

# Financial Exclusion of the Smallest Economies in the World

Anders Lundvig Hansen<sup>a</sup>, Luís Lima Santos<sup>b,\*</sup>

<sup>a</sup> The Salford School of Business, University of Salford, Salford, Manchester, United Kingdom <sup>b</sup> CiTUR – Centre for Tourism Research, Development and Innovation, Polytechnic University of Leiria, Leiria, Portugal

# ABSTRACT

North Korea's extreme financial exclusion severely hinders economic growth, perpetuating poverty and inequality. This study examines financial exclusion in the country, shaped by its isolationist policies, international sanctions, and a rudimentary financial system. Through a literature review and mixed-method analysis, incorporating data from the World Bank, IMF, academic sources, and NGOs, the research highlights how financial exclusion limits economic development. North Korea's self-reliance ideology, strict internal policies, and global sanctions exacerbate its financial isolation, restricting access to formal banking and financial services. As a result, North Koreans rely on informal financial networks, cross-border trade, remittances, and even cryptocurrencies to navigate these constraints. Additionally, the regime employs sophisticated money-laundering techniques to evade sanctions and integrate illicit funds into the formal economy, funding its nuclear ambitions. The study recommends humanitarian pathways to alleviate financial exclusion, advocating for a conditional easing of sanctions in exchange for compliance with international demands. Strengthening anti-money laundering frameworks is also crucial to curb illicit financial activities. Addressing financial exclusion in North Korea requires a balanced approach that supports the population while enforcing measures against regime-led financial crimes.

# **KEYWORDS**

Financial Exclusion; Global Sanctions; Poverty; Inequality; North Korea

\* Corresponding author: Luís Lima Santos E-mail address: llsantos@ipleiria.pt

ISSN 2811-0943 doi: 10.58567/jea04030008 This is an open-access article distributed under a CC BY license (Creative Commons Attribution 4.0 International License)



# 1. Introduction

Financial exclusion refers to the inability of individuals and businesses to access affordable financial services. It is a prevalent issue in many of the world's smallest economies, which is hampering economic growth and perpetuating cycles of poverty and inequality. Kim Il Sung's North Korea provides a grim and extreme example of financial exclusion particularly due to its unique political and economic environment, but much as well due to the challenging and totalitarian social environment upon whom and which it imposes its policies, rules and laws. This article attempts to explore the dynamics of financial exclusion in the territory of North Korea and seeks to examine the causes and impacts of the status quo, while also proposing potential solutions based on a detailed analysis of primary and secondary sources of information that are available to the author about North Korea or the Democratic People's Republic of Korea (DPRK). The example of North Korea is important because it is the most extreme example we can come across when we discuss financial exclusion. Although, North Korea is by far the only nation in the world that is excluded financially from the rest of the surrounding world, but it is without a doubt the most extreme case that come to mind. Other countries, such as Afghanistan, Syria and Yemen face financial exclusion due to ongoing military conflict that disrupt financial systems. Iran, Russia and Venezuela, although, they are not a part of the smallest economies of the world and certainly have economic movement capabilities to some extent greater than North Korea, yet they are among other regions and nations who suffer similar exclusion from the global or westernized financial system due to international sanctions. However, not quite to the same degree as North Korea. Underdeveloped economies, in sub-Saharan Africa and parts of South Asia are facing high levels of financial exclusion due to poverty, armed conflicts such as civil war, lack of the necessary infrastructure and low financial literacy. But in terms of financial exclusion in all categories of cause and impact, except outright war, North Korea has it all, poverty close to famine levels, a captured and corrupted ruling class concentrated in the capital of Pyongyang, ruled for generations by a singular family with totalitarian control, intimidation of the surrounding world society with the nuclear ambitions of their regime, puts North Korea in a special position when it comes to financial exclusion.

The motivation and background of the author for writing this article arose from two specific reasons, one being the personal visit to DPRK in the winter of 2019 over the new year 2020 for 5 days of which the author also wrote an additional unpublished article with the title "Memoirs of a trip to the DPRK" detailing the experiences gathered in connection with this trip and is written with an essay style timeline, describing the experiences of the author as they unfold. Secondly, the author obtained a master's degree in Fraud & Risk Management from the University of Salford in Greater Manchester, UK, in collaboration with Robert Kennedy College in Zurich, Switzerland, with whom a solid foundation of banking and finance knowledge was acquired that fueled a further motivation to explore the extraordinary circumstances upon how the DPRK engages with the world stage. Especially, when it comes to the matters of their unique and controversial methods of facilitating economic movements to allegedly fund nuclear programs, or how they circumvent sanctions, as well as how they have been imposing certain political ideologies upon their own population in a totalitarian manner, for the larger part of a century. The aim of the article is to provide an updated status on the topic, if something has changed recently, to enhance the understanding of financial exclusion in small economies, mainly highlighting the extreme example of DPRK and how a possible inclusion could be implemented if certain criteria are met. Suggestions are made on how to possibly meet these criteria, but suggestions do not guarantee implementation or even consideration of how people in financially excluded territories in practice manage to uphold a decent living standard despite financial exclusion and the following effects of it and merely act as suggestions. An important aspect of the success of such suggestions is inherently mitigation of the challenging conditions in the countries concerned, in this particular case North Korea. But, also other countries in similar systemic condition, has to be willing and able to comply with the demands of the international community, in this context many factors play a crucial role such as implementation of adequate financial

infrastructure and free communication (not necessarily monetarily free) to the outside world without repercussions for individuals engaging in such activities, among other conditions, which highly likely will not be met or considered by the current regime of North Korea. Nonetheless, this article seeks to broaden the awareness about financial exclusion and add to the already broad existing academic literature on the topic. How is it implemented, what impact does financial exclusion have upon the societies where it exists, and how do the implicated nations deal with circumventing this exclusion in order to facilitate financial movements, despite limited or no cooperation with the surrounding world.

### 2. Methodology

#### 2.1. Research Design

This study adopts a mixed-method approach, integrating both qualitative and quantitative analyses, it utilizes primary data from international organizations and secondary data from the academic literature on the topic as well as government reports, and NGO publications. This approach allows for a comprehensive understanding of financial exclusion in and of North Korea, as well as other regions and nations.

The aim of the article is as mentioned in the introduction to provide an updated status on the topic in order to enhance the understanding of financial exclusion in small economies for laymen, academics and analysts alike, and thereby highlighting the extreme example of DPRK and how a possible inclusion could be implemented if certain criteria are met. To further ignite the discussion, suggestions are made, how to possibly meet these criteria, but does not guarantee implementation and merely acts as suggestions, as the nations in question has to be willing and able to comply with the demands of the international community, in this context many factors play a crucial role such as implementation of adequate financial infrastructure and communication to the outside world without repercussions for individuals engaging in such activities among other conditions, which highly likely will not be met or considered by the current regime of North Korea.

### 2.2. Data Collection

Primary data are sourced from the World Bank, IMF and various other NGO's operating in and around North Korea.

Secondary data include scholarly articles, books and reports that provide context and background on the phenomena financial exclusion and its specific manifestation in North Korea. Data triangulation is used to validate the findings and ensure robustness, integrity and value.

#### 2.3. Analytical Framework

The analytical framework combines a thematic analysis of qualitative data with statistical analysis of quantitative data. Themes relating to financial exclusion would be such as access to banking services in general both domestically and internationally, it would most definitely include the impact of sanctions and internal policies, these are identified and analyzed first. The quantitative data are used to highlight the extent of financial exclusion and briefly compare North Korea with other small economies and will be graphically illustrated.

The next section is a literature review, which focuses on the definitions of financial exclusion sourced from academic authors on the topic along with global perspectives and the extent of financial exclusion in the context of DPRK. The subsequent section discusses and analyses through primary and secondary sources, the causes, impacts, extent and possible solutions to combat and consider financial exclusion in DPRK. Finally, the conclusion chapter outlines and brings together the findings of the research and offers recommendations for both the international

community and DPRK in general, as well as the limitations of the study.

### **3. Literature Review**

### 3.1. Defining Financial Exclusion

Financial exclusion is a multifaceted issue that refers to the inability of individuals, households or groups of people and businesses to access affordable and essential financial products and services. These products and services include basic banking, credit, insurance and investment products that are available to the public at large and remain crucial for participating in the modern society and economy. Such exclusion prevents people and nations from fully participating in economic activities and thereby perpetuating poverty and economic growth. Therefore, financial exclusion encompasses a range of issues, from the lack of access to banking and credit services to the inability to use modern digital payment systems that operate through efficient electricity infrastructure and/or internet access and mobile networks. When we discuss the definition and meaning of financial exclusion, it is important to emphasize that financial exclusion not only consists of a lack of access to financial products and services but also involves other issues, such as lack of understanding how financial products and services function, as well as general affordability, integrity and appropriateness of the systems being utilized for the provision of such products and services. (Leyshon & Thrift, 1995) were among the first to articulate the concept of financial exclusion, they emphasized how certain populations, particularly those in low-income and rural areas are systematically excluded from financial services and argued that financial exclusion not only limits economic opportunities and prosperity but also contributes to broader exclusion by hindering access to housing, employment whether domestically or internationally and as well to social networks. They further emphasized how the structural predilection of the financial system favors the rich and powerful over the poor and powerless as one of the most important aspects or implications for uneven development. And thus, defining financial exclusion as a systemic and as well a geographical issue, rather than an individual choice or opportunity. (Kempson & Whyley, 1999) expanded on this definition and identified key dimensions of financial exclusion, including access to markets, conditions, prices, marketing and also the concept of self-exclusion as seen in DPRK, because their national ideology Juche promotes self-reliance. Access to markets refers to the physical or online availability of financial services, while conditions refer to the eligibility criteria set by financial institutions. Prices involve and refer to the cost of financial services, which can be inaccessible or directly prohibitive or denied for low-income individuals. Marketing practices may also include certain groups of people or regions, if they are not targeted by financial institutions, for example or have little or no knowledge about the availability and function of financial products and services. Finally selfexclusion occurs when individuals or governments voluntarily opt out of using financial services due to mistrust or previous negative experiences. Now, opting out is not the circumstance of DPRK because the regime is both selfexcluded as well as excluded by the international economic community, partly due to their ideology and totalitarian rule which indeed is complicit in committing atrocities upon their own population and intimidating the surrounding world with their nuclear ambitions. (Claessens, 2006) points out that financial exclusion is often a symptom of broader economic and social inequalities. He goes on to argue in consensus with Leyshon & Thrift (1995) that systemic barriers such as discriminatory lending practices and regulatory environments that only favor established financial institutions, and the upper echelons of society are a major factor which is perpetuating financial exclusion. He further notes that despite the benefits of finance, the data show that use of financial services is far from universal in many countries, especially developing countries Claessens (2006). He is calling for the need of inclusive financial policies that address these systemic issues to promote equitable economic growth, emphasizing that although riddled with many challenges and risks, nations and governments of developing countries could facilitate accessibility to financial services and products through strengthening institutional infrastructure, liberalizing

*markets and facilitating greater competition.* (Beck, Demirgüç-Kunt, & Levine, 2007) describe financial exclusion as a barrier to economic development, they argue that access to financial services is essential in order for investments in education, health and business to succeed. The concept of financial exclusion encompasses on one hand voluntary exclusion, where individuals or governmental institutions choose not to use financial services as pointed out by Kempson & Whyley (1999), especially if they are provided by foreign entities and institutions, and on the other hand involuntary exclusion, where individuals or governmental institutions are denied access due to various barriers and criteria, and both scenarios appear to be present in DPRK.

(Mas, 2011) goes through the questions of unavailability and scarcity of banking and financial inclusion in developing countries as well as the absence of regulatory infrastructure in these regions. He also mentions the example of M-PESA in Kenya, a mobile solution to provide financial inclusion in rural areas and regions far from capital centers. He argues that traditional costs of financial services as proposed earlier by Kempson & Whyley (1999) is a main factor which remain a big part of the problem that persist in developing countries such as sub-Saharan African nations or as well as North Korea, when it comes to banking the unbanked. This is also why M-PESA was a success in Kenya, due to its very low cost for the consumer usage and the gaining of access to an alternative financial service platform like mobile banking. (Hayes & Westrup, 2012) also documented that the M-PESA initiative in Kenya was a great success which significantly raised living standards and access availability to financial markets and further contributed to banking the unbanked in the nation. (World Bank, 2014) provides a comprehensive framework for understanding financial inclusion by identifying key barriers such as geographic distance and location, lack of proper documentation, high costs and limited financial literacy. They further emphasize that financial inclusion is not merely about having access to financial services but also about the quality and affordability of those services as well in the context of the global financial systems, as pointed out by Mas (2011). (Amidzic, Massara, & Mialou, 2014) present a quantitative approach to measuring financial inclusion, they use indicators such as the number of bank branches and Automatic Teller Machines (ATMs) per capita, as well as the percentage of the population with bank accounts and the volume of digital transactions. Their work highlights in particular significant disparities in financial inclusion across different regions and income groups, also underscoring the need for targeted policy interventions. (Buckley & Malady, 2015) highlight the importance of digital financial inclusion, particularly in developing countries. They further argue that the rise of mobile banking and fintech solutions offers significant opportunities to bridge the gap for those nations and their populations that previously have been excluded from the traditional banking system just as we have seen with the M-PESA example from Kenya mentioned by Mass (2011) and Hayes & Westrup (2012). However, they also caution that digital financial inclusion must be accompanied by adequate regulatory framework to protect the consumers and to ensure equitable access and integrity.

### 3.2. Global Perspectives on Financial Exclusion

A broad array of literature exists that discusses financial exclusion in a global context, among the most renowned is of course literature from the World Bank, and the Global Findex Database (2017) which is highlighting at the time of their writing that over 1,7 billion adults globally remain unbanked, with significant variations between regions and countries. For example, in Sub-Saharan Africa financial exclusion is often linked to underdeveloped financial infrastructure and other socio-economic barriers according to (Demirgüç-Kunt, Klapper, Singer, Ansar, & Hess, 2017).

More recent research, by the same authors in the same institutions, reveal high rates of financial exclusion in Sub Saharan Africa as of 2021, where as much as 57% of adults remain unbanked, but also finds that mobile banking significantly has improved financial inclusion, with approximately 33% of adults having a mobile money account. This is an increase of 21% from 2014, where only 12% of adults had a mobile money account. The major challenges

in Sub Saharan Africa remains to be poor banking infrastructure and limited access to traditional banking combined with regulatory barriers such as stringent regulations that hamper the expansion of financial services in general. Further research provides an outlook on financial exclusion in South Asia where approximately 30% of adults remain unbanked as of 2021, and where digital payment adoption is also rapidly growing with about 40% of adults making or receiving digital payments compared to 28% in 2017.

The challenges faced by South Asians are significant gender disparities, where women are less likely to have a bank account compared to men and where high levels of poverty and economic instability hinder access to financial services. In Latin America and the Caribbean, around 55% of adults have a bank account and a large portion of the population relies upon informal financial systems due to mistrust in formal banking. High levels of income inequality are challenges that contribute to financial exclusion in this region, along with high levels of financial literacy which prevent people from utilizing available financial services. In the Middle Eastern and North African region, approximately 52% of adults remain unbanked as of 2021, mostly due to slow adoption of digital financial services and products, in comparison to other similar regions that suffer from financial exclusion. Finally, in Eastern Europe and Central Asia approximately 65% of adults have a bank account and therefore remain the most financially included regions among the financially excluded regions under review in this section. In this region, an increasing use of mobile and internet banking is developing, although, not without challenges such as low trust in financial institutions due to historical banking crises and inconsistent regulatory frameworks across different countries according to (Demirgüç-Kunt, Klapper, Singer, & Ansar, 2022).

Data from the International Monetary Fund (IMF) provides a glance at an expanding trend of access and usage of digital payments over traditional methods of physical payments and cash withdrawals from Automated Teller Machines (ATM). Even during the scandalous COVID-19 pandemic years, indications of their data from 2022 provide an understanding of *a sustained level of financial inclusion* due to an increase in digital financial services such as microfinance from mobile and internet banking. An increase in GDP rose from 26% to 35% between 2021 and 2022 in Africa. In Europe and western society in general, digital transactions via online banking platforms surged by 20% in volume per 1000 adults in 2022 alone. Globally, the acquisition of bank accounts has been on the rise, while deposits and unpaid loans have been dropping as a share of value in GDP, which could suggest a lesser use of physical cash but also suggests a lesser demand for loans, and also indicates that people and companies are not defaulting on their loans. As indicated in Figure 1 the data suggest a heavy increase in the value of transactions with mobile and internet banking across the globe mostly in the western hemisphere, (not counting with the US and Canada).

The usage of mobile money remains most popular in the regions of Asia-Pacific, Middle East and Central Asia and with Africa setting the tone as the absolute top user of mobile money, which is being facilitated by a broad network of local agents providing the service for the local populations. It remains a popular service in that region and has been steadily increasing year by year, which also has no requirement of having a sidelining traditional formal bank account. IMF, also notes that there indeed exists a significant gap in gender disparities, where men in general, compared to women on average, have account ownership of 55% more accounts than women, this suggests that men remain responsible for the majority of household payments and the management of the household finances. (IMF, 2023).



Figure 1. Digital Financial Services Globally (IMF, 2023).

# 3.3. Financial Exclusion in North Korea

In North Korea (DPKR), the situation is indeed very unique due to the country's political isolation and its economic policies, which is also why reliable data is difficult to ascertain or validate.

Nonetheless, (Frank, 2014) professor of East Asian Economy and Society at the University of Vienna has discussed the ideology of the DPRK, which is the Juche ideology, as it promotes self-reliance and to this extent greatly limits economic engagement with the world outside of the DPRK. (Myers, 2008) also examines the mythical ideology of North Korea and defines it as a *smokescreen* designed specifically to *distract outsiders from its true ideology* and sidelining it with Marxism. (Nolan, 2000) writes in his book *"Avoiding the Apocalypse"* that international sanctions aimed at curbing the DPRK's nuclear ambitions is one of the main factors that further isolates the country from global inclusion, financial networks, business cooperation with foreign nations, which gives a good reason to an exacerbation of North Korea's financial exclusion from the surrounding world.

Several other publications discuss financial exclusion in North Korea highlighting the complex economic challenges the country faces. An article in the MDPI Sustainability Journal titled *"The North Korean Economy: Sustainable or Muddling through"* explores the economic policies and its effectiveness, the study uses text mining to analyze academic journals from North Korea. It is revealing how the economic policies have developed and evolved during the different leadership periods and that despite efforts and attempts to address economic issues, the country struggles with sustainability due to lack of decisive policy reforms and international cooperation according to (Kim, Sohn, & Choi, 2020). Regular research publications appear in the North Korean Review on North Korean economic conditions which is a South Korean publication website from the Yonsei Institute for North Korean Studies. It includes various articles on the impacts of financial exclusion and provides in-depth analysis while facilitating discussions on various aspects of North Korean society. It also includes the country's financial isolation, with a consensus between various authors on the topic that it is a major contributing factor to the hardships the citizens face (NKR, 2024-2005) One article, from the news outlet Malaymail, mentions a recent defector and senior high ranking North Korean diplomat, Ri II Gyu, who told Reuters Bureau that North Korea allegedly wants to reopen

nuclear discussions, if Donald Trump is re-elected as president of the United States in late 2024, a successful negotiation could potentially see a loosening up on international sanctions against North Korea, which could potentially provide its citizens with steps towards a more economically included society. Although, according to the article in (Malaymail, 2024) and due to closer ties with neighboring Russia, who is also an internationally sanctioned country, North Korea no longer depend upon the United States to lift sanctions because Russia has been engaging in transactions across borders despite sanctions. This alone effectively removes the bargaining power of the United States to some extent in order to begin initiatives of cooperation with the goal of potentially loosening international sanctions imposed on North Korea. Another recent article from the website NK news by (Sokolin, 2024) provides the perspective of the Bank of Korea (BOK) based in Seoul that the economy of DPRK allegedly grew for the first time in four years in 2023 according to the central bank. This further increased their GDP by approximately \$3 billion in 2023 compared to the previous year. The central bank also states that the main reason for the decline in GDP arose from tightened border restrictions and stringent epidemic measures due to the recent COVID-19 pandemic, suggesting an impending recovery of the nation's economy to a state of "normalcy". NK news further provides a comparison with ROK (Republic of Korea) referring to South Korea, and according to the graph printed for DPRK which is illustrated in red compared to ROK illustrated in blue, it is actually 1.7 percentage point higher in GDP for 2023 according to BOK. (see figure 2) Supposedly, due to higher overhead and spending in ROK for the same year, a plausible scenario for a more technological, modern, and advanced society compared to DPRK, a quantitative testament that the two parts of the divided nation simply are worlds apart when it comes to financial inclusion, but nonetheless a recent positive trend has been developing for DPRK it seems.



Figure 2. GDP performance comparison (Sokolin, 2024).

# 4. Results

### 4.1. Primary Sources

### 4.1.1. Data from International Organizations

As shown in sub-chapter 3.2 of the literature review, the World Bank and IMF provide crucial data on the state of financial services in the world. In addition to this, and according to the World Bank and its authors of the Global Findex Database Report from 2021 (Demirgüç-Kunt, Klapper, Singer, & Ansar, 2022), it is assumed that less than 1% of North Korea's population has access to formal banking services, and as we can acknowledge from their world

map of account ownership in figure 3 is that no data exists. This figure (<1%) is significantly lower than the global averages while also excluding several other nations with a similar lack of account ownership, it highlights the extent of financial exclusion in the nation, bearing in mind that reliable data is scarce or simply unavailable. Out of 1018 indicators for North Korea in the database of Global Change Data Lab, a subsidiary of Oxford University, as well does not provide or include data of account ownership in the territory of North Korea (Our World in Data, 2024).



Figure 3. Bank Account Ownership (World Bank, 2022).

Although, data from the World Bank, IMF and Global Change Data Lab are some of the most comprehensive sources of data on financial exclusion, reliable and accurate datasets directly from North Korea are often not included in their measurements due to lack of data availability and the country's isolation from the international community. Globally, according to the World Bank and Global Findex Database, approximately 1,4 billion people remain unbanked, a declining trend from approximately 2.5 billion in 2011 and 1,7 billion in 2017 respectively which suggests that financial exclusion is a much broader issue in the world in general, North Korea only presents the most extreme example in this context. (Demirgüç-Kunt, Klapper, Singer, & Ansar, 2022).

### 4.1.2. NGO Reports

Reports from NGO's offer insights into the daily realities faced by North Koreans. For instance, a report by the International Federation of Red Cross and Red Crescent Societies (IFRC, 2020) highlights that many North Koreans rely on informal financial networks due to the unavailability of formal banking services as we will explore further in one of the following sub-chapters. These networks often involve high costs and severe risks, further marginalizing and repressing the majority population of North Korea among other factors from some of the most common-placed and taken for granted human rights that populations of most other countries enjoy the benefits, as well as pitfalls of, because it is simply not available as demonstrated in figure 3. Many South and North Korean people dream of the day the country is once again united, and many defectors are still anonymous providers of real-life stories from within the DPRK. (PSCORE, 2024), is a global Human Rights NGO advocating specifically against the daily atrocities and violations being dealt to the North Korean people. They provide educational data and stories provided by anonymous defectors. Stories about false imprisonments, forced labor and propaganda, lack of essential goods. They estimate that approximately 30,208 have defected in total to their knowledge, and close to 1,500 just in 2016.

Many North Korean's still risk their lives to escape or to get information from the outside, an estimate is that

about 8% listens to foreign radio broadcasts weekly in secret, the punishment for consumption of foreign materials could reach up to 10 years in a correctional facility being spoon fed propaganda and forced labor from morning to evening or death sentence in severe cases. Stories about a defector from 2009 who was working in a factory was happy when his legs broke after have been forced to stand up all day for 6 years, because it meant that he could finally get some rest, all says a lot about the situation in North Korea. Other NGOs like Amnesty International report about severely restricted freedom of expression, deteriorating human rights with as many as 40% percent of North Koreans suffering from malnutrition according to reports from (Amnesty International, 2023).

### 4.2. Secondary Sources

### 4.2.1. Academic Literature

As we can acknowledge through the sources found in the literature review, academic studies provide a deeper understanding of the systemic issues contributing to financial exclusion in North Korea. Furthermore, to get an even deeper understanding of the cultural aspects of DPRK and why they are in many ways financially excluded from the surrounding society (Frank, 2014) explored the impact of the Juche Ideology on the country's financial policies, arguing that it discourages economic engagement and development. Moreover, Nolan, M. (2000) examines the role of international sanctions, highlighting how they limit North Korea's access to foreign currencies, international loans, and investment opportunities both domestically and internationally. However, (Haggard & Nolan, 2010); (Haggard & Nolan, 2012) have conducted extensive research on North Korea's economy. Their works provide incredibly valuable insights into some of North Korea's economic conditions and the extent of financial exclusion in the country. Among their findings are the main motives behind leaving North Korea (see figure 4) which according to their survey is economic conditions and political freedom, this further suggests that the financial sector in the country is extremely underdeveloped and that the social and political conditions are among the main factors that contribute to financial exclusion in the country.

Motive	China survey	South Korea survey
Economic conditions	94.7	56.7
Political freedom	1.8	27.0
Religious freedom	0.2	1.0
Fear (afraid of doing anything wrong)	1.8	8.0
Other	1.6	7.3
Total	100	100

Figure 4. Defector motives (in percentage) (Haggard & Nolan, 2010).

### 4.2.2. Government and Policy Reports

Government and policy reports offer insights into the official stance on financial exclusion. The North Korean government's reports often emphasize self-reliance and criticize international sanctions as unjust. These reports provide a perspective on the government's priorities and challenges in addressing financial exclusion from the outside world at large.

Recent reports highlight several significant challenges and priorities related to financial exclusion in North

Korea. The country's leadership under Kim Jong Un continues to face the challenge of balancing state control with market forces, a complex situation exacerbated by ongoing sanctions and economic mismanagement. One of the primary challenges is the lack of market-friendly reforms. The North Korean government has taken steps to exert tighter control over economic activities, including increasing regulation of markets and business. For instance, recent policies have included stricter registration processes for market stalls, street vendors and commercial enterprises, as well as efforts to extract more revenue through taxes and fees. This indicates a prioritization of state control over economic liberalization which limits the potential for market-driven financial inclusion and prosperity. However, the article in the Diplomat by (Yong, 2024) along with some of the abovementioned allegations, notes that the authorities seem to have been gradually easing restrictions on the activity of street vendors with bans being lifted and that vendors are conducting business without fear of enforcement actions, provided that prohibited items are not being sold. If the North Korean government relies on street vendors and independent businesses as a part of some sort of revenue-generating tool for government initiatives, it is no surprise that skepticism is the current prevailing sentiment for many North Korean citizens. The state has trouble producing, distributing and selling goods on their own, and especially when the state does not even have enough stock to meet local demands on a monthly basis, indeed further validates the skepticism of the North Korean public. Moreover, North Korea's economic strategy remains focused on self-reliance, with limited to no engagement in international trade apart from China and Russia, which further isolates its financial system. The economic difficulties are compounded by food insecurities, lack of resources, the government's prioritization of military spending, its continuous tightening of trade policies over economic development, directly goes against a broader prosperity, leading to state bans on private individuals conducting foreign trade. The agricultural sector, despite a slightly better harvest in 2023, still struggles due to systemic inefficiencies and lack of significant reforms, as well as lack of sufficient and modern machinery and agricultural innovation to improve a yearly successful agricultural performance. Furthermore, if a stable harvest only can be achieved by the sheer luck of the weather conditions providing more precipitation than usual, it is close to obvious that the state of North Koreas economy is not in great shape, (Silberstein, 2023). Internationally, North Korea continues to face significant pressure from sanctions, which complicate its ability to engage in the global financial systems. The UN and other international bodies have discussed the impact of these sanctions during their 90-day committee report according to an article in the UN security council's monthly forecast for August 2024, noting that while sanctions aim to curb the regime's military ambitions, it also contributes to the country's broader financial exclusion and economic hardship according to (United Nations, 2024). Furthermore, the report notes that due to increased closer relationship with Russia, a boosting of exchanges and joint research between the two nations has been solidified through a Treaty on Comprehensive Strategic Partnership which the leaders of both countries signed when they met in Pyongyang on June 19th, 2024. The treaty includes the sharing of knowledge in both science and technology in order to strengthen their military capabilities, and also to provide assistance to one another in times of war, a scenario we are seeing unfold recently with North Korean soldiers being deployed directly into the Russia-Ukraine conflict zone according to (Bertrand, 2024); (Murphy, 2024); (Psaropoulos, 2024); (Smith, 2024); (Sarkar & Rai, 2024), but the treaty also mentions to cooperate with UN and other international organizations, which at this point now seems very unlikely. However, these reports also collectively underscore that North Korea's economic strategic policies are driven by a mixture of desire for state control and the desire to further strengthen its bilateral relations with China and Russia as it makes it easier to evade international sanctions. International sanctions however, in this respect would then not seem to remain a major obstacle to addressing financial exclusion in the country, if any financial flows coming from China and Russia were to be spend on the dire infrastructure and living conditions of its people. The ongoing extensive use of forced labor in North Korea adds to this impact and comprise of numerous counts of international human rights violations bordering to enslavement. This is of course fully controlled, implemented and exploited by the regime through a

sophisticated multi-layered and very extensive scheme orchestrated in a hope to intensify the economic interests of the state. From direct indoctrination in schools, to obligatory employment by the state both domestically and internationally according to a recent publication from the Office of the UN High Commissioner for Human Rights (OHCHR, 2024).

# 5. Analysis and Discussion

# 5.1. The Extent of Financial Exclusion in North Korea

Quantitative data from the World Bank and IMF illustrate the severe and extreme financial exclusion in and of North Korea. If we compare the same category of quantitative data from other small economies, North Korea has an extremely low rate of bank account ownership in comparison, which means they have very limited access to credit, and the general population virtually has no possible engagement activity with international financial markets, in absolutely any way at all. This solidifies the extreme extent of the financial exclusion in the nation, only matched by a few other poor nations in Africa such as Libya, Sudan, Central African Republic, and Somalia which have international sanctions in common with DPRK but also Angola and Guinea-Bissau have extremely low rate of bank account ownership, as well as a few nations in South America such as Guyana, Suriname, French Guiana, Cuba in the Caribbean, Greenland and Belarus in the northern hemisphere and Papua New Guinea in Australasia as demonstrated by the map in figure 3. This extreme case of financial exclusion is both a cause and a consequence of North Korea's economic, political and ideological policies and naturally also due to its international isolation.

# 5.2. Political, ideological and economic policies

Since North Korea's division from its southern counterpart of the nation, its conclusion of Japanese colonial rule and due to its ideological, political and economic policies maintained during three generations of supreme leadership by the Kim's, are thought to be among the most significant factors contributing to financial exclusion according to the Council of Foreign Relations (Albert, 2020).



Figure 5. North Korea's Power Structure (Albert, 2020).

Juche Ideology promotes self-reliance and thereby limits foreign engagement first of all, this results in a rudimentary financial system and situation. (Myers, 2008) purports that the only reason for the existence of Juche ideology doctrine is for propaganda purposes and that it is meant *to be praised and not read, an obsession* he calls it. In all reality, it makes a lot of sense as he explains his claim how this myth in reality came to be accepted by the surrounding world society, in much the same way as it is accepted by the population who live under the supreme rule of the late Kim Il Sung (the eternal leader) to this day, enforced by his successors the late Kim Jong Il and current leader Kim Jong Un.

But is North Korea so self-reliant as they claim? Myers (2008) offers a quite different view and rightfully so, as DPRK has always depended heavily on foreign aid. And thus, he rightfully claims that the entire ideology is nothing but a *distraction* and a *smokescreen* for the nation to hide behind during scrutiny in matters of foreign relations, such as a possible future inclusion of North Korea in the world economic order or a further exclusion, where the latter is a more realistic scenario. In her analysis of the power structure of North Korea, Albert (2020) notes that the nation's political structure imposes a one-party system with a complete lack of opposition and exerts its power and policy through a number of carefully selected different departments with unique functions to ensure control with surveillance, appointment or demotion of government officials at the request and will of the supreme leader. Loyalty investigations are allegedly often conducted through brutal purges, instantly replacing top officials and creating a sense of unpredictability and uncertainty among the elites. This is of course an effort to make sure they fall in line with the policy and a method to discourage them from attempts of opposition or any other form of disloyal behavior against the regime. Furthermore, the government's very strict and airtight control over economic activities, on purpose stifles innovation and development from within and that of course naturally includes the nation's financial sector.

### 5.3. International sanctions

To further understand the impact and meaning of international sanctions we can briefly examine other nations that have been financially excluded via international sanctions to get a better view of what it means for the development of financial infrastructure and economic movements when a country is penalized by international sanctions. When we overview the map from (World Population Review, 2024) in figure 6 we can clearly see that apart from Cuba, Nicaragua and Venezuela, the majority of sanctioned countries are located towards the eastern and south-eastern parts of the world from a western perspective, so what does this mean? Firstly, it means that cultural and political differences are at the helm of the controlling factors of international sanctions which naturally coincide with geographical location. Secondly, other important factors plays' a role here as well, such as national unrest like civil war, production of nuclear capabilities whether for energy purposes or for military application, and of course lack of reliable financial infrastructure with affordable and available financial products and services and finally the extent of financial literacy. When China appears on the map, we can ask ourselves why that is? The answer can be somewhat complicated, yet easy to understand from the perspective of the supply of many goods and services that are in demand from the rest of the world, mainly the western world. This includes for the most part technology products, garments and commodities in general. But the main reasons are connected with China's alleged attempts of espionage via high altitude balloons and as well concerns with using systems, products and services from the technology giant Huawei, the latter was banned by the Trump administration during the so-called trade war in 2018 and efforts were since made under the Biden administration in 2022 to limit sales and availability of semiconductors for the Chinese tech sector. Another main factor has been the nations' recent support and aid to Russia in the Ukrainian-Russian conflict, despite the imposed sanctions against Russia, and in order to weaken its economic movements and capabilities. (Tellez, 2023).



Figure 6. Sanctioned Countries (World Population Review, 2024).

In this context, international sanctions have as well had a profound impact on North Korea's financial situation and exclusion. These sanctions are aimed at curbing the regime's human rights violations against its own population, along with the nation's nuclear ambitions and the latter is most likely the number one most significant and important factor that restricts the nation's access to international networks of financial services, as well as international business and trade, foreign currencies and investment opportunities. Although, the majority of the population would be most likely at this stage, not even have any possibility of exploring such endeavors to begin with, due to the country's isolation. Nonetheless, the government could on behalf of its population engage in such activities in an effort to alleviate their dire living conditions. But the government refrained from this due to their ambition of upholding their control grip and the isolation from the outside world which it imposes on its population. Such isolation greatly exacerbates financial exclusion which also immensely and sadly limits economic opportunities for the population of North Korea.

### 5.4. Circumvention Methods

Circumvention methods have an impact of financial exclusion especially in the case of DPRK. Listed in the following subchapters are some of the most well-known and used methods to circumvent international sanctions by DPRK. Although, these methods are also utilized by other nations that suffer from financial exclusion.

### 5.5. Informal Financial Networks

Despite the formal financial exclusion, North Koreans have developed what is called informal financial networks to circumvent restrictions, trade embargos and sanctions in general. These networks are often referred to as "money circles" or "pyojundong" (Park, 2014) and involve trusted individuals pooling resources to provide loans and credit among themselves in secret. Although, these networks and cooperative initiatives resemble a financial service, participants of such initiatives are usually under high risk, as there is no safety net of a regulatory nature. Such safety nets are usually in place in formal banking business procedures and serve to protect the

consumers from fraud and malpractice. So, as a consequence, the so-called clients are at risk of losing all their funds to the so-called trusted third party. Private lending has become a common practice in North Korea and elsewhere. Residents with some savings lend money at high interest rates to others in need. This system, while very risky, provides a necessary financial service in the absence of formal banking opportunities. (Park, 2014) notes that these private lenders often operate in secrecy to avoid detection and government crackdown.

### 5.6. Cross-Border Trade and Remittances

Cross-border trade, especially with China, plays a significant and crucial role in the survival of regular North Koreans by providing financial resources. Many North Koreans, engage in small-scale trade, of all sorts of goods that usually are smuggled across the border somehow, this is done in order to be able to earn extra income for the family. As a sidenote, the author experienced examples of this with his own eyes, both on the inbound flight from Beijing to Pyongyang and again on the outbound train journey from Pyongyang to Dandong in China. Moreover, an additional common scenario is defectors settled abroad that send remittances, this particularly happens from South Korea or China as well. Such remittances can be a crucial source of income for families left behind. Chinese traders, often facilitate the movement of goods and money across the border. According to Haggard & Nolan, (2012) these traders act as intermediaries, helping North Koreans sell goods in China and bring back essential commodities and cash. This kind of trade, while technically illegal, is tolerated to some extent by local authorities due to its economic importance for the nation as a whole.

### 5.7. Crypto Currencies

Crypto currencies has emerged as a tool for North Korea to bypass international financial sanctions against the nation and regime. The regime has reportedly engaged in cyber activities to acquire funds from outside the country via elaborate and sophisticated attacks on crypto currency exchanges orchestrated by the infamous Lazarus group. Crypto currencies, while not untraceable, are harder to trace to a specific person or entity, unless accounts or wallets as they are called, are specifically identified by the owner of an existing alphanumeric blockchain address, which is responsible for the transactions occurring on said address or wallet. It is very difficult to identify such an owner, apart from the location of an Internet Protocol (IP) address which again can be circumvented by a so-called Virtual Private Network (VPN) and such method can be used to circumvent the traditional financial system such as the Society for Worldwide Interbank Financial Telecommunication (SWIFT) payment processing system. SWIFT is used by most banks all over the world. This method provides the regime with a means to fund its activities despite sanctions (United Nations, 2019). The report by the United Nations (2019) shows indications that North Korea has in fact engaged in multiple cyber-attacks to steal crypto currencies from exchanges and unsuspecting victims via scams such phishing or directly by hacking necessary information and data, in order to get access to accounts and funds. These kinds of activities, not only fund the regime but also undermine international efforts to isolate North Korea financially from the outside world. The use of crypto currencies presents an ongoing challenge for global financial regulators and have played a significant role in complex money laundering schemes (United Nations, 2019).

# 5.8. Money Laundering

Money laundering is another well used method by which North Korea has circumvented financial exclusion and international sanctions. This illicit practice involves concealing the origins of money obtained through illegal means and making it appear legitimate. For this purpose, North Korea employs a various number of sophisticated ways and techniques to launder money, often involving international networks and with the use of off shore shell companies. North Korea utilizes multiple ways and strategies to launder money, this for example includes setting up front companies, engaging in trade-based money laundering and exploiting weaknesses in the global financial system. North Korean intelligence operatives, allegedly set up shell companies abroad in jurisdictions with weak or lack of regulatory oversight, and these shell companies engage in seemingly legitimate business activities, in order to mask the illicit origin of their funds according to the U.S. Department of the Treasury (2018). The Financial Action Task Force (FATF) confirms this already in a report from 2011, noting that North Korea often establishes front companies in countries with lax financial regulations. These companies conduct transactions on behalf of North Korean entities or individuals, and this example represents only one way of disguising the true beneficiary of funds. For example, a network of front companies is used to produce maybe luxury goods or technology based monetary solutions. It could be digital assets like crypto currencies created to fund the regime via widespread scam tactics on social media platforms such as Tik-Tok or Instagram, and thus another method of bypassing international sanctions. Allegedly, all activities of front companies may be conducted outside of North Korea but is indirectly linked to the regime. Trade-based money laundering (TBML) involves manipulating trade transactions to move illicit money across borders and North Korea also engages in TBML. For example, by over or under invoicing exports and imports. Such methods allow the regime to transfer value surreptitiously and integrate illicit funds into the formal economy according to (FATF, 2011). North Korea exploits weaknesses in the global financial systems in order to facilitate money laundering and the regime often times target banks and financial institutions in countries with weak security and inadequate anti-money laundering (AML) measures put in place. AML measures are used to screen banking systems for illicit practices and generate so-called red flags for further investigation. Targeted institutions, usually banks, are then used to process and unhindered, move illicit funds through complex financial transactions and instruments. Among the TBML methods mentioned are: Production and distribution of counterfeit US currency (more than \$113m was seized in 2005 alone in the so-called Super-note case); production and distribution of counterfeit cigarettes (reports of as many as 12 individual factories located within DPRK with distribution extending as far as US territory); production and distribution of counterfeit pharmaceutical products; facilitation, production, distribution and trafficking of narcotics have not been confirmed with hard evidence since 2003, but due to the already well-established cigarette smuggling networks, concerns are that such a scenario is very possible as well, and the possible estimated value and magnitude of money laundering conducted in various ways and methods is highly speculative, but could potentially be in the range of double digit billions according to a hearing before the Federal Financial Management, Government Information, and International Security Subcommittee of the Committee on Homeland Security and Governmental Affairs in the United States Senate. (U.S Senate Hearing, 2006).

# 5.9. Economic Growth and Development

Financial exclusion hampers economic growth and development first of all by limiting access to financial services, credit opportunities and investment platforms or environments.

These kinds of domestic and international restrictions prevent businesses and individuals from making productive investments or hampers attempts of innovation before they even begin. Such factors ultimately contribute to stalling economic progress and prosperity.

(Beck, Demirgüç-Kunt, & Levine, 2007) put forward arguments that financial development is a crucial factor for economic growth and the lack of it in North Korea is a significant barrier to further development and prosperity in the nation.

# 5.10. Potential Solutions

International efforts should focus their attention on creating permanent pathways for humanitarian as well as

financial aid that are able to bypass the regime's control, ensuring that funds and other necessities can reach those in need, now for anyone that has not been in North Korea, the author will extend to quickly and firmly confirm that such statements are very much easier said than done. Nonetheless, gradual easing of sanctions that without a doubt would have to rely and be contingent on the regime's compliance with demands and requests of the surrounding world society. Such compliance would most likely include a denuclearization of the nation as a first priority, such initiatives could very possibly facilitate the development of a more inclusive and formal financial system, situation and living standard for the population of North Korea.

Domestically, policy reforms aimed at decentralizing the economy while also promoting market-based financial services could help to integrate more citizens into the financial system. Encouraging the establishment of micro-finance institutions such as retail banks and cooperatives alike, may also provide a viable financial alternative for the population of North Korea, but to the extent with which the regime of North Korea engages in illicit activities, not to mention the massive human right violations perpetrated on its own population, the continuous ambition to produce and test nuclear ICBM's (Inter-Continental Ballistic Missiles) the hope of achieving ethnical, moral and integrity filled domestic policy reforms that will make a change for the betterment of the nation and its peoples, seems but an utopian thought, unless the all encroaching power grip of its regime is dissolved permanently.

### 6. Conclusions

The case of North Korea illustrates the severe and extreme consequences of financial exclusion that we can possibly encounter in this world on a national scale at the time of writing and is certainly not without valid although complex and far-reaching reasons as we have learnt. The combination of totalitarian internal policies, ideology, propaganda and external sanctions has left the country with a rudimentary financial system that has limited, if it hasn't completely obliterated any and all formal access to international financial markets or international business and trade in a legal capacity. A factor that contributes greatly to the widespread poverty and famine like conditions in the nation. Moreover, financial exclusion not only hampers financial growth and prosperity, but it also perpetuates inequality of all categories and further limits economic and social opportunities for growth, prosperity and development. This comprehensive examination of financial exclusion in North Korea highlights the multifaceted challenges faced by the nation that are some of the main causes of financial exclusion. However, to counter combat this, at least in terms of continuous development on nuclear weapons and war preparedness, the regime of North Korea has developed numerous methods to circumvent financial exclusion. From informal networks locally, to crossborder trade, crypto currency usage and sophisticated money laundering schemes, narcotics production and facilitation, slave labor and human rights violations on a massive scale, counterfeiting operations of not only currencies but also of numerous brands and products from almost all sectors of business and trade. By understanding the causes, impacts and circumvention methods, policymakers and international organizations can better address these issues and work towards mitigating the effects of financial exclusion. To further conclude the financial exclusion in and of North Korea, it appears to remain a product of failed economic and internal policies and as well massive external pressure from US, Canada, EU and Australia, but the problem inherently begins with the mismanagement of power, resources and total disregard for basic human rights by the regime and out if this turmoil financial exclusion is a byproduct. Now that we understand these dynamics on a deeper level, we can properly suggest crucial counter dynamics in order to develop more effective policies and interventions. Following recommendation may attempt to mitigate the adverse effects of financial exclusion in the territory of North Korea and as well in other regions and nations with a similar context. The magnitude and extent of the atrocity and illicit activity that has been happening in North Korea during the course of decades to this day, bear witness to the dire situation both the country and its people, finds themselves in, and is first of all jaw-dropping, heartbreaking and tragical at the same time. Articles like this one, or numerous other articles and academic books, opinions and research can attempt to raise awareness, but if we are realistic, change has to come from within and no amount of research and awareness will change this alone, neither will the massive extent of financial pressure force an escalation of a regime change, such an assumption would be rather naive. Obviously, it has not had the intended effect for decades. When that is said, it is important to acknowledge that despite everything, all these efforts still remain crucial in understanding how a nation like North Korea have gone so rogue to begin with, which the extensive literature on the topic bear witness too. How deep the rabbit hole goes with respect to North Korea we may never know to its full extent, and the amassment and vastness of accounts of stories and the magnitude of illicit and government supported activity compiling continuously year on year is nothing less but astounding and to get everything told within an article or book is close to impossible. Nonetheless, according to the academic tradition and method, on the following last pages of this article are some recommendations and limitations to consider. Because North Korea is in a class of its own, which is fascinating and tragical at the same time, makes it the main reason it was chosen as the first and more extreme example in this series of articles on financial exclusion of the smallest economies in the world.

### 6.1. Recommendations

For the International Community:

a) Create humanitarian and financial pathways that develop mechanisms to deliver financial aid and other necessities to the citizens of North Korea which may bypass government control.

b) Easing of sanctions that considers a phased easing of the sanctions imposed upon the nation from the outside world that has contingency clauses which rely upon verifiable compliance with international norms and laws in order to encourage financial development, innovation and inclusion.

c) Strengthening of international AML frameworks that can enhance and further strengthen anti-money laundering frameworks in order to prevent North Korea from exploiting the weaknesses of the global financial system.

For North Korea:

a) Decentralization of economic control in order to implement policy reforms that may decentralize both governmental power and capture, as well as economic control. Starting to promote market based financial services and opportunities and providing cable and satellite access to its citizens for communication purposes with the outside world.

b) Promote micro-finance and cooperatives that would and could encourage the establishment of micro-finance solutions and institutions such as retail banks both of domestic as well as international origin.

c) Engage with international institutions and international businesses to build relationships, conduct trade and business for the benefit of the nation's prosperity, thereby gradually integrating the nation into the international financial systems and achieve access to foreign investments and financial markets that in effect would be contributing to the wellbeing, as well as the possible raised living standards of its population.

d) The example of M-PESA mentioned in the literature review could very well be used as a solution example to combat the problem of financial exclusion in the case of North Korea, given that the other criteria mentioned above are met by the regime.

### 6.2. Limitations

The scarcity of reliable data from North Korea is a significant factor of limitation. The secretive nature of the regime and the lack of transparent reporting contributes to making it extra difficult to obtain any accurate and reliable information. The unique political, social and economic context of North Korea means that findings may not

be generalizable to other small economies that experience financial exclusion as well. Limited access to primary sources within North Korea constrains the depth of a thorough analysis. Future research could benefit from more direct engagements with North Korea, however such engagements are of the reasons mentioned in this article quite limited and therefore very hard to obtain on a regular and up-to-date basis, although defectors and international organizations are working in the region to provide more insight.

# **Funding Statement**

This research received no external funding.

# Acknowledgments

Acknowledgments to anonymous referees' comments and editor's effort.

# **Conflict of interest**

All the authors claim that the manuscript is completely original. The authors also declare no conflict of interest.

# Author contributions

Author Contributions section written based on the above descriptions: Conceptualization: Anders Lundvig Hansen; investigation: Anders Lundvig Hansen; methodology: Anders Lundvig Hansen; validation: Luís Lima Santos; formal analysis: Anders Lundvig Hansen and Luís Lima Santos; writing – original draft: Anders Lundvig Hansen; writing – review and editing: Anders Lundvig Hansen and Luís Lima Santos; supervision: Luís Lima Santos; validation: Luís Lima Santos; validation: Luís Lima Santos; validation: Luís Lima Santos; All authors have read and agreed to the published version of the manuscript.

# References

- Albert, E. (2020). *Council on Foreign Relations*. Retrieved October 2024, from North Korea's Power Structure: https://www.cfr.org/backgrounder/north-koreas-power-structure
- Amidzic, G., Massara, A., and Mialou, A. (2014). *Assessing Countries' Financial Inclusion Standing A New Composite Index*, 14. International Monetary Fund. https://www.imf.org/external/pubs/ft/wp/2014/wp1436.pdf
- Amnesty International. (2023). North Korea: Deteriorating human rights situation calls for international attention.RetrievedNovember2024,fromAmnestyInternational:https://www.amnesty.org/en/latest/news/2023/02/north-korea-deteriorating-human-rights-situation-calls-for-international-attention/attention
- Beck, T., Demirgüç-Kunt, A., and Levine, R. (2007). Finance, Inequality and the Poor. *Journal of Economic Growth*, *12*(1), 27-49, https://doi.org/10.1007/s10887-007-9010-6
- Bertrand, N. (2024). *Small number of North Korean troops are already inside Ukraine, officials say*. Retrieved October 2024, from CNN: https://edition.cnn.com/2024/10/29/politics/north-korean-troops-ukraine/index.html
- Buckley, R. P., and Malady, L. (2015). Building Consumer Demand for Digital Financial Services The New Regulatory Frontier. *Journal of Financial Perspectives*, *3*(3), Available at SSRN: https://ssrn.com/abstract=3084037
- Claessens, S. (2006). Access to Financial Services: A Review of the Issues and Public Policy Objectives. *The World Bank Research Observer*, *21*(2), 207-240, http://documents.worldbank.org/curated/en/251351468162847090
- Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., and Hess, J. (2017). *The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution.* Washington DC, Maryland, United States: World Bank Publications. https://documents1.worldbank.org/curated/en/332881525873182837/pdf/126033-PUB-PUBLIC-pubdate-4-19-2018.pdf

Demirgüç-Kunt, A., Klapper, L., Singer, D., and Ansar, S. (2022). *The Global Findex Database 2021: Financial Inclusion, digital payments, and resilience in the age of COVID-19.* Washington DC, Maryland, United States: World Bank Publications. https://hdl.handle.net/10986/37578

Financial Action Task Force. (2011). Money Laundering Risks Arising from North Korea's Financial Activities.

- Frank, R. (2014). North Korea's Autonomy 1965-2015. *Pacific Affairs*, *87*(4), 791-799. https://www.jstor.org/stable/43592451
- Haggard, S., and Nolan, M. (2010). *Witness to Transformation: Refugee Insights into North Korea.* Washington DC, Maryland, United States: Peterson Institute for International Economics. ISBN: 978-0-88132-438-9.
- Haggard, S., and Nolan, M. (2012). *East-West Center*. Retrieved October 2024, from eastwestcenter.org: https://www.eastwestcenter.org/sites/default/files/private/econwp129.pdf
- Hayes, N., and Westrup, C. (2012). Context and the Process of ICT for Development. *Journal of Information and Organization*, 22(1), 23-36, https://doi.org/10.1016/j.infoandorg.2011.10.001
- IFRC. (2020). International Red Cross and Red Cresent Movement. In *The Europa Directory of International Organizations 2020*, 22(11). London: Routledge. ISBN 9780367440176.
- IMF. (2023). *IMF Releases the 2023 Financial Access Survey Results*. Retrieved on October 3, from imf.org: https://www.imf.org/en/News/Articles/2023/10/03/pr23332-imf-releases-the-2023-financial-access-survey-results
- Kempson, E., and Whyley, C. (1999). Kept Out or Opted Out? Understanding and Combating Financial Exclusion. *Insurance Trends*, *2*(3), 12-16. ISBN 1-86134-159-8.
- Kim, S., Sohn, W., and Choi, C. (2020). The North Korean Economy: Sustainable or Muddling-Through? *MDPI Sustainability Journal*, *12*(20), https://doi.org/10.3390/su12208478
- Leyshon, A., and Thrift, N. (1995). Geographies of Financial Exclusion: Financial Abandonment in Britain and the United States. *Transactions of the Institute of British Geographers*, *20*(3), 312-341, https://doi.org/10.2307/622654
- Mas, I. (2011). Why are Banks so Scarce in Developing Countries? A Regulatory and Infrastructure Perspective. *Critical Review: A Journal of Politics and Society, 23*(1-2), 135-145, http://dx.doi.org/10.1080/08913811.2011.574476
- Myers, B. (2008). Ideology as a Smokescreen: North Korea's Juche Thought. *Acta Koreana*, 1(3), 161-182, http://dx.doi.org/10.18399/acta.2008.11.3.007
- NKR. (2024). *Articles 2024-2005*. Retrieved October 2024, from North Korean Review Online: https://www.northkoreanreview.net/articles
- Nolan, M. (2000). *Avoiding the Apocalypse: The Future of the Two Koreas.* Washington DC, Maryland, United States: Columbia University Press. ISBN: 9780881322781.
- Malaymail. (2024). North Korea poised for nuclear talks revival if Trump clinches victory. Retrieved October 2024, from Malaymail: https://www.malaymail.com/news/world/2024/08/01/north-korea-poised-for-nuclear-talks-revival-if-trump-clinches-victory/145650
- Murphy, M. (2024). *Nato says North Korean troops deployed to Russia's Kursk region*. Retrieved October 2024, from bbc.com: https://www.bbc.com/news/articles/cyv737vy376o
- Our World in Data. (2024). *North Korea indicators*. Retrieved October 2024, from Our World in Data: https://ourworldindata.org/country/north-korea
- OHCHR. (2024). *ohchr.org.* Retrieved from United Nations Human Rights: Office Of The High Commissioner: https://www.ohchr.org/sites/default/files/documents/aboutus/OHCHR-OMP-2024-2027.pdf
- Park, J. S. (2014). Private Lending in North Korea: Risks and Rewards. North Korean Review, 10(1), 35-50.
- Psaropoulos, J. T. (2024). North Korean troops in Ukraine 'fair game', Us warns Russia as war rages on. Retrieved October 2024, from Al Jazeera: https://www.aljazeera.com/news/2024/10/24/reports-of-north-korea-training-in-russia-to-fight-in-ukraine-serious-us
- PSCORE. (2024). *People for Succesful COrean REunification*. Retrieved October 2024, from Pscore: https://pscore.org/home/
- Sarkar, A. R., and Rai, A. (2024). Are North Korean troops in Ukraine? What we know about Kim Jong-un's soldiers joining Russia's war. Retrieved October 2024, from Independent: https://www.independent.co.uk/news/world/europe/russia-north-korea-troops-ukraine-world-war-3b2637951.html
- Silberstein, B. K. (2023). *The North Korean Economy in 2023-2024: Still Backing into the Future*. Retrieved from www.38north.org: https://www.38north.org/articles/affiliates/north-korean-economy-watch/29320/

- Smith, J. (2024). *What we know about North Korean troops joining Russia'a war in Ukraine*. Retrieved October 2024, from Reuters: https://www.reuters.com/world/europe/what-we-know-about-north-korean-troops-joining-russias-war-ukraine-2024-10-21/
- Sokolin, A. (2024). North Korean Economy Grows for First Time in Four Years: Bank of Korea. Retrieved from NK news: https://www.nknews.org/2024/07/north-korean-economy-grows-for-first-time-in-four-years-in-2023-bank-of-korea/
- Tellez, A. (2023). *Here are all the U.S. Sanctions Against China*. Retrieved from www.forbes.com: https://www.forbes.com/sites/anthonytellez/2023/02/08/here-are-all-the-us-sanctions-against-china/
- United Nations. (2019). Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009) Concerning the Democratic People's Republic of Korea. Retrieved from www.ncnk.org: https://www.ncnk.org/sites/default/files/UN\_POE\_March2019\_Final\_Report.pdf
- United Nations. (2024). *DPRK (North Korea).* Retrieved from securitycouncilreport.org: https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/S%202024%20215.pdf
- U.S Senate Hearing. (2006). *North Korea: Illicit Activity funding the Regime.* Retrieved October 2024, from https://www.govinfo.gov/content/pkg/CHRG-109shrg28241/html/CHRG-109shrg28241.htm
- World Bank. (2014). *Financial Inclusion*. Washington DC: World Bank Group.
- World Bank. (2022). *The Global Findex Database 2021.* Retrieved from worldbank.org: https://www.worldbank.org/en/publication/globalfindex/Report
- World Population Review. (2024). *Sanctioned Countries 2024*. Retrieved October 2024, from World Population Review: https://worldpopulationreview.com/country-rankings/sanctioned-countries
- Yong, L. S. (2024). North Korea's Market Dilemma: Balancing Control and Revenue Generation. Retrieved from The Diplomat: https://thediplomat.com/2024/07/north-koreas-market-dilemma-balancing-control-and-revenue-generation/