Does the imposition of international sanctions have a measurable impact on the inflation rates of the targeted country?

By

Dmitrieva Evgeniya

Submitted to Central European University Department of Economics and Business

In partial fulfilment of the requirements for the degree of Master of Economic Policy in Global Markets

Supervisor: Professor Attila Ratfai

Vienna, Austria

2024

Abstract

The influence of international sanctions on the inflation rates of the nations under study—Iran, Syria, Belarus, and Russia—is examined in this paper. The main goals are to calculate how much of an impact sanctions have on inflation, examine the relationship between the severity of sanctions and inflation rates, and draw policy recommendations. Using inflation statistics from trustworthy sources, the paper uses a quantitative analytical technique together with a comparative case study.

The main conclusions show that the harshness of punishments and inflation rates are correlated to differing extent. According to a somewhat positive connection, sanctions in Iran greatly raise inflation. Syria's weakly positive correlation indicates that, among other factors like internal strife, sanctions are a small one. With its very significant positive connection, Belarus shows that sanctions have a direct effect on inflation. In contrast, Russia shows a somewhat negative connection, suggesting that, perhaps as a result of successful countermeasures, higher sanctions intensity is linked to lower inflation rates.

All things considered, the report emphasizes how intricately international sanctions and inflation are related, emphasizing the serious economic consequences and the need for decision-makers to take these effects into account. The results offer guidance for raising the efficacy of sanctions while reducing the negative economic effects on civilian populations.

Table of contents

1. Introduction

1.1. Background and Significance of the Study

1.1.1 Overview of International Sanctions as a Tool in Diplomacy

In international diplomacy, international sanctions have long been used as a strategic instrument by nations to sway or force changes in the conduct of other governments without using force. Usually put in place to accomplish certain political, economic, or security goals, these acts might include asset freezes, travel bans, trade embargoes, and limitations on financial activities. The imposing organizations—the United Nations, the European Union, or specific countries—often defend sanctions as essential reactions to acts like nuclear proliferation, election meddling, human rights abuses, or geopolitical aggressiveness.

Sanction implementation is a well balanced process. They are supposed to provide enough economic pressure, on the one hand, to promote adherence to international standards and regulations. Nevertheless, they have to be planned to prevent undue harm to the civilian population and unintentional economic instability in the targeted country. Scholars, economists, and politicians continue to disagree greatly on the moral and practical ramifications of punishments.

1.1.2. Importance of Studying the Economic Impacts of Sanctions

There are various reasons why it is important to comprehend the economic effects of international sanctions. First of all, it enables decision-makers to evaluate the diplomatic weapon of sanctions' efficacy. It becomes easy to determine if the targeted state is receiving the required economic pressure by examining how sanctions affect macroeconomic indices, including inflation rates.

Second, assessing the humanitarian effects of sanctions requires a study of economic effects. Rising inflation, a sign of economic instability, can have serious effects on the general public, including higher poverty rates, less access to necessities, and general worse living standards. Through knowledge of these consequences, decision-makers may create penalties that reduce humanitarian suffering while also accomplishing their strategic goals.

Moreover, a comprehensive examination of the financial effects of penalties can guide next policy choices. Sanction implementation tactics must change as well as the global political landscape. Studying previous and current penalties can provide insights that help direct the creation of more focused and effective policies, raising their general efficacy and lowering their drawbacks.

The quantifiable effects of international sanctions on the inflation rates of four targeted nations—Iran, Syria, Belarus, and Russia—are the main topic of this paper. With so many sanctions imposed on them over time, these nations offer a rich dataset for study. This study seeks to advance knowledge of how economic pressures from sanctions manifest in targeted economies by looking at the relationship between sanctions severity and inflation rates. It will provide insightful information for academics and practitioners in international relations and economic policy.

1.2. Research Question and Objectives

1.2.1 Main Research Question: How Do International Sanctions Impact Inflation Rates in Targeted Countries?

How can international sanctions affect inflation rates in targeted nations is the main research issue that directs this work. With inflation being a key economic indicator, this inquiry aims to investigate how much sanctions affect the macroeconomic environment of the impacted countries. Assessing the general efficacy of sanctions as a tool for policymaking and spotting any unexpected economic effects from their application depend on an understanding of this link.

1.2.2. Objectives: To Quantify the Impact, Analyze the Correlation, and Derive Policy Implications

To address the main research question, the study is structured around the following objectives:

a. To Quantify the Impact of Sanctions on Inflation Rates: Measuring the particular influence of international sanctions on the targeted nations' inflation rates is the first goal. This includes gathering and evaluating inflation statistics from trustworthy sources including the World Bank and the national statistical offices of Russia, Belarus, Iran, Syria, and the United States. Through the measurement of the variations in inflation rates associated with various punishment periods, the study seeks to offer a precise and quantifiable evaluation of their economic consequences.

b. To Analyze the Correlation Between Sanctions Severity and Inflation Rates: The second aim is to examine the relationship between the recorded inflation rates in the targeted nations and the severity of the sanctions that have been imposed. This is putting the sanctions, which range from none (0) to light (3) to severe (6), numerical values according to their alleged economic and political consequences. The project aims to find trends and connections that clarify how different degrees of punishments severity affect inflation by means of statistical correlation analysis.

c. To Derive Policy Implications from the Findings: The final goal is to deduce, from the correlation analysis results, real policy consequences. Policymakers may make better decisions going forward if they are aware of the possible economic effects of sanctions by knowing how they relate to inflation. With the least amount of negative economic effects on the civilian population, the research seeks to provide suggestions on how to plan and carry out sanctions that successfully accomplish their political goals.

Through these objectives, the study aims to contribute to the existing body of knowledge on the economic impacts of international sanctions, providing valuable insights for both academic researchers and policymakers involved in international relations and economic policy.

1.3. Scope and Limitations

1.3.1. Focus on Four Case Studies: Iran, Syria, Belarus, and Russia

In four distinct geopolitical settings—Iran, Syria, Belarus, and Russia—this paper investigates the impact of international sanctions on inflation. These countries were selected according to the wide range of sanctions they have endured, which differ substantially in terms of the underlying reasons, the sectors they target, and the general state of the economy. Detailed analysis of the various ways that sanctions impact national economies is made feasible by this comprehensive technique.

Concerns over Iran's nuclear program and regional geopolitical intentions have been the primary determinants of its experience with sanctions. Significant sectors affected by these broad restrictions include banking, shipping, and energy. Wide-ranging in their impact, these restrictions touch everything from foreign exchange transactions to revenue from oil exports.

Sanctions have been imposed on Syria in reaction to its domestic repression, use of chemical weapons, and lengthy civil war. Targeting important industries like the oil and financial services, the sanctions have been sector-specific and have changed to fit the dynamics of the current crisis, further complicating the economic environment.

In Belarus, the situation is that sanctions have been imposed mostly as a result of political persecution, alleged election fraud, and the government's backing of Russian actions in Ukraine. The country is now more cut off from international financial markets and its main economic sectors are being restricted, which has made the regime's economic problems worse.

Lastly, a number of acts seen as violations of international norms—such as the annexation of Crimea, meddling in foreign elections, violations of human rights, and ongoing engagement in regional conflicts—are connected to Russia's experience with sanctions. Targeting important economic sectors including energy, banking, and the trading of valuable commodities like diamonds, the sanctions against Russia have been broad.

Through an analysis of these many settings, the paper seeks to provide light on the range of economic effects that sanctions may have, with an emphasis on how they influence inflationary tendencies in different nations. By means of this study, understanding of the wider consequences of sanctions as an instrument of international diplomacy and economic power is possible.

1.3.2. Limitations in Data Availability and Potential External Influencing Factors

In this paper, the effect of international sanctions on inflation rates in four different national contexts is to be thoroughly examined. Still, the quality and scope of this study depend on recognizing a number of innate constraints that could affect the results made.

First off, there is a big data availability problem. Particularly inflation rates, the accuracy and completeness of economic statistics may fluctuate greatly among nations and historical times. Sometimes statistics are missing, out of date, or maybe even falsified by government agencies. The World Bank and national statistics organizations are among the reliable sources of the data used in this study. All the same, the existence of contradictions and data gaps is still a relevant worry that might jeopardize the precision of the analytical results.

The causes of inflation are also complex and go well beyond the purview of international sanctions. Factors influencing inflation rates include changes in government institutions, natural catastrophes, internal conflicts, and variations in global market patterns. It is rather methodologically difficult to separate the impacts of punishments from these outside factors, and doing so raises the risk of confounding effects that might distort the results.

Sanctions regime complexity is another major analytical challenge. Usually implemented gradually, sanctions range in strength and frequently target several economic sectors over time. Since penalties are becoming more and more complicated, it is hard to measure their exact effects, and any attempt to do so might provide skewed or inconsistent findings.

Lastly, it should be treated cautiously whether the conclusions from the four case studies—Iran, Syria, Belarus, and Russia—can be applied to other settings. varied nations can have somewhat varied economic systems, durability, and reactivity to sanctions. As such, even when the study provides insightful information on the particular cases that were looked at, these conclusions might not always be applicable to other nations or circumstances.

Understanding these constraints, the study tries to provide a nuanced and fair viewpoint to the current discussion on the economic consequences of sanctions, therefore improving our knowledge of how they affect inflation rates in the framework of international economic relations.

2. Literature Review

2.1. Overview of Existing Research on Sanctions and Economic Impacts

Often, nations and international organizations use sanctions as instruments to accomplish foreign policy goals short of going to war. These actions include financial and trade embargoes as well as other economic ones used to put pressure on the targeted countries. Sanctions may have a significant economic effect, especially on inflation rates and general economic stability, even if their goal is to force behavioral changes in the targeted nations.

2.1.1. The Impact of Sanctions on Iran

A major case study in comprehending the economic effects of sanctions has been Iran. In order to assess how sanctions affected Iran's inflation rate, Ghorbani Dastgerdi et al. (2018) created the Trade-Financial Sanctions (TF) Index. Their results show that sanctions greatly raise market volatility, which, by enlarging the difference between official and market currency rates, aggravates inflation (Ghorbani Dastgerdi, S. et al., 2018). The public's impression of rising inflation brought on by this instability feeds further inflation as a result of expected price increases in the future (Torbat, 2005).

The three phases of the sanctions on Iran include free sanctions (1970–1980), hard sanctions (1980–1999), and light sanctions (1999–2011). Through increased economic efficiency, trade openness and foreign investment during the free sanctions era lowered inflation. But because of the severe restrictions, trade was stifled and foreign investment fell, driving up the price of necessary goods. As trade circumstances improved and foreign investment started up again during the light sanctions era, inflation rates stabilized (Ghorbani Dastgerdi, S. et al., 2018; Torbat, 2005).

2.2.2. The Impact of Sanctions on Syria

The significance of examining the complex link between sanctions and national economic stability is highlighted by the international sanctions on Syria, particularly those imposed by the European Union in reaction to governmental persecution during the Syrian Civil War. According to Portela (2012), among the harsh penalties were an energy embargo and severe financial limitations. The punitive actions have had a big impact on Syria's economic structure, leading to serious difficulties with its economic potential and a notable drop in the GDP together with rising inflation rates.

There is a complicated and wide-ranging economic effect of the sanctions. Importantly, the Syrian government has seen significant losses in its main sources of income, namely the oil sector. This has therefore seriously disrupted important economic sectors. The downturn of the tourist sector, which formerly significantly contributed to Syria's GDP, makes the disturbance much worse. A 'war economy,' or one governed by the needs of a protracted battle, has increased the volatility of the economic environment, claim Wind and Dahi (2013). More factors than only the obvious effects of war, such as destruction to infrastructure and the reallocation of funds to military expenditure, characterize the war economy. Indirect consequences include as well, including the emergence of underground marketplaces and the struggle for natural resources.

Economically speaking, the sanctions are complicated and extensive. Importantly, the Syrian government has seen significant losses in its main sources of income, namely the oil sector. This has therefore seriously disrupted important economic sectors. The downturn of the tourist sector, which formerly significantly contributed to Syria's GDP, makes the disturbance much worse. A 'war economy,' or one governed by the needs of a protracted battle, has increased the volatility of the economic environment, claim Wind and Dahi (2013). More factors than only the obvious effects of war, such as destruction to infrastructure and the reallocation of funds to military expenditure, characterize the war economy. Indirect consequences include the growth of illegal markets and the struggle for natural resources.

Portela (2012) said that the sanctions comprised a variety of harsh actions, including a financial embargo and an energy embargo. Syrian economic capacities have been severely hampered by the punitive measures, which have also resulted in a significant drop in the GDP and increased inflation rates.

These penalties will have a profound and wide-ranging economic effect. Above all, major disruptions in vital economic sectors have resulted from the severe impact on the Syrian government's primary sources of income, especially in the oil sector. The downturn of the tourist sector, which formerly contributed significantly to Syria's GDP, exacerbates this disturbance.

2.2.3. The Impact of Sanctions on Russia

Russian annexation of Crimea and participation in the Eastern Ukraine war led to economic penalties by the US and the EU. The macroeconomic stability in Russia has been greatly impacted by these sanctions, underscoring the wide-ranging effects of such actions. Connolly (2015) emphasizes that the sanctions affected important industries including military, energy, and banking, which had a profound effect on the Russian economy. The value of the Russian currency fell noticeably right away, further worse by rising inflation rates. Mainly, restricted access to Western capital and financial markets is the source of the economic pressure, which upsets conventional economic processes and financial flows.

The banking industry, which is essential to any contemporary economy, has been under a great deal of strain as result of the sanctions. Connolly claims that when investors chose to remove their assets because of growing uncertainty, capital outflows significantly increased as a result of the penalties. Simultaneously, the drop in investment capital has raised inflationary pressures and restricted the opportunities for economic development. The ruble's decline has had a domino effect that has raised import costs noticeably. Consumer costs have risen as a result, which has an effect on the general public by lowering their buying power and rising living expenses.

The impact on the energy industry—which is vital to the Russian economy—adds to the complexity of the economic environment. The sanctions have made it more difficult to get Western technology and capital inputs required to maintain and develop future oil production capacities. This limitation makes the industry less productive now and less able to grow and prosper in the future. These focused sanctions' economic toll increases inflationary pressures. Higher domestic energy prices as a result of reduced energy production capacity raise general price levels.

The economic sanctions applied on Russia, then, revealed the intricate relationship between particular economic activities and more general macroeconomic variables. Limiting the operation of important economic sectors can have a wide-ranging impact and lead to several economic difficulties. Capital flight, less investment, problems unique to an industry, and general inflation may be among these obstacles. These dynamics highlight how powerful sanctions are as instruments of international politics and how much they may affect a targeted country's economic trajectory.

2.2.4. The Impact of Sanctions on Belarus

Sanctions levied by the US and the EU have had a significant effect on Belarus's social and economic environment. Put in place in reaction to electoral fraud and political persecution were these penalties. There is a challenging economic scenario since the sanctions have been deliberately targeted at particular financial activities and important areas of the Belarusian economy. Foreign commerce and investment have significantly decreased as a result of the sanctions, according to a European Parliament study from 2018. Since there has been less external economic engagement, inflation has increased and economic instability has generally increased since the country has had less access to finance and global markets.

Beyond only economic effects, the penalties have a broad influence. Belarus's social structure is also being impacted since unemployment, reduced household incomes, and increased living expenses are frequently consequences of economic instability. The state of the economy at the moment makes social unhappiness worse and may lead to a downward spiral of more political and economic isolation.

The Belarusian administration has taken some calculated steps in reaction to the demands from abroad. A major part has been played by attempts to form new economic alliances and collaborations with nations beyond the Western realm. Simultaneously, the administration has put in place a number of home economic measures aimed at stabilizing the economy of the country. To reduce reliance on imports and increase domestic production, the goal is to stabilize prices and provide a consistent supply of products, hence containing inflation.

Still, different government reactions have not all been as successful. Even while these programs are meant to lessen the impact of less foreign investment and restricted access to global financial markets, they have often not been able to totally offset the negative effects of the sanctions. The difficulties are multifaceted and include not only economic adaptations but also the need for significant structural changes in the nation's economic model to reflect the shifting geopolitical environment. The inflationary pressures notwithstanding the efforts taken point to a complex interaction between the immediate economic consequences of the sanctions and the structural weaknesses of Belarus's economy.

This scenario highlights the more general ramifications of employing sanctions as a geopolitical tactic by illuminating the significant social and economic fallout for the nation under attack. It also draws attention to the difficulties states have reacting to international actions. Developing strong domestic economic reforms and establishing alliances with foreign nations are common components of a holistic strategy to achieving economic resilience. The immediate consequences of sanctions and the long-term difficulties countries have in reducing these effects and preserving economic stability in the face of geopolitical tensions are both well-illustrated by this research.

2.2. Theoretical Frameworks on the Relationship Between Sanctions and Inflation

There are several economic theories and empirical research that demonstrate the intricate processes by which sanctions might impact inflation rates in targeted nations. The effects of sanctions on macroeconomic stability—especially inflation—are the main topic of this section's assessment of the theoretical frameworks and empirical results on this connection.

Theoretically, the effect of economic penalties on inflation is captured in a complex examination of the relevant economic processes. Economic sanctions are deliberately used to cause economic suffering and hence put pressure on the political environment of the countries under consideration. By different means, this intentional imposition might trigger different inflationary pressures.

A main process is the development of supply limits, which cause inflation driven by costs. By restricting access to necessary imports including raw materials and cutting-edge technology, sanctions can upset the supply chain. Price increases follow from the reduction in availability of items brought about by this disruption. To investigate the effects on Iran, for instance, Ghorbani Dastgerdi et al. (2018) developed a Trade-Financial restrictions Index, noting that tight restrictions increased market volatility and the difference between market and official currency rates. These factors raise supply-side restrictions, which raise the price of goods and services in the economy and hence contribute to inflation.

Depreciation of the currency is another important effect of sanctions, which causes inflation of imports. Sanctions cause a country's currency to weaken, which raises the cost of imports and raises prices generally. This pattern was seen in Iran by Torbat (2005), who noted that sanctions caused a significant devaluation of the currency, which increased inflationary pressures and made imports much more expensive.

Economic penalties may also set off or escalate speculative attacks on a country's currency, which would cause additional inflation and financial instability. Usually, speculative assaults lead to a quick depreciation of the currency, which drives up prices fast. The currency rate dynamics of Iran were greatly impacted by such speculative activities, which were sparked by sanctions, as Pourshahabi and Dahmardeh (2014) pointed out, adding to inflationary tendencies.

Finally, a major factor affecting inflation is the government's budgetary response and changes to monetary policy in reaction to sanctions. Governments may raise the money supply to lessen the economic slump brought on by lower trade revenue, but this might result in inflation if not done wisely. In the case of Iran, Najarzadeh (2020) illustrated this by showing how the government's increase in the money supply meant to boost the economy unintentionally increased inflation.

2.2.1. Empirical Evidence on Sanctions and Inflation

A complicated interaction is revealed by empirical study on the connection between economic sanctions and inflation; results are frequently dependent on particular national settings and the temporal features of the penalties imposed. These actual studies clarified the many ways that penalties affect inflationary pressures.

Ghorbani Dastgerdi et al. (2018) did a noteworthy study on Iran in which they used an autoregressive distributed lag (ARDL) model to analyze the processes by which sanctions affect inflation. This paper clarifies the direct and indirect economic impacts of sanctions, like supply chain interruptions and currency devaluation. Results show that inflation rates and the severity of fines are clearly correlated. More precisely, Iran had far greater inflation during times of severe sanctions than during times of less or no sanctions. This actual data emphasizes how much economic sanctions may destabilize an economy by accelerating inflationary trends.

Pourshahabi and Dahmardeh (2014) further expand the study to additional oil-exporting nations, including Iran, by using a Neo-Keynesian framework. Their results support the idea that sanctions can trigger high inflation rates, especially by means of speculative assaults and interruptions in vital industries like oil, which frequently provides these economies with their main source of income. The research shows how weakening important economic sectors through sanctions might cause more widespread economic disturbances and higher inflation.

Najarzadeh (2020) explores more empirically the dynamics of speculative assaults brought on by sanctions. The study looks at how, in particular, these speculative activities affect investor behavior and financial markets, aggravating economic crises. According to research by Najarzadeh, market reactions and the views of financial players considerably influence the effect of sanctions on inflation, which is not only a direct result of policy. The economic effects of sanctions are complicated by this viewpoint, which contends that investor reactions and market psychology are important factors in the inflationary processes that these foreign policy actions set off.

These empirical research taken together improve our knowledge of how sanctions may result in a variety of inflationary effects, impacted by both the reaction of the larger financial ecosystem and immediate economic disruptions. By looking at particular case studies and using different theoretical frameworks, these works highlight the need of empirical research in clarifying these intricate connections and advance a sophisticated understanding of the economic consequences connected to the application of sanctions.

2.2.2. Policy Implications

Understanding the relationship between sanctions and inflation is crucial for designing more effective and humane sanction policies. Policymakers should consider the following:

1. **Mitigating Humanitarian Impact**: Sanctions should be designed to minimize humanitarian impacts by targeting specific sectors related to government and military operations rather than essential goods and services.
2. **Enhancing Economic Resilience**: Countries under sanctions can improve economic resilience by diversifying their economies and reducing dependency on imports, especially for critical goods.
3. **Adaptive Monetary Policies**: Central banks in sanctioned countries need to adopt adaptive monetary policies that can mitigate the inflationary impacts of currency depreciation and speculative attacks.
4. **International Coordination**: Multilateral sanctions tend to be more effective than unilateral ones. Coordination among sanctioning countries can help close loopholes and reduce the ability of the targeted country to find alternative economic partners.

2.3. Gaps in the Literature and the Contribution of This Study

Despite extensive research on the economic impacts of sanctions, several gaps remain:

a. Lack of Comparative Analysis: Many studies focus on individual countries or specific sanctions episodes. There is a need for comparative analyses that examine multiple countries under similar conditions to identify broader patterns and differences in the impact of sanctions.

b. Limited Focus on Inflation: While the general economic effects of sanctions are well-documented, there is less emphasis on their specific impact on inflation. This study aims to fill this gap by focusing explicitly on the correlation between sanctions severity and inflation rates.

c. Evolving Nature of Sanctions: Sanctions regimes are dynamic, with evolving targets and intensities. Existing literature often fails to account for these changes over time. This study addresses this by assigning and analyzing sanctions based on their changing severity.

d. Policy Implications: There is a need for research that directly translates findings into policy recommendations. This study aims to bridge this gap by deriving practical policy implications based on its analysis.

By addressing these gaps, this study contributes to the existing body of knowledge on international sanctions, providing a detailed and comparative analysis of their impact on inflation in Iran, Syria, Belarus, and Russia. The findings aim to inform more effective and humane sanctions policies in the future.

3. Methodology

3.1. Research Design

3.1.1. Comparative Case Study Approach

The effect of international sanctions on inflation rates in four targeted countries—Iran, Syria, Belarus, and Russia—is analyzed in this paper using a comparative case study methodology. The reason this methodology was selected is that it may offer detailed understanding of the particular situations and circumstances in which penalties function. Through the comparison of these four examples, the study seeks to pinpoint trends and variances in the impact of sanctions on inflation in various geopolitical and economic settings.

a. Selection of Cases: The four nations were chosen because pertinent economic data is available and their experiences with international sanctions differ. Sanctions have affected each nation for various causes and over varying lengths of time, offering a varied range of circumstances for examination.

b. Case Study Structure: Each case study will follow a structured format, including an overview of the sanctions history, assignment of sanctions severity values, collection and analysis of inflation data, and a discussion of the findings. This consistent structure ensures comparability across cases and facilitates a comprehensive understanding of the relationship between sanctions and inflation.

3.1.2. Quantitative Analysis of Inflation Data

The quantitative analysis focuses on correlating sanctions severity with inflation rates in the selected countries. This involves several key steps:

a. Data Collection: Inflation data will be collected from reliable sources such as the World Bank, International Monetary Fund (IMF), and national statistical agencies. The data will span the years during which each country was subject to significant sanctions, ensuring a comprehensive time series for analysis.

b. Sanctions Severity Assignment: Each significant sanction imposed on the selected countries will be assigned a numerical value from 1 to 6 based on its perceived economic and political impact. The assignment criteria will consider factors such as the breadth of the economic sectors affected, the scale of the impact on the national economy, and the intended political pressure.

c. Correlation Analysis: Statistical methods will be used to analyze the correlation between the assigned sanctions severity values and the annual inflation rates. The correlation coefficient will be calculated to determine the strength and direction of the relationship between sanctions and inflation. This analysis will help identify whether higher severity sanctions are associated with higher inflation rates and to what extent.

d. Interpretation of Results: The results of the correlation analysis will be interpreted in the context of each country's unique economic and political environment. This will involve discussing the potential mechanisms through which sanctions influence inflation, such as supply chain disruptions, currency depreciation, and market uncertainty. Additionally, the findings will be compared across the four cases to highlight common patterns and significant differences.

By combining a comparative case study approach with quantitative analysis, this methodology aims to provide a robust and nuanced understanding of how international sanctions impact inflation rates in targeted countries. The insights gained from this analysis will contribute to the broader discourse on the effectiveness and consequences of sanctions as a tool of international diplomacy.

3.1.2.1. Sanctions Severity Assignment

3.1.2.1.1. Criteria for Assigning Numerical Values to Sanctions (1 to 6)

A numerical scale from 1 to 6 will be used in order to methodically assess and measure the severity of sanctions placed on Iran, Syria, Belarus, and Russia. Higher values indicate more severe punishments; this scale represents the political and economic effects of each one. The following are the standards by which these values were assigned:

a. Breadth of Economic Sectors Affected:

- 1-2: Limited to specific individuals or entities with minimal broader economic impact.
- 3-4: Targeting significant sectors (e.g., banking, energy) with moderate economic implications.
- 5-6: Comprehensive measures affecting multiple major sectors, causing widespread economic disruption.

b. Scale of Economic Impact:

- 1-2: Minor economic impact with negligible effects on national economy.
- 3-4: Moderate economic impact, causing noticeable strain on economic activities.
- 5-6: Severe economic impact, leading to significant economic instability and hardship.

c. Intended Political Pressure:

- 1-2: Symbolic sanctions with limited political objectives.

- 3-4: Moderate political pressure aimed at specific policy changes.
- 5-6: High political pressure intended to force major political or regime change.

d. Duration and Frequency:

- 1-2: Short-term or infrequent sanctions.
- 3-4: Medium-term or repeated sanctions over several years.
- 5-6: Long-term or continuous sanctions over extended periods.

3.1.2.1.2. Detailed Justification for Each Assigned Value for the Four Countries

Iran:

Three was assigned to the punishments imposed between 1979 and 1981. Trade restrictions and asset freezes were among the earliest measures imposed in reaction to the takeover of the American Embassy, which somewhat upset Iran's economic stability.

Additionally given a rating of three in 1984 were the punishments. They were put into place during the Iran-Iraq conflict and affected Iran's military might as well as somewhat disrupted the economy by imposing a ban on the sale of weapons and reducing financial support.

In 1995–1996 the punishments' severity increased to a rating of 4. The mainstay of Iran's economy, the oil sector, was the focus of the United States' much increased sanctions against the country in 1995. Significant U.S. company engagement in Iran's oil and gas sector was outlawed by these sanctions, including considerable investment restrictions. Iran's capacity to finance its nuclear and missile programs was to be severely harmed by this move. Kreisman, 2016

The penalties were ratcheted up between 2006 and 2015, earning a rating of 5. Comprehensive sanctions aimed at Iran's banking, energy, and shipping sectors in reaction to its nuclear program caused major disruptions and significant economic pressures.

The maximum rating, six, is assigned to the most recent punishments, which started in 2018. These were brought back and extended by the United States to include harsh limitations on Iran's banking and oil export capacities, which sparked high inflation rates and general economic unrest.

Syria:

The 2011–2012 EU sanctions were rated between 2 and 3, indicating that domestic repression and conflict were the reasons behind their introduction. Targeting certain government people and organizations, these actions had a little economic effect.

Sanctions were increased in 2013–2014 in reaction to growing hostilities and the use of chemical weapons, earning them a rating of 4. Financial constraints affected wider industries during this time, which saw a change from moderate to severe economic stress.

With a rating of six for 2015–2016, the sanctions indicated more growth to target important industries including financial services and oil. This was a very terrible time for the economy as important economic activity were severely impacted.

The penalties persisted and were assigned a score 5 between 2017 and 2020. This stage included more and more actions, which completely disrupted the economy and raised inflation all throughout the country.

Belarus:

Reacting to concerns about electoral fraud, the 2020 punishments were given a value of 4. Targeting important government officials and organizations directly involved in the election concerns, these penalties had a moderate to substantial economic impact.

As they targeted ongoing persecution and particular occurrences like the forced landing of a Ryanair aircraft, the punishments were increased to a value of 5. This stage tightened the economic limitations and their effects even more by putting tremendous economic pressure on the government and associated organizations.

The targeted country's support of Russia's invasion of Ukraine caused the sanctions to peak by 2022 at a value of 6. Comprehensive actions taken as part of this most recent round of sanctions caused severe economic disruption and raised inflation rates, therefore impairing the stability of the country's economy.

Russia:

Sanctions were first imposed in 2014 in reaction to the annexation of Crimea and continuing events in Ukraine, and they were becoming more extensive and damaging. Targeting 21 Russian and Ukrainian officials, the first set of restrictive measures was implemented on March 17, 2014. Because of its narrow focus—it only addressed individual individuals—it was given a rating of 1. Twelve more names were added under the same value just a few days later, on March 20. These penalties remained broadly based, adding more people to the list but without much increasing their effect.

By May 12, 2014, when the punishments were extended to 61 people and 2 organizations, graded at a rating of 2, the severity had somewhat risen. This had a little economic effect on some industries, extending the scope to encompass businesses that showed a worsening of the situation. July 11 saw the list expanded to 72 people while keeping the value of 2. This reacted to ongoing operations in Ukraine maintaining the same degree of economic effect. By September 11, the value of the sanctions had increased to three and they now targeted 119 people. The ongoing fighting in Ukraine was the reason for this growth, which also increased pressure on the Russian government.

The penalties became harsher in the next years. The sanctions were given a value of 4 and were aimed at 132 people and 28 entities from November 28, 2014, until November 9, 2016, and thereafter 152 people and 37 businesses. These steps have major economic ramifications in a number of industries as a reaction to further aggression in Ukraine and the ongoing stagnation in conflict settlement.

Sanction severity increased even further in 2017 to a score of 5, with 150 people and 37 organizations targeted on March 13 and one extra entity added by November 21. In reaction to growing geopolitical concerns and tensions, these sanctions maintained high levels of economic disturbance and put further strain on the Russian economy.

By 2018, the sanctions were still as severe, with a value of 5 on March 12 with targets of 150 people and 38 organizations for meddling in elections and other activities. On December 10, 2018, the sanctions were increased further more to cover 164 people and 44 organizations, bringing the severity level to 6. A reaction to increased geopolitical tensions, this has serious economic ramifications for a number of industries.

The fines were kept very severe, with a value of six, from 2019 to 2021. In continuation of the reaction to continued geopolitical concerns, 170 people and 44 entities were targeted on March 15, 2019. On February 23, 2021, there was a sharp rise in the punishments to 1,718 people and 419 organizations. These extensive steps applied extremely strong political and economic pressure with significant effects on the Russian economy, addressing several persistent problems including geopolitical aggressiveness and human rights breaches.

3.2. Correlation Analysis

3.2.1. Statistical Methods Used to Correlate Sanctions Severity with Inflation Rates

To understand the relationship between the severity of sanctions and the inflation rates in the targeted countries Pearson Correlation Coefficient will be employed:

The Pearson correlation coefficient (r) will be used to measure the strength and direction of the linear relationship between sanctions severity and inflation rates. This method is appropriate for determining how closely the changes in sanctions severity are associated with changes in inflation rates.

To calculate the Pearson correlation coefficient r between two variables X (Inflation Rate) and Y (Severity of Sanctions), we will use the formula:

$$r = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

3.2.2. Tools and Software for Data Analysis

The following tools and software will be used to perform the statistical analysis:

a. Python: Python, with its data analysis libraries will be used for data manipulation and statistical analysis. The statsmodels library is particularly useful for conducting regression.

b. Excel: Microsoft Excel will be used for initial data organization and basic statistical calculations. Its user-friendly interface is helpful for data visualization and simple correlation calculations.

Using these statistical techniques and instruments, the project seeks to thoroughly examine the relationship between the severity of sanctions and inflation rates, offering solid and thorough understanding of the economic effects of international sanctions on the targeted nations.

4. Case Studies

4.1. Iran

1. Overview of Sanctions History and Their Motivations

Over the last few decades, Iran has been the target of a number of international sanctions, mostly motivated by worries about its nuclear program, geopolitical actions, and abuses of human right. The background and reasons of these sanctions show how international relations and enforcement procedures are always changing.

The United States immediately placed sanctions on Iran after the 1979 takeover of the American Embassy in Tehran, including a ban on all Iranian imports and a freezing of Iranian assets. Iran's economy was seriously disrupted by this sudden end of commercial links, which had an impact on both its internal economic stability and its international trade relations. Foster, Elliott, Oegg, & Schott (2007).

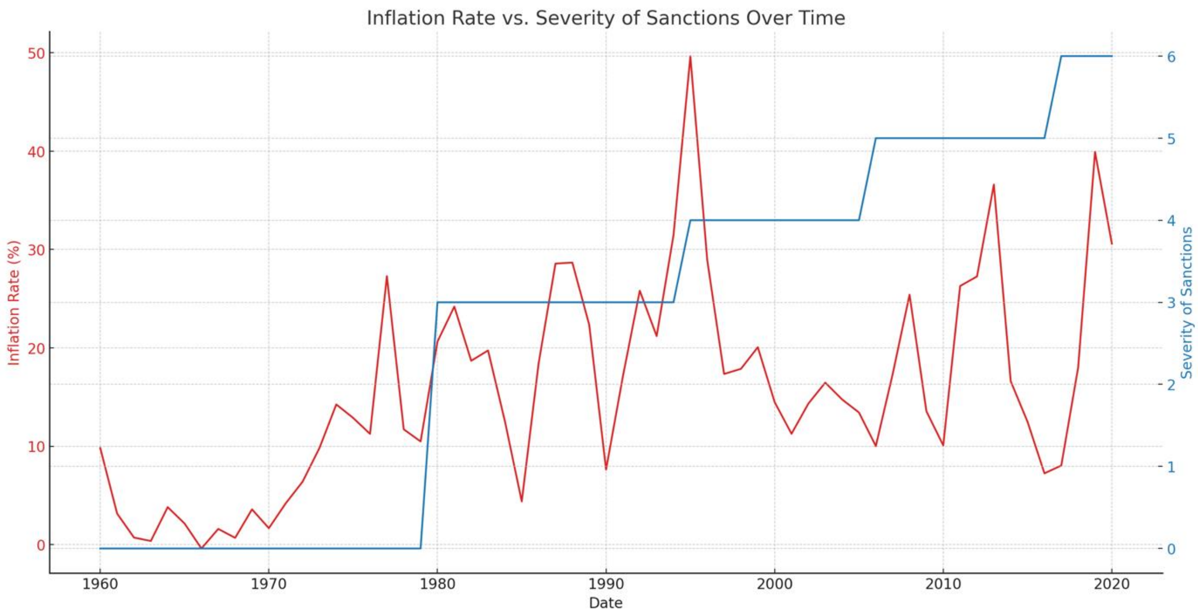
The on-going Iran-Iraq War made 1984 a turning point in the political toolbox of sanctions on Iran. An ban on US arms supplies to Iran was imposed, which had a special effect because Iran's military requirements increased throughout the war. These sanctions were meant to severely limit Iran's military might at a crucial time in the conflict, not only be punitive. (2015) Maloney

In 1995 and 1996, the sanctions system was much enlarged and included prohibitions on American participation in Iran's energy sector. These actions highlighted a larger endeavor to restrict Iran's strategic capabilities and influence in the area and were a reaction to its continuous backing for terrorism and its attempts to obtain weapons of mass destruction.

Concerned about the possibility of nuclear proliferation worldwide, the UN Security Council adopted sanctions in 2006 to limit Iran's uranium enrichment and ballistic missile activities. These steps were crucial to a global campaign to guarantee Iran followed international nuclear rules, which had a significant impact on Iran's foreign banking activities and commercial contacts. After Iran pledged to reduce its nuclear activities, the Joint Comprehensive Plan of Action (JCPOA) was adopted in 2015, which made it easier to eventually lift these sanctions in January of 2016. International sanctions on Iran, UN Security Council Resolutions, IAEA; Council on Foreign Relations

Resuming sanctions in May 2018, the US administration singled out important industries including banking and energy exports. In addition to trying to stifle Iran's nuclear aspirations, these sanctions had a big economic impact. Iran's oil earnings fell precipitously as a result of the restrictions, which also raised prices and heightened economic unrest throughout the nation. Exclusion of Iran from the global banking system made this economic burden worse and it became harder for Iran to maintain financial stability (Council on Foreign Relations, 2018; IMF Report, 2019).

The moderate positive correlation value of 0.475 that the study of these sanctions reveals indicates that Iran's inflation rates tend to climb as the intensity of the sanctions increases. Particularly noticeable is this link throughout the protracted sanctions years of 2006–2015 and 2018–present. The statistics indicates that these sanctions have a significant economic impact on Iran's overall economic stability in addition to the targeted industries. The modest correlation coefficient suggests that, although being a major factor affecting inflation, sanctions are not the only one. The inflationary environment in Iran is also greatly shaped by other economic factors including international oil prices, domestic political stability, and more general economic policy. As such, even if sanctions fuel inflation, a complex interaction of several elements affects the whole economic picture.



4.2. Syria

During the last ten years, Syria has been subject to a variety of international sanctions, mostly brought on by internal strife, abuses of human rights, and the use of chemical weapons. As events within Syria have changed, so have the breadth and strength of these sanctions.

The Syrian government's brutal crackdown on protestors led to sanctions from the European Union and other Western countries in 2011 and 2012. This first stage sought to remedy grave violations of human rights and the internal persecution that characterized the early phases of the Syrian Civil War. The world community tried to put pressure on the Syrian government to stop using force against its people and to start reforms.

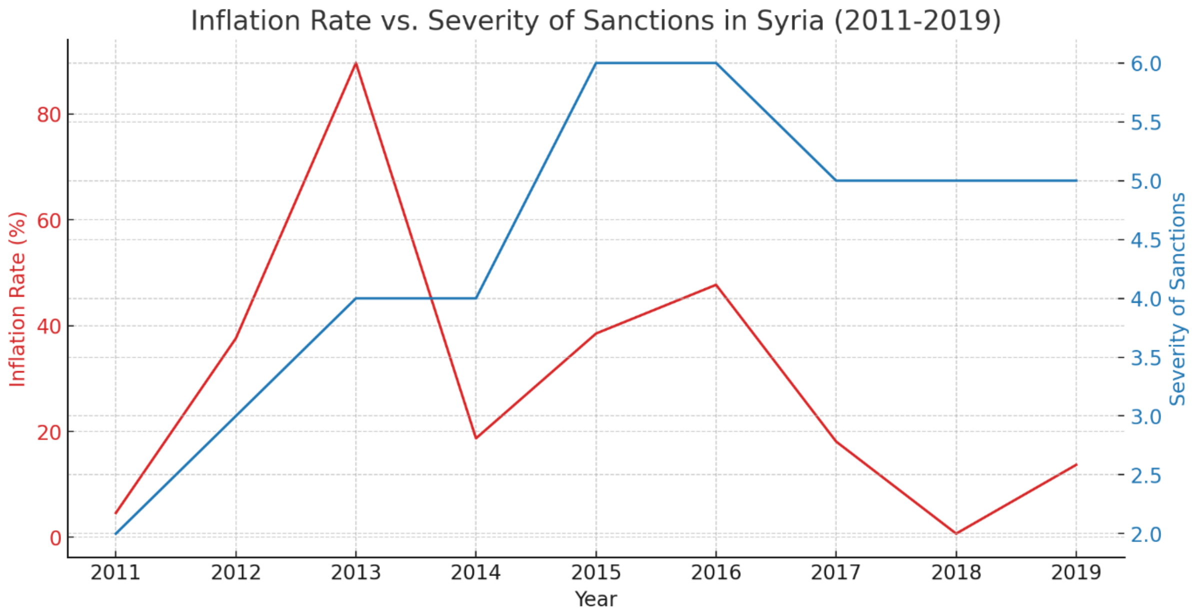
Because of the war intensifying, especially after the Syrian government used chemical weapons against people, the sanctions were increased between 2013 and 2014. The main goals at this time were to denounce the employment of such weapons and to put further pressure on the government to end hostilities and deal with the continuous abuses of human rights. The regime's capacity to get weapons and the financial means required to maintain its military activities was to be further isolated by these increased sanctions.

The system of sanctions was expanded in 2015 and 2016 to cover larger industries including banking and energy. The purpose of these steps was to put further pressure on the Syrian government so that it would enter into talks and deal with the humanitarian catastrophe that had grown worse as the conflict dragged on. The goal was to encourage political resolution of the war and cut off major financial streams that backed the government's military activities.

The sanctions were ratcheted up from 2017 to 2020 to reflect the continuing fighting and the regime's continuous abuses of human rights, which included assaults on civilian infrastructure. A persistent attempt was made at this time to deny the government access to financial and international support networks, therefore limiting its operational capacity and forcing it to enter into peace negotiations.

The sanctions have, most recently, incorporated further steps including asset freezes aimed at important people and organizations connected to the regime until 2021 and 2024. These sanctions' justifications include still the regime's sponsorship of terrorist acts, its ongoing domestic persecution, and its unwillingness to participate in genuine peace talks. These most recent sanctions are intended to keep the Syrian government under pressure from other countries, therefore promoting adjustments in its population policies and strategy for the continuing conflict.

Correlation Analysis Results



With a slight positive correlation value of 0.131, the harshness of punishments and inflation rates are shown to be related. This implies that as sanctions tighten, focusing on larger economic sectors and limiting financial activities, the economic effects show up weakly as inflation.

This quite positive association has the following interpretation: Sanctions that restrict commercial relations, restrict access to necessities, and discourage foreign investment upset the supply chain of the impacted nation, which raises prices and causes a shortage of commodities. Furthermore, if foreign reserves decline and confidence in the financial system declines, these sanctions may cause currency depreciation, which would raise prices even more.

Furthermore, the likely government reaction to sanctions—such as printing additional money to ease economic strains—can make inflation worse. This cycle of escalating sanctions and inflation can cause the populace great economic suffering, perhaps upsetting the economic system and having a profound impact on day-to-day existence.

The correlation value of 0.131 essentially emphasizes how economic policies and foreign policy may directly affect the economic situation of the people living in a sanctioned nation.

The results indicating a direct correlation between the harshness of sanctions and rising inflation rates highlight the serious humanitarian effects these actions might have on the Syrian people. Sanctions that get stronger not only limit the government's access to foreign markets and resources but also have a significant impact on regular people's everyday life. Living circumstances can be much worsened by the greater costs of necessities brought on by rising inflation rates.

Prices are rising especially for gasoline, food, and medication, which makes it harder for the typical person to pay for basic needs. The fact that salaries and job chances frequently do not keep up with the growing cost of living exacerbates the financial difficulty and increases the number of people living in poverty and misery.

Furthermore, because they are less able to bear the financial burden, the most vulnerable groups of the population—children, the elderly, and those with medical conditions—often feel the effects of penalties the most. As a direct consequence of both the sanctions and the general war, the shortage of medical supplies and healthcare services worsens the situation and lowers public health and well-being generally.

Basically, even although the main goal of the sanctions is to put pressure on the Syrian government to implement political and humanitarian changes, the actual situation is more complicated and the general populace bears the brunt of the economic and humanitarian challenges. This emphasizes the significance of giving sanctions' design and execution great thought in order to reduce negative humanitarian repercussions and achieve targeted political results.

4.3. Belarus

Belarus has been hit by several international sanctions mostly because of its human rights violations, political persecution, and support of Russia's geopolitical activities. The way these sanctions have developed indicates growing concern about the nation's foreign and internal policy from other countries.

The 2020 sanctions were placed in place after Belarus' contentious presidential election—which was roundly denounced as unfair—and the government's ensuing assault on demonstrations. The purpose of these penalties was to counter the violent suppression of civil society and political opposition as well as the manipulation of election results. Targeted were important government figures and organizations seen to be actively implicated in undermining democratic processes and infringing human rights.

The sanctions regime was extended in 2021 in response to ongoing domestic persecution and a particular international event in which a Ryanair aircraft was forcedly landed in Belarus in order to apprehend a dissident journalist. This deed increased the attention of the world community and the sanctions meant to denounce these grave violations of human rights, aiming at the perpetrators of the persecution. The forced landing of the aircraft brought to light the extent the Belarusian government would go to in order to quell opposition, which sparked a wider criticism from across the world.

Further sanctions were placed in 2022 as a result of Belarus's backing of Russia's invasion of Ukraine. The desire to penalize Belarus for its active support of geopolitical aggression and weakening of regional stability drove these sanctions. Belarus's assistance to Russia not only increased its own isolation on the world scene but also made it a major factor in the tensions plaguing Eastern Europe. These sanctions were intended to encourage the government to reevaluate its relationships and activities and to restrict Belarus's capacity to further contribute to regional instability.

All things considered, the sanctions on Belarus show a definite international reaction to the policies and deeds of the government, both inside its borders and outside of them. Sanctions are progressively being imposed in tandem with the nation's increasing political repression and involvement in regional geopolitical disputes.

The correlation findings shown below were derived using the inflation rate data and the ascribed severity values:

The degree of the sanctions and Belarusian inflation rates are strongly positively correlated, as seen by the correlation coefficient of 0.99. This implies that Belarusian inflation has increased dramatically as the severity of the sanctions has intensified.

A correlation value this high suggests a fairly direct link in which notable rises in inflation closely correspond with the tightening of sanctions. Many reasons can be linked to this phenomena:

Economic Isolation: Usually, sanctions prevent access to foreign markets as they get more severe. Reduced chances for commerce and international investment for Belarus might stifle the flow of foreign exchange and result in economic isolation.

Reduced Currency worth: The worth of the national currency can be reduced by sanctions. Since imports become more expensive as a result of this devaluation, inflation and consumer prices rise immediately.

Supply Chain Disruptions: Because they place limitations on the export and import of commodities, harsher sanctions frequently cause supply chain disruptions. Essential commodities shortages resulting from this disturbance may raise prices even more because of the increasing scarcity.

Speculative Activities: Anticipating a worsening economy and more isolation might result in speculative actions, including stockpiling of commodities and money, which can aggravate inflationary tendencies.

Government Response: Should economic growth not counteract the government's increased public expenditure or money printing in response to sanctions, inflation may worsen.

The highly significant correlation in Belarus's situation emphasizes how quickly and severely sanctions affect the country's economy, especially how closely economic penalties are linked to inflationary pressures. This link emphasizes how severely sanctioned nations have a significant economic issue that profoundly affects not just the political environment but also the everyday economic realities for their inhabitants.

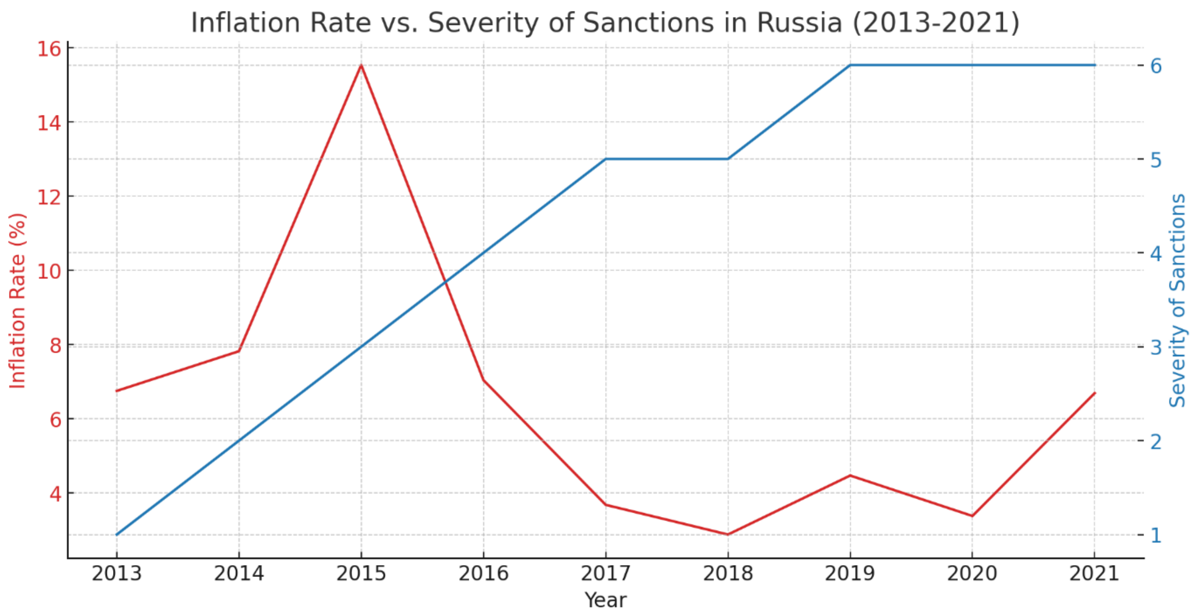
4.4. Russia:

Over the last ten years, Russia has been subjected to many international sanctions, which are a reaction of the international community to different activities and policies taken by the nation. Russia's geopolitical activities—including its engagement in the wars in Syria and

Ukraine, its breaches of human rights, and its meddling in foreign elections—have been the main force behind these sanctions.

These punishments are meant to discourage aggressive policies, encourage responsibility for violations of human rights, and reduce influence activities overseas. They have gone after certain people connected to the political leadership as well as important economic sectors like energy, finance, and defense.

One of the main components of international attempts to confront and react to what is seen to be disruptive actions by Russia on the international scene has been the use of these sanctions. The continuous character of these sanctions indicates that worries about Russia's compliance with international standards and the wider effects of its actions on world security and stability are still present. The correlation results shown below were derived using the inflation rate data and the prescribed severity values:



An considerable negative association between the Inflation Rate and the Severity of Sanctions in Russia for the specified time frame is indicated by the correlation coefficient of about −0.502. This suggests that inflation rates often decline as sanctions against Russia get tougher. Though substantial, the association also suggests that the nation's inflationary pressures are influenced by other variables than sanctions.This moderate negative correlation can be understood in several ways:

1. **Economic Adaptation**: Over time, the Russian economy may have adapted to the sanctions, finding alternative sources for goods, services, and financial resources, thus mitigating the inflationary pressures that might initially arise from sanctions.
2. **Monetary Policy**: The Russian central bank might have implemented stringent monetary policies to control inflation in response to the economic conditions created by sanctions. This could include raising interest rates or other measures to stabilize the currency and control price levels.
3. **Supply and Demand Dynamics**: Sanctions could disrupt the supply of certain goods, leading to changes in domestic production and consumption patterns. If the sanctions reduce the availability of imported goods, this could initially increase prices, but over time, increased domestic production could stabilize or reduce inflation.
4. **Fiscal Measures**: The government might have employed fiscal measures, such as subsidies, price controls, or other economic interventions, to control inflation and counteract the economic impact of sanctions.
5. **External Economic Factors**: Global economic conditions, commodity prices (especially oil and gas, which are significant for Russia), and exchange rates could also influence inflation. These factors might mitigate or exacerbate the impact of sanctions on inflation.
6. **Shadow Economy and Informal Trade**: Increased informal economic activities and trade might help in mitigating the inflationary effects of sanctions, providing goods and services outside the official economy.

While the correlation coefficient of -0.502 does not indicate an overwhelmingly strong relationship, it clearly suggests that sanctions do play a notable role in influencing economic conditions in Russia, particularly in terms of inflation. However, the broader economic context, including global oil prices, domestic policy responses, and the overall economic health of the country, also significantly impacts inflation rates.

5. Comparative Analysis

5.1. Factors Influencing Differences in Impact

The varying degrees of impact that international sanctions have on inflation rates across Iran, Syria, Belarus, and Russia can be attributed to several key factors:

5.1.1. Economic Structure and Resilience:

Nations' economic systems and the specific businesses that the sanctions target determine how much of an impact sanctions have on inflation rates. Here's how sanctions affect Syria, Iran, Belarus, and Russia's inflation:

Iranians are particularly vulnerable to sanctions targeted at the energy sector because of how much of its economy depends on oil. Since oil exports make up a large portion of the nation's income, sanctions that disrupt this sector can seriously undermine the stability of the economy. There are slight inflationary pressures as the economy seeks to adjust to reduced foreign exchange profits and the impact on government spending and import capacity that follows.

The already horrific effects of a lengthy civil conflict in Syria have been made even worse economically by sanctions. Sanctions make it far more difficult for Syria to conduct business outside and draw in international finance, while ongoing war destroys infrastructure and normal economic activities. The combination of the restricted product supply and potential government money printing to pay for its deficit results in moderate inflation rates.

The unique situation of Belarus shows a very strong correlation between sanctions and inflation. Its economy is more concentrated and smaller, mostly dependent on state-controlled sectors like industry and agriculture. Sanctions aimed against these vital regions can immediately reduce Belarus's economic output and lead to severe inflationary pressures since the government can choose to increase the money supply to counteract the economic slump. Russia's economy, being larger and more diversified, exhibits some resilience to the effects of sanctions. Foreign sanctions do, however, still have an effect on the economy; crucial sectors like banking and energy are affected. Though there are clearly not much inflationary pressures, the Russian government usually responds effectively to reduce the overall impact of sanctions on inflation by making budgetary adjustments and intervening in the internal market.

5.1.2. Scope and Target of Sanctions:

Iran is under severe sanctions that hit the maritime, petroleum, and financial industries, among other important ones. This wide range is intended to enhance economic pressure by severing important sources of income and restricting Iran's capacity to conduct business abroad. Although the goal is to reduce Iran's regional influence and force adherence to international nuclear accords, the extensive extent of these sanctions has a big economic impact on Iran's economy in many other areas.

Sanctions are severe in Syria and concentrate especially on important industries like banking and energy. The income from these industries is essential for the Syrian government to support the continuous fighting inside its borders. The sanctions are intended to reduce the ability of the regime to carry out its military operations and repression, therefore aggravating the already extreme economic suffering brought on by years of internal conflict and civil war.

Unlike Iran or Syria, Belarus has more restricted sanctions that target important government leaders and state-controlled organizations. This attention is justified by the particular political climate of Belarus, where the government has a strong hold on the economy. Here, sanctions have a clear and serious effect that swiftly translates into economic strain that the administration feels very badly.

Although facing harsh sanctions aimed at vital industries including energy, banking, and defense, Russia has been able to lessen some of the economic effects by means of government-led counter-sanctions and calculated economic measures. Among these steps include encouraging home industry to take the place of imports and creating new commercial links that get over Western nations' limitations. With this strategy, Russia has a buffer that lessens the total effect of the sanctions on its inflation and larger economy.

Every one of these examples shows how, although having the same objective of altering governmental behavior, international sanctions need to be customized to the particular political and economic environments of the targeted nations. The degree to which these penalties specifically target the economic weaknesses of each country greatly determines their efficacy and impact.

5.1.3. Government Response and Adaptation:

Iran, Syria, Belarus, and Russia all experience somewhat different economic repercussions from international sanctions, which are determined by the ability of each country to lessen such effects through different tactics or innate weaknesses.

The government of Iran's reaction to sanctions is much influenced by its restricted capacity to diversify its economy. Iran, has tried in many ways to get around sanctions. But the wide economic effects of sanctions have only been somewhat lessened by these methods, which presents serious obstacles to sustaining economic development and stability.

Syria is in especially bad shape because of the protracted internal strife, which makes it very difficult for the government to lessen the impact of sanctions. Because of the continuous conflict's disruption of regular economic activity, infrastructural damage, and resource depletion, the government finds it challenging to put in place efficient defenses against sanctions. Higher inflation rates in the Syrian economy are therefore a product of the conflict and international sanctions acting in tandem.

Because of its centralized economic management, Belarus enables the government to oversee economic operations directly and react to sanctions. This centralized method - help to swiftly put adaption plans or policy changes into practice. The economy is also more vulnerable to targeted sanctions, though, as they may be crafted to strike at the heart of the state-controlled industries, therefore directly affecting the government's capacity to finance and run its affairs.

The smart utilization of national reserves by the government and the introduction of counter-sanctions in Russia have contributed to insulate the economy from the full effects of international limitations. More than smaller economies, Russia's big and varied economy and significant budgetary buffers enable it to weather economic downturns more successfully. Reduced direct effect of sanctions on inflation has been made possible by the government's aggressive management of economic policy and countermeasures, which has helped to stabilise the economy in the face of continuous international pressure.

5.2. Implications of the Findings

The study highlights several economic mechanisms through which sanctions drive inflation in the targeted countries. Understanding these mechanisms is crucial for policymakers to design sanctions that achieve their political objectives while minimizing adverse economic impacts.

5.2.1. Supply Chain Disruptions

Sanctions often target key industries and sectors that are integral to the functioning of the targeted country's economy. This leads to significant disruptions in supply chains, which in turn drive inflation. Here’s how supply chain disruptions impact inflation:

5.2.1.1. Disruption of Key Industries:

Sanctions have been directed especially on Iran's energy industry, especially its oil exports. Foreign exchange shortages brought on by the ensuing supply chain disruptions have increased the cost of importing products. Consumer prices have eventually increased as a result of the shortfall raising manufacturing costs across a number of industries. The economic limitations brought about by these sanctions have strained the Iranian economy and resulted in significant inflationary pressures as the price of commodities and services increases.

Both the continuing fighting and the sanctions worsen Syria's predicament. The finance and energy industries have been the focus of sanctions, important sectors that may have offered some resistance to economic upheaval. Sharp price hikes have resulted from the interruption in these industries severely restricting access to necessary products and services. The scarcity of resources as the nation battles both economic sanctions and conflict drives prices higher and adds to notable inflation.

In Belarus, focused sanctions have impacted important industries including banking as well as state-controlled organizations. Supply chain interruptions brought on by these penalties raise manufacturing costs and result in shortages. Prices for a range of products and services have therefore increased, which has led to inflation in a very small and concentrated economy where the state exercises a great deal of influence over economic activity.

Sanctions on Russia's financial and energy industries, which are essential to its economic stability, are in place. Supplies have been disrupted by these restrictions, which has raised the price of commodities and raw resources. Even when this disruption raises inflation, the government's deployment of strategic reserves and responses, together with Russia's larger and more varied economy, lessens the overall effect. The Russian government has managed economic policy actively and has large budgetary buffers, which have helped to lessen some of the inflationary pressures, but inflation is still a major worry.

The way that international sanctions have taxed these nations' economy by upsetting vital supply networks and raising expenses, which has fueled inflation, is a similar thread even if the precise effects differ.

5.2.1.2. Increased Production Costs:

When supply chains are upset, the economic fallout is often higher production costs, particularly for nations whose industrial sectors mostly depend on imports. Generally speaking, disruptions raise input and raw material costs since other sources are either more expensive or more difficult to find.

One glaring illustration of this dynamic is seen in Iran, where imports of raw materials and machinery have been severely disrupted by foreign sanctions. The industrial sector of Iran, which depends on these imports to make its products, has been hit by rising prices. Higher manufacturing costs are unavoidably the result of these businesses' efforts to locate reasonably priced substitutes. Higher pricing that result from these expenses is then passed on to customers, which raises inflation rates.

This situation highlights the sanctions' wider economic effects than only the short-term trade limitations. Sanctions can cause a circle of rising production costs and inflation, which will impact the general economic stability and cost of life in impacted nations by making it more difficult and costly to get necessary supplies. Such results emphasize the interdependence of international supply networks and the extensive impacts of geopolitical policy on regional economies.

5.2.1.3. Shortages of Goods:

Many times, sanctions lead to shortages of necessities, which has a big effect on everyday living and the stability of the economy in the nations that are impacted. In countries like Belarus and Syria, where sanctions prevent imports of essential commodities and services, scarcity results, which raises costs. This inflation has a straightforward mechanism: prices rise significantly when the supply of necessary products decreases and their demand stays the same or even rises.

In Syria, where international sanctions aimed at the oil industry have resulted in severe gasoline shortages, this is exemplified. Any nation needs oil as its basic resource; it is essential for heating, industry, and agriculture in addition to transportation. All these industries in Syria have been impacted by the gasoline shortage in a cascade. Above all, more difficult and costly commodities transportation has resulted in higher prices for delivered items. This shortage and the growing expense of logistics play a major role in inflation as prices of commodities and services start to rise generally in reaction to the increasing transportation expenses.

5.2.2. Currency Depreciation

Sanctions often result in the targeted country’s currency losing value, which drives inflation by increasing the cost of imports:

5.2.2.1. Reduced Access to Foreign Currency:

The main foreign exchange source for Iran, export income, have been sharply reduced by the sanctions aimed at the oil industry. The Iranian rial has been sharply depreciated as a result of the shortfall of foreign money brought on by this restriction. Import costs increase as the rial depreciates because more local money is required to buy items priced in foreign currencies. Import cost increases directly feed inflation, making economic problems worse for both consumers and companies.

In Syria, restrictions aimed at financial activities have also limited access to foreign exchange. Depreciation of the Syrian pound as a result drives up the price of imported items. The sanctions worsen the already severe economic conditions in Syria, which has been ravaged by protracted fighting and has inflationary pressures that lower the living standards of its people.

Sanctions limiting access to global markets and reducing foreign investment cause Belarus to face comparable economic difficulties. A result of these limitations, the Belarusian ruble has lost value. Increased import costs as the value of the ruble declines add to inflation. This state of affairs illustrates how directly sanctions affect Belarus's capacity to conduct foreign commerce and preserve economic stability.

Russia's currency depreciates similarly to that of the other nations, but it also faces restrictions on its oil and banking sectors. Russia's large foreign reserves, which the government may use to support the currency and lessen some of the effects of sanctions, do, however, considerably lessen its predicament. These reserves help Russia better control the value of the ruble and lessen the immediate consequences of inflation brought on by rising import prices.

5.2.2.2. Increased Cost of Imports:

For nations with weakened currencies, particularly those that depend significantly on imports for basic goods and services, the rising cost of imports is a major economic burden. The workings are simple: as the value of the national currency declines, buying goods from overseas in foreign currencies becomes more expensive, which drives up the price of imported items.

Iran is a shining illustration of this link. Because of sanctions a vital source of foreign exchange, the Iranian rial has fallen precipitously. Imports of food, medicine, and industrial inputs—all essential for the population's health and the economy's operation—become much more expensive as the rial declines. The price increases for these necessary commodities are the direct result of this increase in import costs being passed on to consumers.

Where there are no home substitutes for imported goods, the effect is very noticeable. For example, a large number of specialised medications and sophisticated industrial components need to be imported, and when their costs rise, so does the financial strain on both consumers and enterprises. This affects the general health and stability of the economy in addition to fueling inflation.

Therefore, a difficult economic cycle where prices keep rising and impact the affordability of basic requirements and add to larger inflationary pressures is created by the depreciation of the currency combined with an increased reliance on imported commodities.

5.2.3. Market Uncertainty

Sanctions create economic uncertainty, leading to preemptive price increases by businesses and investors:

5.2.3.1. Business and Consumer Confidence:

Geopolitical unrest and ongoing sanctions greatly affect consumer and corporate confidence, which in turn affects economic activity in nations like Russia, Belarus, Iran, and Syria. Businesses frequently change course in response to this uncertainty, including raising prices in advance to protect against inflation and possible losses.

The continuous imposing of sanctions on Iran has produced a generalized climate of doubt over the state of the economy going forward. Companies that have to deal with erratic expenses and maybe restricted access to essential products and financial services frequently decide to boost prices as a hedge against expected cost rises and the depreciating value of the national currency. In addition to affecting the companies directly, this defensive posture raises general inflation, which has an immediate impact on customers.

In Syria, too, a great deal of economic uncertainty has been created by the combination of protracted fighting and severe sanctions. To reduce the risks connected to supply interruptions and changing costs, companies are forced by this environment to raise prices. These price increases add to the general inflation that the populace is suffering, but they are also a logical reaction to guarantee the survival of companies in the face of erratic market circumstances.

Sanctions combined with political unrest in Belarus have damaged trust among businesses and consumers. Businesses raising prices as a preventative measure is one way that this lack of confidence shows itself in their cautious economic actions. Such action is meant to lessen the possible financial effects of an uncertain economic environment, which might include further penalties or changes in domestic policy that could upset the state of the market.

In Russia, things are similar in that continuing geopolitical tensions and sanctions make the economy more precarious. Businesses might raise prices in advance if they expect these outside forces to cause downturns or interruptions in their operations. Their margins are meant to be protected by this approach against possible future expenses brought on by sanctions or other economic difficulties.

All things considered, companies use cautious pricing strategies because they are unsure about the stability of these economies, which feeds an inflationary loop that further taxes the economies and lowers the living standards of the people. This domino effect highlights the more general economic effects of geopolitical unrest and international sanctions that go beyond direct financial effects and influence daily business operations and customer experiences.

5.2.3.2. Speculative Behavior:

In politically and economically turbulent times, uncertainty may be a major factor in speculative behavior by both companies and consumers. Many times, this speculating shows itself as product hoarding, which increases inflation by artificially limiting supply and raising prices.

Regarding Syria, for example, the continuous fighting and the effects of international sanctions have created a generalized sense of uncertainty about the supply of necessities. People and companies hoard basic needs including food, medical supplies, and gasoline out of a concern of impending shortages. In addition to being a defensive strategy against any future shortages, such action is a logical reaction to the supply chain disruptions that have been seen and expected as well as the higher import costs brought on by sanctions.

The act of stockpiling these commodities can start a vicious circle whereby the perceived scarcity rises with more people and companies stockpiling, which in turn promotes even more buying. Price rises brought on by this decrease in the supply on the market can quickly become serious inflationary pressures. In essence, the initial scarcity phobia turns into a self-fulfilling prophesy that fuels the very price hikes and shortages that companies and customers detest.

Though a normal reaction to uncertainty, this speculative behavior highlights the wider effects of conflict and economic sanctions on a nation's economy. These circumstances impact economic behavior in ways that might exacerbate and extend the population's economic suffering in addition to the actual availability and pricing of products.

5.2.4. Reduction in Foreign Investment

5.2.4.1. Capital Flight:

For states under international sanctions, capital flight has a major economic impact; it especially affects Iran, Syria, Belarus, and Russia. This phenomena happens when foreign investors pull out of their assets because they think or really see a rise in political and economic concerns. Reduced foreign currency and investment inflows combined with increased inflation are the consequences of capital flight.

Sanctions have had a profoundly negative impact on foreign investment in Iran, especially in the vitally important oil and gas industries. An absence of foreign money from the withdrawal of these assets is essential for funding imports and maintaining the value of the native currency. Because a smaller supply of commodities means higher costs, this scarcity exacerbates economic instability and raises inflation.

Comparably, Syria is in a high-risk environment for foreign investment due to continuous fighting and extensive international sanctions. Not only do efforts at economic recovery suffer from the large drop in investment, but it also makes economic instability worse. The severe economic and humanitarian situation is made much more complicated by the slowdown of economic activity and rise in inflationary pressures brought on by the absence of foreign money.

Foreign direct investment in Belarus has decreased as a result of sanctions and political persecution. Because fewer resources are available for expansion and growth, this decline in investment adds to economic recession. The ensuing recession drives prices higher, which raises inflation rates. The unpredictably unstable political climate makes matters worse by inhibiting both local and foreign business activity.

Mainly, sanctions aimed at Russia's important economic sectors—finance and energy—cause capital flight. These penalties discourage foreign investors, who are essential for supplying capital inflows to maintain the ruble and large-scale projects financing. Reduction of foreign investment causes economic instability, which raises inflation. Though Russia still has serious economic problems due to the weight of continuous sanctions, its vast reserves and more diverse economy offer some protection from the immediate consequences of capital flight.

All things considered, capital flight in these nations shows how closely international sanctions, political unrest, and economic performance are related. The withdrawal of foreign investment exacerbates the difficulties these countries have in preserving economic stability in the face of global pressures by impacting not just short-term but also long-term economic growth and inflation.

5.2.4.2. Decreased Economic Activity:

One important consequence of less foreign investment—which is frequently brought on by sanctions—is less economic activity. Countries like Belarus, whose international sanctions have immediately affected foreign investment flows, resulting in slower economic development and higher inflation, provide a striking example of this situation.

A nation's economic growth frequently slows down when foreign investment declines as these investments are essential to new project financing, industry expansion, and technology breakthroughs. Foreign investors find Belarus' economic climate less appealing as a result of the sanctions aimed at several industries. Reduction in investment lowers economic activity generally as well as the amount of fresh capital injected into the economy.

The domestic output falls short of demand as a result of this slowdown in growth. Belarus already has a quite small and less diversified economy, hence the effect is more noticeable. Without the money and technology that foreign investors usually provide, the nation's businesses battle to manufacture enough items to meet local demand. As a result, the lack of commodities raises prices and raises inflation as the value of the Belarusian ruble falls in the face of a declining supply and a sustained or rising demand.

Furthermore, the recession brought on by lower foreign investment has a ripple effect across the economy in addition to affecting the sectors that are directly benefited by these investments. Complicating the economic problems are downturns in other sectors that rely on the health of these main businesses, like services, retail, and logistics.

The circumstances in Belarus provide a prime example of how sanctions, although intended to put pressure on governments to adopt particular policies, can have a wide-ranging economic influence on a country's economy, affecting everything from inflation rates to output levels.

5.2.5. Increased Government Expenditure

5.2.5.1. Subsidies and Public Spending:

Countries such as Russia, Iran, Syria, Belarus, and others have been using subsidies and public expenditure more and more to maintain their citizens and stabilise their economy in reaction to sanctions. To further complicate their economic circumstances, these steps frequently result in larger budget deficits and inflation.

To try and protect its people from the negative impacts of sanctions, Iran has increased public expenditure and subsidies. The government wants to keep the public welfare and prevent social instability, hence it is raising these expenses. But paying for these benefits frequently means printing more money or taking on more national debt, which may devalue the currency and raise inflation if the money supply exceeds economic growth.

Amidst continuous fighting and severe international sanctions, Syria has also boosted government expenditure on social programs and subsidies to help its war-torn populace. This surge in spending burdens the already overburdened national budget while being essential to supply fundamental needs to the populace. If these costs are paid for by borrowing or money printing without matching economic expansion, inflation results, further reducing people's buying power.

Similar economic constraints affect Belarus, where the government is boosting spending on state-controlled companies to try and offset the effects of sanctions and preserve stability in important sectors. But when the nation simultaneously struggles with lower foreign investment and economic growth, this increased government expenditure raises inflation.

The government of Russia has spent a lot of money to help social programs and sectors hit by sanctions. This tactic raises inflation even while it lessens some of the early economic impacts. More latitude to control its economic strategy than smaller economies is given to Russia by its vast foreign reserves and more diversified economy, which offer some protection against the inflationary consequences of increasing public expenditure.

Overall, subsidies and more public expenditure can raise inflation even if they might offer communities impacted by sanctions some temporary respite and help. These nations are challenged to strike a balance between short-term demands and long-term economic stability by this inflation, which is the outcome of growing public debt and the money supply.

5.2.5.2. Monetary Expansion:

Governments under economic strain from sanctions and growing public expenditure demands frequently respond via monetary expansion. This strategy devalues the national currency, which raises inflation even if it offers instant financial comfort.

Regarding Iran, the government has heavily depended on monetary growth to support its higher public spending, especially in light of income losses brought on by sanctions aimed at the country's oil industry. The Iranian Central Bank has often printed extra money to combat the economic slump and maintain its subsidies and social programs. When the money supply rises without the same rise in goods and services, inflation results from too much money chasing too few things.

The mechanism is simple: the value of rials decreases with increasing circulation of the money. For a nation like Iran, that depends on imports for many of its industrial and consumer requirements, this depreciation raises the cost of imports. Prices locally increase along with the cost of these imports, which feeds inflation even more.

This tactic has long-term economic dangers even if it could stabilize things in the near future. Extended dependence on monetary expansion can result in uncontrollably high inflation, which would have a disastrous effect on the general state of the economy and lessen the efficacy of monetary policy. Furthermore undermining public confidence in the currency and financial stability, it might set off an uncontrollably reinforcing cycle of inflation expectations.

The example of Iran emphasises the fine line governments have to walk between meeting short-term economic demands and overseeing long-term fiscal and monetary stability. It is a two-edged sword to employ monetary growth to lessen the effects of sanctions and higher expenditure; although it offers immediate comfort, it may eventually cause serious economic problems.

6. Discussion

6.1. The Role of Sanctions in Influencing Inflation

The findings of this study emphasize how important an impact international sanctions have on the rates of inflation in the nations who are the targets. Different degrees of link between the severity of sanctions and inflation rates are shown by the examination of Iran, Syria, Belarus, and Russia. The results imply that economic stability is often upset and inflation is accelerated by sanctions, particularly when they are extensive and target several industries. Sanctions affect inflation by means of supply chain interruptions, currency devaluation, market uncertainty, lower foreign investment, and higher government spending. In the sanctioned countries, these elements taken together lead to growing prices and unstable economies.

In Iran, the somewhat positive correlation (0.475) suggests that other economic factors are also important even if sanctions have a major impact on inflation. Particularly noteworthy are the harsh sanctions from 2018 to the present and the broad sanctions from 2006 to 2015. Targeting Iran's oil exports and nuclear programme, sanctions have seriously disrupted the economy and resulted in very high inflation rates.

In Syria, too, the little positive correlation (0.131) indicates that while internal strife and problems with administration may possibly have some influence on inflation, sanctions are a minimal one. Rising inflation rates are a reflection of the terrible economic suffering brought about by the use of chemical weapons, internal persecution, and the larger struggle during the years of harsh sanctions.

With inflation rates rising quickly in reaction to increased sanctions harshness, Belarus's very strong positive correlation (0.99) points to a direct and significant influence of sanctions on inflation. Targeted sanctions brought on by the 2020 election fraud, the 2021 repression, and the 2022 backing for Russia's invasion of Ukraine draw attention to Belarus's financial strain. Sharp increases in prices are a result of the sanctions' disruption of important financial and economic operations.

The somewhat negative correlation (-0.502) for Russia shows that the inflation rate falls in tandem with the intensity of the sanctions. Important sanctions between 2014 and 2024, especially those aimed at important sources of income like diamonds and oil, as well as stable finances, have aided this tendency. Financial instability and inflationary pressures are results of sanctions on the Russian Central Bank and important industries.

6.2. Interaction with Other Economic Factors

Sanctions' effect on inflation is not a standalone phenomena. Sanctions have political ramifications as well as economic ones (Kaempfer and Lowenberg 2007; Krustev and Morgan 2011). Sanctions combine with other economic variables to affect inflation, including internal disputes, international economic situations, and national policies. In Iran, for example, dependence on oil exports and poor domestic economic management compound the inflationary effects of sanctions. The civil conflict still going on in Syria makes the economic setbacks brought on by sanctions worse. Because Belarus lacks economic diversity and has centralized economic governance, sanctions-related inflationary pressures are more likely to hit the nation. Though major disruptions still happen, the government of Russia's smart use of reserves and counter-sanctions helps to lessen some of the inflationary effects.

6.3. Limitations of the Study

1. **Data Constraints**

The availability and dependability of economic data—especially inflation rates—is one of this study's main drawbacks. Data for this research were gathered from reliable sources including national statistics organizations, the World Bank, and the International Monetary Fund (IMF). The results' correctness might be impacted, nevertheless, by omissions, contradictions, and even government data tampering. Sometimes historical data is out-of-date or partial, which makes a thorough examination difficult.

2. **Potential Biases in Sanctions Severity Assignment**

Assigning numerical values to the severity of sanctions involves subjective judgment, which may introduce biases. The criteria for assigning values consider factors such as the breadth of economic sectors affected, the scale of economic impact, intended political pressure, and duration of sanctions. However, the complex and evolving nature of sanctions regimes can make it difficult to assign precise numerical values. The subjective nature of these assignments might introduce variations in the results, affecting the correlation analysis.

6.4. Recommendations for Further Research

1. **Extending the Analysis to Other Countries and Regions**

Future study should expand the investigation to additional nations and areas in order to improve knowledge of the connection between sanctions and inflation. More instances would be included to give more thorough understanding of the various effects of sanctions in various political and economic environments. Greater trends and variations in the effects of sanctions may be found via comparative research involving nations with various economic systems, degrees of resilience, and kinds of penalties.

2. **Exploring the Long-Term Economic Impacts of Sanctions**

This study primarily focuses on the immediate and short-term impacts of sanctions on inflation rates. However, exploring the long-term economic impacts of sanctions is equally important. Future research should examine how prolonged sanctions affect economic growth, structural changes in the economy, and social welfare. Understanding the long-term consequences of sanctions can provide valuable insights for designing more effective and sustainable sanctions policies. Additionally, investigating the potential for economic recovery post-sanctions and the strategies that targeted countries employ to mitigate the impacts could offer practical lessons for policymakers.

7. Conclusion

This thesis has rigorously analyzed the intricate relationship between international sanctions and inflation rates in Iran, Syria, Belarus, and Russia, offering a nuanced view of how economic penalties influence macroeconomic stability. The findings underscore that sanctions do not uniformly affect targeted countries; instead, their impact varies significantly depending on numerous factors such as the structure of the targeted economy, the resilience and adaptability of governmental responses, and external economic conditions.

The case studies have demonstrated that sanctions can significantly disrupt national economies by targeting critical industries, reducing access to international markets, and depreciating national currencies. These disruptions often lead to increased inflation rates, which can exacerbate economic instability and result in hardship for the civilian population. Notably, the severity and specific targets of sanctions are pivotal in determining their economic consequences. For instance, stringent sanctions on Iran's oil sector have had profound inflationary effects due to the sector's centrality to the country's economy. Conversely, Russia displayed a unique resilience, managing to mitigate some inflationary pressures through strategic economic policies and diversification efforts.

This study contributes to the body of knowledge on economic sanctions by highlighting the complex dynamics of sanctions and their economic implications. It also offers practical insights for policymakers to consider the broader economic repercussions and the humanitarian aspects of sanctions. Effective sanction policies should aim not merely at exerting pressure but at achieving policy goals with minimal collateral damage.

Going forward, it is essential for international policymakers to carefully calibrate sanctions to balance the desired political outcomes with the potential economic harm to the civilian population. Further research is recommended to explore the long-term effects of sanctions on economic policy and societal well-being in targeted countries, considering the evolving nature of global politics and economic alliances.

8. Policy proposal

This policy recommendation is supported by a thorough research on the impact of international sanctions on the inflation rates of the targeted countries—Russia, Iran, Syria, and Belarus. This idea examines various degrees of relationships between the severity of punishments and inflation in order to enhance penalty methods and reduce detrimental economic impacts. The recommendations are supposed to guide lawmakers in crafting sanctions that are strategic, humane, and consistent with the goals of world economic stability.

International sanctions are powerful tools for putting pressure on other nations and requiring policy changes in the countries that are the subject of the emphasis. Even although they are effective in achieving political objectives, they usually inadvertently make the economic situations of the nations they are meant to target worse, particularly by changing inflation rates and, therefore, the lives of the general populace.

The purpose of this concept is to provide a strategic approach to sanctions that maximizes their political effectiveness while minimizing their detrimental economic consequences, with an emphasis on averting inflationary pressures.

Examination of the Effects of the Current Sanctions:

The degree of the sanctions has a high positive link with inflation rates in Iran and Belarus, suggesting a direct effect on economic stability.

The lesser correlation in Syria raises the possibility that other variables, such as the continuous fighting, are also important. Russia has a somewhat negative correlation, perhaps as a result of efficient responses and economic policies that lessen the effects of sanctions.

As these results show, sanctions may cause market uncertainty, weaken national currencies, and upset vital supply chains—all of which feed inflation.

Conclusions of Policies:

1. Targeted Sanction Design:

- Sanctions should be carefully designed to target certain industries or organizations that are intimately linked to the adverse policies of the target nation in order to reduce more broad economic consequences.
- Introduce "smart sanctions" that target luxury goods, military equipment, and specific financial restrictions against significant political figures and institutions without having an effect on the general populace.
- Build strong multinational coalitions and mechanisms to better monitor and implement sanctions, making sure they are as thorough and leak-proof as possible.
- Make use of international legal institutions to establish precise standards and requirements for the application and revocation of penalties depending on unbiased evaluations.

2. Reduction of the Humanitarian effect:

- Make humanitarian effect assessments required prior to the application of sanctions, and modify plans to reduce risks that are found.
- Create international assistance or financing schemes to help citizens in sanctioned nations, with an emphasis on bringing down the cost of necessities to fight inflation.
- Establish a continuous monitoring system that monitors the economic effects of sanctions, with an emphasis on inflation and other important economic indicators.
- Sanctions should be dynamically adjusted or lifted according to their efficacy and the humanitarian and economic results they bring about.

3. Promote Diplomatic Involvement:

- Strengthen diplomatic initiatives to resolve disputes or policy differences amicably in conjunction with sanctions.
- Provide clear routes for the targeted governments to receive penalty relief by meeting international obligations, therefore promoting a more cooperative global climate.

Action Plan:

- By means of international talks and agreements, gradually include these proposals, enabling testing and modification of tactics according to first results.
- Take use of the knowledge and experience of organisations such as the World Bank, International Monetary Fund, and United Nations in observing and controlling the effects of global economic change.

International sanction rules are to be improved by more precise and less economically damaging application. Emphasizing targeted actions, enhanced monitoring, and humanitarian concerns, these concepts aim to protect against unanticipated economic consequences while maintaining the efficacy of sanctions as a diplomatic tool.

9. References

1. BBC News. (2022). What are the sanctions on Russia and are they hurting its economy? Retrieved June 2, 2024, from https://www.bbc.com/news/world-europe-60125659
2. Castellum.AI. (n.d.). Russia sanctions dashboard. Retrieved June 2, 2024, from https://www.castellum.ai/russia-sanctions-dashboard
3. Connolly, R. (2015). The Impact of EU Economic Sanctions on Russia. European Union Institute for Security Studies (EUISS). Retrieved from JSTOR.
4. Council of the European Union. (n.d.). Sanctions against Belarus. Retrieved June 2, 2024, from https://www.consilium.europa.eu/en/policies/sanctions-against-belarus/
5. Council of the European Union. (n.d.). Sanctions against Russia explained. Retrieved June 2, 2024, from https://www.consilium.europa.eu/en/policies/sanctions-against-russia/sanctions-against-russia-explained/
6. Council of the European Union. (n.d.). Timeline of EU restrictive measures against Belarus. Consilium. Retrieved June 2, 2024, from https://www.consilium.europa.eu/en/policies/sanctions-against-belarus/belarus-timeline/
7. Council of the European Union. (n.d.). Timeline of EU restrictive measures against Russia. Consilium. Retrieved June 2, 2024, from https://www.consilium.europa.eu/en/policies/sanctions-against-russia/timeline-sanctions-against-russia/
8. Council of the European Union. (n.d.). Timeline of EU sanctions against Iran. Consilium. Retrieved June 2, 2024, from https://www.consilium.europa.eu/en/policies/sanctions-against-iran/timeline-eu-sanctions-against-iran/
9. Council of the European Union. (n.d.). Timeline of the EU response to the Syrian crisis. Consilium. Retrieved June 2, 2024, from https://www.consilium.europa.eu/en/policies/syria/timeline-eu-response-to-the-syrian-crisis/
10. Council on Foreign Relations. (2018). The Return of U.S. Sanctions on Iran: What to Know. Retrieved from https://www.cfr.org
11. ChatGPT, June 2, 2024
12. European Commission. (n.d.). EU sanctions against Russia following the invasion of Ukraine: Import and export bans. European Union Solidarity with Ukraine. Retrieved June 2, 2024, from https://eu-solidarity-ukraine.ec.europa.eu/eu-sanctions-against-russia-following-invasion-ukraine/import-and-export-bans_en
13. FocusEconomics. (n.d.). Syria inflation rate. FocusEconomics | Economic Forecasts from the World's Leading Economists. Retrieved June 2, 2024, from https://www.focus-economics.com/country-indicator/syrian-arab-republic/inflation
14. Ghorbani Dastgerdi, S., et al. (2018). The Impact of Economic Sanctions on Inflation: The Case of Iran. Journal of Economic Studies.
15. Government of the United Kingdom. (n.d.). The Republic of Belarus sanctions guidance. Retrieved June 2, 2024, from https://www.gov.uk/government/publications/republic-of-belarus-sanctions-guidance/the-republic-of-belarus-sanctions-guidance
16. House of Commons Library. (2022). Sanctions on Russia. Retrieved June 2, 2024, from https://commonslibrary.parliament.uk/research-briefings/cbp-9481/

17. Human Rights Watch. (2023). Questions and answers: How sanctions affect humanitarian response in Syria. Retrieved June 2, 2024, from https://www.hrw.org/news/2023/06/22/questions-and-answers-how-sanctions-affect-humanitarian-response-syria
18. Hufbauer, G. C., Schott, J. J., Elliott, K. A., & Oegg, B. (2007). Economic sanctions reconsidered (3rd ed.). Peterson Institute for International Economics.
19. IAEA and Iran - UN Security Council Resolutions and Statements. (n.d.). Retrieved from IAEA.
20. International Monetary Fund. (2019). IMF Country Report No. 19/100. Retrieved from https://www.imf.org
21. International Sanctions on Iran | Council on Foreign Relations. (n.d.). Retrieved from Council on Foreign Relations.
22. Katzman, K. (2016). Iran sanctions. Congressional Research Service.
23. MacroTrends. (n .d.). Iran inflation rate - Historical data and charts. MacroTrends. Retrieved June 2, 2024, from https://www.macrotrends.net/global-metrics/countries/IRN/iran/inflation-rate-cpi 23. Maloney, S. (2015). Iran's political economy since the revolution. Cambridge University Press.
24. Najarzadeh, A. (2020). National embarrassment: Sanctions, inflation, and currency crisis. Empirical Analysis on Iran. City, University of London.
25. Office of Foreign Assets Control. (n.d.). Belarus sanctions. U.S. Department of the Treasury. Retrieved June 2, 2024, from https://ofac.treasury.gov/sanctions-programs-and-country-information/belarus-sanctions
26. Office of Foreign Assets Control. (n.d.). Russian Harmful Foreign Activities Sanctions. U.S. Department of the Treasury. Retrieved June 2, 2024, from https://ofac.treasury.gov/sanctions-programs-and-country-information/russian-harmful-foreign-activities-sanctions
27. Office of Foreign Assets Control. (n.d.). Russia-related sanctions. U.S. Department of the Treasury. Retrieved June 2, 2024, from https://ofac.treasury.gov/sanctions-programs-and-country-information/russia-related-sanctions
28. Office of Foreign Assets Control. (n.d.). Ukraine-/Russia-related sanctions. U.S. Department of the Treasury. Retrieved June 2, 2024, from https://ofac.treasury.gov/sanctions-programs-and-country-information/ukraine-russia-related-sanctions
29. Portela, C. (2012). The EU Sanctions against Syria: Conflict Management by Other Means? UNISCI Discussion Papers, (30), 151-158.
30. Pourshahabi, F., & Dahmardeh, N. (2014). The effects of economic sanctions and speculative attacks on inflation. Iranian Economic Review, 18(3), 46-64.
31. Statista. (2019). Monthly inflation rates in developed and emerging countries from January 2019 to October 2019. Retrieved June 2, 2024, from https://www.statista.com/statistics/1034154/monthly-inflation-rates-developed-emerging-countries/
32. Statista. (2023). Monthly inflation rate in Russia from January 1992 to February 2023. Retrieved June 2, 2024, from https://www.statista.com/statistics/276323/monthly-inflation-rate-in-russia/
33. Statista. (2023). Number of Western sanctions imposed on Russia as of March 2023, by actor. Retrieved June 2, 2024, from https://www.statista.com/statistics/1293513/western-sanctions-imposed-on-russia-by-actor/
34. Torbat, A. E. (2005). Impacts of the US trade and financial sanctions on Iran. World Economy, 28(3), 407-434.

35. Trading Economics. (n.d.). Belarus inflation rate - CPI. Trading Economics. Retrieved June 2, 2024, from https://tradingeconomics.com/belarus/inflation-cpi
36. U.S. Department of State. (n.d.). Iran sanctions. Retrieved June 2, 2024, from https://www.state.gov/iran-sanctions/
37. U.S. Department of State. (n.d.). Syria sanctions. Retrieved June 2, 2024, from https://www.state.gov/syria-sanctions/
38. U.S. Department of the Treasury. (2023). Designating Iranian officials in connection with serious human rights abuses or censorship in Iran. Retrieved June 2, 2024, from https://home.treasury.gov/news/press-releases/jy2292
39. Wind, E., & Dahi, O. S. (2013). The Economic Consequences of the Conflict in Syria. Turkish Review, 4(2), 132-140.

10. Appendices

Data for Iran:

Year	Inflation Rate (%)	Severity of Sanctions
1960	9.82	0
1961	3.16	0
1962	0.72	0
1963	0.37	0
1964	3.81	0
1965	2.15	0
1966	-0.39	0
1967	1.6	0
1968	0.69	0
1969	3.59	0
1970	1.67	0
1971	4.2	0
1972	6.4	0
1973	9.82	0

1974	14.25	0
1975	12.88	0
1976	11.26	0
1977	27.29	0
1978	11.72	0
1979	10.49	0
1980	20.64	0
1981	24.2	0
1982	18.69	0
1983	19.74	0
1984	12.54	0
1985	4.39	0
1986	18.43	0
1987	28.57	0
1988	28.67	0
1989	22.35	0
1990	7.63	3
1991	17.13	3
1992	25.81	3
1993	21.2	3

1994	31.45	3
1995	49.66	3
1996	28.94	3
1997	17.35	3
1998	17.87	3
1999	20.07	3
2000	14.48	3
2001	11.27	3
2002	14.34	3
2003	16.47	3
2004	14.76	3
2005	13.43	3
2006	10.02	4
2007	17.34	4
2008	25.41	4
2009	13.55	4
2010	10.09	4
2011	26.29	4
2012	27.26	5
2013	36.6	5

2014	16.61	5
2015	12.48	5
2016	7.25	5
2017	8.04	5
2018	18.01	5
2019	39.91	5
2020	30.59	5
2021	43.39	5
2022	43.49	5

Code for Iran:

```
import pandas as pd from scipy.stats import pearsonr # Creating a DataFrame from the data data = { 'Year': list(range(1960, 2023)), 'Inflation Rate (%)': [ 9.82, 3.16, 0.72, 0.37, 3.81, 2.15, -0.39, 1.6, 0.69, 3.59, 1.67, 4.2, 6.4, 9.82, 14.25, 12.88, 11.26, 27.29, 11.72, 10.49, 20.64, 24.2, 18.69, 19.74, 12.54, 4.39, 18.43, 28.57, 28.67, 22.35, 7.63, 17.13, 25.81, 21.2, 31.45, 49.66, 28.94, 17.35, 17.87, 20.07, 14.48, 11.27, 14.34, 16.47, 14.76, 13.43, 10.02, 17.34, 25.41, 13.55, 10.09, 26.29, 27.26, 36.6, 16.61, 12.48, 7.25, 8.04, 18.01, 39.91, 30.59, 43.39, 43.49 ], 'Severity of Sanctions': [ 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 4, 4, 4, 4, 4, 4, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5 ] } df = pd.DataFrame(data) # Calculate Pearson correlation coefficient correlation, p_value = pearsonr(df['Inflation Rate (%)'], df['Severity of Sanctions']) print(f"Pearson correlation coefficient: {correlation}") print(f"P-value: {p_value}")
```

Data for Syria:

Year	Inflation Rate (%)	Severity of Sanctions
2011	4.6	2
2012	37.6	3
2013	89.6	4
2014	18.7	4
2015	38.5	6
2016	47.7	6
2017	18.1	5
2018	0.7	5
2019	13.7	5

Code for Syria:

import pandas as pd from scipy.stats import pearsonr # Creating a DataFrame from the data data = { 'Year': [2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019], 'Inflation Rate (%)': [4.6, 37.6, 89.6, 18.7, 38.5, 47.7, 18.1, 0.7, 13.7], 'Severity of Sanctions': [2, 3, 4, 4, 6, 6, 5, 5, 5] } df = pd.DataFrame(data) # Calculate Pearson correlation coefficient correlation, p_value = pearsonr(df['Inflation Rate (%)'], df['Severity of Sanctions']) print(f"Pearson correlation coefficient: {correlation}") print(f"P-value: {p_value}")

Data for Belarus:

Year	Inflation Rate (%)	Severity of Sanctions
2019	5.54	4
2020	9.45	5
2021	15.24	6

Code for Belarus:

import pandas as pd from scipy.stats import pearsonr # Creating a DataFrame from the data data = { 'Year': [2019, 2020, 2021], 'Inflation Rate (%)': [5.54, 9.45, 15.24], 'Severity of Sanctions': [4, 5, 6] } df = pd.DataFrame(data) # Calculate Pearson correlation coefficient correlation, p_value = pearsonr(df['Inflation Rate (%)'], df['Severity of Sanctions']) print(f"Pearson correlation coefficient: {correlation}") print(f"P-value: {p_value}")

Data for Russia:

Year	Inflation Rate (%)	Severity of Sanctions
2013	6.75	1
2014	7.82	2
2015	15.53	3
2016	7.04	4
2017	3.68	5
2018	2.88	5

2019	4.47	6
2020	3.38	6
2021	6.69	6

Code for Russia:

import pandas as pd from scipy.stats import pearsonr # Creating a DataFrame from the data data = { 'Year': [2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021], 'Inflation Rate (%)': [6.75, 7.82, 15.53, 7.04, 3.68, 2.88, 4.47, 3.38, 6.69], 'Severity of Sanctions': [1, 2, 3, 4, 5, 5, 6, 6, 6] } df = pd.DataFrame(data) # Calculate Pearson correlation coefficient correlation, p_value = pearsonr(df['Inflation Rate (%)'], df['Severity of Sanctions']) print(f"Pearson correlation coefficient: {correlation}") print(f"P-value: {p_value}")