



Degree Program in Management and Computer
Science

Course of Microeconomics

Sanctions on Syria
Economic, Social, and Political Impacts
AI-Powered Knowledge Access

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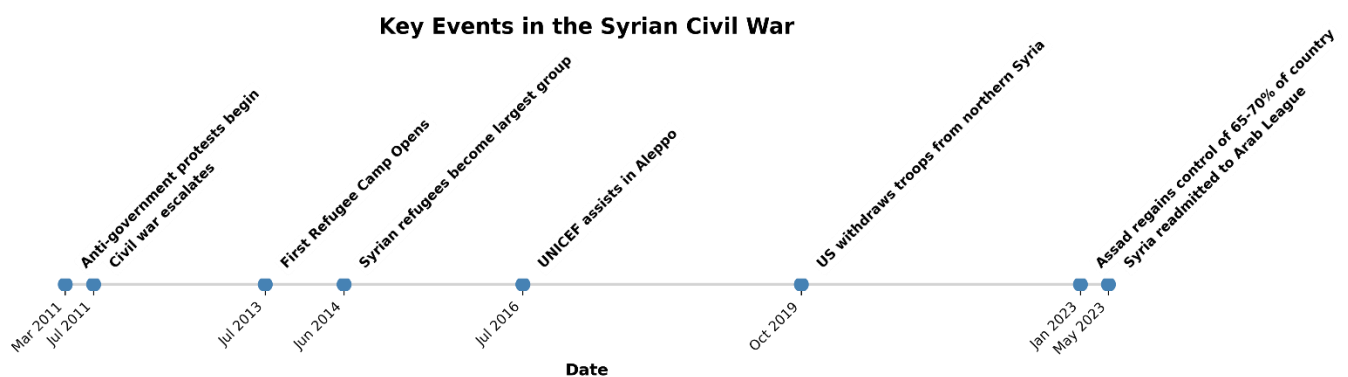
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Introduction

Background on the Syrian Civil War

The Syrian Civil War began in March 2011 because of widespread anti-government protests. These protests were inspired by the broader movement known as the Arab Spring, which called for greater democracy and political reforms across the Middle East and North Africa. The Syrian government, under President Bashar al-Assad, responded to these protests with violent repression, which escalated the conflict into a full-scale civil war by the summer of 2011. This war pitted Assad's government forces against a variety of opposition groups, including the Free Syrian Army and other rebel factions².

Over the course of the war, several foreign powers became involved, significantly complicating the conflict. Iran and Russia backed Assad's regime, providing military support, while Turkey, the United States, and other Western nations have supported different opposition factions². The entry of international actors has effectively transformed the Syrian conflict into a proxy war, with numerous external forces influencing its trajectory. By 2023, President Assad's forces had regained control of about 65-70% of the country, with his position further solidified by Syria's readmission to the Arab League².



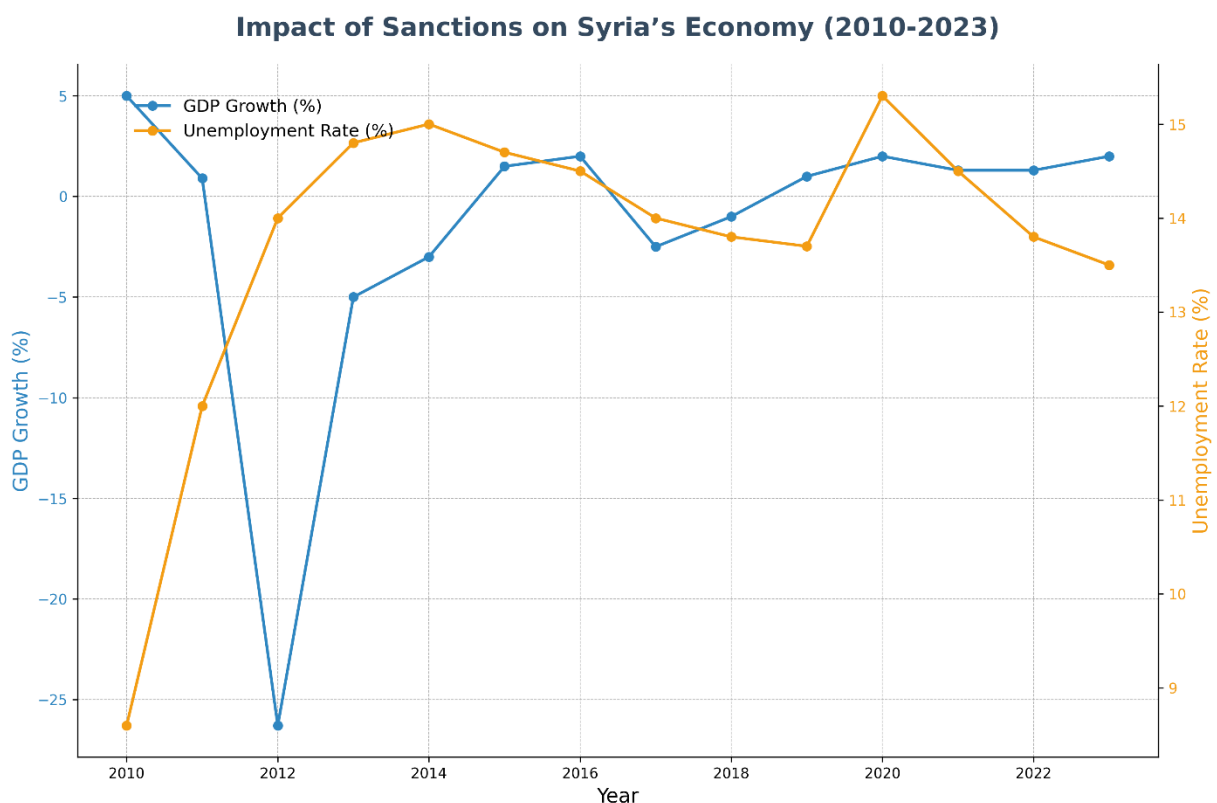
The war has had a devastating impact on Syria. The conflict has caused the deaths of over 350,000 people and displaced approximately half of Syria's population². Chemical weapons, including the

nerve agent Sarin, were used in attacks on civilians, further intensifying the humanitarian crisis².

Despite numerous international efforts to broker peace, including initiatives by the United Nations and the Arab League, the conflict shows no signs of a resolution².

Overview of International Sanctions Imposed on Syria

Economic sanctions have been a key aspect of international responses to the Syrian Civil War. Sanctions are typically implemented to exert pressure on a government or regime to change its policies or behaviors, particularly when that government is accused of human rights abuses or violations of international law. In Syria's case, sanctions were first imposed in 2011, shortly after the violent crackdown on protests¹.

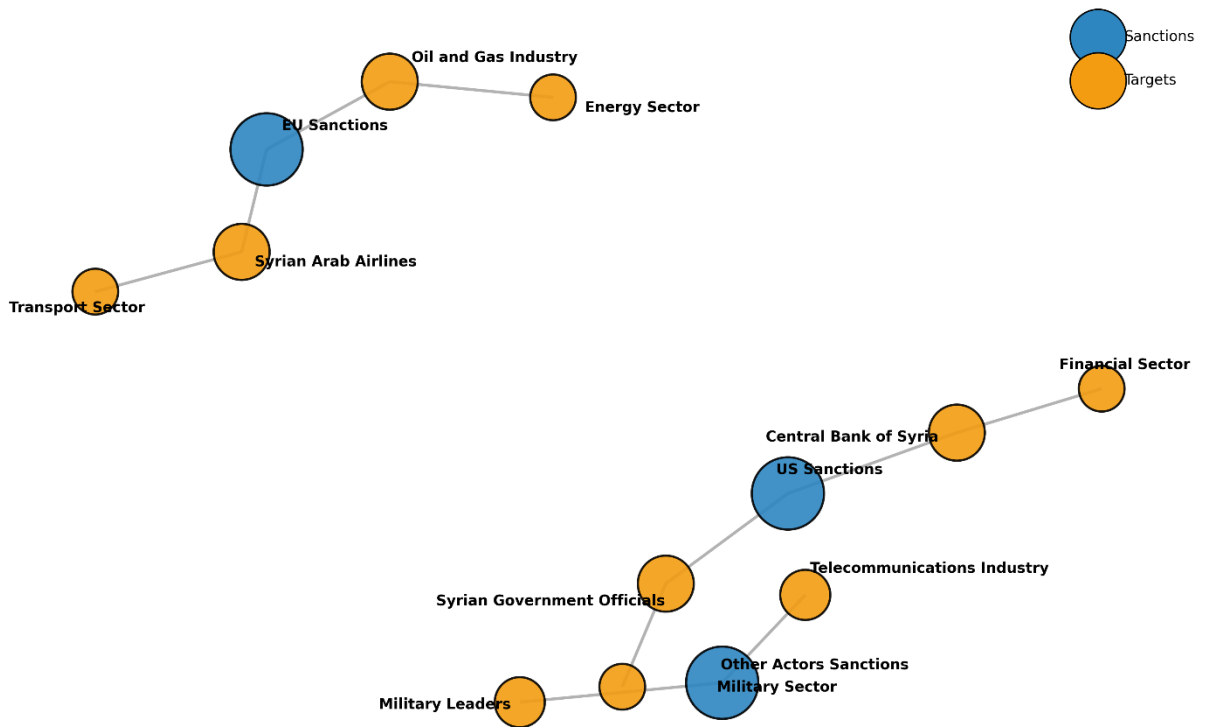


The European Union (EU), United States, and several other countries have introduced comprehensive sanction regimes targeting various sectors of Syria's economy. These sanctions include an embargo on arms, oil exports, and restrictions on financial transactions involving Syrian government officials and

affiliated entities. While the primary goal of these sanctions is to weaken the Assad regime and force political reforms, they have also had significant impacts on the civilian population¹.

The timeline of sanctions on Syria reflects the intensification of the conflict. As the war escalated, international bodies expanded the scope of sanctions. For example, the EU suspended bilateral cooperation with Syria and imposed additional measures aimed at restricting financial support for the Assad regime¹. Despite provisions to allow humanitarian aid to reach civilians, the sanctions have also been criticized for unintentionally exacerbating the humanitarian crisis¹.

Sanctions Targets Network Diagram



Thesis Statement

This thesis will explore the multifaceted impact of post-2011 sanctions on Syria, focusing on their effects on the country's economy, society, and prospects. While sanctions were intended to pressure the Syrian government into political reforms, they have also had widespread consequences on Syria's civilian population, infrastructure, and international relations. The thesis will examine both the intended and unintended outcomes of these sanctions, drawing on historical data and contemporary analyses to assess their effectiveness and long-term implications.

Overview of Sanctions

United States Sanctions

The United States has implemented a comprehensive series of sanctions against Syria, particularly in response to events following March 2011. These sanctions are part of one of the most extensive sanctions programs currently implemented by the Office of Foreign Assets Control (OFAC)³.

The early sanctions period of 2011-2012 saw a significant expansion of U.S. measures against Syria through several Executive Orders (E.O.s). On April 29, 2011, E.O. 13572 was issued, expanding the scope of the national emergency declared in 2004. This order cited human rights abuses by the Syrian government as a threat to U.S. national security, foreign policy, and economy. Shortly after, on May 18, 2011, E.O. 13573 was enacted, taking additional steps in response to the Syrian government's escalating violence against its people.

A major expansion of sanctions came with E.O. 13582, issued on August 17, 2011. This order significantly broadened the scope of sanctions by blocking all property of the Syrian government in the U.S. or under U.S. persons' control. It also prohibited new investments in Syria by U.S. persons and banned the export of services to Syria from the U.S. or by U.S. persons. Furthermore, this order prohibited the import of Syrian petroleum products into the U.S. and banned any transactions related to Syrian petroleum products by U.S. persons.

In response to the Syrian government's use of technology to commit human rights abuses, E.O. 13606 was issued on April 22, 2012. This order addressed abuses related to computer and network disruption, monitoring, and tracking by the Syrian government, further expanding the reach of U.S. sanctions.

The U.S. sanctions target a wide range of entities and individuals. These include the Government of Syria, encompassing its agencies, instrumentalities, and controlled entities. Additionally, individuals

and entities listed in the Annexes of the Executive Orders are targeted, as well as persons determined to meet specific criteria described in these orders.

The mechanisms of these sanctions are multifaceted. They include asset freezes, which block the property and interests in property of designated persons. Trade restrictions form another key component, particularly prohibiting certain transactions related to petroleum and petroleum products. The sanctions also impose investment bans, prohibiting new investments in Syria by U.S. persons. Furthermore, they include service export bans, which prohibit the export of services to Syria from the U.S. or by U.S. persons.

To implement these sanctions, the Office of Foreign Assets Control (OFAC) maintains a Specially Designated Nationals and Blocked Persons List (SDN List). This list includes all individuals and entities targeted by these sanctions, providing a crucial tool for enforcement and compliance.

While the Caesar Syria Civilian Protection Act of 2019 represents a significant development in U.S. sanctions policy towards Syria, detailed information about this act is not included in the primary source document provided, which was last updated in 2013. To fully understand the current state of U.S. sanctions on Syria, it would be necessary to consult additional, more recent sources that cover the provisions and impacts of this act.

European Union Sanctions

The European Union (EU) has maintained a comprehensive sanctions regime against Syria since 2011. These sanctions, while extensive, are generally more targeted and narrower in scope compared to those imposed by the United States. The EU's approach focuses on restricting specific categories of products and transactions, rather than implementing a blanket embargo⁴.

The primary objectives of EU sanctions, as reflected in their regulations and public statements, are twofold: to combat Syria's use of chemical weapons and to pressure the Syrian government over human rights abuses and political repression. These sanctions require annual renewal and are set to remain in force until June 1, 2021, following their most recent extension in May 2020.

EU sanctions on Syria can be categorized into eight main areas. First, they impose various restrictions on the provision of official government assistance to Syria. Second, an arms embargo prohibits both the export of arms to Syria and the import of arms from Syria.

The third category involves a ban on the export of specified goods to Syria. This includes equipment that could be used for internal repression, jet fuel, surveillance software and equipment, and technology for the oil and gas industry. The ban extends to services related to these prohibited exports, even if the goods originate from a third country. However, member states may authorize the provision of energy industry equipment with the endorsement of the Syrian National Coalition, provided no sanctioned entities are involved.

Fourth, the EU prohibits the import of certain Syrian goods. This includes Syrian oil and petroleum products, although member states can authorize oil purchases inside Syria for humanitarian relief efforts. The import ban also covers gold and precious metals from the Syrian government, as well as cultural property removed from Syria since March 2011.

Financial and investment restrictions form the fifth category. These include bans on investments in the Syrian oil, gas, and power generation industries, limits on trade finance, and prohibitions on new

lending to the Syrian government. The sanctions also restrict European banks from engaging with Syrian banks in various ways, such as opening new branches or forming joint ventures.

The sixth category comprises broad sanctions on the Syrian government, freezing its assets in Europe and prohibiting EU business with the government. This includes targeted sanctions on numerous Syrian government entities, ministries, the Central Bank, and state-owned companies.

Targeted sanctions, the seventh category, are imposed on a wide range of individuals and entities. These include Syrian government officials, military leaders, businesses, pro-government businessmen, and political leaders. Notable targets include President Assad and key aides, officials involved in Syria's chemical weapons program, and prominent businessmen like Samer Foz and Rami Makhlouf.

Finally, travel restrictions constitute the eighth category. These prohibit Syrian Arab Airlines and cargo air carriers from flying to the EU. Additionally, individuals subject to EU targeted sanctions are generally barred from traveling to the European Union.

It's worth noting that EU sanctions on Syria can be suspended or terminated through a unanimous decision of the European Council. The United Kingdom, following Brexit, has implemented sanctions regulations on Syria that are substantially identical to current EU sanctions.

The EU's targeted approach to sanctions allows for more flexibility in implementation and potential adjustments compared to the broader U.S. sanctions. However, the annual renewal process has not been politically controversial in recent years, indicating a continued commitment to maintaining pressure on the Syrian government through these measures.

Other International Sanctions

In addition to the sanctions imposed by the United States and the European Union, several other countries and international organizations have implemented their own measures against Syria in response to the ongoing conflict and human rights violations⁵.

Canada has been actively involved in imposing sanctions on Syria since 2011⁶. The Canadian government enacted sanctions under the Special Economic Measures Act in response to the humanitarian crisis and the resulting breach of international peace and security in the region. These sanctions target members of the Syrian regime and impose a wide range of restrictions. The Canadian measures prohibit the import of goods from Syria, with the exception of food for human consumption. They also restrict the provision or acquisition of financial services to, from, or for the benefit of Syria or any person in Syria. Additionally, Canada has banned new investments in Syria and the export of goods used for monitoring telecommunications, as well as luxury goods and items listed in Schedule 2 of the Regulations. These comprehensive measures aim to exert pressure on the Syrian government while minimizing the impact on civilians through humanitarian exemptions.

Australia has also implemented autonomous sanctions in relation to Syria since 2011⁷. The Australian government's sanctions reflect its grave concern over the Syrian regime's use of violence against its own people. The Australian measures include restrictions on the export or supply of certain goods, such as arms and related matériel, equipment for the oil and gas industry, and technology for monitoring communications. They also prohibit the import, purchase, or transport of certain goods from Syria, including crude oil and petroleum products. Furthermore, Australia has imposed restrictions on certain commercial activities, particularly in the petrochemical and financial sectors. The Australian sanctions regime also includes targeted financial sanctions and travel bans on designated individuals and entities associated with the Syrian government.

The League of Arab States (LAS) took unprecedented action against Syria in November 2011 by suspending its membership and imposing economic sanctions⁸. The LAS sanctions package includes four main components. Firstly, it imposes sanctions on the Syrian financial system, including stopping transactions with the Central Bank of Syria and the Commercial Bank of Syria. Secondly, it cuts Syrian government trade and financial transactions and freezes government assets. Thirdly, it freezes project funding on Syrian territory by Arab countries. Lastly, the LAS has implemented travel bans and asset freezes on designated individuals, including heads of security and intelligence agencies, ministers, and certain businessmen. Notably, unlike Western sanctions, the LAS measures do not extend to President Assad himself, potentially allowing him to participate in regional meetings.

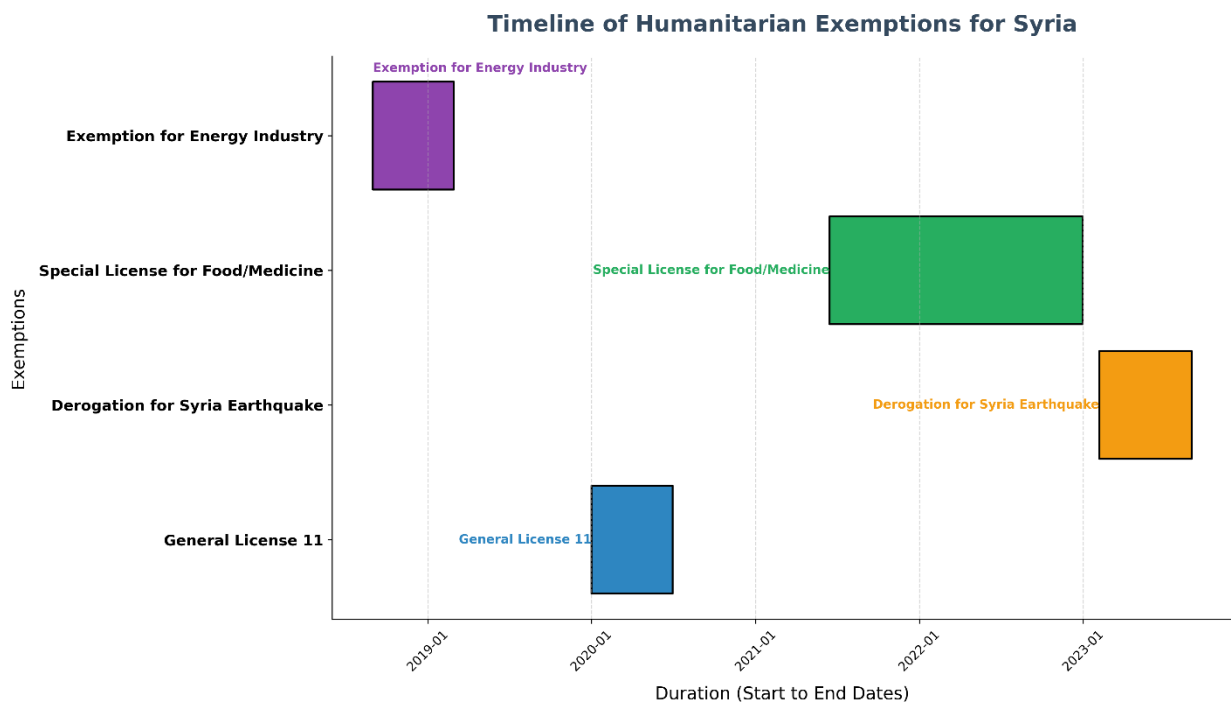
Turkey, once a close ally of Syria, has also imposed significant sanctions in coordination with the LAS. Turkey's measures include a travel ban and asset freeze on designated individuals believed to be responsible for violence or providing financial support to the regime. Turkey has also implemented an arms embargo and suspended relations with the Central Bank of Syria and the Commercial Bank of Syria. Furthermore, Turkey has frozen Syrian government assets, suspended credits, and halted the mechanisms of the High-Level Strategic Cooperation Council, which had previously facilitated extensive bilateral cooperation between the two countries. In response to these measures, Syria terminated the Syria-Turkey Free Trade Agreement and imposed retaliatory taxes on Turkish goods, leading to further economic tensions between the two nations.

These diverse international sanctions demonstrate the global community's widespread concern over the situation in Syria and the concerted effort to apply pressure on the Syrian government through economic and diplomatic means. While the specific measures vary between countries and organizations, they collectively aim to address human rights violations, promote political change, and contribute to a resolution of the ongoing conflict in Syria.

Humanitarian Exemptions and Their Effectiveness

The sanctions regimes imposed on Syria by the United States, European Union, and other international actors have included provisions for humanitarian exemptions to allow for the delivery of aid and assistance to the Syrian people. These exemptions have played a critical role in mitigating the impact of sanctions on the civilian population⁹.

The humanitarian exemptions take various forms, such as general licenses, derogations, and special licenses, which authorize certain transactions and activities that would otherwise be prohibited under the sanctions. The scope and parameters of these exemptions differ across the various sanctions' programs, but they generally aim to facilitate the provision of aid, including the purchase and import of goods, services, and financial transfers related to humanitarian relief efforts.



One of the key advantages of the humanitarian exemptions is the positive psychological impact they have had, particularly in relation to financial transactions. Humanitarian actors have noted that the existence of these exemptions has helped to assuage fears and uncertainties among banks and financial institutions, encouraging them to engage in sanctioned-related transactions that support relief efforts.

The process of adopting these emergency exemptions in response to the 2023 earthquake in Syria has also been praised for the level of collaboration between licensing authorities, NGOs, and other stakeholders. The relatively swift creation of the exemptions, while maintaining open feedback channels, has been viewed as an impressive feat. Additionally, the accompanying guidance provided by the authorities has been welcomed by the humanitarian community.

However, the humanitarian exemptions have also faced some shortcomings and ongoing challenges. The limited duration of many of the exemptions, typically six months or less, has been criticized by humanitarian and development actors as insufficient to effectively conduct all necessary relief efforts, which can take years to complete. NGOs have called for the exemptions to be extended or made open-ended to better accommodate the long-term nature of the required relief efforts.

The speed of adopting the exemptions, while relatively fast compared to previous processes, has also been criticized as too slow to allow for the delivery of aid within the critical 72-hour window after the earthquake. Additionally, some restrictions and complications, such as those related to dealing with designated entities, have continued to hinder the work of humanitarian organizations.

The ad-hoc nature of the exemption process has also been highlighted as a shortcoming, with calls for broader, non-time-bound, standing exemptions across sanctions regimes to complement the ad-hoc approach. The insufficient nature of the current process underlines the importance of developing more comprehensive and adaptable humanitarian exemption frameworks to better address emergency situations.

Overall, the humanitarian exemptions have played a vital role in facilitating relief efforts in Syria, but their effectiveness has been limited by factors such as duration, speed of implementation, and ongoing challenges related to financial transactions and export controls. Addressing these shortcomings and strengthening the humanitarian exemption framework could enhance the ability of international actors to provide timely and effective assistance to populations affected by crises in heavily sanctioned environments.

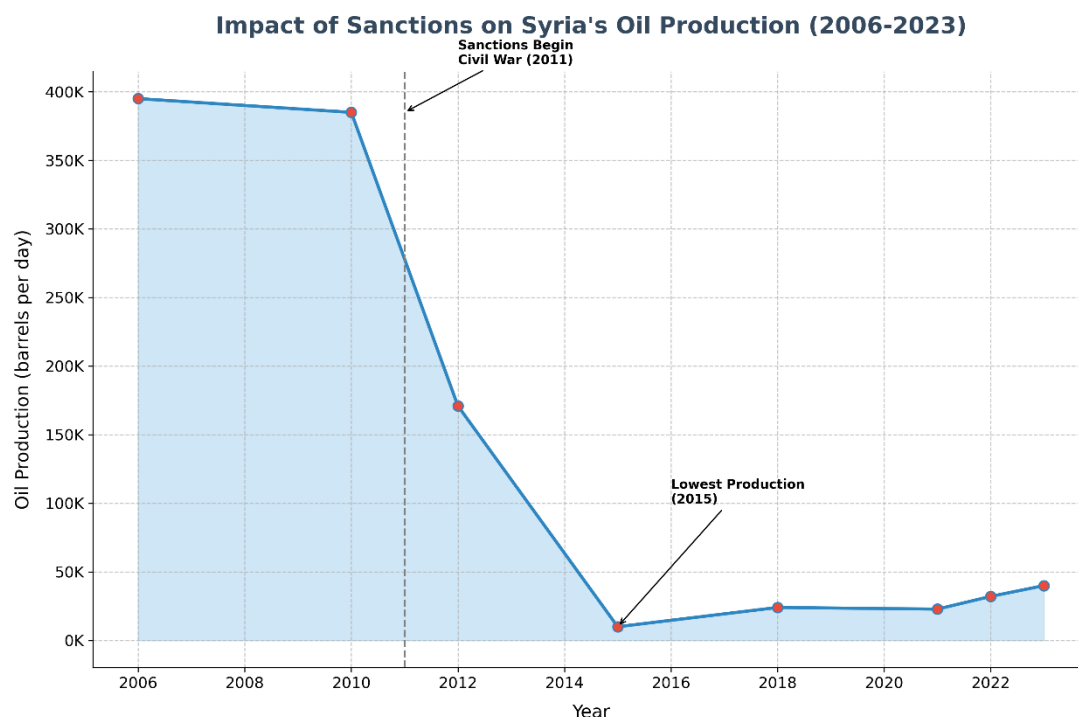
Economic Impact

Effect on Syria's Energy Sector

The imposition of sanctions on Syria has had a profound impact on the country's energy sector, particularly in terms of oil production and exports. Prior to the crisis that began in 2011, Syria's oil industry was a crucial component of its economy. In the early 2000s, Syria produced approximately 385,000 barrels per day (bpd), with oil constituting a significant portion of its exports. This production level allowed Syria to maintain a trade surplus, with oil making up 71% of exports in 2002.

However, the situation changed dramatically with the onset of the civil war in 2011 and the subsequent implementation of sanctions by the United States and the European Union. The impact of these sanctions on Syria's oil production and exports was severe and immediate. By 2012, just one year after the imposition of sanctions, Syria's total exports had dropped by a staggering 71%, with the share of oil in exports falling to just 22%.

The decline in oil production was equally dramatic. From the pre-crisis level of about 385,000 bpd, production plummeted to approximately 10,000 bpd by 2015, representing a 97% decline. This sharp decrease was not solely due to sanctions, but also a result of the ongoing conflict, which led to the loss of control over many oil fields to various armed groups.



The graph above illustrates the stark decline in Syrian oil production from 2006 to 2023. It clearly shows the drastic drop following the imposition of sanctions in 2011, with production levels remaining significantly below pre-crisis figures even in recent years.

The impact of this decline on government revenue has been substantial. Prior to the crisis, oil exports were a major source of income for the Syrian government. In 2010, the oil sector trade balance had a surplus of US\$2.1 billion. However, by 2012, this had transformed into a systemic deficit of US\$4.4 billion. This shift from surplus to deficit represents a severe blow to government finances.

Consequences for Trade and Financial Systems

The sanctions not only affected oil exports but also impacted Syria's ability to import necessary oil products. The share of oil derivatives in imports increased from 19.7% in 2010 to 41% in 2012. This increase in oil imports, coupled with the sharp decline in oil exports, put significant strain on Syria's foreign currency reserves and overall economic stability.

In recent years, there have been slight recoveries in oil production. By 2022, production had increased to approximately 32,112 bpd, up from 22,838 bpd in 2021. However, these levels are still far below pre-crisis figures and insufficient to meet domestic demand or generate significant export revenue.

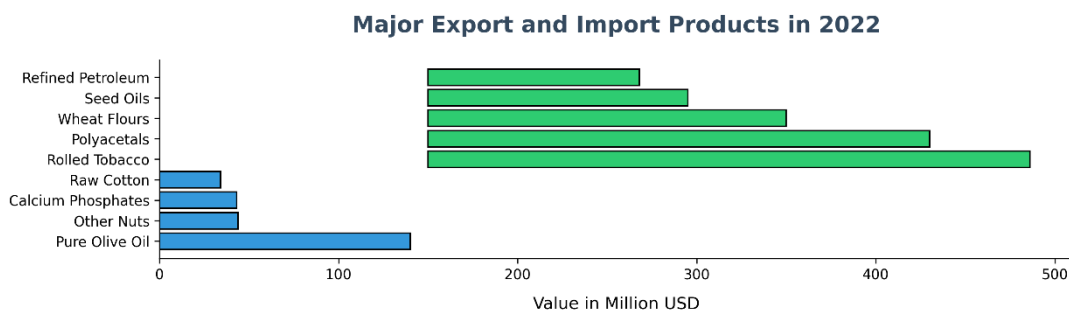
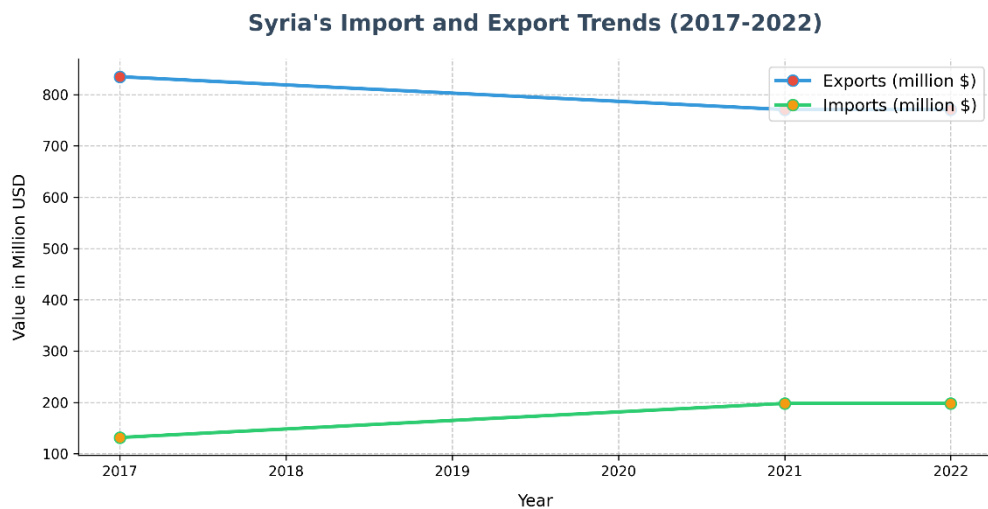
The sanctions have also complicated Syria's ability to finance oil imports and find willing suppliers. This has led to increased dependency on countries like Iran for oil supplies, often through deferred payment arrangements. However, even these arrangements have been subject to disruptions, as evidenced by the temporary halt in Iranian oil shipments between November 2018 and May 2019.

In conclusion, the sanctions imposed on Syria have had a devastating effect on its energy sector. The dramatic decline in oil production and exports has not only stripped the government of a crucial source of revenue but has also forced Syria to become heavily reliant on oil imports. This shift has had far-reaching consequences for the country's economy, affecting everything from electricity production and transportation to agriculture and military operations. The energy sector's collapse underscores the profound and long-lasting impact of sanctions on Syria's economic landscape.

The imposition of sanctions on Syria has had profound effects on the country's trade and financial systems. These impacts can be observed through changes in import and export patterns, challenges in the banking sector, and currency devaluation.

The sanctions have significantly altered Syria's trade relationships and patterns. Before 2011, Syria's economy heavily relied on oil exports, which accounted for approximately 67% of its total exports. Major trading partners included European countries such as Italy and France, as well as regional neighbors like Iraq and Turkey. However, the implementation of sanctions has drastically changed this landscape. By 2022, Syria's total exports had declined to \$771 million, a decrease from \$835 million in

2017. This reduction clearly demonstrates the impact of sanctions on Syria's ability to engage in international trade. The composition of exports has also shifted, with pure olive oil becoming the leading export at \$140 million, followed by other agricultural products and raw materials. The primary export destinations have changed as well, with Turkey emerging as the largest importer at \$226 million, followed by other regional countries like Kuwait, Lebanon, Jordan, and Egypt.



On the import side, Syria has become increasingly reliant on foreign goods to meet domestic needs, despite the sanctions. In 2022, imports reached approximately 198.2 billion SYP (around \$198 million), a significant increase from 131.5 billion SYP in 2021. The main import products included rolled tobacco, polyacetals, wheat flours, seed oils, and refined petroleum. The primary sources of imports shifted to regional partners such as Turkey, the UAE, China, Lebanon, and Egypt, reflecting a move away from Western trading partners due to sanctions.

The banking sector in Syria has faced severe challenges due to the sanctions, particularly in the area of correspondent banking services. Correspondent banks play a crucial role in facilitating international transfers and settlements of funds between banks in different countries. However, the combination of conflict, the presence of proscribed organizations, and complex sanctions has led to a dramatic reduction in the willingness of international banks, especially those based in the United States and Europe, to provide correspondent services to Syrian banks. This has resulted in significant delays in money transfers, with some humanitarian organizations reporting delays of up to three months or more, compared to the previous norm of 3-4 days.

The unpredictable nature of correspondent bank behavior has further complicated financial transactions. Banks have demonstrated inconsistent approaches, sometimes being highly risk-averse as correspondent banks while showing higher risk tolerance as direct clients of other organizations. This inconsistency has made it challenging for Syrian organizations and international NGOs operating in Syria to plan and execute their financial operations effectively.

The sanctions have also led to a phenomenon known as "de-risking," where banks reduce or eliminate their exposure to certain types of clients or transactions perceived as high-risk. This has particularly affected Syrian NGOs and humanitarian organizations, with many facing difficulties in accessing banking services or conducting international transactions. Some organizations have even been forced to change their names to avoid having "Syria" in their title, as this appeared to trigger more frequent de-risking responses from banks.

Currency devaluation has been another significant consequence of the sanctions on Syria's financial system. The restricted access to international financial markets and the overall economic decline have put immense pressure on the Syrian pound. While specific exchange rate data is not provided in the given sources, it is well-documented that the Syrian currency has experienced severe depreciation since

the implementation of sanctions. This devaluation has contributed to inflation, reduced purchasing power for Syrian citizens, and further complications in international trade and financial transactions.

In conclusion, the sanctions have reshaped Syria's trade relationships, severely impacted its banking sector's ability to engage in international transactions and contributed to the devaluation of the national currency. These factors have collectively created a challenging environment for Syria's economy and its ability to participate in the global financial system.

Impact of Sanctions on Agriculture and Food Security in Syria

The impact of sanctions on Syria's agriculture and food security has been severe and multifaceted. Once a country that prided itself on food sufficiency, Syria now faces an unprecedented food crisis. In 2022, more than a decade after the onset of the conflict, acute food insecurity affects approximately 12 million people in Syria, which is more than half of the population. This represents a stark 51 percent increase from 2019 levels. The situation has become so dire that in 2020, for the first time since World War I, Syria was at risk of famine according to the United Nations.

The current state of food insecurity in Syria stands in stark contrast to its recent past. Prior to the conflict, Syria boasted one of the most thriving agricultural sectors in the Middle East. The country had achieved food sufficiency in 1994, making food security a cornerstone of its national economic independence strategy. Although challenges such as corruption, clientelism, and climate change were beginning to put pressure on these achievements in the decade preceding the conflict, Syria still enjoyed relatively high levels of food security on the eve of the crisis.

While sanctions are not the sole cause of Syria's current food insecurity, they play a significant role in exacerbating the situation. Sanctions have impacted all dimensions of food security: availability, access,

and stability. The restrictions imposed by sanctions have made it increasingly difficult for both state and private actors to import food and essential agricultural equipment.

One of the most direct impacts of sanctions on food security is the difficulty in importing food. Although sanction regimes technically allow for the import of food, restrictions on the banking and shipping sectors have made the process extremely challenging and costly. Many international bidders have shied away from participating in tenders for essential food items like sugar, flour, rice, and wheat, forcing Syria to rely on alternative, often more expensive, methods of procurement.

The agricultural sector has also been severely impacted by sanctions. Export prohibitions on machinery and equipment, as well as restrictions on items identified as having 'dual use', have limited the availability of essential agricultural inputs such as fertilizers, pesticides, and herbicides. This has led to a significant increase in prices and a decrease in the number of farmers able to apply these crucial inputs, undermining overall agricultural productivity.

Furthermore, sanctions have hindered the rehabilitation and reconstruction of the agricultural sector. Bans on importing spare parts for irrigation equipment, processing machinery, and even bulldozers for rubble removal have forced farmers to resort to manual methods, which are more time-consuming, costly, and wasteful. The inability to distinguish between political institutions and technical components of the Syrian government has also made it difficult for humanitarian organizations to undertake larger, community-wide agricultural projects.

The impact of sanctions extends beyond immediate agricultural production. Restrictions on capacity building for technical personnel and funding for agricultural education institutions have contributed to a brain drain in the sector, potentially compromising Syria's long-term food security. The state's reduced

ability to provide essential resources like seeds, fodder, and fuel to farmers has forced many to abandon their lands, further diminishing agricultural output.

The livestock and veterinary sectors have not been spared either. Sanctions have banned the import of necessary materials and equipment for these sectors, including vaccines and certain medicines. This has exacerbated the already severe destruction of infrastructure and loss of animals during the war.

The overall economic downturn, partly attributable to sanctions, has further worsened food insecurity. The rapid devaluation of the national currency, triggered in part by fear-induced hoarding and speculative attacks following the imposition of new sanctions, has significantly decreased consumer purchasing power. This has made it increasingly difficult for households to meet their daily dietary requirements.

In conclusion, while sanctions are not solely responsible for Syria's food insecurity crisis, they have played a significant role in its persistence and deterioration. The complex interplay between sanctions and other factors has created a dire situation where millions of Syrians face the risk of hunger and malnutrition. As such, there is a growing call among scholars and researchers for a review and potential revision of the current sanctions' regime, with a particular focus on addressing food security concerns.

Social Impact

Humanitarian Crisis and Living Conditions

The Syrian conflict, which began in 2011, has led to a severe humanitarian crisis and drastically affected the living conditions of the Syrian people. The conflict has had a profound impact on poverty rates, income distribution, and access to basic necessities, creating widespread hardship for millions of Syrians.

The economic consequences of the conflict have been devastating. By the end of 2016, the cumulative losses in gross domestic product (GDP) were estimated at \$226 billion, about four times Syria's GDP in 2010. This economic collapse has had a direct impact on poverty rates and income distribution. According to estimates, approximately six in ten Syrians now live in extreme poverty. This represents a significant increase from pre-conflict levels and highlights the severe deterioration of living conditions for a large portion of the population.

The conflict has severely disrupted access to basic necessities, including food, water, and electricity. As of December 2016, 5.8 million individuals required in-kind food assistance. The World Food Program alone distributes more than four million food baskets each month, providing supplements for about 1,700 kilocalories per day to those in need. This widespread reliance on food aid underscores the difficulty many Syrians face in obtaining adequate nutrition.

Access to electricity, a crucial component of modern life, has been severely impacted. Power generation declined by 62.5% between 2010 and 2015, dropping from 43,164 gigawatt-hours (GWh) to 16,208 GWh. This dramatic decrease in power supply has led to widespread electricity shortages, with most cities receiving only a few hours of electricity per day. The government has implemented a rationing

policy through load shedding throughout the country, which has had knock-on effects on the delivery of other essential services such as water, education, and healthcare.

The conflict has also caused significant damage to Syria's housing infrastructure. Across eight governorates studied, about 8% of the housing stock has been destroyed, and 23% has been partially damaged. In some cities, the destruction is even more severe. For example, in Aleppo, 8% of housing units have been destroyed, and 23% have been partially damaged. This widespread damage to housing has left many Syrians without adequate shelter and has contributed to the large-scale displacement of the population.

The economic disruption caused by the conflict has led to a rapid shrinking of job opportunities and a scaling down of social security programs. Between 2010 and 2015, jobs were destroyed at an estimated rate of approximately 538,000 per year on average. More than three in four Syrians of working age (77%, or nine million individuals) are not involved in any economic value generation, with 2.9 million unemployed and 6.1 million inactive. The unemployment rate among youth reached a staggering 78% in 2015. This widespread unemployment has further exacerbated the poverty crisis and made it increasingly difficult for families to meet their basic needs.

In response to mounting fiscal problems, the Syrian government has dramatically decreased subsidies on essential goods. The prices of fuel oil increased 10-fold from 2011 to 2015, while the prices of staple foods like rice and sugar increased 2.3-fold in the same period. These price increases have made it increasingly difficult for many Syrians to afford basic necessities, further contributing to the humanitarian crisis.

The ongoing conflict has created a complex set of pressures on Syria's population, leading to significant demographic changes. The pre-conflict population of Syria was estimated at 20.7 million in 2010. By November 2016, the population within Syria had decreased to an estimated 18.8 million, according to the International Organization for Migration. This decrease is largely due to conflict-related casualties and forced displacement, which has become the largest forced displacement crisis in the world since World War II.

In conclusion, the Syrian conflict has had a devastating impact on humanitarian conditions and living standards in the country. The widespread poverty, lack of access to basic necessities, destruction of housing, and massive displacement of the population have created a dire situation for millions of Syrians. As the conflict continues, these challenges are likely to persist and potentially worsen, underscoring the urgent need for humanitarian assistance and eventual post-conflict reconstruction efforts.

Effect on Education and Healthcare

The effect of the Syrian conflict on education and healthcare has been severe and multifaceted. This section will explore the impact on school enrollment rates and the challenges faced by the healthcare system.

The education sector in Syria has been significantly disrupted by the ongoing conflict. School enrollment rates have declined dramatically as a result of various factors. Many schools have been damaged or destroyed during the fighting, making them unusable for educational purposes. The widespread displacement of families has forced many children to abandon their education as they flee to safer areas. Additionally, the deteriorating economic situation has led some families to prioritize basic survival needs over education, resulting in children dropping out of school to work and support their families.

The conflict has also created an atmosphere of fear and insecurity that discourages school attendance. Parents are often reluctant to send their children to school due to safety concerns, particularly in areas experiencing frequent violence or located near military targets. This fear is compounded by reports of schools being directly targeted in attacks.

Higher education has also been severely impacted. Many universities have experienced violence on campus, including bombings, arrests, and intimidation of students and faculty. This has created a climate of fear at universities, with students feeling unsafe. Male students, in particular, fear military conscription, which has severely impacted their attendance. The conflict has led to a significant brain drain, with many qualified academics leaving the country. This exodus of talent has had a detrimental effect on the quality of education provided.

The healthcare system in Syria has faced enormous challenges due to the conflict and subsequent economic sanctions. The capacity of the healthcare system has been severely strained by both direct and indirect effects of the war. Many healthcare facilities have been damaged or destroyed in the fighting, reducing the overall capacity of the system. The exodus of healthcare professionals fleeing the conflict has further weakened the system's ability to provide adequate care.

Economic sanctions, while not directly targeting the healthcare sector, have had significant indirect impacts. The sanctions have made it difficult for Syria to import necessary medical equipment, spare parts, and pharmaceuticals. This has led to shortages of essential medicines, particularly those for chronic illnesses such as hypertension, diabetes, and heart conditions. The coverage of market needs for pharmaceuticals has decreased from 93% before the conflict to less than 70% during the war.

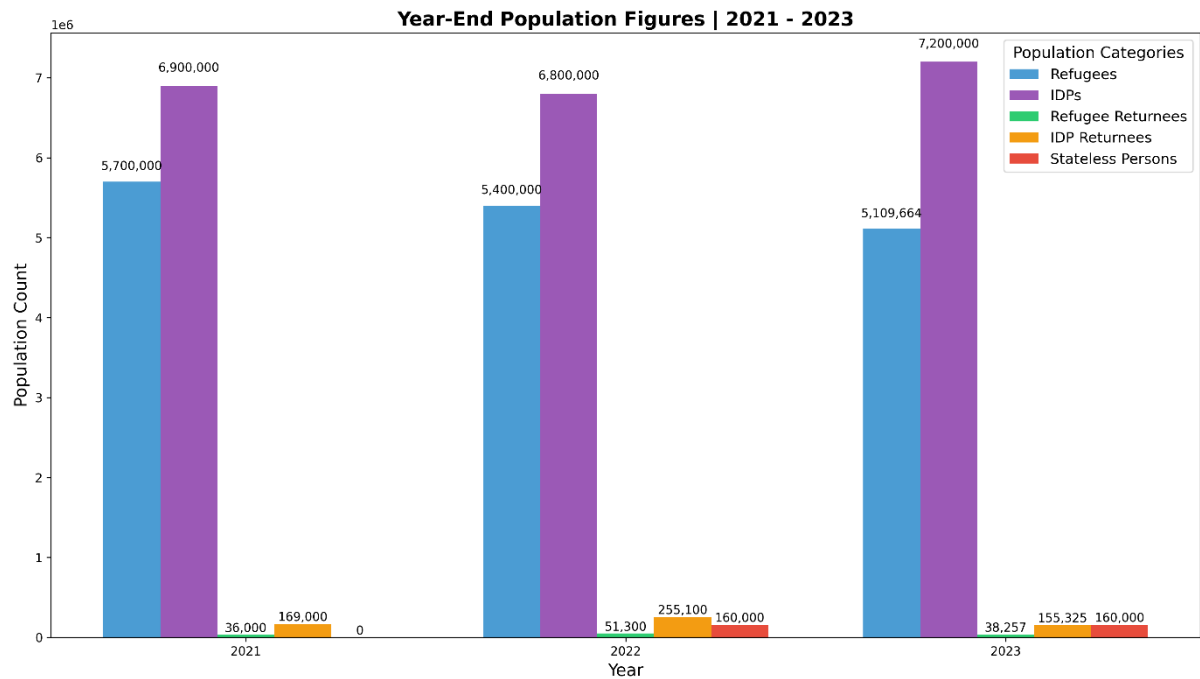
The sanctions have also affected the domestic pharmaceutical industry, which was once a thriving sector in Syria. Many pharmaceutical factories have gone out of service due to damage or lack of raw materials. The industry faces challenges in importing raw materials, equipment, and even packaging materials due to sanctions. This has led to increased costs, shortages, and a reliance on potentially lower-quality alternatives.

The COVID-19 pandemic has further exacerbated these challenges. The healthcare system, already weakened by years of conflict and sanctions, is ill-equipped to handle a major outbreak. The difficulty in importing necessary medical equipment and supplies due to sanctions poses a significant obstacle to an effective pandemic response.

In conclusion, the Syrian conflict has had a devastating impact on both the education and healthcare sectors. School enrollment rates have declined due to physical destruction, displacement, economic hardship, and security concerns. The healthcare system faces severe capacity constraints due to damage to infrastructure, loss of personnel, and difficulties in obtaining necessary supplies and equipment, largely as a result of economic sanctions. These challenges have significantly compromised the ability of Syrian society to provide adequate education and healthcare to its population, with long-term implications for the country's development and recovery.

Demographic Changes and Displacement

The ongoing conflict in Syria has caused dramatic demographic shifts, primarily through internal displacement and large-scale refugee movements to neighboring countries. These changes have been exacerbated by the sanctions imposed on the Syrian government, which have severely impacted the population's ability to access basic services and economic opportunities. The combined effect of conflict, sanctions, and economic collapse has created one of the most significant displacement crises in modern history.



One of the most striking consequences of the Syrian crisis has been the mass internal displacement of people. According to recent data, over 12 million Syrians have been forcibly displaced, making this the largest displacement crisis globally. Of these, approximately 6.8 million individuals are classified as internally displaced persons (IDPs) who remain within Syria's borders. The internal displacement is a direct result of the ongoing violence and instability that have plagued the country since 2011. Many people have fled their homes to escape armed conflict, destruction, and a lack of basic resources.

IDPs face dire living conditions, particularly in regions like northwestern Syria, where overcrowded camps provide minimal shelter and limited access to clean water, food, and healthcare. The harsh conditions in these camps exacerbate the vulnerability of displaced people, leaving them highly dependent on humanitarian aid. Reports suggest that around 85% of IDPs in camps and 74% of those living outside camps struggle to meet their basic needs. This population is also highly exposed to health risks, particularly as healthcare systems have been stretched to their limits due to both the conflict and sanctions.

The challenges for internally displaced persons were further compounded by the devastating earthquakes that hit the region in February 2023. These earthquakes impacted approximately 8.8 million people, damaging infrastructure, destroying homes, and displacing more families. The destruction of roads, schools, hospitals, and other essential infrastructure has made it even harder for humanitarian agencies to deliver aid, further deepening the crisis for those already displaced within Syria.

In addition to internal displacement, the Syrian crisis has caused millions to seek refuge in neighboring countries. As of 2024, an estimated 5.2 million Syrian refugees are residing in countries like Turkey, Lebanon, Jordan, and Iraq. This mass exodus has put immense pressure on host nations, many of which are struggling with their own economic and political challenges. For example, Lebanon has faced economic collapse in recent years, which has made it increasingly difficult to provide adequate services for the refugees it hosts.

The refugee population, while having escaped direct violence, continues to face numerous challenges in their host countries. Many refugees live in overcrowded conditions with limited access to education, healthcare, and employment. Additionally, there is growing pressure for refugees to return to Syria, particularly as the host countries' capacity to support them diminishes. However, despite these pressures, only a small fraction of refugees have expressed a concrete plan to return home. Surveys suggest that while 56% of Syrians desire to return, only 1.1% plan to do so within the next year. This reluctance stems from ongoing insecurity in Syria, the lack of functioning infrastructure, and the limited availability of essential services like healthcare, education, and housing.

The plight of Syrian refugees and IDPs reflects the deep, lasting effects of the country's prolonged conflict and the imposition of international sanctions. While the original intent of these sanctions was to pressure the Syrian government, they have inadvertently contributed to a broader humanitarian crisis. Millions of Syrians remain displaced, either within their own country or in neighboring states, with no

clear resolution in sight. The demographic shifts caused by the conflict and sanctions will likely continue to shape Syria's future for years to come, affecting not only the displaced populations but also the host communities struggling to support them.

Conclusion

In conclusion, this thesis has examined the significant effects of international sanctions on Syria's economy, society, and politics. The sanctions, imposed primarily after 2011, have had both intended and unintended consequences. While they were designed to pressure the Syrian government into political reforms, they have also contributed to the decline of the economy, especially in vital sectors like energy and agriculture. Additionally, the sanctions have worsened the humanitarian crisis, affecting millions of civilians who face difficulties in accessing basic necessities like food, healthcare, and education.

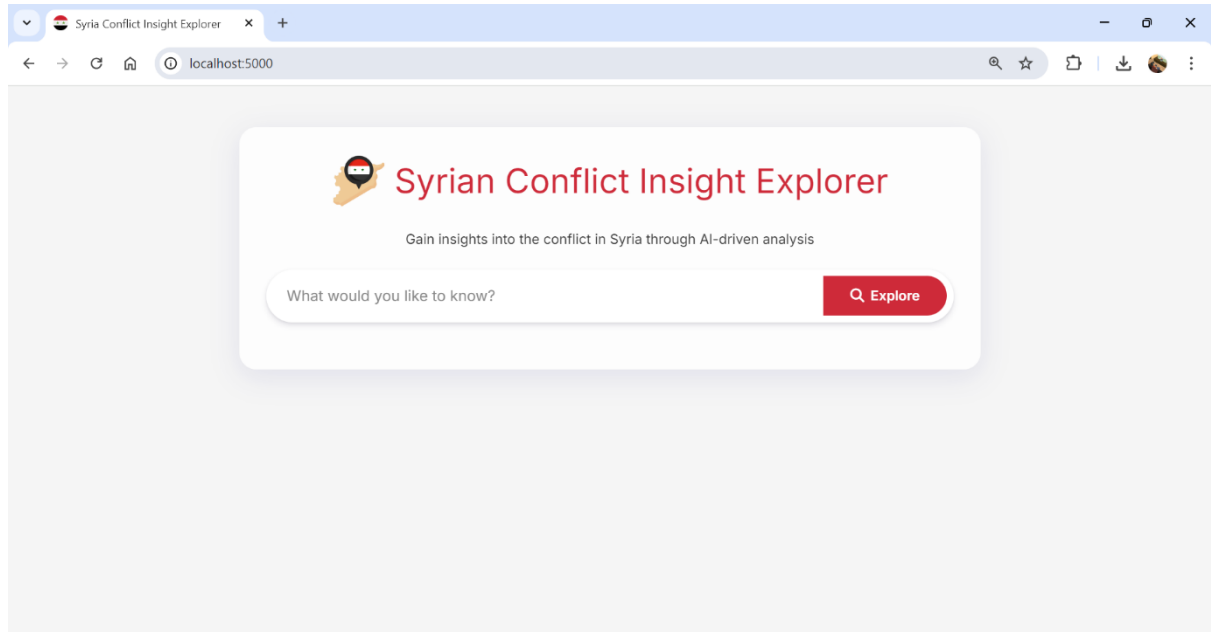
Moreover, the sanctions have isolated Syria from the global financial system, limiting trade and increasing dependency on a few countries for essential goods. The restrictions have also hindered the country's ability to recover from the damage caused by the ongoing conflict. Despite efforts to provide humanitarian exemptions, many challenges remain in ensuring that aid reaches those in need. Overall, the complex impact of sanctions on Syria highlights the need for a careful balance between applying pressure on governments and protecting civilian populations from unintended harm.

I suggest adding this new section as a subsection under the "Conclusion" chapter of your thesis. This placement will allow you to showcase how the research you've conducted can be practically applied using modern technology. Here's a draft of the new subsection you can add:

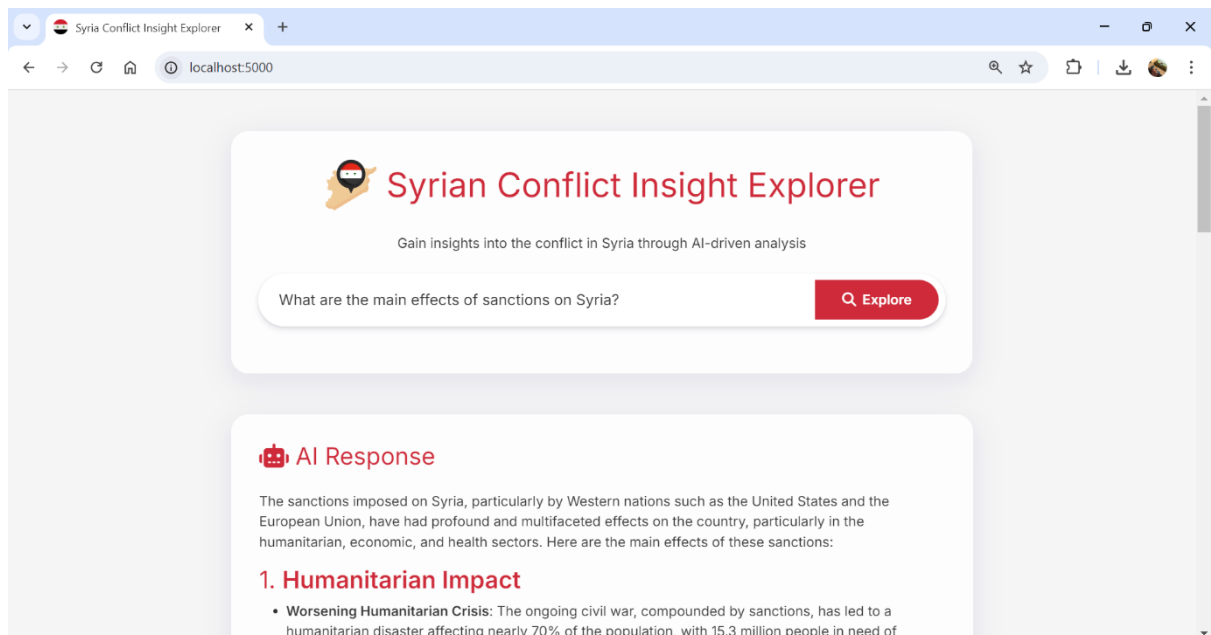
Application of Research: AI-Powered Chatbot

To make the findings of this thesis more accessible and interactive, I created an AI-powered chatbot. This chatbot uses the references and content of the thesis as its knowledge base. I converted this information into embeddings using vector databases. This allows the chatbot to quickly find and use relevant information when answering questions.

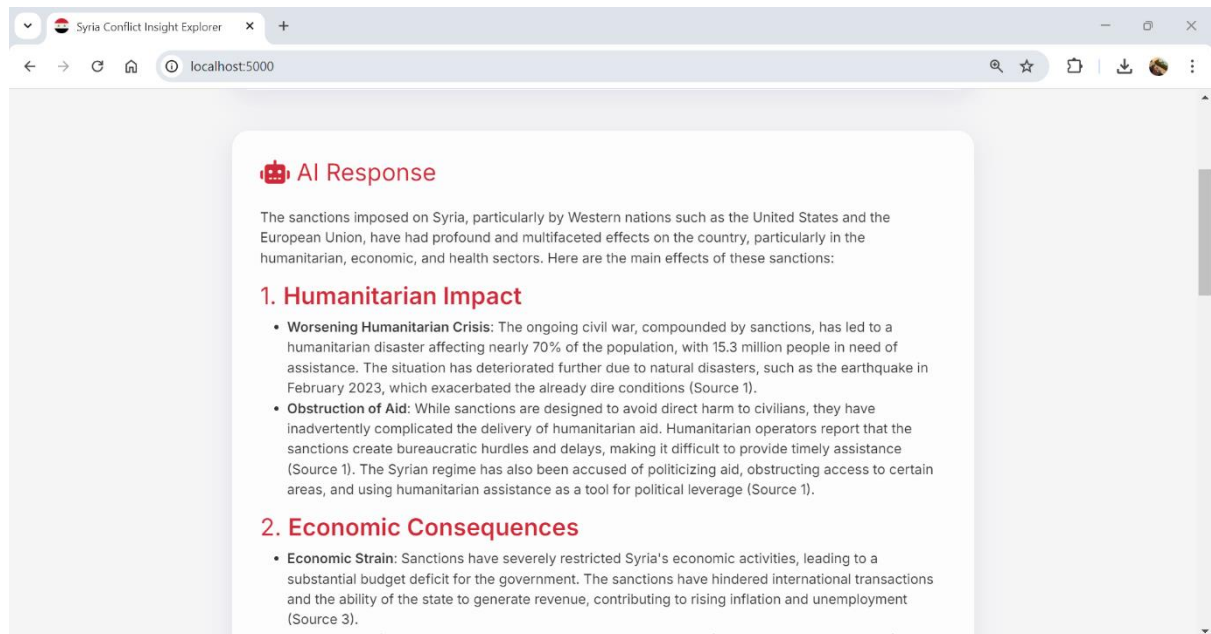
The chatbot can answer questions about the impact of sanctions on Syria. It uses GPT-4o mini, an artificial intelligence model from OpenAI, to understand questions and generate human-like responses. This means users can ask questions in natural language, just like they would ask a person.



The chatbot has a simple and user-friendly interface. Users can type their questions into a text box, and the chatbot will display its answers below. This makes it easy for anyone, even those without technical knowledge, to explore the topic of sanctions on Syria.



One of the best things about this chatbot is that it can provide quick, accurate information on specific aspects of the sanctions. For example, users can ask about the effect on Syria's oil industry, or how sanctions have impacted food security. The chatbot can quickly find and summarize relevant information from the thesis and its references.



This chatbot shows how we can use new technology to make academic research more interactive and accessible. It allows people to engage with the research findings in a way that suits their specific interests and questions. By combining traditional research methods with AI technology, we can create new ways for people to learn about and understand complex topics like the impact of sanctions on Syria.

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