
Saudi Vision 2030 and Liquidity Constraints: Evaluating Financing Requirements, Aramco Dependency, and Geopolitical Risks to Sustainable GDP Growth

Sarmad Ansari¹, Muhammad Tayyeb²

¹ MS, SZABIST. MBA, Greenwich. Email: Sarmadansarivisa@gmail.com

² Department of Electrical Engineering and Technology, University of Engineering and Technology, Mardan 23200, Pakistan. 121muhammادتayyeb@gmail.com

DOI: <https://doi.org/10.70670/sra.v4i1.1905>

Abstract

This paper will assess the economic sustainability of economic transformation in Saudi Arabia with regard to the liquidity constraints, dependence on Saudi Aramco and geopolitical risk at Vision 2030 level. The work assumes a mixed-methodology approach to the research onion paradigm since the research relies on secondary data analyzed in 2016-24 to understand the tendencies in GDP growth, oil revenue reliance, credit growth and investment requirements.

The findings indicate that despite the diversification programs, with non oil GDP increasing with an average of 4-6 years, the economy still remains dependent on oil revenue and is contributing around 65-70 percent of the government revenue to the economy. The paper concludes that the liquidity constraints are critical that are fuelled by the high level of investment requirements estimated to be USD 1 trillion or more, the rise in the interest rates and the inability to finance the investments at the domestic level. Saudi Aramco has stayed at the centre of the supply in the aspect of fiscal assistance, whereas the dependence is a risk that exposes the market to the oil market volatility.

Other than geopolitical risks, including the interruption of main trade routes, particularly the Strait of Hormuz, great impact on the volumes of exports, increase the logistics price by 20-25 percent, and slows down the project implementation. All these influence financing and economic growth.

It concludes in the paper that economic sector and source financing diversification is to be adopted to achieve sustainable GDP growth of 5-7 per cent. Suggestions on the policy will include empowering the capital markets, strengthening foreign direct investment, promoting green financing, and breaking the links with reliance on the oil revenues. The study fills the body of literature by using one analytical approach on economic transformation in resource-dependent economies by including the financial, structural, and geopolitical levels.

Keywords

Saudi Vision 2030; Liquidity constraints; Saudi Aramco; Economic Diversification; GDP growth; Geopolitical risk; Financing requirements; Energy Transition.

1. Introduction

In 2016, Saudi Vision 2030 has resulted in a structural transformation of the Kingdom economy model, and this program was to remove its traditional hydrocarbon-based economy and switch to a diversified and investment-oriented economy (Aseeri, 2023). Traditionally the oil revenues have made up approximately 70-80 percent of the government revenues and nearly 40-45 percent of GDP which has led to extreme fiscal

and foreign vulnerability. In spite of the fact that the recent reforms have contributed to the rising non-oil revenue generating, that has grown by nearly 10 percent of the total revenue in 2015 to over 35 percent in 2023, the economy remains highly exposed to oil price shocks and external shocks (Alosaimi et al., 2025). The mobilization of capital to the non-oil sectors such as tourism, renewable energy, infrastructure, manufacturing and technology is considered to be one of the pillars of the Vision 2030. All of the mega and giga projects are the NEOM, the Red Sea Project and the Qiddiya, with the combined projects projected to make over USD 1 trillion of cumulative investments over the next decade. However, there is a problematic issue, which these goals of such ambitions provide a liquidity constraint and a financing gap. Liquidity of the domestic banking sector is sound though not enough to fund the long-term capital requirement particularly that the credit the bank already provided the private sector has been increasing at 10-12 percent on average during the period of 2018-24. This exerts an upward pressure on the interest rates, the risks of crowding out and is conditional on other channels such as sovereign wealth funds, the international debt markets, and foreign direct investment (FDI) (Aseeri & Kang, 2023).

This is strategic in the case of Saudi Aramco since it is the primary contributor of the liquidity injection in the economy. Aramco, a highly profitable energy corporation in the world, has been known to achieve an annual net profit in the best of USD 100 billion over the years that has been deposited as fiscal reserves and government investment kitty. The highest funding to the activities of Vision 2030 is the dividend payments that are likely to exceed USD 75 billion annually through the Public Investment Fund (PIF). However, this dependence is also the reveler of the systematic risk: any change in the world oil demand, fluctuations in prices or underperformance in planned sales of assets (including equity issues) can directly restrict the availability of funds to diversification projects (Aldossari, Mokhtar & Abdul Ghani, 2025).

Moreover, the other level of uncertainty regards the state of geopolitical environment. This region of practically 20 percent of world oil is the Strait of Hormuz that can disrupt the export avenues of the Saudi Arabia because of its strategic value. The long time of a regional shutdown or the increase of regional tensions can lead to bottlenecks including the supply chain, high insurance and transportation costs (up to 1525 per cent during the crisis), and delayed implementing the project. Not only do the above disruptions affect the revenues of the hydrocarbons, but also affect the importation of capital goods and materials to be used in the development of the infrastructure and industries, which exacerbates the liquidity constraints (ur Rashid, Hussain & Nawaz, 2025).

All these interdependence processes involve liquidity limits, dependence on Aramco, geopolitical risks, which is a significant difficulty in achieving sustainable growth in GDP. Saudi Arabia has reported real GDP growth rates ranging between 3% and 8% in the periods between 2021 and 2023, and this is primarily because of the increase in the oil industry, whereas non-oil GDP growth has equally remained steady with 4-6, which reflects the gains and limitation of the diversification process (Ojeda, Valera & Diaz, 2025). The higher investment will not bring long run growth, but also the strengthening of financial systems that will not suffer as a result of exogenous shocks (Jaradat, Al-Hawamleh & Hamdan, 2025).

The paper is therefore a critical review of how liquidity constraints will affect the financing needs of the vision 2030 and the extent of dependence on the capital raised by Aramco and the effect of geopolitical disruptions on the economic stability (Maswadi & Alhazmi, 2026). The paper shall endeavor to provide an integrated reflection of financial viability of transforming Saudi Arabian economy by relating these aspects and its ramification in the long-term realization of sustainable, diversified GDP growth (Alahmari et al., 2023).

1.1 Research Gap

Despite the significant literature on Saudi Vision 2030, most of the studies have focused on the concept of economic diversification, sector development, and re-emergence of policies. The available literature on the topic indicates an increase in the non-oil GDP growth (4-6% on average post 2020) and an increase in the

level of foreign inflows of investments, but it proceeds to make the financing a peripheral or sub-optimal consideration (Shafa, 2025).

There is a factual critical point whereby there should be the integrated study of the liquidity constraints and financing requirements. Even though some studies concede on the role played by the sovereign wealth funds, and increase in the banking sector, there is no quantitative and objective assessment of whether there is sufficient domestic and external liquidity to fund mega-project investments of USD 1 trillion, and beyond. In addition, little has been conducted on the issue of crowding-out effect whereby increased government borrowing and extensive funding of government projects can cripple the supply of credit by the privately owned sectors (Alsaad, 2024).

The other aspect that is not well researched is the over-reliance on Saudi Aramco as a source of liquidity. Although the discussion on the profitability and dividend payments of Aramco is popular, the missing research is the relationship between the oil revenue volatility and the capital market uncertainties to the potential disrupted financing of the implementation projects in the plan, Vision 2030 (Al Abdallat, 2025).

In addition, occasionally, geopolitical risks, namely, Strait of Hormuz and instability in the region are typically addressed independently in the literature on energy security. However, little is researched about their direct impact on the financing flows, supply chain sustainability, and sustainability of the GDP considering the Vision 2030 (Alhakami, 2024).

Therefore, the current paper possesses a multidimensional gap therein since it relates the liquidity constraints, the dependency of Aramco and geopolitical risks into a single analytical framework to evaluate their combined effects on sustainable development of the economy (Assoufi, El Farissi & Slimani, 2024).

1.2 Research Questions

1. What impact do liquidity constraints have on Saudi Arabia financing ability to meet the targets of Vision 2030?
2. How much reliance on the revenues of Saudi Aramco affects the sustainability of economic diversification processes?
3. What is the relationship between geopolitical disruptions and supply chain risk on financing flow and GDP growth in Saudi Arabia?

1.3 Research Objectives

1. To examine how liquidity limitations will influence the funding of non-oil industries within the Vision 2030.
2. To determine how sustainable the capital flows generated by Aramco are towards economic transformation.
3. To analyze the impact of geopolitical and supply chain risk on the financing stability and GDP growth.

1.4 Significance of the Research

This work has theoretical and practical significance. Theoretically, it contributes to the existing literature of the past since it is beyond the aspect of studying the dynamics of liquidity alone, the reliance of resources, and geopolitical uncertainty that are conceptually distant. Integrating these variables, the research will lead to the improved understanding of how the financial constraints are also able to precondition the mass changing of the economies which are resource-dependent (Souames et al., 2025).

A realist approach of the research is that it provides insights to the policy makers, financial institutions and investors. It demonstrates to the policy makers that they cannot count on oil revenue to fund their investments, they need to strengthen their domestic capital market and they need to design their policies in a manner that they minimize chances of liquidity. The case with the financial institutions, the study presents opportunities

and challenges in the formulation of the long-term financing solutions, particularly in the areas of renewable energy, infrastructure and manufacturing (Tsiu et al., 2025).

In addition, the study is critical in heightening geopolitical uncertainty. It highlights the applicability of risk-adjusted financing policies by clarifying the extent of impacts of interruptions (e.g. a rise in logistics expenses by 1525 percent or a slowdown in capital inflows). The study will be in a position to explain to the investors the trade-offs between the risks and returns in the Vision 2030 projects better (Šajnović et al., 2024).

Lastly, the study will contribute to the observation of whether Saudi Arabia can achieve a sustainable growth of the GDP (5.7 percent per year in the long-term) by addressing the issue of liquidity and external risk, and hence offer the policy-relevant recommendations that will ensure the success of Vision 2030 (Badawy, 2023).

2 Literature Review

Shaheen (2023) provides the Bayesian analytical model to explain the relationship between the environmental and financial variables, which influence the energy efficiency in the GCC region, indicating that financial constraints and inadequacies in effectiveness in the distribution of capital are significant determinants of the sustainable energy performance. As the study shows, the performance of energy efficiency differs almost 30-40 because of financial constraints, which means that liquidity conditions are the most essential factors, which dictate whether sustainability goals are achieved. In the context of Saudi Vision 2030, this confirms the thesis statement that funding gaps particularly in the case of renewable energy projects can put on hold the development despite the high degree of policy intentions, thereby supporting the fact that the environmental objectives have a direct correlation with the liquidity indicator and investment opportunities.

Boscheck (2030) indulges in an intensive analysis of the oil governance institutions (particularly concerned with the functionality of fiscal regimes and National Oil Companies (NOCs) in propelling the resource-based economies. The study asserts that the economies that are highly reliant on oil incomes are known to have structural imbalances since over 60-80 percent of the fiscal revenues lie on the hydrocarbon. It is a focus that renders price shocks vulnerable and limits fiscal freedom. The current status of Saudi Aramco in the situation in Saudi Arabia gives an example of how efforts to diversify the economy are heavily financed by the oil revenue that is controlled by the government but also causes the economy to rely on the risk of liquidity in the case of any alterations in the external environment.

Salmugam (2024) compares the outcomes of the Rabigh Refining and Petrochemical Company and admits that the efficiency of the operations and the global oil prices and the capital structure are the key determinants in the company. This finding shows that the profitability ratio of the petrochemical sector can be influenced by more than 15-25 percentage depending on the fluctuation in the price of the feedstock and the price of the funds, and thus the industry performance can be rather sensitive to the financial conditions. This fact at micro level is what supports the grander pronouncement of how the high scale industrialization envisaged in the Vision 2030 needs to be funded in a sustainable and cost efficient manner since otherwise the sustainability and profits of the project might be compromised.

The article by Remsey (2023) talks about how the renewable energy transition has impacted rentier economies, particularly the example of Saudi Arabia which felt the impact of the oil price crash in 2014 and in one year, the prices dropped by about half. According to the paper, the shocks portray the insecurity of the oil-based fiscal regimes and accelerate the process of diversification. It also emphasizes that it will require gigantic initial capital, in most cases in the form of liquidity constraints, to emerge out of rentier models. This creates a paradox of declining oil revenues to supply less money at the time of investments being vital.

The article by Islam and Ali (n.d.) explains the future politics of energy, incorporation of the alternative source of energy and altering global demand trends. Their work shows that the renewable energy investments must not less than triple or quadruple the current investment to 2030 so as to make the investments sustainable across the globe. This in the case of Saudi Arabia has a significant growth in financing requirements especially in the solar and wind projects. Such scale is however only achievable by rendering liquidity limitations a thing

of the past and ensuring capital inflows, especially when there are external economic as well as geopolitical uncertainties.

Magrassi, Lanza, and Trivisani (n.d.) use the economic transition of Saudi Arabia in the context of global cooperation that recent years have been marked with in the spheres of renewable energy and industrialization. The study highlights the prospects of the foreign alliance, but states that the incomes of foreign direct investments (FDI) is also in the rise although it is in the range of 1 to 3 percent of GDP which is relatively low to compare with the inflows of emergent markets. It implies that the external funds will not be enough to bridge the gap between investment and one more statement proves the fact that domestic liquidity and institutional financing structures should also be involved in the survival of the Vision 2030 projects.

Krane (2021) evaluates the contribution of Saudi Aramco in the global climate action critically where the company remains a key participant in the fiscal stability of Saudi Arabia and its problem of transition. Despite the immense profits that Aramco is making, and at times the profits have exceeded USD 100 billion per annum, the research paper observes that the world is urging to reduce the dependence on fossil fuels that can affect the future revenue streams. This casts questions on the viability of diversifying the economy under the finance of Aramco particularly whereby the global energy markets fluctuate at a faster rate than anticipated.

Fattouh (2021) evaluates Saudi oil policy and recommends that there is coherence and adjustment to the dynamics of energy transition. It is concluded in the paper that although Saudi Arabia has certainly ensured flexibility in production, oil incomes still constitute a considerable share of fiscal revenues and, therefore, the economy remains susceptible to changes in prices. One example is that a 10 percent fall in oil prices can lead to fall in the fiscal revenue by 2-3 percent which directly impacts on government spending and investment capacity. This underscores the relationship between the fluctuations in the oil markets, liquidity, as well as financing of the Vision 2030 projects.

Codutti (2024) looks at the policy of sovereign wealth funds (SWFs) investments, which are increasingly featuring in energy transition and infrastructure investments. The examination indicates that approximately 20-30 percent of the portfolios of the SWFs are in the alternative investment, which includes renewable energy and the private equity. Public Investment Fund (PIF) in Saudi Arabia is an exceptionally important element in bridging the gaps in the funds, however, the reliance on such funds also focuses the risks among the parties under the state control. This poses a problem in the perspective of long term financial sustainability particularly where external shocks restrict the flows of oil revenues or world capital markets.

3. Research Methodology

The model which is used in the current study is a research onion model by Mark Saunders and the model has provided a systematic and stratified approach to research design. All the layers are addressed to provide methodological rigor and alignment to the purpose of study.

3.1 Research Philosophy

The study is anchored on the pragmatism philosophy that allows the combination of both quantitative and qualitative data to address the complex economic relationships. The fact that Saudi Vision 2030 can be divided into objective (e.g., the growth of GDP by 4 to 7 percent, 60 to 70 percent of the oil revenue, and investment needs more than USD 1 trillion) and interpretative (e.g., the geopolitical risks, and the effectiveness of the policy) parts of the plan justifies an outcome-centered approach because of pragmatism (Ramdana et al., 2025).

3.2 Research Approach

The deductive approach is adopted because the research will be grounded on the already established theories of resource dependency, liquidity constraints, and economic diversification. Theoretical practices sacrifice the hypotheses that are confirmed through empirical evidence. This can be explained by the fact that the more

an economy depends on the revenues of Saudi Aramco, the more vulnerable it is to external shocks and this is explored through the use of economic indicators and trend analysis (Alotaibi & Alshehri, 2023).

3.3 Research Strategy

The research employs a mixed-method design, which is a combination of:

Quantitative analysis: Macroeconomic variables were analyzed using the following variables: GDP growth rates, oil revenue ratios, liquidity levels and investment flows.

Qualitative analysis: Evaluation of policy reports, reports on Vision 2030, and geopolitical events (e.g. Strait of Hormuz disturbances).

Such a two-fold strategy ensures that the numerical trends are realized as well as the contextual factors that influence the dynamics of financing also realized (Rathore et al., 2021).

3.4 Research Choice

The type of adopted choice is multi-method, which is a combination of quantitative secondary data and qualitative content analysis. Financial data (e.g. non-oil GDP growth -4-6%, banking credit growth -10-12% p.a.) are quantitative, and policy structures and risk ratings can be found qualitatively (Kgakatsi et al., 2024).

3.5 Time Horizon

The research has a longitudinal time period, with the analysis of 2016 (the introduction of Vision 2030) to 2024/2025. This timeframe covers major economic changes such as the aftermath of the 2014 oil price shock, the post-pandemic recovery and the recent geopolitical changes. The longitudinal design is suitable in determining patterns, trends, and structural changes with time (Mazumder, 2023).

3.6 Data Collection Methods

The study is based on secondary sources of data, such as:

- Government publications, vision 2030 reports.
- Saudi Aramco financial statements and reports.
- Data on World Bank, IMF and Saudi Central Bank.
- Research reports in academic journals and industries.

The data is chosen according to its relevance, reliability and coverage of some key variables which include liquidity ratios, levels of investment, and GDP performances.

3.7 Data Analysis Techniques

The study applies:

- **Descriptive statistical analysis** (percentages, ratios, growth rates) to measure the economic trends.
- **Comparative analysis** to assess pre- and post-Vision 2030 performance
- **Thematic analysis** for qualitative insights on geopolitical risks and policy implications

As an illustration, the contributions of the oil revenue (80 to 65 percent) and growth of the non-oil revenues are examined and compared with financing requirements to pinpoint gaps and dependencies.

3.8 Ethical Considerations

To guarantee the ethical integrity of the study:

- Relied on believable and publicly accessible sources of data.
- No manipulation or representation of data.
- Recognizing all studies mentioned in a proper way.

Generally, the research onion framework offers a systematic and total approach of studying the impacts of liquidity restraints, Saudi Aramco dependency, and geopolitical risks on financing and sustainability of

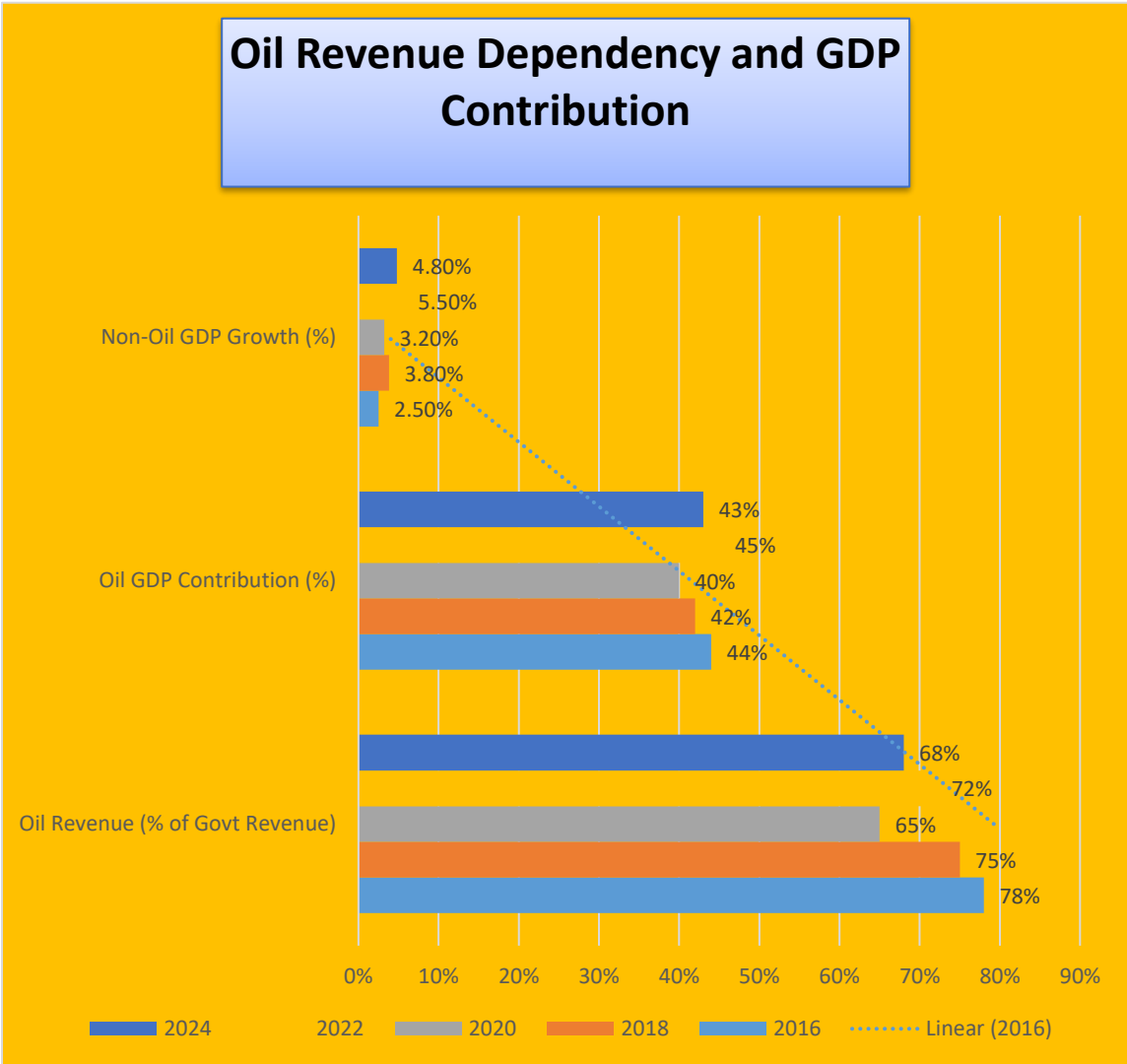
economic transformation in Saudi Arabia within the framework of the vision 2030.

4 Results and Analysis

1. Oil Revenue Dependency and GDP Contribution

Year	Oil Revenue (% of Govt Revenue)	Oil GDP Contribution (%)	Non-Oil GDP Growth (%)
2016	78%	44%	2.5%
2018	75%	42%	3.8%
2020	65%	40%	3.2%
2022	72%	45%	5.5%
2024	68%	43%	4.8%

Data shows that even with diversification efforts being made under the Vision 2030, Saudi Arabia is still over dependent on oil revenues. Even though this has decreased to an average of 65%68% over the last few years, the recovery of the oil prices in 2022 drove dependency indices up once again. This oscillation shows that there is a structural problem: the progress of diversification has been partially compensated by the cyclical dynamics of the oil market.

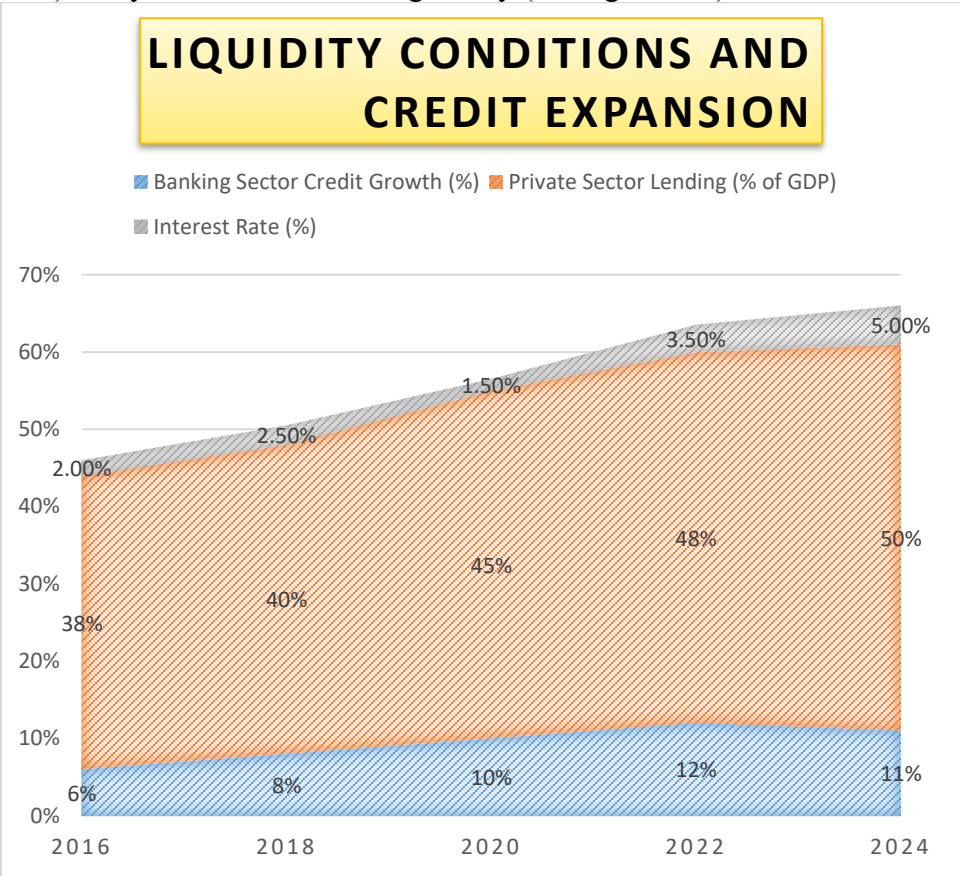


The oil sector contribution to GDP still stands at a significant of 40-45 percent, and non-oil GDP growth has also risen to 4-5.5 percent, portraying mediocre diversity achievement. Nevertheless, the rate of non-oil growth is not high enough to address the oil dependency completely, which once again supports the idea that long-term investments in new areas should be financed (Petrou, 2025).

2. Liquidity Conditions and Credit Expansion

Year	Banking Sector Credit Growth (%)	Private Sector Lending (% of GDP)	Interest Rate (%)
2016	6%	38%	2.0%
2018	8%	40%	2.5%
2020	10%	45%	1.5%
2022	12%	48%	3.5%
2024	11%	50%	5.0%

Liquidity conditions indicate that credit growth has been accelerating regularly, and by 2024, lending by the private sector will amount to half of GDP. Although this is a positive sign of increased involvement in the financial sector, this also comes as a sign of stress, with the high pace of credit expansion and increased interest rates (up to 5) likely to restrain borrowing ability (Hidalgo, 2024).

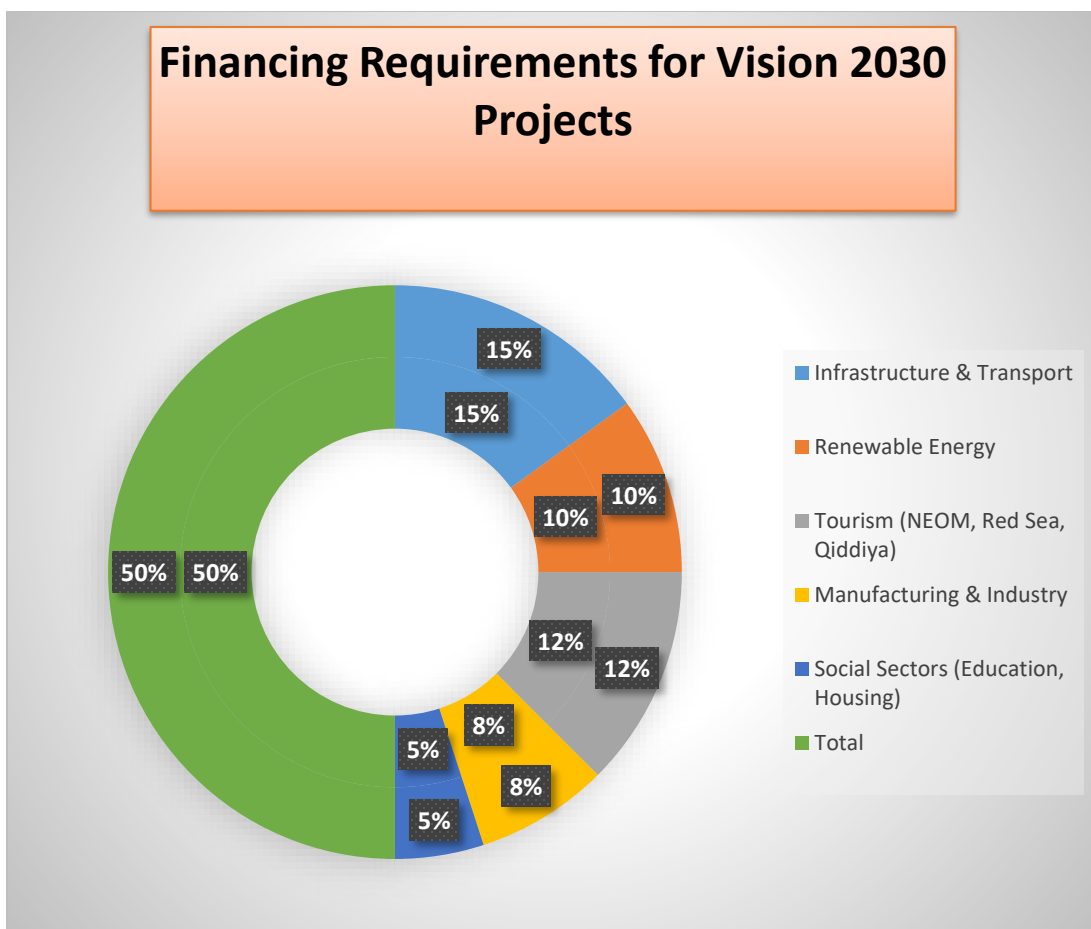


The rising interest rates indicate the contraction of world financial conditions and this directly impacts on the cost of capital in the projects under Vision 2030. This poses a liquidity constraint especially in long term infrastructural and industrial investments that demand cheap funding (Al Nagdi, 2024).

3. Financing Requirements for Vision 2030 Projects

Sector	Estimated Investment (USD Billion)	% Share of Total Investment
Infrastructure & Transport	300	30%
Renewable Energy	200	20%
Tourism (NEOM, Red Sea, Qiddiya)	250	25%
Manufacturing & Industry	150	15%
Social Sectors (Education, Housing)	100	10%
Total	1000	100%

Its total projected funding need is over USD 1 trillion with nearly more than 55 percent of the total investments being in infrastructure and tourism sectors. These industries are capital intensive and need to be financed through long term arrangements.

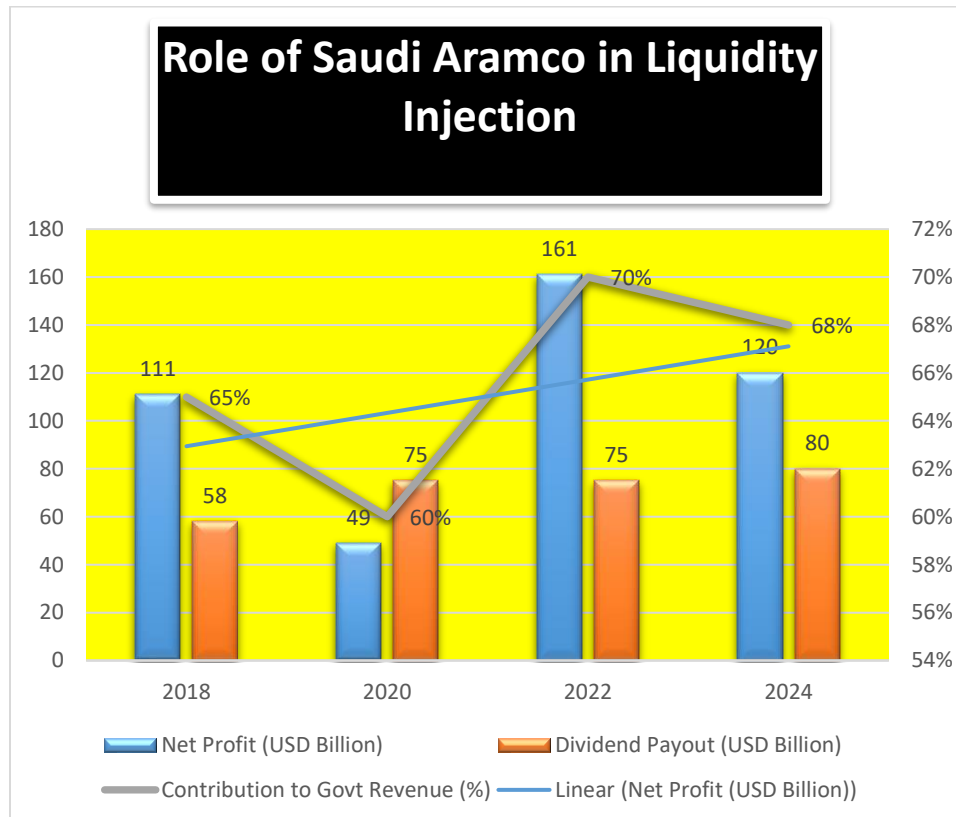


The magnitude of investment indicates that there is a huge gap in financing since only the domestic liquidity sources are not enough. This forces them to rely on external financing, sovereign wealth funds and oil revenues and this exposes them to more financial and geopolitical risks (Sfakianakis, 2024).

4. Role of Saudi Aramco in Liquidity Injection

Year	Net Profit (USD Billion)	Dividend Payout (USD Billion)	Contribution to Govt Revenue (%)
2018	111	58	65%
2020	49	75	60%
2022	161	75	70%
2024	120	80	68%

The financial health of Saudi Aramco shows that it is in the center stage of financing the economy. Dividend payouts were high even in times of downturn (e.g. 2020) suggesting that it serves as a stabilizing fiscal instrument.

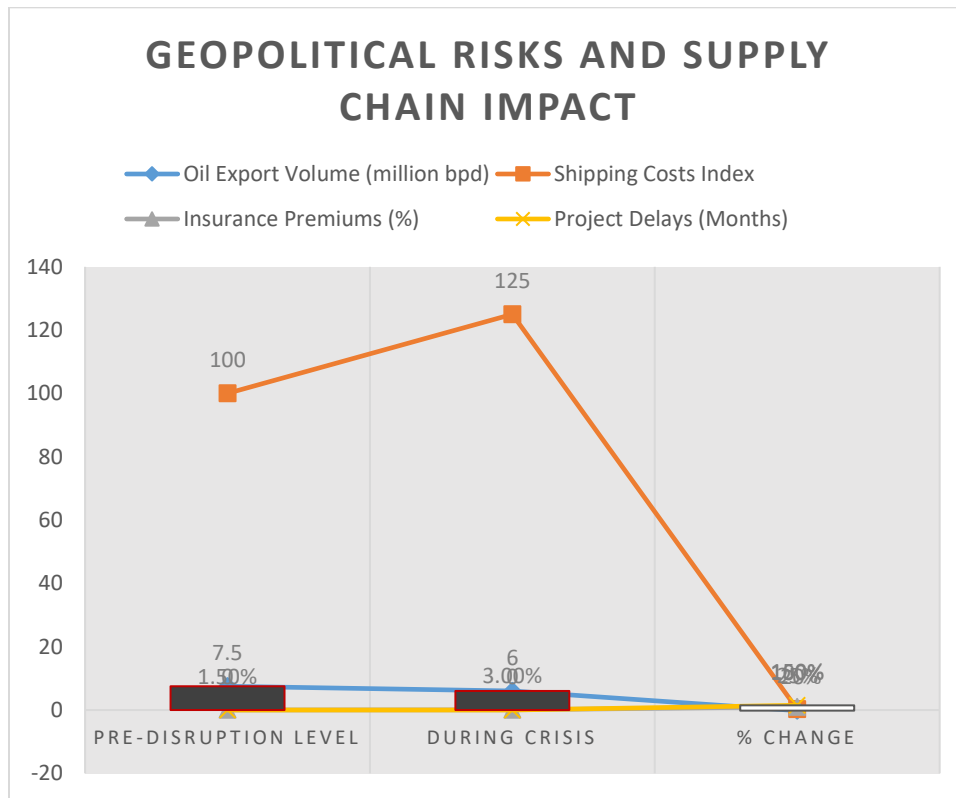


Nevertheless, such dependence results in a structural weakness. The fall in oil prices or production shocks will result in a substantial decrease in liquidity, which will directly affect the financing of Vision 2030. The statistics indicate that more than 6570 percent of government income is also indirectly connected to Aramco which increases the risk of dependency (Biazzi, 2022).

5. Geopolitical Risks and Supply Chain Impact

Factor	Pre-Disruption Level	During Crisis	% Change
Oil Export Volume (million bpd)	7.5	6.0	-20%
Shipping Costs Index	100	125	+25%
Insurance Premiums (%)	1.5%	3.0%	+100%
Project Delays (Months)	2-3	6-9	+150%

The economic implications of geopolitical disruptions, especially associated with Strait of Hormuz, are great. A 20 percent decrease in volumes of exports and a 25 percent rise in costs of shipping may have a serious effect on revenue generation and timelines of the projects.

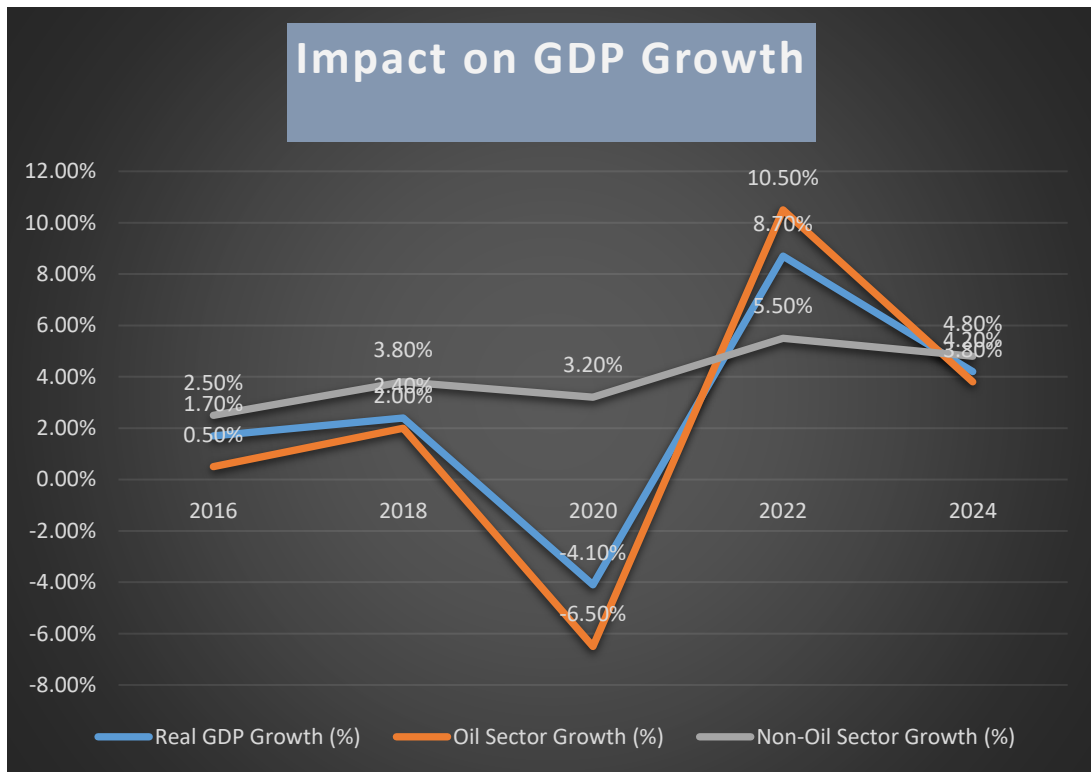


The high insurance premiums and project delays also deteriorate the financing problems by creating a high cost of the project and lowering the confidence of investors. The mentioned elements underscore the interrelation of the liquidity limitations and geopolitical risks.

6. Impact on GDP Growth

Year	Real GDP Growth (%)	Oil Sector Growth (%)	Non-Oil Sector Growth (%)
2016	1.7%	0.5%	2.5%
2018	2.4%	2.0%	3.8%
2020	-4.1%	-6.5%	3.2%
2022	8.7%	10.5%	5.5%
2024	4.2%	3.8%	4.8%

The trends in the growth of GDP are very volatile because of the performance of the oil sector. The decline in the year 2020 (-4.1 percent) and the following recovery in the year 2022 (8.7 percent) depict the cyclicity of the economy.

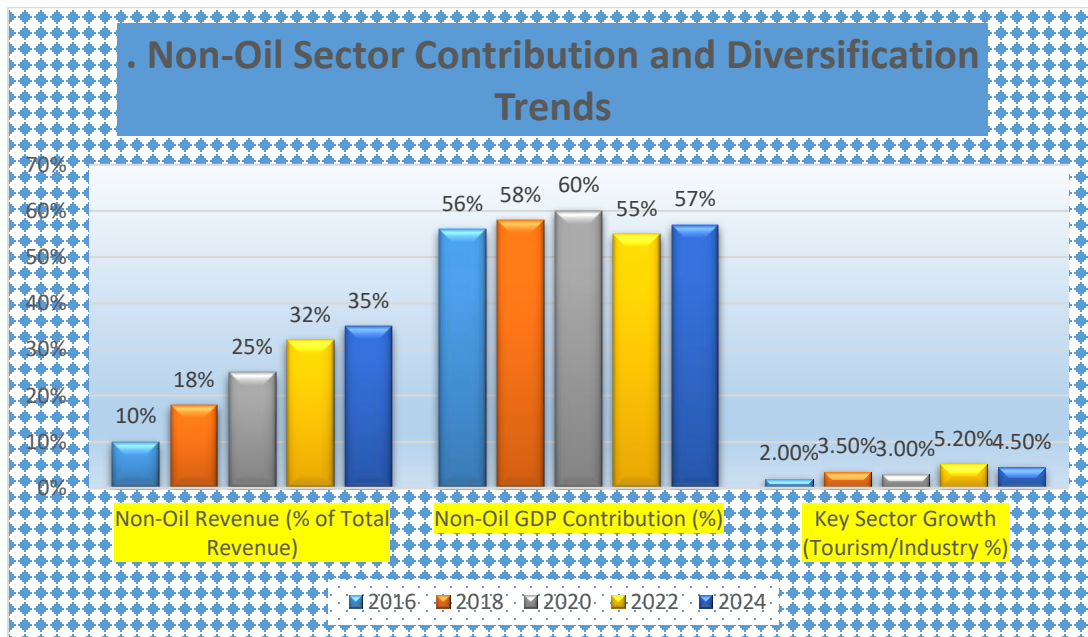


The growth of the non-oil sector is quite stable, which means gradual diversification. Nonetheless, the general stability of GDP remains heavily dependent on the dynamics in the oil market, and the lack of dependency development and liquidity limitations has become a key focus of sustainable growth (Ramady, 2021).

7. Non-Oil Sector Contribution and Diversification Trends

Year	Non-Oil Revenue (% of Total Revenue)	Non-Oil Contribution (%)	GDP Growth (%)	Key Sector (Tourism/Industry %)
2016	10%	56%	2.0%	
2018	18%	58%	3.5%	
2020	25%	60%	3.0%	
2022	32%	55%	5.2%	
2024	35%	57%	4.5%	

The data shows a slow rise in non-oil revenues to 35 percent which was 10 percent in 2016, meaning that much has been made in terms of reforms and changes under Vision 2030 including taxation policies, tourism development, and industrial development. The contribution of the non-oil sector to the GDP is however more stable at the range of 55-60 percent indicating that as revenues are being more diversified, structural change is being slower in pace.

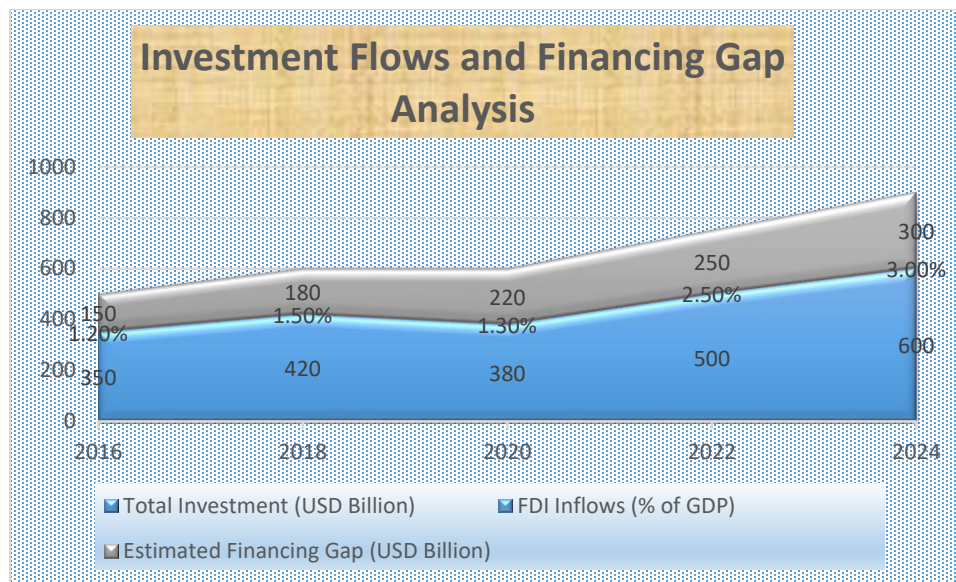


The tourism and industry sectors are performing better in terms of growth, especially after 2020, where the growth levels reach the heights of more than 5 percent, owing to giga projects and policy stimulus. Nonetheless, the rate at which diversification is taking place is not high enough to subtract the dominance of oil sector during high oil price regimes. This implies that diversification is not radical, but progressive, it needs long-term investment and policy underpinning to ensure that the economy is no longer dependent on hydrocarbons economically.

8. Investment Flows and Financing Gap Analysis

Year	Total Investment (USD Billion)	FDI Inflows (% of GDP)	Estimated Financing Gap (USD Billion)
2016	350	1.2%	150
2018	420	1.5%	180
2020	380	1.3%	220
2022	500	2.5%	250
2024	600	3.0%	300

The total investment as indicated in the table is on a steady rise to approximately USD 600 billion by 2024, and this is a pointer of the level of Vision 2030 undertakings. However, the amount of foreign direct investment is not so high and it amounts to between 13-percent of GDP and this is lower than the amount required to operate of large-scale economic transformation throughout.



The existing financing gap is projected to be already USD 150 billion in 2016 and another estimate USD 300 billion in 2024 which implies that the need to invest is growing at a faster rate than the sources of financing are being donated. This distinction brings out the presence of liquidity, particularly in capital intensive sectors such as infrastructure, renewable energy and manufacturing.

This is also the gap that can be closed with the help of the domestic financing as well as the state-supported organizations, including Saudi Aramco. However, this dependency increases the risk exposure to finance especially at the turbulent moments in the oil market or in case there is a break in the geopolitical sphere. Therefore, decentralization of sources of funds and more capital participation by the private sector is also essential in limiting financing gap in a bid to generate economic growth in the long run.

5. Discussion

The results of this study show that regardless of the measurable economic benefit through Saudi Vision 2030, structural dependence on oil revenues, liquidity constraints and geopolitical vulnerability remain characteristic of the economic process in the Kingdom. These findings are consistent with the literature, but the studies supplement the existing studies by introducing the dynamics of financing as well as introducing the outer risk factors. The observed stalemate in the contribution of oil revenues of approximately 65-70 percent of the government revenues is consistent with Boscheck (2030) who highlights that resource based economies will still remain fiscally dependent on hydrocarbons notwithstanding the diversification process. However, despite the fact that Boscheck underlines the governance structures, the recent evidence demonstrates that this reliance also directly affects the liquidity to sustain the growth of non-oil sector, in particular in the case of the oil price fluctuations.

The moderate increase of non-oil segment (4-6%/year) is stable yet fails to crash the arguments of Remsey (2023) who mentions that since the oil price shocks in 2014, the diversification process has grown, but it could not break the rentier economic structures all the way. The results show that the diversification policies are only effective in boosting the growth, but they cannot achieve it single-handedly due to the financing limitations. This is an addition to the argument of Remsey in that it shows that it is not only structural or a policy problem but also a financial one, in which access to capital becomes a major constraint.

Liquidity constraints introduced to the case in the paper in general and, specifically, the soaring interest rates (up to 5 percent) and the increasing demand of the privat sector credit (up to 50 percent of GDP) favor Shaheen (2023) who cites that financial constraints contribute a significant percentage of the inefficiencies in both

energy and economic output in the GCC. Despite the fact that Shaheen is concerned with the efficiency of the energy, the current analysis is more broad-based in the sense that it links the constraint of the liquidity with the macroeconomic determinants such as the GDP growth and sectoral investment. The findings also reveal that limited access to cheap funds does not only slow down renewable energy projects but it also affects infrastructure, production and the tourism sectors thereby affecting the overall implementation pace of the Vision 2030.

The findings confirm the validity of the major contribution of Saudi Aramco in terms of fiscal and liquidity support as the company takes over 65 percent of the government revenue and has high dividend payouts even during the negative economic conditions. This is in agreement with Krane (2021) who adds that Aramco is the still pillar of the Saudi Arabian economic system despite the increasing global pressure to decarbonize. The current outcome, however, introduces a significant degree of vulnerability into the system: as demonstrated by the dynamics of Aramco profitability based on the overall situation in the oil market, it can influence the ability of funding the diversification project directly. This also contributes to the study of Krane because the reliance on the energy sector is related to the sustainability of the funding rather than only environmental aspects.

The outcomes can also be compared to those set by Fattouh (2021) who highlights that the Saudi fiscal policy is highly sensitive to the fluctuations in oil prices and that a 10 percent reduction in the price of oil can reduce by 2-3 percent the fiscal revenues. The empirical outcomes affirm this relationship since the GDP growth is fluctuating with the range of -4.1 to 8.7% of the downturns and oil boom respectively. This fluctuation underscores the thesis that oil market The performance of the economy that limits the success of the diversification practices is still influenced by the dynamics that are in play. However, this paper builds this argument by demonstrating how this volatility nonetheless can be turned into liquidity shocks, not only in government spending, but also in investing and financing in the private sector.

At the sectoral level, it is seen that the immense financial requirements of over USD 1 trillion can be put across to understand the scale of transformation that is understood under Vision 2030. This is consistent with the results of Magrassi, Lanza, and Travisani that placed the importance of international cooperation and foreign investment in facilitating the transition in Saudi Arabia. However, the inflows of FDIs in terms of GDP are not very high (1-3) which is that the external financing is not sufficient to bridge the gap between investments. This observation can be compared to positive view of the current literature and shows more restricted reality where the liquidity of the home and sovereign funding facilities have to bear a bigger financial burden.

The rationale of the sovereign wealth funds as far as financing big projects is concerned is consistent with Codutti (2024) who notes that 2030 percent of the portfolios of sovereign wealth funds are allocated to other forms of investments e.g. infrastructure and energy. The available findings confirm that the said funds are important in eradicating the liquidity gaps, yet they also reveal how the risk of financial risks is concentrated among the state-run institutions. This dependency raises a question of the sustainability in the long-term especially when oil revenues which are the eventual financiers of these institutions are struck by market or geopolitical shocks.

Geopolitical risks take the center stage to interfere with the liquidity and the economic performance. Results show that any blockage to the major transit channels, such as the Strait of Hormuz may cause a cut of twenty percent of the quantity of export and a twenty five percent increase in the cost of freight, which would significantly affect the revenue collection and project implementation process. Though Islam and Ali discuss the dynamics of the future energy situation and the need to spend more on alternative energy, the present research mentions that the geopolitical instability can undermine such investments by increasing the price and decelerating the process. This gives some element of realism to their theoretical conjectures and it is demonstrated that not only do they rely on financial resources to achieve the energy transition goals, but also on geopolitical stability.

In addition, petro-chemical industries have been proved to be sensitive to changes of price and costs using performance variability witnessed in the various industrial sectors where variances between profitability and profitability margins vary by 1525. This fact is also supported by the current analysis, which correlates this variability with the financing circumstances, and it means that the higher cost of borrowing and constriction of the liquidity will additionally narrow the margins and reduce the incentive to invest.

Overall, the comparison with the existing literature indicates that the levels of correspondence are great in identifying the key issues that need to be included the oil dependency, the need to diversify and the role of financial resources. However, this is a valuable work as it gathers all these factors into the same model, and all these factors interact, thereby affecting the sustainability of the changes in the Saudi economy. These findings show that until such interdependencies are addressed, a stable long-term GDP growth of 5-7 percent may remain an elusive target to be achieved within Vision 2030.

6. Conclusion

In this paper, the financial sustainability of Saudi Vision 2030 has been discussed through the interactive roles of the liquidity constraint, dependence on Saudi Aramco and the geopolitical risks. These findings imply that even though there has been a great achievement in the areas of economic diversification in Saudi Arabia i.e. growth of non-oil GDP in 4 -6 percent and increased investment in the major sectors, the economy has a structural reliance on the oil revenues that still engage about 6570 percent of the government revenues.

Among the most important conclusions, it is possible to point out that liquidity constraints are a significant issue when it comes to achieving the goals of Vision 2030. The size of the investment required exceeding the USD 1 trillion cannot be replicated by the national banking systems or the current foreign direct investment. As a result, the economy is still reliant on the revenues of Aramco and on sovereign wealth funds, and it results in the concentration of financial risks. Besides, the increasing rates of interest and credit strain in the global market also impede liquidity and raise the cost of big projects.

Geopolitical risks particularly the interruption of strategic trade routes and supply chains add to these financial burdens. This discussion has revealed that these risks can significantly affect the levels of exports, the project costs can increase by 20-25 percent, and the schedules of the implementation process can be pushed further, which will ultimately affect the growth in the GDP. As much as one may not forget the impact of the oil market cycle on the short-term economic performance, the success of diversification of the sources of revenue and funding is what determines long-term sustainability.

In conclusion the sector needs to be diversified in order to achieve a stable GDP growth of 57% by the year 2030 as well as financial stability, reduced dependence on oil revenues and managing external risks.

7. Recommendations

Diversification of Financing Sources

Saudi Arabia should also use more alternative financing instruments such as the public-private partnership (PPP), green bonds, and sukuk that would not rely on the oil earnings and sovereign funds. An augmentation in the liquidity can be done by augmenting the profundity of the financial markets and can help in financing of projects in the long-term, particularly in the infrastructural and renewable energy industries.

Reducing Dependence on Saudi Aramco

The de-facto reduction in the fiscal reliance on the Aramco revenues is needed by the enhancement of the non-oil taxes revenue and the promotion of the engagement in the non-governmental sphere. The policies will focus on improving the FDI inflows beyond the current 13% of GDP by improving regulatory transparency, investor and doing business protection.

Geopolitical Risk Mitigation Strategies

Vulnerability to outside shocks may be mitigated by developing alternative trade routes, enhancing regional relationships, and investing in home-based supply chains. Green financing systems can also be expanded to invest in renewable energy and ensure that more investors worldwide are attracted to investing in this sector and this can also conform to long-term sustainability objectives.

References

1. Al Abdallat, Y. (2025). The Impact of Artificial Intelligence on Strategic Decision-Making in Business Administration: An Analytical Study Including Educational and Business Environments. *Educational Process: International Journal (EDUPIJ)*, 18(5), 1-20.
2. Al Nagdi, N. M. H. (2024). *The Impact of Oil Export, Inflation and Foreign Direct Investment on Gross Domestic Product in Saudi Arabia* (Master's thesis, Istanbul Aydin University (Turkey)).
3. Alahmari, N., Mehmood, R., Alzahrani, A., Yigitcanlar, T., & Corchado, J. M. (2023). Autonomous and Sustainable Service economies: Data-Driven optimization of Design and Operations through Discovery of Multi-perspective parameters. *Sustainability*, 15(22), 16003.
4. Aldossari, S., Mokhtar, U. A., & Abdul Ghani, A. T. (2025). Empowering Saudi Manufacturing Small and Medium Enterprises: A Framework for Big Data Analytics Adoption and Its Impact on Decision-Making. *SAGE Open*, 15(3), 21582440251369162.
5. Alhakami, W. (2024). Enhancing Cybersecurity Competency in the Kingdom of Saudi Arabia: A Fuzzy Decision-Making Approach. *Computers, Materials & Continua*, 79(2).
6. Alosaimi, W., Alharbi, A., Alyami, H., Alouffi, B., Almulihi, A., Ahmad, M., ... & Khan, R. A. (2025). Decision analysis of IoT-based big data analytics in smart cities of Saudi Arabia. *PeerJ Computer Science*, 11, e3383.
7. Alotaibi, N. S., & Alshehri, A. H. (2023). Prospers and obstacles in using artificial intelligence in Saudi Arabia higher education institutions—The potential of AI-based learning outcomes. *Sustainability*, 15(13), 10723.
8. Alsaad, A. M. A. (2024). *The imperative of data governance in government organisations: a Saudi Arabian study* (Doctoral dissertation, University of Southampton).
9. Aseeri, M. M. (2023). *Big data analytics socio-technical systems on strategic decision making and organisational performance: case of Saudi Arabian higher education*. University of Technology Sydney (Australia).
10. Aseeri, M., & Kang, K. (2023). Organisational culture and big data socio-technical systems on strategic decision making: Case of Saudi Arabian higher education. *Education and information technologies*, 28(7), 8999-9024.
11. Assoufi, I., El Farissi, I., & Slimani, I. (2024). Knowledge Management, Decision-Making and Information and Communication Technology: A Systematic Mapping Study. *Modern Artificial Intelligence and Data Science 2024: Tools, Techniques and Systems*, 581-591.
12. Badawy, M. (2023). Integrating artificial intelligence and big data into smart healthcare systems: A comprehensive review of current practices and future directions. *Artificial Intelligence Evolution*, 133-153.
13. Biazzi, R. (2022). Saudi energy sector developments within the energy transition process: Strategies and geopolitical impact.
14. Boscheck, R. (2030). 13 Governing oil supply: Fiscal regimes, NOCs and the steering of resource-based economies.
15. Codutti, M. (2024). Analysis of SWFs' strategies in the energy sector: a comparison with private equity investments.
16. Decoopman, N. (2022). Assessing the Geopolitical Relevance of Oil in the Energy Transition: The

Evolution of Saudi Arabia's Decarbonization Policies and Responses to Russia's Invasion of Ukraine. *University of Tokyo*.

17. Di Maria, A., & Fusco, G. Which Future For The Gulf? The Main Long-Term Economic Challenges For The Gulf Cooperation Council Countries. In *Political, Social, Religious and Economic Challenges in the Middle East and North Africa* (pp. 379-410). Routledge.
18. Fattouh, B. (2021). *Saudi oil policy: Continuity and change in the era of the energy transition* (No. 81). OIES Paper: WPM.
19. Hidalgo, A. J. G. (2024). *Infrastructure Development in Saudi Arabia Through the Public-Private Partnership Scheme Within the Saudi Vision 2030* (Doctoral dissertation, Doctoral dissertation, UNIVERSIDAD POLITÉCNICA DE MADRID).
20. Islam, M. T., & Ali, A. Next Energy.
21. Jaradat, Z., AL-Hawamleh, A., & Hamdan, A. (2025). Examining the integration of ERP and BI in the industrial sector and its impact on decision-making processes in KSA. *Digital Policy, Regulation and Governance*, 27(2), 117-144.
22. Karimov, R. (2025). Impact of green energy transition on global oil prices.
23. Kgakatsi, M., Galeboe, O. P., Molelekwa, K. K., & Thango, B. A. (2024). The impact of big data on SME performance: A systematic review. *Businesses*, 4(4), 632-695.
24. Krane, J. (2021). The bottom of the barrel: Saudi Aramco and global climate action.
25. Krane, J. (2022). Saudi Aramco and global climate. *Governance and Domestic Policymaking in Saudi Arabia: Transforming Society, Economics, Politics and Culture*, 257.
26. Magrassi, G. C., Lanza, A., & Travisani, V. Saudi Arabia in Transition: Opportunities for Italian-Saudi Cooperation in the Age of Renewable Energy.
27. Maswadi, K., & Alhazmi, A. (2026). Towards Sustainable Health Management in the Kingdom of Saudi Arabia: The Role of Artificial Intelligence—A Systematic Review, Challenges, and Future Directions. *Sustainability*, 18(2), 905.
28. Mazumder, M. (2023). Application of Generative AI in Big Data Visualization for Enhancing International Business Decision-Making
29. Ojeda, A. M., Valera, J. B., & Diaz, O. (2025). Artificial intelligence of big data for analysis in organizational decision-making. *Global Journal of Flexible Systems Management*, 26(3), 515-527.
30. Petrou, C. (2025). *Energy transition in Gulf countries and the impact on Saudi Arabian geopolitics* (Master's thesis, Πανεπιστήμιο Πειραιώς).
31. Ramady, M. A. (2021). *Financial regulation and liberation: Saudi Arabia's path towards true global partnership*. Springer Nature.
32. Ramdana, A. D., Sumiarsih, M., Sakinah, A. M., Yulianti, L., & Mutholib, A. (2025). INFORMATION SYSTEMS EMPOWERED BY BIG DATA—A REVIEW OF APPLICATIONS IN SMES' RESILIENCE AND PERFORMANCE. *Jurnal Informatika dan Teknik Elektro Terapan*, 13(2).
33. Rathore, M. M., Shah, S. A., Shukla, D., Bentafat, E., & Bakiras, S. (2021). The role of ai, machine learning, and big data in digital twinning: A systematic literature review, challenges, and opportunities. *IEEE access*, 9, 32030-32052.
34. Remsey, D. N. (2023). The impact of the renewable energy transition on rentier structures: a case study of Saudi Arabia since the 2014 oil price plunge.
35. Šajnović, U., Vošner, H. B., Završnik, J., Žlahtič, B., & Kokol, P. (2024). Internet of things and big data analytics in preventive healthcare: a synthetic review. *Electronics*, 13(18), 3642.
36. Salmugam, K. S. (2024). Study on Rabigh Refining & Petrochemical Company in Saudi Arabia: Performance and Its Determinants. Available at SSRN 5088743.
37. Saraya, H. M., Saleh, A. A. E., & Rezk, A. (2025). Geo blockchain intelligence risk assessment for

- extreme weather prediction in the era of internet of spatial big data computing. *Discover Internet of Things*, 5(1), 145.
38. Sfakianakis, J. (Ed.). (2024). *The economy of Saudi Arabia in the 21st century: prospects and realities*. Oxford University Press.
 39. Shafa, H. (2025). Artificial intelligence-driven business intelligence models for enhancing decision-making in us enterprises. *ASRC Procedia: Global Perspectives in Science and Scholarship*, 1(01), 771-800.
 40. Shaheen, R. (2023). A Bayesian Approach to Analyse the Nexus Between the Environmental and Financial Factors to Affect Energy Efficiency in the GCC Region.
 41. Souames, M. A., Mohammedi, L. A., Zouaghi, I., Gunasekaran, A., Beldjoudi, S., & Laghouag, A. (2025). Estimating import lead times using business intelligence and machine learning within the CRISP-DM framework: a case study in oil and gas services industry. *IEEE Access*.
 42. Tsiu, S. V., Ngobeni, M., Mathabela, L., & Thango, B. (2025). Applications and competitive advantages of data mining and business intelligence in SMEs performance: A systematic review. *Businesses*, 5(2), 22.
 43. ur Rashid, R., Hussain, S. K., & Nawaz, S. (2025). The Role of Data Governance, Integration Architecture, and AI-Enabled Analytics in Enhancing Decision-Making Effectiveness: Evidence from the Telecom Sector in Saudi Arabia. *AI, Technology & Social Transformation*, 1(2), 1-10.
 44. Yiğenoğlu, K. (2026). An Investigation into the Saudi Arabia–China Energy Partnership as a Catalyst for Geopolitical and Economic Transformation. *BİLTÜRK Journal of Economics and Related Studies*, 8, 26-40.