These high levels of volatility can explain the lower economic growth of buffer states laid out by Ziring (1987) and Hafeznia (2012). They establish that countries which pursue a buffer status show a lower growth rate. This study may have identified a determinant of that lack of

growth. As is established in the literature review, a high volatility of economic dependency translates to high tax revenue volatility, unstable domestic economic activity, and ineffective interest rates (Gnangnon, 2020; Gourinchas et al., 2011). All these factors can influence the economic growth rate of a country. Therefore, policy makers of buffer states must take the volatility of the various foreign policy strategies into account while choosing between the multivector, third-power, or predilection strategy. Besides, foreign companies, investors, or people that are planning to interact with the buffer state must make the same consideration, as the effects of the chosen foreign policy can have personal, but also business-related implications. There is also a difference in importance for the above-mentioned parties. Whereas several European countries (Loyens & Loeff, 2020) forbid companies abusing another company's economic dependence by law, no such polices are put in place for countries. For countries, the constellation of powers and negotiating power of both parties determine the outcome of international relations (Nexon, 2009), which shows the importance for policy makers to take this study its conclusions into account.

Concluding, both the regression outputs and the yearly changes show that there is a causal relation between the third-power & predilection strategy and the economic dependency factor. Two remarks on the nature of this relationship must be added. First, the data set consists of multiple outliers in the FDI to GDP ratio, international trade to GDP ratio, and the external debt to GDP ratio, which can significantly alter the economic dependency factor for a certain year. Examples are in abundance and can be seen in table 1 in the supplementary data. Nevertheless, because the economic dependency factor variable is composed of three inputs with variance correction, this intermediating effect is minimised. The second remark regards the regression model. As the model consist of only three independent variables, there is a possibility that the causal relationship is altered by other variables which are not included in the model. Examples of this omitted variable bias is the economic growth, exchange rates, and tariffs. The form of participation of a buffer state, indicated by variables such as primary products specialization or commodity concentration, can significantly affect the economic dependency as well. Due to a lack of data and the limited scope of this research, this type of dependency is not considered. This must be considered while generalizing the conclusions of this research.

While direct comparable studies with economic dependency as a dependent variable do not yet exist, many scholars use the variable as a regressor for another dependent variable. The use of economic dependency as a dependent variable has one main advantage: this focus allows the study to observe the variable in more depth with FDI, international trade, and

external debt as the inputs. Studies regard these as the main inputs for economic dependency, but Huang and Slomczynsk (2003) go one step further with the inclusion of ten indicators. This study refrains from using additional measurements due to the lack of data. The latter choice allowed the study to conduct a more focussed analysis on the case studies at hand. Apart from the dependent variable, three independent variables were added to the equation. The inclusion of the independent variables ups the R^2 to a, for panel data, relatively high level of 46.06%. This study attempted not too overfit the model just by adding independent variables as this would just adjust the model more to peculiarities and random noise in the model, instead of being generalizable for the whole population. In comparison with previous research on economic dependency and various other themes such as inequality (Chase-dunn, 1975), economic growth (Bornschieer,1978), and foreign policy (Richardson, 1978), whose R^2 shifts between 0.185 and 0.651, the coefficient of determinant of this study is regarded as medium to high. Of course, the goal of this study is not to get a R^2 that is as high as possible. Yet, a relatively high R^2 provides a certain degree of explanatory power. Another contrast with previous studies is the time of writing. This study is one of the first writings on economic dependency in combination with foreign policy in the third millennium, rest aside in a buffer state. The changes in globalism also significantly altered the type of economic dependency, making a recent quantitative analysis more relevant than one written during the times of a (Cold) war.

The findings reported above indicate that the application of the foreign policy strategy is one of the explanations for a change in the economic dependence of a buffer state. The fact that this research is one of the more recent papers on this topic, adds to its significance. After the fall of the Berlin wall, buffer states and economic dependence moved to the background of literature. Nonetheless in an ever-increasing hostile world with the Ukraine-war and China-US trade war, these topics gained momentum. Moreover, the Western dependence on China (manufacturing) and Russia (minerals) sparked the debate on economic dependence, reshoring, and insourcing. This discussion is often ideologically or emotionally driven, which drives the need for an economical, quantitative, and unbiased analysis. The threat of getting caught in the crossfire of these unpleasanties indicates the utter importance of understanding the relationship between a foreign policy and the economic dependence for a buffer state. Policymakers must take the consequences of a multivector, third-power, or a predilection strategy into account while forming a long-term plan for their country. Foreign companies, investors, and people must made the same considerations as an unstable domestic economy and inefficient interest rates hurts their wealth as well.

Because the multivector regression output showed insignificance, the exact size and direction of that strategy is still unknown. Also, the question whether there is a difference in the mean ranks of the predilection strategy and the multivector strategy remains unanswered.

These unanswered questions suggest that further research is needed to determine the exact size of the relationship for the whole population. It is beneficiary if future research includes a benchmark of a non-buffer state. With the help of this benchmark, new studies are able to identify the magnitude of the intermediating role played by global trends such as globalisation, insourcing, and reshoring. A more realistic assessment of the relationships is established when a researcher knows the size and direction of the intermediating effect of global trends. Furthermore, more case studies and a larger time frame can be included to increase generalizability, while keeping in mind that during the time frame only one strategy is applied. This reduces the influence of any potential outliers in the economic dependency factor, which is a great addition to this study. Another way to correct for the potential distorting effect of outliers can be done by following Belsley, Kuh, and Welsch's (1980) technique. Last, future scholars should focus more on the interaction between the foreign policy strategy and the individual types of dependence, to discover any potential patterns missed by this study its general economic dependence analysis.

6. Conclusion

The last century marks the beginning of the Ukraine-Russian conflict, the China-US trade war, and the COVID pandemic. All the crises show the downsides of a dependent economy, whether it is on the minerals, manufacturing, or GVCs. On top of that, the annexation of the Crimea rebooted the discussion on buffer states after a relatively long period of silence after the Cold War. Studies show that buffer states have a special appetite for economic dependency and foreign relations. Because of the unstable nature of a buffer state, the foreign policy strategy is a difficult balancing act which has its effects on the economic dependency of the state. Studies failed to examine the direction and size of the relationship between the latter two terminologies.

This study dives into that literature gap via a case study approach. Within this research economic dependency factor is the dependent variable composed by three pillars (FDI to GDP, international trade to GDP, and external debt to GDP) and the foreign policy strategy is an independent categorical variable with three groups (multivector, third-power, and predilection). The two remaining variables are control variables (specialization in mining and petroleum and domestic capital formation). With the help of the Kruskal-Wallis test and the

post hoc Dunn test, this study tests for a significant difference between the various categorical groups. The direction, size, and volatility of the effects of foreign policies on the economic dependence are identified by the regression outputs and the yearly relative change in the economic dependency factor.

The first two tests show that the chance that the economic dependence for a specific year in one of the multivector or third-power groups is larger than the remaining group, is more than 50%. In other words, the means ranks of the multivector and third-power foreign policy strategy groups differ from each other. The same conclusion is drawn for the third-power and the predilection group. Therefore, hypothesis 1 is accepted. The second step in answering the research questions is concerned with the regression output. A significant positive relationship between the third-power strategy and the economic dependency factor of a buffer state is observed. This relationship is relatively large (18.65), but studies already expected this due to the following reasons. The third party is geographically distant from the buffer state and feels a lower need to control it than the buffer state's direct neighbours (Hafeznia, 2012). Nevertheless, it focusses on expanding the (economic) relations, which can indicate an increase in FDI, trade, or foreign aid (external debt). Generally, the third party is also somewhat concerned with regional security, which can be achieved by investing in local infrastructure, minerals, or any other highly dense material found in the state (Vanderhill, 2020). Second, a positive relationship between the predilection foreign policy strategy and the economic dependency factor of a buffer state is seen. This relationship is larger than expected (17.86), as the incentive for dominant buffered states to economically develop the buffer state is minimised. On the other hand, the focus on just one neighbour increases the export concentration. Meilak (2008) states that especially for small and less developed countries this can lead to more volatility and a higher economic dependence. This volatility is also showcased in the yearly relative changes in economic dependency (table 19). The yearly relative change of the multivector policy accounts up to 4.33%, that of the third-power to 15.88%, and the relative change of the predilection strategy adds up to 8.64%. With these numbers hypothesis 2a and 2b are accepted.

It is obvious that the foreign policy strategy of a buffer state can significantly alter the inputs of the economic dependency factor. This study confirms the thought of scholars that the various strategies increase the economic dependence of buffer states over time. The size of that change in combination with the differences in volatility must be considered by buffer states' policy makers as these have far-reaching consequences such as an unstable economy and a higher volatility of tax revenue. Moreover, foreign companies, investors, and

immigrants need to consider the effects of a chosen foreign policy on the inputs of the economic dependency factor as a high volatility of those inputs can also lead to an unstable domestic economy and inefficient interest rates.

The economic dependency of the three foreign policies under investigation significantly differ from each other. Furthermore, the third power and predilection foreign policy strategies have a positive relationship with the economic dependency factor of a buffer state, and significantly enlarge the volatility of this factor. After stating the conclusion of this research, it is important to review the validity and generalizability of them. The first thing that comes across is goodness of fit. The regression output has an overall R^2 of 0.4606, meaning that 46.06% of the variance in the economic dependency ratio is explained by the regression model. This significant explanatory power allows this study to interpretate the coefficients with a degree of certainty. However, it is assumed that the outliers in the data set can affect the results. To minimize the risk of misinterpreting the results, the dependent variable is composed of three inputs, each corrected for their variance via the Kogut and Singh (1988) approach. As is already established in the discussion, economic growth, exchange rates, and tariffs can undermine the generalizability of the conclusions via the omitted variable bias. Nevertheless, the model tries to account for these unobserved variables by adding various control variables to the regression.

When looking at the Ukraine-Russia conflict emphasized in the introduction, a real-life illustration of the difficulties of the relationship between foreign policy strategies and the economic dependence is seen. If this conflict eventually turns Ukraine into a buffer state, many political adjustments must be made. One of those adjustments is the application of one of the four foreign policies defined in this research. As established in this paper, this foreign policy choice must be weighted off well as the implications towards the buffer states and the surrounding countries are of great magnitude. This consideration can be emotionally and ideologically driven after a period of conflict, which makes the choice for policy makers even more difficult. This study aims to simplify this choice by illustrating the relationship between a foreign policy strategy and the economic interdependence of a buffer state.

7. References

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8. Appendix

Data sources	Worldbank	Trading Economics	CEIC	UNCTAD
<u>Nepal</u>				
FDI		1990-2008		
Foreign trade		1990-2008		
External debt		1990-2008		
Specialization in mining and petroleum	1990-2008			
Domestic capital formation	1990-2008			
<u>Mongolia</u>				
FDI				1992-2019
Foreign trade				1992-2019
External debt			1992-2019	
Specialization in mining and petroleum	1992-2019			
Domestic capital formation	1992-2019			
<u>Jordan</u>				
FDI		1994-2019		
Foreign trade		1994-2019		
External debt		1994-2019		
Specialization in mining and petroleum	1994-2019			
Domestic capital formation	1994-2019			
<u>Belarus</u>				
FDI				1992-2020
Foreign trade			1995-2020	1995-2020
External debt		1993-2021		
Specialization in mining and petroleum	1995-2019			
Domestic capital formation	1995-2019			
<u>Finland</u>				
FDI				1975-1991
Foreign trade		1975-2021		
External debt				1975-1991

Specialization in mining and petroleum	1975-1991			
Domestic capital formation	1975-1991			
Kosovo				
FDI	2008-2019			
Foreign trade	2008-2019			
External debt	2008-2019			
Specialization in mining and petroleum	2008-2019			
Domestic capital formation	2008-2019			

Table 1: overview of the data sources used per case study

Buffer state	Time frame	Strategy
Nepal	1990-2008	Multivector
Kosovo	2008-2019	Multivector
Mongolia	1992-2019	Third-power
Jordan	1994-2019	Third-power
Belarus	1995-2019	Predilection
Finland	1975-1991	Neutrality

Table 2: case studies used in this research and their time frame and foreign policy strategy

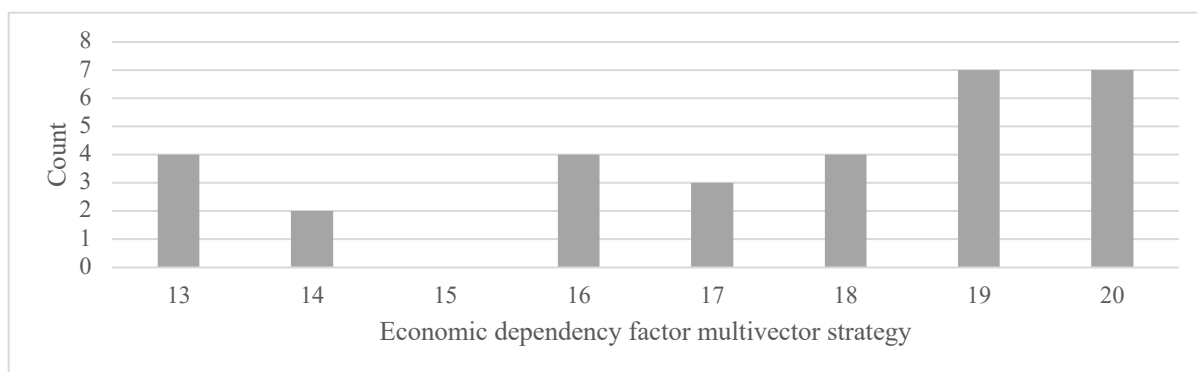


Table 3: the distribution of economic dependency scores of the multivector strategy group

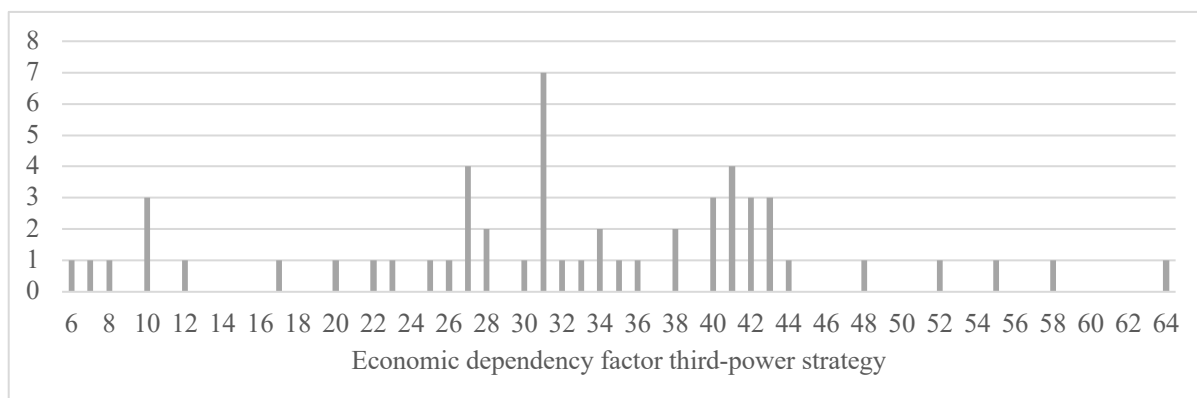


Table 4: the distribution of economic dependency scores of the third-power strategy group

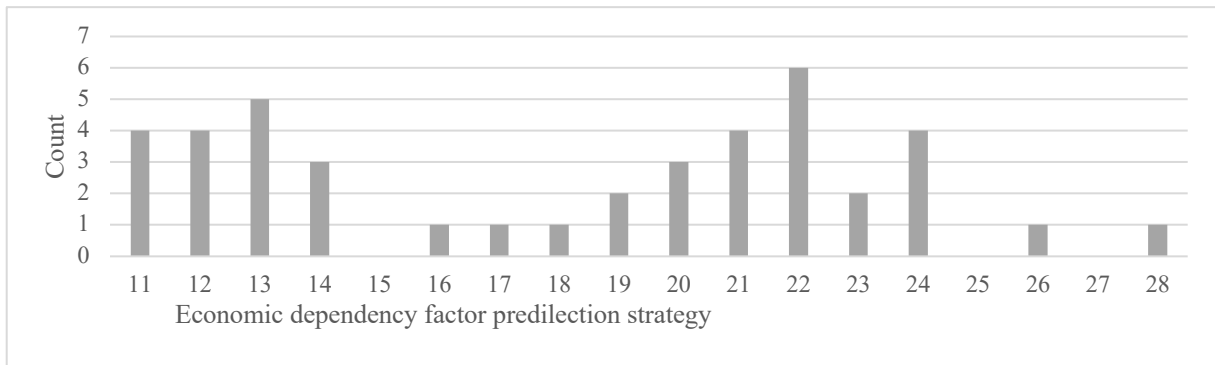


Table 5: the distribution of economic dependency scores of the predilection strategy group

```
. xtunitroot ips Economicdependencyfactor, trend lags(1)

Im-Pesaran-Shin unit-root test for Economicdependencyfactor
-----
Ho: All panels contain unit roots      Number of panels      =      6
Ha: Some panels are stationary         Avg. number of periods = 21.17

AR parameter: Panel-specific          Asymptotics: T,N -> Infinity
Panel means:  Included                sequentially
Time trend:  Included

ADF regressions: 1 lag
-----
                Statistic      p-value
-----
W-t-bar        -1.8852          0.0297
-----
```

Table 6: the Im-Pesaran-Shin test for stationarity in the variable 'ecodepfactor'

```
. xtunitroot ips Domesticcapitalformation, trend lags(1)

Im-Pesaran-Shin unit-root test for Domesticcapitalformation
-----
Ho: All panels contain unit roots      Number of panels      =      6
Ha: Some panels are stationary         Avg. number of periods = 21.17

AR parameter: Panel-specific          Asymptotics: T,N -> Infinity
Panel means:  Included                sequentially
Time trend:  Included

ADF regressions: 1 lag
-----
                Statistic      p-value
-----
W-t-bar         0.7542          0.7746
-----
```

Table 7: the Im-Pesaran-Shin test for stationarity in the variable 'domcapform'

```
. xtunitroot ips logdifdomcapform, trend lag(1)

Im-Pesaran-Shin unit-root test for logdifdomcapform
-----
Ho: All panels contain unit roots      Number of panels      =      5
Ha: Some panels are stationary         Avg. number of periods = 20.40

AR parameter: Panel-specific          Asymptotics: T,N -> Infinity
Panel means:  Included                sequentially
Time trend:  Included

ADF regressions: 1 lag
-----
                Statistic      p-value
-----
W-t-bar        -4.2385          0.0000
-----
```

Table 8: the Im-Pesaran-Shin test for stationarity in the variable 'logdifdomcapform'

Fisher-type unit-root test for Specializationinminingandpet
Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots Number of panels = 7
Ha: At least one panel is stationary Avg. number of periods = 18.29

AR parameter: Panel-specific Asymptotics: T -> Infinity
Panel means: Included
Time trend: Included
Drift term: Not included ADF regressions: 1 lag

		Statistic	p-value
Inverse chi-squared(12)	P	30.6338	0.0022
Inverse normal	Z	-2.3092	0.0105
Inverse logit t(29)	L*	-3.2215	0.0016
Modified inv. chi-squared	Pm	3.8036	0.0001

P statistic requires number of panels to be finite.
Other statistics are suitable for finite or infinite number of panels.

Table 9: the Fisher-type test for stationarity in the variable 'Specminpet'

```
. predict uhat, resid
(6 missing values generated)

. gen uhat2=uhat^2
(6 missing values generated)

. reg uhat2 Frgnpolstr Specminpet Logdifdomcapform c.Frgnpolstr#c.Frgnpolstr c
> .Logdifdomcapform#c.Logdifdomcapform c.Specminpet#c.Specminpet c.Frgnpolstr#
> c.Specminpet c.Frgnpolstr#c.Logdifdomcapform c.Specminpet#c.Logdifdomcapform
```

Source	SS	df	MS	Number of obs =	121
Model	1509141.18	9	167682.353	F(9, 111) =	4.30
Residual	4327773.95	111	38988.9545	Prob > F =	0.0001
				R-squared =	0.2586
				Adj R-squared =	0.1984
Total	5836915.13	120	48640.9594	Root MSE =	197.46

Table 10: White test in Stata to test for heteroskedasticity

```
. xtserial Ecodepfactor Frgnpolstr Specminpet Logdifdomcapform

Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
F( 1, 5) = 480.662
Prob > F = 0.0000
```

Table 11: Drukker's 'xtserial' test for serial correlation

```
. collin Frgnpolstr Specminpet Logdifdomcapform
(obs=121)
```

Collinearity Diagnostics

Variable	VIF	SQRT VIF	Tolerance	R- Squared
Frgnpolstr	1.00	1.00	0.9969	0.0031
Specminpet	1.01	1.00	0.9920	0.0080
Logdifdomcapform	1.01	1.01	0.9892	0.0108
Mean VIF	1.01			

Table 12: the Variance Inflation Factor (VIF) test via the Collin command in Stata to test for multicollinearity in IVs.

```
. sum Ecodepfactor Specminpet Logdifdomcapform if multivector==1
```

Variable	Obs	Mean	Std. Dev.	Min	Max
Ecodepfactor	31	17.36934	2.40686	12.60485	20.13842
Specminpet	31	.0721034	.1199096	0	.4561368
Logdifdomc~m	29	.0174183	.0853081	-.1928093	.1714675

Table 13: summary of the relevant variables for the multivector foreign policy

```
. sum Ecodepfactor Specminpet Logdifdomcapform if thirdpower==1
```

Variable	Obs	Mean	Std. Dev.	Min	Max
Ecodepfactor	54	32.34917	12.92238	5.554235	64.3278
Specminpet	54	5.269768	6.033226	.0093113	23.65528
Logdifdomc~m	52	-.0132102	.1664707	-.4151366	.3399038

Table 14: summary of the relevant variables for the third-power foreign policy

```
. sum Ecodepfactor Specminpet Logdifdomcapform if Frgnpolstr==3
```

Variable	Obs	Mean	Std. Dev.	Min	Max
Ecodepfactor	42	18.15979	4.896566	11.26907	27.71069
Specminpet	42	.5926582	.5115916	.0172181	1.738437
Logdifdomc~m	40	-.003831	.0825606	-.1823044	.13871

Table 15: summary of the relevant variables for the predilection foreign policy

```
. kwallis Ecodepfactor, by ( Frgnpolstr)
```

Kruskal-Wallis equality-of-populations rank test

Frngpolstr	Obs	Rank Sum
Multivector	31	1285.00
Third-power	54	4829.00
Predilection	42	2014.00

```
chi-squared = 45.389 with 2 d.f.
probability = 0.0001
```

```
chi-squared with ties = 45.389 with 2 d.f.
probability = 0.0001
```

Table 16: Kruskal-Wallis test for the economic 'factor with grouping variable 'frngpolstr'

Dunn's Pairwise Comparison of Ecodepfactor by Frngpolstr (No adjustment)		
Col Mean- Row Mean	Multivec	Third-po
Third-po	-5.784433 0.0000	
Predilec	-0.745920 0.2279	5.476976 0.0000

Table 17: Post hoc Dunn test for the economic dependency factor per foreign policy strategy

Random-effects GLS regression
 Group variable: Country1

Number of obs = 121
 Number of groups = 6

R-sq:
 within = 0.0624
 between = 0.8610
 overall = 0.4606

Obs per group:
 min = 11
 avg = 20.2
 max = 27

corr(u_i, X) = 0 (assumed)

Wald chi2(4) = 2086.01
 Prob > chi2 = 0.0000

(Std. Err. adjusted for 6 clusters in Country1)

Ecodepfactor	Robust		z	P> z	[95% Conf. Interval]	
	Coef.	Std. Err.				
Multivector	.0684362	3.977156	0.02	0.986	-7.726647	7.863519
Thirdpower	18.64899	3.803042	4.90	0.000	11.19516	26.10281
Specminpet	-.7040029	.0930404	-7.57	0.000	-.8863587	-.5216471
Logdifdomc~m	-.9423881	5.853754	0.16	0.872	-10.53076	12.41553
_cons	17.86312	3.767815	4.74	0.000	10.47834	25.2479
sigma_u	6.7236671					
sigma_e	8.1153822					
rho	.40703041	(fraction of variance due to u_i)				

Table 18: regression output for this study its model



Graph 1: visualization of the relationship between the multivector policy and the economic dependency factor



Graph 2: visualization of the relationship between the third-power policy and the economic dependency factor



Graph 3: visualization of the relationship between the predilection policy and the economic dependency factor