Journal of Economic, Administrative and Legal Sciences(JEALS) •Vol 9, Issue 3 (2025) • P: 149 - 126
https://journals.ajsrp.com/index.php/jeals
ISSN: 2522-3372 (Online) • ISSN: 2522-3372 (Print)

Indicators of political stability within growth theory and its impact on the growth of the industrial sector in Saudi Arabia (An Empirical Study for the period 1998-2022)

Ms. Taibah Abdul-Hamid Saqr*, Dr. Lamia Saud Shesha
King Abdul-Aziz University | KSA

Received: 22/12/2024
Revised: 08/01/2025
Accepted: 05/03/2025
Published: 30/03/2025

* Corresponding author: tahmadsaqr@stu.kau.edu.sa

Citation: Saqr, T. A., & Shesha, L. S. (2025). Indicators of political stability within growth theory and its impact on the growth of the industrial sector in Saudi Arabia (An Empirical Study for the period 1998-2022). *Journal of Economic, Administrative and Legal Sciences, 9*(3), 126 –149. https://doi.org/10.26389/AJSRP.B251224

Abstract: The importance of this study is evident in the current context in which the kingdom of Saudi Arabia seeks to achieve its Vision 2030, which aims to diversify the economy away from dependence on oil and promote the growth of non-oil sectors, including the industrial sector. In order to achieve the objective of this study in determining the impact of political stability on the growth of the industrial sector and determining the direction of the causal relationship between them in the Saudi Arabia for the period (1998-2022). The study used the distributed time delay subjective regression analysis (ARDL) methodology to estimate the relationship in the short and long term and the causality test (Granger), in order to verify the hypotheses of the study, which is a statistically significant positive effect of political stability on the growth of the industrial sector economy in the Saudi Arabia as well as the existence of a statistically significant causal relationship between them. The study has found a long-term equilibrium relationship that goes from the independent variables (political stability, government effectiveness, fixed capital formation, inflation, labor force participation rate, trade openness) to the dependent variable (industrial sector growth) through the result of testing the limits of joint integration. The study also showed that its first hypothesis was realized through the results of the ARDL assessment, which confirmed the existence of a statistically significant positive two-term effect of political stability on growth in the industrial sector, as its long-term morale parameter appeared as well as its short-term morale stability. The second hypothesis was also verified by the Granger causality test, which revealed a unidirectional causal relationship from political stability to growth in the industrial sector.

The study recommended the need to enhance political stability by following economic diversification policies that would reduce the effects of global economic fluctuations, especially oil price fluctuations, and directing monetary policies towards maintaining stable and low inflation rates to achieve economic stability that enhances the investment climate in the industrial sector, which in turn achieves prosperity and developmental sustainability in the economy of Saudi Arabia.

Keywords: Political Stability, Industrial Sector, Co-integration, ARDL, Granger Causality Test.

مؤشرات الاستقرار السياسي ضمن نظرية النمو و أثره على نمو القطاع الصناعي في المملكة العربية السعودية (دراسة قياسية للفترة 1998-2022)

أ. طيبه عبد الحميد صقر*، الدكتورة / لمياء سعود ششة
جامعة الملك عبد العزيز | المملكة العربية السعودية

المستخلص: تتجلى أهمية هذه الدراسة في السياق الحالي الذي تسعى فيه المملكة العربية السعودية إلى تحقيق رؤيتها 2030، التي تهدف إلى تنويع الاقتصاد بعيدًا عن الاعتماد على النفط وتعزيز نمو القطاعات غير النفطية بما في ذلك القطاع الصناعي. وسعياً لتحقيق هدف هذه الدراسة في تحديد أثر الاستقرار السياسي على نمو القطاع الصناعي وتحديد اتجاه العلاقة السببية بينهما في المملكة العربية السعودية للفترة (1998-2022). استخدمت الدراسة منهجية تحليل الانحدار الذاتي للإبطاء الزمني الموزع (ARDL) لتقدير العلاقة في المدى القصير والطويل واختبار السببية (Granger)، وذلك للتحقق من فرضيات الدراسة التي تتمثل في وجود أثر إيجابي معنوي إحصائياً للاستقرار السياسي على نمو القطاع الصناعي الاقتصاد في المملكة العربية السعودية وكذلك وجود علاقة سببية ذات معنوية إحصائية بينهم. وقد توصلت الدراسة إلى وجود علاقة توازنيه طويلة الأجل تتجه من المتغيرات المستقلة (الاستقرار السياسي، وفاعلية الحكومة، وتكوين رأس المال الثابت، والتضخم، ومعدل مشاركة القوى العاملة، والانفتاح التجاري) إلى المتغير التابع (نمو القطاع الصناعي) من خلال نتيجة اختبار الحدود للتكامل المشترك. كما أظهرت الدراسة تحقق فرضيتها الأولى من خلال نتائج تقدير ARDL التي أكدت على وجود أثر إيجابي ذا معنوية إحصائية في الأجلين للاستقرار السياسي على النمو في القطاع الصناعي، حيث ظهرت معلمته معنوية في الأجل الطويل وكذلك ثبوت معنويتها في الأجل القصير. كما تحققت الفرضية الثانية من اختبار السببية Granger الذي كشف عن علاقة سببية أحادية الاتجاه من الاستقرار السياسي إلى النمو في القطاع الصناعي.

وأوصت الدراسة بضرورة تعزيز الاستقرار السياسي من خلال اتباع سياسات التنويع الاقتصادي التي من شأنها التقليل من آثار تقلبات الاقتصاد العالمية وخاصة تقلبات أسعار النفط، وتوجيه السياسات النقدية نحو الحفاظ على معدلات تضخم مستقرة ومنخفضة لتحقيق استقرار اقتصادي يعزز مناخ الاستثمار في القطاع الصناعي، الذي بدوره يحقق الازدهار والاستدامة التنموية في اقتصاد المملكة العربية السعودية.

الكلمات المفتاحية: الاستقرار السياسي، النمو في القطاع الصناعي، التكامل المشترك ARDL، السببية Granger.

1. Introduction

Political stability is an important factor that plays a vital and fundamental role in measuring economic growth and supporting the process of economic development of any country. Political stability also expresses the situation in which a country can enjoy a good and favorable political climate, so that it eventually lends itself to encouraging and attracting investments, both domestic and foreign. Moreover, the presence of a stable political climate in any country, which is characterized by a high degree of good democracy and good governance, drives many donors, developing partners, internal investors, and external investors and motivates them to provide and invest their money due to the reassurance factor they have the direction of that country and invest in it. As a result, there will be a positive impact of everything mentioned earlier on economic development and sustainable growth in all sectors of the state .

Indicators of political stability are one of the most important tools that reflect the stability of the political and social environment in countries, and they are also pivotal tools to determine the relationship between the political environment and economic growth, represented by political stability in several forms such as the rule of law, the stability of systems, and the effectiveness of governments, and is a prerequisite for achieving economic growth and comprehensive development of countries. Since political stability is one of the most important elements of achieving sustainable economic development through its indicators, a stable political environment is a stimulating environment for various productive sectors by being suitable for attracting investments, improving infrastructure, and promoting innovations that lead to the growth of economic sectors, especially the industrial sector.

The importance of indicators of political stability for the growth of the industrial sector is also shown by several factors, the most important of which is the increase in foreign direct investments in stable countries. Studies have confirmed (Knack and Keefer, 1995; Alesina et al., 1996) that attracting investment to the industrial sector is based on the political stability of the state, as the largest foreign investors are heading to search for a suitable investment climate that has stability that helps reduce uncertainty and thus stimulates productivity growth of the industrial sector. The sustainability of economic policies that support industries is also a factor, since achieving sustainability in industrial development depends on the stability of economic policies, and is considered one of the economic and social goals that largely depend on the political system (Rodrik, 2000). Also, one of the factors that show the importance of political stability for the growth of the industrial sector is to improve the efficiency of institutions responsible for managing the industrial sector and promoting innovation in them. Based on the theory of internal growth by (Romer, 1986) and (Lucas, 1988), political stability plays a pivotal role in securing the necessary financial and human resources to support industrial innovation.

Theoretically, growth theories considered indicators of political stability as one of the basic elements affecting economic growth in countries, as these indicators overlap with many economic and social factors. The link between political stability and the growth of economic sectors is rooted in a number of theories, including the theory of internal growth (Endogenous Growth Theory), based on the principle of the importance of internal factors in stimulating growth, and considers that education, research, innovation, technology, and capital are the main engines of economic growth. It also considers that the link of political stability to provide a safe environment for investment in internal factors enhances productivity and supports economic growth (Lucas, 1988). Also, one of the most important theories is the political economy of growth theory, based on the relationship of political institutions with economic growth, according to which political stability stimulates economic growth by enabling economic institutions to work efficiently, and political instability undermines economic institutions (Rodrik, 2000).

Internationally, since political stability is considered the first contributor to the adoption of stable and long-run economic policies that support the growth of industries, a study (Chang, 1994) in South Korea indicated that political stability is the most important factor in building a solid industrial base based on innovation, development, and technology. As explained by the (World Bank, 2023a), which dealt with the analysis of the relationship of political stability to economic growth through its main sectors, the most important of which is the industrial sector, and using the latest indicators of political stability, namely the indicators of global governance (Worldwide Governance Indicators), the report concluded that politically stable countries achieved industrial growth by about 30% more than their unstable counterparts. For example, as a result of political stability in Vietnam, there is significant industrial growth due to the attraction of the world's largest companies to invest, such as Samsung, which manufactures its products in it, while unstable countries, such as some African countries like South Sudan, the lack of political stability in them contributed to the flight of investors and thus the contraction of the industrial sector.

In the Saudi context, despite the enormous socio-economic and demographic changes that the kingdom has undergone since its foundation in 1932, the Saudi regime has arguably been among the most stable in the world and the Middle East, and is considered

one of the most prominent examples of how political stability can be used to strengthen industrial sectors. According to the data issued by the General Authority for Statistics on the Industrial Production Index, which measures the relative change and reflects the development of production volumes in the industrial sector, the general industrial production index in Saudi Arabia recorded an annual increase of 1.6% during July 2024 in the same period last year. This is based on the economic transformation projects and Vision 2030, which aim to diversify the Saudi economy away from excessive dependence on oil, focusing on the development of non-oil sectors, especially the industrial sector, where the benefits of enhancing political stability and improving the business environment are used to attract foreign investments and stimulate growth in the industrial sector.

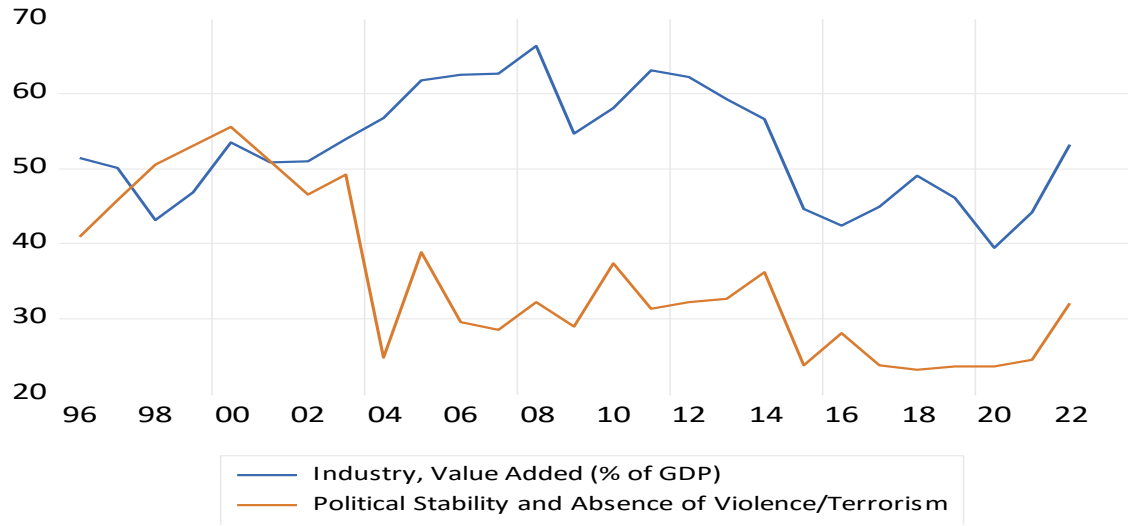
1-1 Study Problem and Questions

The kingdom of Saudi Arabia is facing great challenges in maintaining its political stability, which significantly affects its economic performance, especially in the industrial sector. Political instability may lead to postponement of investments, disruption of production, increase operating costs, which negatively affects economic growth.

The relationship between political stability and the growth of the industrial sector in Saudi Arabia is an important issue that requires in-depth study. Historical data show that there are fluctuations in the rates of political stability and the growth of the industrial sector. From figure (1-1), it can be seen that there is a coincidence between the fluctuations of political stability and the added value of the industrial sector, as this reflects the existence of an inevitable relationship between political stability and the growth of the industrial sector. For example, the years from 2004 to 2008 witnessed a significant increase in the added value of the industry, rising from 56.70% to 66.43%, while the indicators of political stability declined during this period. On the other hand, the period from 2015 to 2020 also witnessed a decline in both indicators, as the added value of industry fell from 44.63% to 39.47%, and political stability declined from 23.81% to 23.85%. These discrepancies show a gap in understanding the relationship between political stability and the growth of the industrial sector in which the research problem lies, which can be formulated in the following question:

How can the impact of political stability on the growth of the industrial sector in the Kingdom of Saudi Arabia during the period 1996-2022 be determined through the most appropriate indicator of political stability?

Figure (1-1): Time series political stability and added value of the industrial sector in Saudi Arabia during the period (1996-2022)



Source: prepared by the researcher using World Bank data (2023b).

1-2 Purpose of the Study

Understanding the impact of political stability on the growth of the industrial sector requires a comprehensive analysis of the policies and reforms pursued by the government, as well as studying the economic and social effects of political stability on productivity. This also requires an applied analysis of political stability indicators to determine the critical indicator that is used as a structural determinant and helps to achieve a favorable environment for the development of sectors of the economy. In light of this, this study aims

to determine the impact of political stability on the growth of the industrial sector and determine the direction of the causal relationship between political stability and the growth of the industrial sector in Saudi Arabia in the time period 1998-2022, by providing an integrated vision on how to achieve political stability and support industrial growth based on economic literature and practical experiences in Saudi Arabia and other countries. It also aims to shed light on the indicators of political economy as interpreted by growth theories and how they affect the stimulation of growth. Based on achieving this and based on the results of the study analysis, the research aims to reach conclusions and recommendations that enrich the literature and provide those interested with a scientific reference in this field.

1-3 Importance of the Study

The importance of this study is evident in the current context in which Saudi Arabia seeks to achieve its Vision 2030, which aims to diversify the economy away from dependence on oil and promote the growth of non-oil sectors, including the industrial sector. In order to achieve the objective of the study and answer its question, the study suggests using the Autoregressive Distributed Lag (ARDL) Model Analysis methodology, because it is characterized as an economic model in dealing with data, especially unstable time series.

1-4 Hypotheses

In the modern literature, many researchers have analyzed the relationship between various indicators of political stability and the growth of the economy and its diverse sectors, including the industrial sector. These studies have employed different methodological models to investigate the effects of political stability in various economies. Political stability has been identified as a crucial determinant of industrial sector growth, as it helps establish a stable environment that enables economic institutions to operate efficiently and sustainably in the long term. Previous theories, such as Mancur Olson's theory (1982), have demonstrated that political stability enhances the effectiveness of enterprises by improving governance quality and reducing uncertainty, thereby encouraging investment in the industrial sector.

Several studies have highlighted the role of political stability in fostering growth in the industrial sector. Political stability increases the efficiency of investments in the industrial sector by creating a stable economic environment where stability indicators effectively improve the rule of law and governance quality. This reduces investment risks and boosts investment flows into local industries. Consequently, political stability is a pivotal factor in promoting industrial sector growth by establishing a favorable environment for attracting investments and enhancing productivity. For instance, a study by Ali et al. (2020) on Pakistan, using the ARDL model, emphasized the statistically significant positive correlation between political stability and industrial sector growth. Similarly, a study by Alhamran et al. (2013) confirmed that political stability in Gulf countries contributes to political and economic sustainability, enhancing economic indicators and supporting industrial growth. These findings align with the Kingdom of Saudi Arabia's vision, which aims to diversify the economy by supporting the industrial sector and highlighting the role of political stability in fostering its growth. Based on this, the first hypothesis of the study can be formulated as follows:

"The first assumption: the presence of a statistically significant positive impact of political stability on the growth of the industrial sector of the economy in Saudi Arabia"

Many studies have demonstrated a positive correlation between political stability and industrial growth; however, determining the causality between political stability and the growth of the industrial sector remains a subject of debate in modern literature. It is often emphasized that political stability drives an increase in industrial production by improving internal factors that contribute to the growth of the industrial sector. Conversely, industrial growth can also strengthen political stability by enhancing economic and social conditions. A study by Esterly and Levine (1997) indicates that the absence of political stability leads to a decline in industrial performance, while industrial growth contributes to reinforcing political stability. This interrelationship between stability and industrial growth operates through multiple mechanisms, such as the inflow of foreign direct investments and the development of infrastructure. In the context of Saudi Arabia, the political stability achieved through government policies plays a vital role in supporting the growth of the industrial sector, which in turn fosters a local environment characterized by unique political stability. Based on this, the second hypothesis of the study can be formulated as follows:

"The second assumption: the existence of a statistically significant causal relationship between political stability and the growth of the industrial sector of the economy in Saudi Arabia"

Based on previous theories and studies, it can be concluded that political stability is a pivotal factor in driving industrial development in Saudi Arabia. Moreover, the success of the industrial sector can, in turn, contribute to enhancing political stability. This synergy between political stability and industrial growth forms the foundation for achieving the Kingdom's Vision 2030 and the Sustainable Development Goals.

2. Literature Review

2-1 The Theoretical Framework of Political Stability Indicators

Over the past decades, indicators of political stability within the theory of growth have evolved significantly, and the change in political environments reflected a clear impact on its economic performance. In the past, theories focused on the absence of conflict and the continuity of governance in their vision of political stability, so the initial indicators were simple based on binary measures of stability versus instability, but failed to capture the complexities of political systems and their interactions with economic growth. The authors emphasized that the succession of government coups and regime changes as basic indicators of political stability was associated with the economy; the lower incidence of such events is associated with better economic results (Curvale, 2023).

Later, with the development of political economy, scientists began to realize that political stability is multifaceted. It includes various dimensions such as the quality of governance, institutional integrity, and the rule of law. This transition was marked by the introduction of more complex indicators that not only measure the frequency of political unrest but also assess the basic institutional frameworks that support stability. For example, the concept of "completion of presidential terms" appeared as a more developed metric, reflecting not only the absence of coups but the ability of governments to maintain their authority and legitimacy over time, as well as other indicators such as the change of the chief executive and the continuation of the Constitution, based on which it became possible to find out the role of political stability in economic growth (Curvale, 2023).

In the late twentieth century, the relationship between political stability and economic growth became increasingly evident in empirical studies. Researchers have begun to explore how stable political environments foster favorable conditions for investment and economic development. For example, studies in Asia have highlighted that political stability directly affects economic growth by promoting capital accumulation and improving labor productivity (Younis et al., 2008). This perspective was further supported by the results that indicated a positive correlation between political stability and FDI flows, as investors sought an environment with fewer political strikes (Vasilyeva & Mariev, 2021; Vasilyeva et al., 2020).

The early first decade of the twenty-first century witnessed the spread of indicators developed by international organizations, such as the Global Governance Indicators (WGI) by the World Bank, which provided a clear methodology for measuring political stability. These indicators included various other dimensions of political stability and the absence of violence, such as government effectiveness and the quality of organization. The framework for judging the impact of indicators on economic performance expanded to become more comprehensive (Zhang et al., 2023). Based on this, this comprehensive framework enabled researchers to analyze the interaction of various dimensions of governance and economic outcomes, which led to a deeper understanding of how political stability affects growth trajectories in different contexts.

In recent years, as the framework has evolved further with the integration of the effects of political stability on various sectors such as industry, tourism, and agriculture, studies have shown that improvements in political stability can lead to significant increases in GDP per capita, especially in countries where tourism is the main economic engine (Meyer, 2018). This highlights the importance of political stability not only as a macroeconomic indicator but also as a decisive factor affecting sectoral performance and overall economic resilience.

With the development of economic thought, there were several theories that used political stability in several different indicators. In neoclassical growth theory, which focuses on labor, capital, and technology in achieving economic growth, it considered that political stability is one of the institutional factors for achieving economic growth, as its importance lies in being a supportive environment. Many theoretical studies have pointed to the indicators used for political stability within the neoclassical growth theory, namely the rule of law, the stability of economic policies, and corruption rates. Barro (1991) emphasized that the rule of law is considered a crucial indicator of increasing the efficiency of resource use. Solow (1956) explained that policy stability promotes capital accumulation and improves productivity. Also, low corruption rates indicate a stable political environment that supports efficient resource allocation.

Nawaz et al. (2021) showed that corruption reduces confidence among investors and hinders growth. Other research suggests that strong institutions, which include stable legal and political systems, play a crucial role in promoting political stability (Younis et al., 2008). Studies have also shown that corruption and political instability can lead to a decline in economic growth by reducing investments (Nawaz et al., 2021). Thus, the relationship between political stability and economic growth is becoming more complicated, as institutional factors overlap with economic ones.

Internal growth theory is a theory that focuses on internal factors that affect growth, including political stability. Evidence suggests that political stability fosters innovation and increases productivity, leading to sustainable economic growth (Baklouti & Boujelbène, 2020). Political stability also helps attract foreign direct investment, as investors prefer countries with a stable political environment (Kurečić & Kokotović, 2017). It was found (Alesina et al., 1996) that the indicator of the stability of the political climate that reduces the risk of interruption of long-run investment projects reflects the decrease in investments in innovation when there are political conflicts. Therefore, political stability is not only an auxiliary factor but also an essential element in achieving internal growth.

The increasing complexity of political stability indicators is also reflected in the methodologies used in contemporary research, where advanced standard techniques, such as dynamic panel data analysis and modeling of structural equations, have been used to explore causal relationships between political stability, governance, and economic growth (Bhatti, 2023; Ramadhan et al., 2016). These methodologies enable a more rigorous examination of the mechanisms by which political stability influences economic outcomes, providing valuable insights for policymakers aiming to foster stable, growth-oriented environments.

A number of descriptive and analytical studies have addressed the variable of political stability within indicators reflecting world peace or international risks, such as the International Country Risk Guide (ICRG), which classifies risks into political, economic, and financial. This index has been addressed by several studies (Knack and Kaafer, 1995; The PRS Group, 2024). Other studies have applied (Huang and Throsby, 2011; Natalini et al., 2015; Nair, 2016) the Global Peace Index (GPI), which expresses the level of negative peace based on three areas: the first assesses internal and international conflict, the second area assesses the level of discord within the nation, and the third measures the extent of military capability. Each area contains indicators such as the involvement of states in conflicts, terrorist activity, violent demonstrations, a stable political scene, military spending, and financial contributions to UN peacekeeping missions (Vision of Humanity, 2024).

The applied studies reviewed the Global Governance Indicators (WGI), which represent perceptions of the quality of governance, including six indicators, among them the political stability index and the absence of violence and terrorism, which measures perceptions of the likelihood of politically motivated political instability. The index data reflects the level of protests and riots that may lead to damage to assets or people, especially if these events disrupt normal movement and business operations. Non-state armed groups also cause risks to property and people through violence to promote a political cause. Political stability is affected by military interventions or the initiation of a war with the aim of changing the government, occupation, or significantly influencing key government policies (World Bank, 2024).

Finally, the development of indicators of political stability within growth theory reflects a significant shift from simple measures of stability to a more accurate understanding of the complex interaction of governance, political environments, and economic performance. As this field continues to evolve, it is imperative that researchers and policymakers adopt comprehensive frameworks that take into account the multifaceted nature of political stability and its implications for sustainable economic growth. The integration of various indicators and methodologies will enhance our understanding of how political factors shape economic trajectories, ultimately contributing to the development of more effective policies aimed at promoting stability and growth in diverse contexts.

2-2 Applied Studies of Political Stability

Many researchers consider that the process of creating political stability is a key necessity in order to bring growth and economic development in general and growth in the industrial sector in particular. It is well-known that growth in the industrial sector and other sectors holds significant importance in supporting and promoting sustainable economic growth that countries strive to achieve. As a result, it is necessary to consider all the critical factors that promote and support this growth, including the achievement of political stability, which serves as an essential tool for fostering growth in the industrial sector and, consequently, achieving the economic growth of the state.

There is widespread consensus on the correlation between political stability and growth in the industrial sector and, consequently, between industrial growth and economic development. Therefore, it is essential to balance all considerations to achieve both. Some researchers argue that political stability provides the conditions necessary for a state to maintain a calm and favorable political climate, which assists in attracting and encouraging foreign investment. Internal stability is a critical factor that reassures entrepreneurs and large investors, encouraging them to invest in a safe and secure environment. Consequently, it is evident that ensuring political stability and security within a country positively impacts its industrial and economic growth (Ramadhan et al., 2016).

Among the literary studies supporting this concept and highlighting the interactive relationship between political stability and economic growth, as well as its effects on the industrial sector and other sectors in various countries and regions, a study by Ali et al. (2020) in Pakistan investigated the impact of political stability and financial innovations on the country's economic growth and the growth of its three sub-sectors—agriculture, industry, and services—in the long term. The study employed the Autoregressive Distributed Lag (ARDL) model to analyze data and draw conclusions. The findings revealed that political stability and financial development significantly and positively impact economic growth and the growth of the three sub-sectors in the long term. The study used time series data spanning from 1980 to 2018, enabling a comprehensive long-term analysis of economic changes in Pakistan. The results indicated a positive correlation between political stability and economic growth, and they highlighted that financial innovations contribute significantly to this growth. Political stability was found to enhance confidence in the economy and attract investments, while financial innovations saved financial resources and improved their allocation efficiency, thereby fostering industrial growth. Trade liberalization expanded markets and boosted competitiveness, improving production efficiency and creating new trade opportunities. Additionally, political stability played a critical role in enhancing the investment environment and mitigating risks associated with industrial projects. Financial development also supported industrial growth by improving access to financing and providing low-cost credit facilities. Collectively, these factors led to increased production capacity in the industrial sector, with political stability being the primary driving force.

The relationship between political stability and economic growth is well-documented in economic literature, with a clear positive association between the two. This relationship has been examined through various methodologies, each contributing a deeper understanding of the dynamic interplay. One example is a study by Alhamran et al. (2021), which analyzed variables influencing economic growth between 1980 and 2019 across GCC countries, including Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE. The study considered dependent variables such as private credit, real oil prices, political stability, and globalization. By using econometric methodologies like Fully Modified Ordinary Least Squares (FMOLS) and Dynamic Ordinary Least Squares (DOLS), the study found a positive and significant relationship between political stability and economic growth. Additionally, it revealed a positive interaction between political stability and globalization, which benefited the economies of the GCC countries. This interaction was attributed to the political stability of these nations and their reform efforts to expand economic performance through efficient government spending allocation and equitable wealth distribution. The Gulf countries also addressed regional political issues and renewed relations with Islamic countries, further supporting economic growth.

Se Jelaly and Mukhtari (2020) applied a panel data methodology using cross-sectional time series data for the period 1996-2016 to examine the relationship between political instability and economic growth in Arab Spring countries, namely Tunisia, Libya, Egypt, Syria, and Yemen. The dependent variable in the study was economic growth, measured by the GDP per capita growth rate index, while the independent variables included the unemployment rate, the corruption control index, the political stability and absence of violence index, and global governance indicators. The results revealed a significant positive impact of political stability on the GDP per capita growth rate, with a 1% increase in the political stability index resulting in a 7.97% rise in GDP per capita growth. The study also highlighted the significant positive effects of the corruption control index, government effectiveness, and the unemployment index. For the unemployment index, its positive impact was attributed to the variable's representation of economic shocks and fluctuations during crises.

Radu (2015) conducted a study in Romania using correlation and multiple regression analyses to evaluate the impact of political stability on economic growth using data from 1990 to 2011. GDP per capita served as the indicator of economic growth. The study found that capital investment significantly enhances economic growth, while the rule of law fosters a stable and reliable business environment, further supporting economic growth. Political stability was also found to have a notable positive effect, enhancing the

climate of trust and investment. These factors—capital investment, the rule of law, and political stability—collectively contributed to improving the business environment and boosting investor confidence.

Mohamed et al. (2018) employed the Vector Autoregression (VAR) model to study the effects of political instability on economic growth in Egypt from 1982 to 2016, focusing on real GDP per capita growth. The findings revealed that political instability reduced investments due to heightened risks, decreased business activity, and increased deficits. This instability also led to reduced savings and increased consumer spending. A higher trade deficit was shown to weaken economic growth, as it reduced financial surpluses available for investment. Political instability in Egypt was identified as a primary cause for the decline in domestic and foreign investments, negatively impacting business activity and economic growth rates through reduced savings and increased financial deficits.

Aisen and Veiga (2011) analyzed yearly panel data from 169 countries spanning four decades (1960-2004) using the System Generalized Method of Moments (System-GMM). The study focused on GDP per capita as an indicator of economic growth and incorporated independent variables such as investment, primary school enrollment rates, population growth, trade openness, and changes in government. The results demonstrated that changes in government, as an indicator of political instability, negatively impact economic growth. An unstable political system creates an uncertain environment for economic activity, hindering growth. The study also emphasized that education develops human capital, which is essential for economic growth, and that democracy fosters political stability and supports institutional effectiveness, both of which positively influence economic growth.

Natalini et al. (2015) analyzed political stability indicators from 2005 to 2011 to investigate the impact of the unavailability of essential resources (food, energy, water). The study tested two hypotheses: first, the likelihood of riots and violence due to food shortages in net food-importing countries, and second, the existence of a threshold for international food prices above which riots are likely to occur. The study covered countries affected by violent demonstrations in response to rising food prices across Africa, the Middle East, and Asia, utilizing indices such as the Food Price Index (FAO), State Fragility Index (BTI-SFI and SFI Global), Global Peace Index (GPI), and the World Governance Indicator (WGI) on political stability and absence of violence. The results rejected the first hypothesis but supported the second, showing a statistically significant relationship between WGI estimates and riot occurrences, provided the country was classified as one of the most fragile states. Furthermore, the study revealed an increased likelihood of riots when food prices exceeded a certain threshold, with relatively stable countries facing a 5% probability of violent events due to rising food prices. The WGI and Failed States Index were identified as among the most accurate governance indicators.

Based on the review of previous literature across various countries, including Saudi Arabia, this study offers a comprehensive perspective on the relationship between political stability and industrial growth. The insights serve as an essential guide for policymakers and researchers in developing strategies to enhance political stability and support sustainable industrial development in Saudi Arabia.

2-3 The relationship of the study with previous theories and studies

The current study overlaps with previous studies and economic theories in several basic axes, as it is based on theoretical frameworks that link political stability and economic growth, while making use of previous literature that addressed this relationship in different economic contexts. We find that at this study has a relationship with previous studies, as it agrees with them in affirming the role of political stability in stimulating economic growth, but differs in terms of focusing on the industrial sector in Saudi Arabia as a distinctive case study. Previous studies such as Ali et al. (2020) have addressed the impact of political stability on various economic sectors in Pakistan, and have shown that political stability enhances the business and investment climate in these sectors. The study of Al-Hamrani et al. (2021) in the GCC countries also confirmed that political stability plays an important role in enhancing economic confidence and attracting foreign investments, which supports the growth of productive sectors, including industry. Also, a study by segheri et al. (2021) indicated that the presence of stable institutions and clear economic policies contribute to achieving high growth rates, which is consistent with the goals of the Saudi economy under Vision 2030.

Despite the similarity in the results, these studies did not focus in detail on the industrial sector in Saudi Arabia, which highlights the importance of the current study in bridging this research gap and analyzing the impact of political stability on industrial growth in light of the current economic transformations in the kingdom.

Also, in the relationship of the current study with economic theories, we find that it is based on several economic theories that explain the relationship between political stability and industrial growth. From the perspective of neoclassical growth theory, economic growth depends on capital, manpower, and technology, all of which are influenced by the level of political stability, which in turn affects

the flow of investments and stimulates industrial innovation. Douglas north's economic enterprise theory also supports the idea that a stable political environment creates a more efficient business environment, which enhances industrial productivity. In addition, the study is in line with the business cycle theory, which assumes that political stability helps reduce economic volatility and support the sustainability of industrial growth in the long term. Countries with a high level of political stability achieve sustainable industrial growth rates, as confirmed by previous literature such as the study of saghiri et al. (2021), which showed that economic freedom and political stability are positively correlated with economic growth.

Thus, the current study not only analyzes the relationship between political stability and industrial growth in Saudi Arabia, but also contributes to expanding the theoretical framework of this relationship by integrating modern economic concepts and making use of previous literature to provide a more detailed analysis and application to the Saudi context.

3. Methodology and Analysis of Variables of the Applied Study of the Impact of Political Stability on the Growth of the Industrial Sector in the Saudi Arabia

3-1 The Model

The model was determined based on the findings of some previous studies regarding the selection of dependent and independent variables. These studies proposed various models for measuring their indicators, differing in their spatial and temporal boundaries, as well as in the methods of measuring variables. Among these studies are:

Table No. (1): literature studies for the formulation of the research model

Authors	Data, Time, and Place	Methodology	Study Model Variables	Key Findings
Ali et al., 2020	Time Series (1996-2014), Pakistan	ARDL	- Industrial Growth Rate (I) - Fixed Capital Formation (K) - Labor Force Participation Rate (L) - Political Stability Index (P) - Trade Openness (T) - Financial Development (FD)	- Political stability enhances governance and improves the rule of law, supporting industrial growth. - Financial development supports industrial growth through cheaper credit facilities.
Mohamed et al., 2016	Time Series (1982-2016), Egypt	Vector Autoregressive Model (VAR)	- Growth Rate (GR) - Political Instability (PI) - Capital Accumulation (INV) - Foreign Direct Investment (FDI) - Real Output (IGDP) - Domestic Savings (SAV) - Trade Openness (OP)	- Political instability reduces investments due to increased risks. - Political instability leads to reduced trade activity and higher deficits.
Saghiri et al., 2021	Panel Data (1996-2018), Europe and Asia	Panel ARDL	- Per Capita GDP (LnGDP) - Trade Openness (TO) - Gross Fixed Capital Formation (GFCF) - Political Stability (PS) - Economic Freedom (CEF)	- Positive relationship between economic growth and trade openness, capital formation, political stability, and economic freedom.
Alhamran et al., 2013	Panel Data (1980-2015), GCC Countries	Quantile Regression Analysis	- Real GDP (RGDP) - Private Credit (PC) - Oil Prices (OP) - Political Stability (PS) - Globalization (GLOB)	- Financial development can hinder innovation-driven growth by focusing excessively on financial activities over productive ones. - Oil price increases generate greater wealth, boosting economic growth and

Authors	Data, Time, and Place	Methodology	Study Model Variables	Key Findings
				sustainability. - Political stability sustains economic policies and improves macroeconomic indicators, fostering economic growth.

Source: Prepared by the researcher

Based on these methodologies and results, economic variables are identified to help determine the impact of political stability on the growth of the industrial sector in Saudi Arabia. This approach considers the appropriateness of indicators for measurement and the suitability of the spatial and temporal boundaries of the economic variables. Accordingly, the following mathematical formula was utilized:

$$F_{IND} = (IND_t \mid PER_t, GE_t, CPI_t, GCF_t, TLF_t, TO_t) \dots\dots (1)$$

3-2 Variables and Data Sources

This study examined the relationship between political stability and the growth of the industrial sector in Saudi Arabia, alongside other supporting variables previously explored in the literature and linked to the growth of the industrial sector within the context of the Kingdom's economy. The model utilized time-series data for economic variables spanning the period 1998–2022, extracted from the World Bank's World Development Indicators (WDI) dataset. Table (3-1) presents a detailed description of the variables, their measurement indicators, and the expected relationships.

Table (3-1): description of variables

Code	Variable Description	Source
IND	Industrial sector growth rate measured through changes in industrial output.	World Development Indicators (World Bank, 2023b)
PER	Political stability measured through governance indicator: Political Stability and Absence of Violence/Terrorism	
GE	Labor force participation rate reflecting workforce activity levels.	
CPI	Inflation, prices paid by consumers (% per annum)	
GCF	Gross fixed capital formation reflecting the accumulation of productive physical assets.	
TO	Trade openness measured through the ratio of exports and imports to GDP.	

Source: Prepared by the researcher

The selection of appropriate indicators for measuring variables was based on data availability and insights from previous literature. The annual growth index of the industrial sector (IND) was chosen as the primary indicator of economic growth in the sector. It is measured by the index industry, value added (% annual growth) according to the Global Development Indicators. This indicator was selected because it directly reflects the economic performance of the industrial sector, which constitutes a significant portion of the Saudi economy.

Political stability (PER) was measured using the Political Stability and Absence of Violence/Terrorism Index, expressed as a percentage and based on data from the Global Development Indicators. The study conducted by Aisen & Veiga (2011) on 169 countries provides strong evidence that political stability is a crucial factor in achieving sustainable economic growth. This indicator reflects the robust political environment in Saudi Arabia, which is essential for attracting investments and supporting economic growth.

3-3 description of model variables

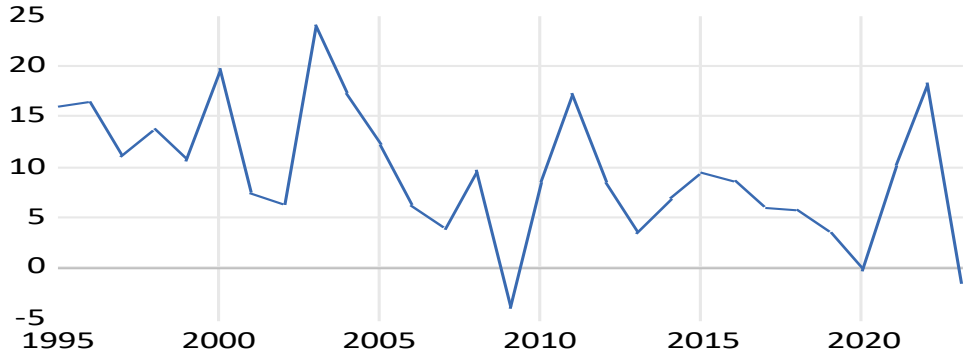
3-3-1 Industrial Sector Growth (IND)

The industrial sector growth index used in the model represents the industrial output growth rate, measuring the annual change in the value of industrial output. This index is based on data from the World Bank for the period 1996–2022 and includes the annual growth rate of exports of goods and services, measured at a fixed exchange rate of the local currency. It also incorporates value

added in the industry, aligned with the International Standard Industrial Classification (ISIC), encompassing the manufacturing industry, value added in mining, construction, electricity and water supply, gas, and manufacturing, which is also presented as an independent subgroup. Value added refers to the net output of a sector after accounting for all outputs and subtracting intermediate inputs, excluding deductions for depreciation of manufactured assets, depletion, or degradation of natural resources. The origin of the added value is determined based on ISIC standards (World Bank, 2023b).

The graph (Figure 3-1) illustrates fluctuations in the growth of Saudi Arabia's industrial sector, highlighting periods of expansion and contraction. A sharp decline occurred in 2009 due to the impact of the 2008 global financial crisis, followed by another significant decline in 2020 as a result of economic disruptions caused by the COVID-19 pandemic. In 2021, the sector showed signs of recovery and growth post-COVID-19, but by 2023, a decline was observed due to decreased mining and quarrying activity. According to the General Authority for Statistics, the drop in the industrial production index in 2023 compared to 2022 was primarily attributed to a 5.5% decrease in the sub-index of mining and quarrying activities (Statistics Authority, 2023).

Figure (3-1): The General Trend of The Industrial Sector Growth Index in the economy of Saudi Arabia (1996-2022)



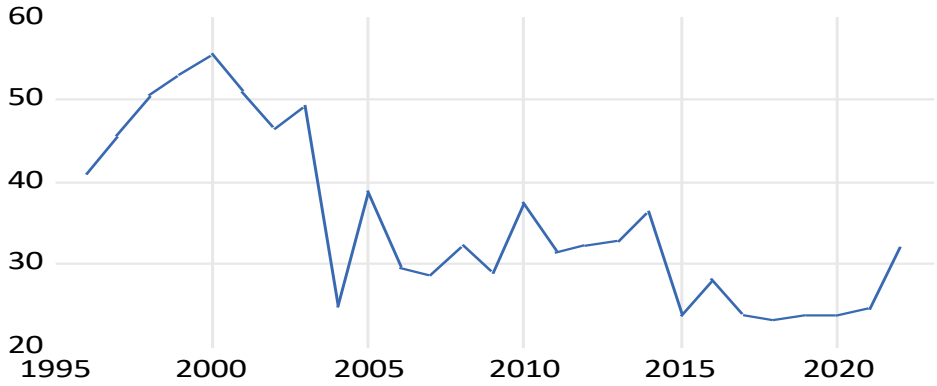
Source: prepared by the researcher using World Bank data (2023b).

3-3-2 Political Stability (PER)

Political stability is considered a crucial factor for attracting investments and fostering economic growth. The Political Stability Index reflects the extent of political stability in a country. It is one of the six governance indicators adopted by the World Bank to measure the quality of governance across countries. The index is among the most comprehensive and widely used in this field, measuring: *"Political stability and the absence of violence and terrorism, perceptions of the likelihood of political instability and politically motivated violence, as well as the probability of governments being destabilized or overthrown through unconstitutional or illegal means, including political violence and terrorism. The index assigns a score to the country on an overall scale ranging from approximately -2.5 to 2.5 in units of a standard normal distribution."* (World Bank, 2023b; Saghiri et al., 2021).

The graph (Figure 3-2) illustrates fluctuations in the Political Stability and Absence of Violence/Terrorism Index for Saudi Arabia. In 2004, a sharp decline was observed, potentially due to the impact of the Iraq War as a neighboring conflict. In 2015, the index reflects the onset of a significant decline, possibly indicating political instability linked to the war against the Houthis. The index remained low and volatile due to the ongoing conflict until 2020. However, a slight recovery in the index was observed, potentially influenced by Saudi Arabia's "Operation Decisive Storm" and subsequent "Operation Restoring Hope," aimed at achieving security and stability in the region.

Figure (3-2): The General Trend of The Political Stability Index in Saudi Arabia (1998-2022)



Source: prepared by the researcher using World Bank data (2023b).

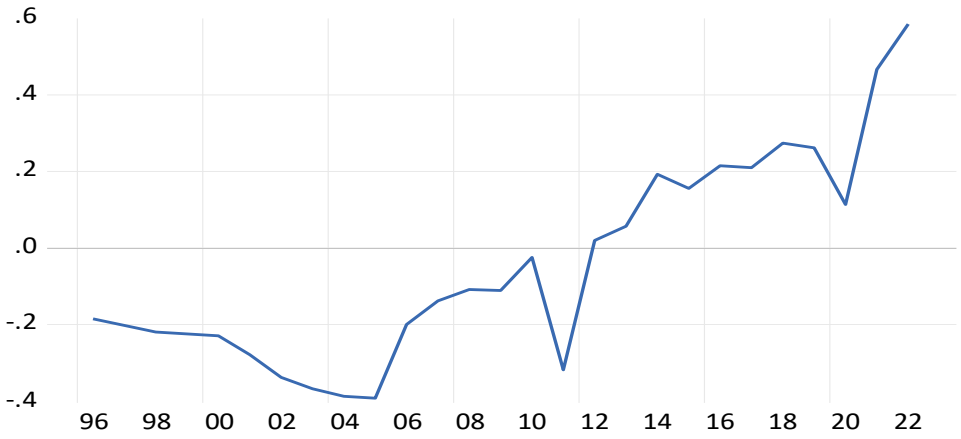
3-3-3 Government Effectiveness (GE)

The Government Effectiveness Index is a measure developed by the World Bank Group as one of the six governance indicators, reflecting a country's governance capabilities. It evaluates the effectiveness of the government by assessing: *"Perceptions of the quality of public services, the quality of the civil service and its degree of independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to these policies. The index assigns a score to the country on a standard normal distribution scale, ranging from approximately -2.5 to 2.5."* (World Bank, 2023b; Seghiri et al., 2021).

Saudi Arabia's ambitious Vision 2030 emphasizes the importance of an effective, transparent, and accountable government. This vision seeks to foster active citizenship, encouraging individuals, the private sector, and the non-profit sector to take initiative, explore opportunities, and contribute to the nation's development and future. Figure 3-3 highlights the continuous improvement in Saudi Arabia's ranking on global governance indicators, particularly in government effectiveness, over the study period (1998–2023). A minor decline was noted in 2020 due to the global crisis triggered by the COVID-19 pandemic. However, this crisis also showcased the resilience of Saudi Arabia's economy, the efficacy of its economic reforms, and the global confidence in its economic stability.

Saudi Arabia has also excelled in the **Digital Government Maturity** Index and its subcategories, which evaluate four key areas: the existence of foundational government systems, the provision of digital government services, citizen engagement and interaction, and enhancing enablers of government digital transformation. According to the 2022 index data, Saudi Arabia achieved a high overall maturity rate of 97.13%, placing it among the world's leading and innovative countries. In specific areas, the maturity rate for foundational government systems reached 96.29%, while enabling digital government transformation recorded 97.69%. The provision of digital government services achieved a maturity rate of 97.93%, and citizen interaction stood at 96.62%. These achievements secured Saudi Arabia an "A" classification, positioning it among the most developed countries globally in all sub-indicators (Digital Government Authority, 2023).

Figure (3-3): The General Trend of The Government Effectiveness Index in Saudi Arabia (1998-2022)



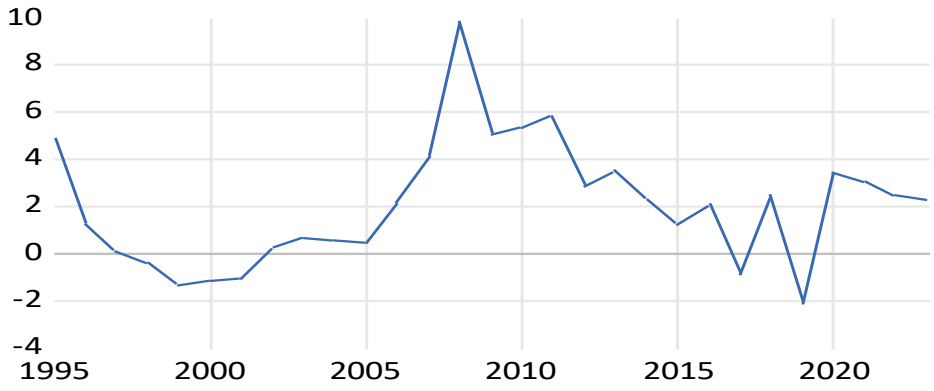
Source: prepared by the researcher using World Bank data (2023b).

3-3-4 Inflation (CPI)

The inflation index, measured by the percentage change in prices paid by consumers (% per annum), reflects inflation as determined by the Consumer Price Index (CPI). It is defined as: *"The annual percentage change in the cost to the average consumer for a basket of goods and services that can be fixed or changed at specified time intervals, for example, as a whole year."* (World Bank, 2023).

When examining the time series in Figure (3-4), fluctuations in inflation rates are observed over the period (1998–2023). These variations are attributed to changes in price levels during the period, influenced by differing economic conditions and the monetary policies implemented. The literature, utilizing the inflation index to measure price levels, confirms that high inflation rates negatively impact economic growth by increasing costs and reducing consumer purchasing power. In contrast, low inflation rates contribute to price stability and stimulate economic growth (Barro, 1995).

Figure (3-4): The General Trend of The Inflation Index in Saudi Arabia (1998-2022)



Source: prepared by the researcher using World Bank data (2023b).

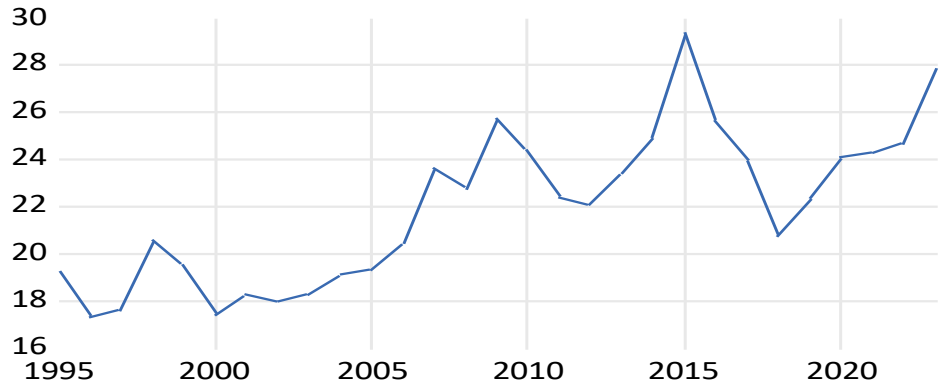
3-3-5 Fixed Capital Formation (GCF)

It is measured by the total investments in fixed capital as a percentage of GDP. The World Bank's World Development Indicators define and measure total fixed capital formation to include:

"Land improvements (fences, ditches, drainage channels, etc.), purchases of machinery and equipment, construction of roads, railways, and similar infrastructure, as well as schools, offices, hospitals, private housing, and commercial and industrial buildings. According to the 1993 System of National Accounts (SNA), net acquisition of assets is also included in capital formation." (World Bank, 2023b).

The graph (Figure 3-5) depicts the level of fixed capital formation from 1998 to 2023, reflecting consistent investment in infrastructure and equipment. The curve representing the rate of capital formation exhibits minor fluctuations during the initial study period, with small highs and lows, yet maintains a high overall rate. The curve reached its peak value in 2015 and continued to rise overall, with minor declines, culminating in its highest recorded value in 2023 at 27.9% of GDP. This trend aligns with the objectives of the National Investment Strategy, which aims to raise fixed capital formation in Saudi Arabia to 30%.

Figure (3-5): The General Trend of The Indicator of Total Fixed Capital Formation in Saudi Arabia (1998-2022)



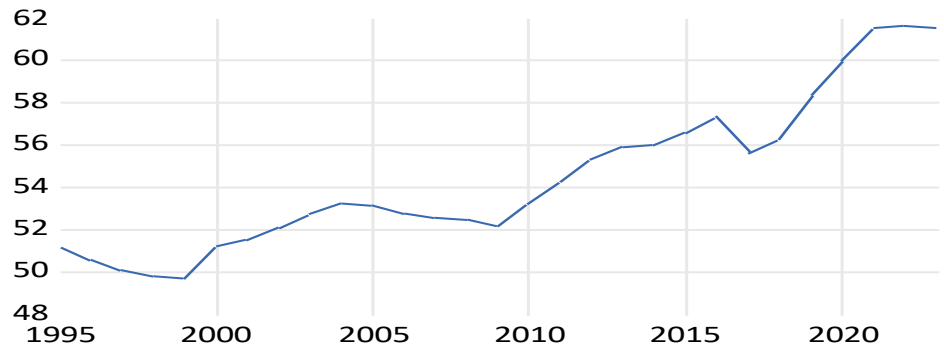
Source: prepared by the researcher using World Bank data (2023b).

3-4-6 Workforce Participation (TLF)

It is measured by the labor force participation rate, which represents the proportion of the population aged 15 years and older engaged in economic activities. This includes all individuals contributing to the production of goods and services during a specific period. (World Bank, 2023b)

The time series of the labor force participation rate index in Saudi Arabia from 1996 to 2023 shows an upward trend, as illustrated in Figure (3-6). This trend reflects the improvement in key labor market indicators for Saudis. In recent years, there has been notable growth in the participation rate of Saudi women in the labor market. The labor force participation rate stood at 55.5% in 2017 and rose sharply to 61.6% in 2023.

Figure (3-6): The General Trend of The Labor Force Participation Rate Index in Saudi Arabia (1998-2022)



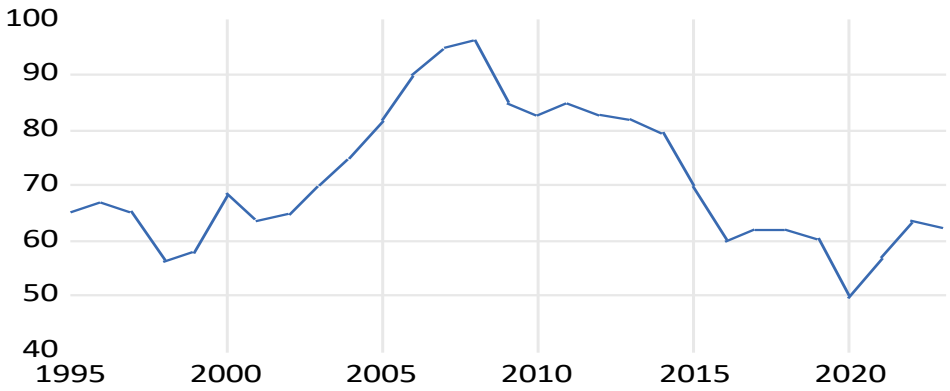
Source: prepared by the researcher using World Bank data (2023b).

3-4-7 Trade Openness (TO)

It is measured by trade, which represents the total exports and imports of goods and services as a percentage of GDP. (World Bank, 2023b)

The graph (Figure 3-7) illustrates the level of trade openness from 1998 to 2020. The trade curve shows continuous increases at the beginning of the study period, peaking in 2008 at 96.1% of GDP. However, a decline followed due to the global trade crisis of 2008. The curve continued to fluctuate, experiencing periods of both decline and growth until 2020, when it reached 27.9% of GDP. This significant drop was attributed to a sharp decrease in exports and imports caused by the COVID-19 crisis, during which precautionary measures were implemented, including the closure of borders between many countries. These measures disrupted trade openness and halted the movement of supply chains (Schache et al., 2023).

Figure (3-7): The General Trend of The Trade Openness Index in Saudi Arabia (1998-2022)



Source: prepared by the researcher using World Bank data (2023b).

4. Analysis of the Results of Applying the standard

To present and discuss the results of the study, aimed at determining the impact of political stability on the growth of the industrial sector in Saudi Arabia during the period 1996–2022 and testing the study hypotheses, the following steps will be applied:

- **Time Series Stability**: Conducting a **Unit Root Test** to assess the stationarity of the time series data.
- **Boundary Test**: Performing the **F-Bound Test** to determine the existence of a long-term relationship among the variables.
- **Estimation of the ARDL Model**: Estimating the Auto Regressive Distributed Lag (ARDL) model for both the long run and the short run.
- **Estimation of the ARDL-ECM Model**: Employing the ARDL Error Correction Model (ECM) to capture short-term dynamics while maintaining long-term equilibrium.
- **Granger Causality Test**: Testing for the direction of causality between political stability and industrial sector growth.
- **Predictive Performance Tests**: Evaluating the predictive accuracy and robustness of the estimated model.

4-1 Unit Root Tests

4-1-1 Augmented Dickey-Fuller Test (ADF)

The results presented in Table (4-1) show the application of the Dickey-Fuller (1979) tests to examine the stationarity of the time series used in the model. The findings reveal that the time series for the variables **IND** (Industrial Sector Growth) and **PER** (Political Stability) are stationary at their levels, as the calculated ADF test values exceed the critical values at the 5% significance level. Therefore, the null hypothesis of stationarity at the level is accepted, indicating that these variables are integrated of order zero, I(0).

Additionally, it was found that the time series for the variables **GE** (Government Effectiveness), **CPI** (Inflation Index), **GCF** (Gross Domestic Investment), **TLF** (Labor Force Participation Rate), and **TO** (Trade Openness) become stationary after taking the first difference. The calculated ADF test values for these variables were also greater than the critical values at the 5% significance level. Consequently, the null hypothesis of first-order integration is accepted, indicating that these variables are integrated of the first order, I(1).

Table (4-1): Test (ADF)

Variables	ADF test		
	ADF	Prob-value	Stability Level
IND	-4.139158*	0.0034	I(0)
PER	-3.935180*	0.0076	I(0)
GE	-6.193075*	0.0001	I(1)
CPI	-8.079873*	0.0000	I(1)

Variables	ADF test		
	ADF	Prob-value	Stability Level
GCF	-5.133891*	0.0003	I(1)
TLF	-3.716936*	0.0096	I(1)
TO	-3.980145*	0.0051	I(1)
Note: * Statistical significance is at the level of 5%.			
Source: Prepared by the researcher using the Eviews 12 program			

4-1-2 Phillips-Perron Test (P-P):

The results of the Phillips-Perron (P-P) test (1988) align with those of the augmented Dickey-Fuller (ADF) test for all variables except inflation (CPI). Table (4-2) presents the application of the P-P test to examine the stationarity of the time series used in the model. The findings indicate that the time series for the variables **IND** (Industrial Sector Growth), **PER** (Political Stability), and **CPI** (Inflation Index) are stationary at their levels, as the calculated P-P test values exceed the critical values at the 5% significance level. Consequently, the null hypothesis of stationarity at the level is accepted, indicating that these variables are integrated of order zero, I(0).

Moreover, the results show that the time series for the variables **GE** (Government Effectiveness), **GCF** (Gross Domestic Investment), **TLF** (Labor Force Participation Rate), and **TO** (Trade Openness) become stationary after taking the first difference. The calculated P-P test values for these variables were greater than the critical values at the 5% significance level. Thus, the null hypothesis of first-order integration is accepted, indicating that these variables are integrated of the first order, I(1)

Table (4-2): Test (P-P)

Variables	P-P test		
	P-P	Prob-value	Stability Level
IND	-4.131035*	0.0034	I(0)
PER	-3.984507*	0.0069	I(0)
GE	-8.453949*	0.0000	I(1)
CPI	-2.988436*	0.0000	I(0)
GCF	-5.131786*	0.0003	I(1)
TLF	-3.615842*	0.0122	I(1)
TO	-3.937365*	0.0057	I(1)
Note: * Statistical significance is at the level of 5%.			
Source: Prepared by the researcher using the Eviews 12 program			

Since the study variables differed in their degree of integration between level zero and first degree, this aligns with the assumptions of the ARDL model, which allows for estimating the relationship between variables regardless of whether they are stationary at the level, at the first difference, or a combination of both.

4-2 Determination of Optimal Lags

The boundary test for joint integration, developed by Pesaran, Shin, and Smith (2001), is based on determining optimal time lags using information criteria such as the Akaike Information Criterion (AIC), Schwarz Criterion (SC), and Hannan-Quinn Criterion (HQ). According to the results presented in Table (4-3), and based on the Akaike Information Criterion (AIC), the optimal number of lags for estimating the time series of variables is one period.

Table (4-3) Statistics of Determining the Optimal Lags

Lag	AIC	SC	HQ
0	33.23660	33.57788	33.33126
1	23.85829*	26.64634*	24.40255*
Note: * Statistical significance is at the level of 5%.			
Source: Prepared by the researcher using the Eviews 12 program			

4-3 Bounds Test

In this step, a boundary test is employed to determine whether a long-run co-integration relationship exists among the variables. This test involves comparing the calculated F-statistic value with the critical values for the lower and upper bounds, the best model of distributed slowdowns according to the AIC information standard is ARDL (1, 1, 0, 0, 0, 0, 0). The results in Table (4-4) indicate that the calculated F-statistic value is greater than the upper critical bound I(1) at all significance levels (1%, 5%, 10%) for six variables (k = 6) in both cases: regression with a fixed intercept and regression with a fixed intercept and trend.

Therefore, the null hypothesis, which assumes the absence of co-integration, is rejected. It is concluded that a co-integration relationship exists, indicating a long-run equilibrium relationship among the variables in the model.

Table (4-4) F-Bound Test

Selected Model	ARDL(1,1,0,0,0,0,0)	
Test Statistic	Value	
F. Statistic	9.101947	
K	6	
Signif.	I(0)	I(1)
10%	1.75	2.87
5%	2.04	3.24
2.5%	2.32	3.59
1%	2.66	4.05
Source: Prepared by the researcher using the Eviews 12 program		

4-4 Estimation of the ARDL model for the long run.

Based on the results of estimating the parameters in the long-run equilibrium and after confirming the existence of a co-integration relationship among the model variables using the boundary methodology, the long-run relationship is measured within the ARDL model. This estimation relies on the Schwarz Criterion (SC) and the Akaike Information Criterion (AIC), as presented in Table (4-5), to derive the long-run estimates of the ARDL model.

The explanations of the long-run equilibrium relationship between the model variables are as follows:

Table (4-5) long-run estimates of the ARDL model

Long Run Coefficients				
Variable	Coefficient	Std. Error	t- Statistic	Prob.
PER	39.57958*	16.01941	2.470726	0.0295
GE	-0.044489	7.595640	-0.005857	0.9954
CPI	0.945779	0.782447	1.208745	0.2500
GCF	0.475868*	0.176938	2.689456	0.0197
TLF	0.852496*	0.276501	3.083162	0.0095
TO	-0.367448**	0.178047	-2.063774	0.0614
Note: *.** Statistical significance is at the level of 5% 10%. Source: Prepared by the researcher using the Eviews 12 program				

The political stability (**PER**) variable shows a positive and significant impact on industrial sector growth, with a coefficient value of **39.57958**, which is statistically significant at the 5% level (**p-value = 0.0295**). This indicates that an improvement of one unit in political stability increases the growth rate of the industrial sector by over 39%. This result highlights a strong positive relationship between political stability and industrial sector growth in the long term, as political stability enhances confidence in the business environment, attracts investments, and stimulates industrial growth. These findings align with previous literature, such as the study by Ali et al. (2020), which confirmed that political stability promotes industrial growth. This supports the validity of the study's first hypothesis, which states that political stability has a statistically significant positive effect on industrial sector growth in Saudi Arabia.

The coefficient for government effectiveness (**GE**) is **-0.044489**, which is not statistically significant at the 5% level (**p-value** = **0.9945**). This indicates that government effectiveness does not have a clear impact on industrial sector growth in the long term. While this finding aligns with Saidi and Ali (2024), it contrasts with Al-Tal and Al-Tarawneh (2021), which showed a positive impact of government effectiveness on economic growth. The insignificance of this result may stem from the choice of the government effectiveness indicator, which may not fully capture the government's role in the Kingdom's industrial sector. Alternative indicators, such as e-government effectiveness, might provide better insight but were not used due to the lack of time series data.

Inflation (**CPI**) has a coefficient value of **0.945779**, which is not statistically significant at the 5% level (**p-value** = **0.2500**). This indicates that inflation does not have a significant impact on industrial sector growth. The result aligns with Sadaqa et al. (2021), which showed that inflation indirectly affects industrial growth through its influence on political instability. However, it disagrees with Nasrulddin et al. (2023), which argued for an inverse relationship between inflation and industrial sector growth, as inflation can deter investments by increasing costs.

Fixed capital (**GCF**) has a positive and significant impact on industrial sector growth, with a coefficient of **0.475868**, statistically significant at the 5% level (**p-value** = **0.0197**). This suggests that fixed capital formation positively affects industrial growth, supporting the findings of Seghiri et al. (2021) and Shesha et al. (2023), which demonstrated that increased capital formation enhances domestic industrial production in Saudi Arabia. However, this result contrasts with Ali et al. (2020), which found no significant impact of fixed capital formation on industrial value-added.

The labor force participation rate (**TLF**) also has a positive and significant impact on industrial sector growth, with a coefficient of **0.852496** and a statistically significant **p-value** = **0.0095** at the 5% level. This finding indicates that increased labor force participation significantly contributes to industrial growth. It aligns with Ali et al. (2020), which emphasized the role of population growth in enhancing labor force productivity, and Ben Albar (2019), which demonstrated the positive impact of industrial sector employment on industrial value-added.

Trade openness (**TO**) has a coefficient of **-0.367448**, which is statistically significant at the 10% level (**p-value** = **0.0614**). This result indicates that trade openness negatively affects industrial sector growth in Saudi Arabia, potentially due to reliance on imports for industrial materials. This finding supports Shesha et al. (2023), which concluded that trade openness negatively impacts industrial growth in the Kingdom. However, it contrasts with Ali et al. (2020), which found trade to have a positive but non-significant effect on industrial growth, and Seghiri et al. (2021), which reported a positive and significant relationship between trade openness and economic growth.

4-5 Estimation of the ARDL model for the short run and ECM

In the short term, the ECM (Error Correction Model) was utilized to derive the short-term dynamics of the relationships between the variables. The results presented in Table (4-6) highlight the following effects on industrial growth in Saudi Arabia:

Table (4-6) Short-run and Error Correction for the ARDL model

Short Run Coefficients				
Variable	**Coefficient**	**Std – Error**	**T- Statistic**	**Prob.**
D(PER)	**17.26649***	**2.731447**	**6.321370**	**0.0000**
ECM	**-0.74430***	**0.074103**	**-9.776014**	**0.0000**
Note: * Statistical significance is at the level of 5%.				
Source: Prepared by the researcher using the Eviews 12 program				

Political stability (**PER**) has a coefficient value of **17.26649**, which is statistically significant at the 5% level (**p-value** = **0.0000**). This indicates that an improvement of one unit in political stability increases the growth rate of the industrial sector by **17.27%**. This result demonstrates a positive and significant impact of political stability on industrial sector growth in the short term in Saudi Arabia. It aligns with the findings of Ali et al. (2020), which showed that political stability fosters industrial growth.

The **ECM (Error Correction Model)** coefficient is **-0.74430**, carrying a negative sign and statistically significant at a level below 5% (**p-value** = **0.0000**). This indicates that any deviation from the long-term equilibrium is corrected by **74.43%** in the subsequent short period. This reflects the speed of error correction for the dependent variable (industrial sector growth) in the short term, driven by the influence of other variables, towards its long-term equilibrium value.

These results confirm that the Saudi economy demonstrates high resilience in the face of political shocks. They also highlight the robustness and adaptability of Saudi Arabia's economic policies, which effectively support a return to equilibrium under various circumstances and drive progress toward sustained prosperity and development.

4-6 Granger Causality Test

The results in Table (4-7) indicate that the Engle-Granger (1987) test was used to determine the direction of causality between industrial sector growth and political stability. The probability value for the case where political stability causes growth in the industrial sector is 0.0659, which is less than 10%. This means the null hypothesis is rejected, indicating a short-term causal relationship from political stability to industrial sector growth.

In contrast, the probability value for the reverse direction is 0.2517, which is greater than the 1%, 5%, and 10% significance levels. This indicates that no causal relationship exists in the direction from industrial sector growth to political stability.

Thus, the results reveal a unidirectional causal relationship from political stability to industrial sector growth, consistent with the findings of Mohammed et al. (2018) and Najah (2020). These results support the validity of the second hypothesis, which states that there is a statistically significant unidirectional causal relationship from political stability to industrial sector growth in Saudi Arabia.

Table (4-7): Granger causal test

Null Hypothesis	F - Statistic	Probability
PER does not Granger Cause IND	3.86405**	0.0659
IND does not Granger Cause PER	1.40808	0.2517
Note: *.** Statistical significance is at the level of 5% 10%.		
Source: Prepared by the researcher using the Eviews 12 program		

4-7 Predictive Performance Tests of ARDL model estimation results

The results in Table (4-8) summarize the predictive performance tests conducted on the estimated model to ensure its validity, absence of statistical issues, and efficiency. The calculated statistics indicate that the model demonstrates a high explanatory power, with an adjusted R-squared value of **85.6%**, reflecting the quality of the selected explanatory variables and their significant impact on changes in industrial sector growth.

The Breusch-Godfrey test for detecting serial correlation in the residuals revealed no serial correlation issues, as the test probability value (**Prob = 0.3603**) exceeds the 5% significance level. This leads to the acceptance of the null hypothesis, confirming the absence of serial correlation in the model.

Additionally, Table (4-8) includes further residual diagnostics for the estimated error correction model. These tests confirm the reliability of the model:

- The Jarque-Bera test for normality of residuals yielded a probability value of 0.942740, which is greater than 5%, supporting the null hypothesis that the residuals follow a normal distribution.
- The Breusch-Pagan-Godfrey test for heteroscedasticity produced a probability value of 0.1627, also greater than 5%, indicating no heteroscedasticity issues in the model.

These results confirm that the estimated model is robust and free from common econometric problems, ensuring its reliability for interpreting the relationship between the variables and their impact on the growth of the industrial sector.

Table (4-8): Performance tests of ARDL model

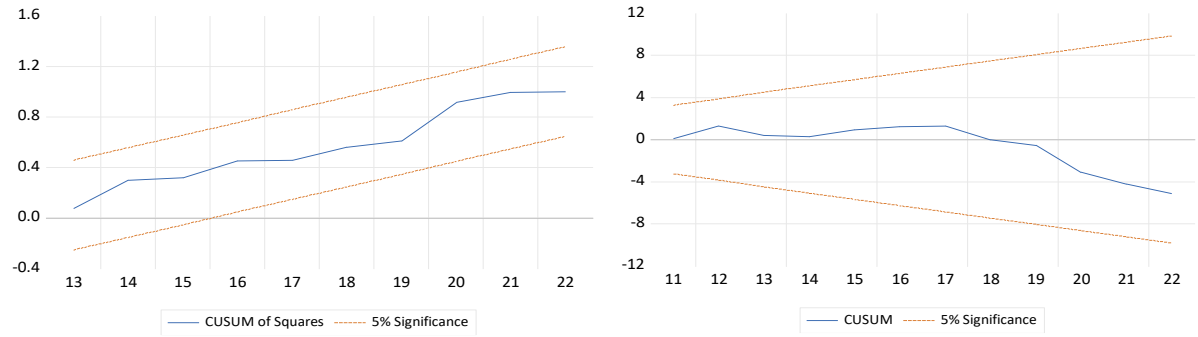
Test Statistic	Value Estimated	Probability
Normality (Jarque-Bera)	0.117930*	0. 942740
Breusch-Godfrey Serial Correlation LM Test	1.948683*	0.1627
Heteroskedasticity Test Breusch-Pagan-Godfrey	4. 315339*	0. 8276
Note: * Statistical significance is at the level of 5%.		
Source: Prepared by the researcher using the Eviews 12 program		

4-8 Stability Test of the ARDL estimator model

The cumulative sum of residuals (CUSUM) and the squares of cumulative sum of residuals (CUSUMSQ) tests are two methods used to examine the stability of coefficients in the ARDL model over the long term. These tests calculate the cumulative changes in residuals to identify any structural changes and ensure that the estimated model is stable and reliable for predictive analysis and economic decision-making.

It can be seen from Figure (4-1) of the CUSUM and CUSUMSQ tests that they are within the critical limits (at a confidence level of 5%). This indicates that the coefficients are stable and there are no significant structural changes in the data. In this case, the null hypothesis is accepted, confirming that there is no stability problem. This means the long-run and short-run parameters of the estimated ARDL model are stable and static, making their predictions reliable.

Figure (4-1): (CUSUM) and (CUSUMSQ)



Source: Prepared by the researcher using the Eviews 12 program

5. Findings and Recommendations

Amending the study of the impact of political stability on the growth of the industrial sector in Saudi Arabia using the ARDL model is an important step to understand the factors affecting this vital sector. The results obtained indicate that political stability plays an important role in promoting the growth of the industrial sector, as evidenced by the moral coefficients in the long-term and short-term estimates. The results were as follows:

- Political stability in the long and short term has a positive moral and positive impact on both, which indicates the importance of political stability in stimulating industrial growth. Literature such as the study of (Ali et al., 2011) indicate that political stability enhances the quality of governance and the rule of law, which supports industrial growth, and a study (Eisen & Veiga, 2011) confirmed this result as it explained that political stability is a decisive factor in achieving sustainable economic growth.
- The results indicate that the first hypothesis is true, which states that there is a positive moral impact of political stability (PER) on the growth of the industrial sector in the kingdom of Saudi Arabia (IND), where there is a direct moral relationship in the long term at the level of morale (5%). -The effectiveness of the government in the long and short term has a non-moral impact, which may reflect the challenges in improving the quality of public services and its impact on industrial growth in the kingdom of Saudi Arabia, literature such as a study (Al-Tal & Al-Tarawneh, 2021) suggests that the effectiveness of the government plays a role in increasing energy consumption and economic growth, but there may be local factors limiting its impact in the Saudi case.
- Inflation in the long and short term has a non-moral effect, which reflects the stability of financial policies and the lack of inflation impact on industrial activity in the kingdom of Saudi Arabia. And literature such as the study of (Mohamed et al., 2018) explains that political instability leads to a decline in business activity and an increase in the deficit, which can affect industrial growth.
- Capital formation in the long term has a moral effect, which indicates that investments in fixed capital significantly affect the industrial growth in Saudi Arabia. And literature such as a study (Ben Albar, 2019) shows that the formation of fixed capital has a positive effect on industrial value added, reflecting the importance of investments in infrastructure and equipment.

- The labor force participation rate in the long term has a moral effect, which means that the growth of the labor force contributes to the promotion of industrial growth in the kingdom of Saudi Arabia during the study period, and literature such as (Ali et al., 2011) confirm this.
- Trade openness in the long run has a moral impact, which means that open trade policies were a decisive factor in the industrial growth of Saudi Arabia during the study period. And literature such as the study of (Mohamed et al., 2018) explains that political instability leads to a decline in business activity and an increase in the deficit, which can affect industrial growth and vice versa.
- Political stability is considered one of the most important factors in supporting industrial growth in the Kingdom, and this is evidenced by the existence of a one-way causal relationship, according to which political stability causes growth in the industrial sector
- The results indicate that the second hypothesis of the study has been validated, which states that there is a statistically significant causal relationship between political stability (PER) and the growth of the industrial sector in the kingdom of Saudi Arabia (IND), where the trend of causality is evident from political stability to growth in the industrial sector at the level of morale (5%).

Based on the achievement of the research objectives, it turned out that the industrial sector has easily achievable possibilities and goals, being one of the sectors most attractive to foreign investments and can contribute to the development of other sectors. Therefore, it is recommended to take some necessary measures to promote a stable political environment that supports the growth of the industrial sector, including:

- Enhancing political stability through the adoption of economic diversification policies that will reduce the effects of global economic fluctuations, especially oil price fluctuations, which gives the kingdom's economy strength and resilience in the face of external shocks.
- Strengthening governance, transparency and combating corruption through improving legal frameworks and strengthening the rule of law to create a stable and attractive business environment for investments of international companies, which increases the confidence of local and international investors, especially in advanced industrial sectors and renewable energy.
- Supporting integration with the developed economies of the world through the liberalization of trade agreements and International Investment Partnership for modern industries, which makes the kingdom a regional center and raises its ranking in competitiveness and business indicators.
- Encouraging investments in infrastructure and fixed capital to enhance the productive capacities of the industrial sector in the long term.

References

- Abdelhadi, M., & Nacer Eddine, K. A. (2021). The Impact of Human Capital on Economic Growth in Algeria During the Period 1970-2018: Application of ARDL Approach to Cointegration. Strategy and Development Review, 11(3), 554-571. https://doi.org/10.1017/S0003055402004253
- Acemoglu, D., & Robinson, J. A. (2002). Economic backwardness in political perspective. American Political Science Review, 96(1), 115-131. https://doi.org/10.1017/S0003055402004253
- Aisen, A. and Veiga, F. (2006). Does political instability lead to higher inflation? a panel data analysis. Journal of Money Credit and Banking, 38(5), 1379-1389. https://doi.org/10.1353/mcb.2006.0064
- Aisen, A., & Veiga, F. J. (2011). How Does Political Instability Affect Economic Growth? (IMF Working Paper No. 11/12). International Monetary Fund.
- Alesina, A., Özler, S., Roubini, N., & Swagel, P. (1996). Political instability and economic growth. Journal of Economic Growth, 1(2), 189–211. https://doi.org/10.1007/BF00138862
- Alhamran, M., Loganathan, N., Sethi, N., Hassan, A. (2023). Effects of political stability, oil prices and financial uncertainty on real economic growth of Gulf cooperation council countries. Elsevier. From: https://doi.org/10.1080/19186444.2021.1996192
- Ali, S., Ahmad, K., & Shahid, M. (2020). Implications of political stability and financial innovations for sectoral economic growth of Pakistan. *Amazonia Investiga*, 9(34), 34–43. https://doi.org/10.34069/AI/2020.34.10.4
- Al-Tal, R., & Al-Tarawneh, A. (2021). The Impact of Government Effectiveness and Political Stability on Energy Consumption in the Selected MENA Economies. International Journal of Energy Economics and Policy, 11(2), 1-6. https://doi.org/10.32479/ijeep.10786

- Baklouti, N. and Boujelbène, Y. (2020). An econometric study of the role of the political stability on the relationship between democracy and economic growth. Panoeconomicus, 67(2), 187-206. https://doi.org/10.2298/pan170308015b
- Barro, R. J. (1991). Economic growth in a cross-section of countries. The Quarterly Journal of Economics, 106(2), 407–443. https://doi.org/10.2307/2937943
- Besley, T. (2005). Political economy of government responsiveness: Theory and evidence from India. The Quarterly Journal of Economics, 117(4), 1415-1451. https://doi.org/10.1162/003355302320935061
- Bhatti, M. (2023). Human capital, political instability, foreign direct investment, infrastructure, and economic growth: heterogeneous causal linkages. Annals of Social Sciences and Perspective, 4(1), 231-257. https://doi.org/10.52700/assap.v4i1.287
- Besley, T. (2005). Political economy of government responsiveness: Theory and evidence from India. The Quarterly Journal of Economics, 117(4), 1415-1451. https://doi.org/10.1162/003355302320935061
- Blum, J. and Gründler, K. (2020). Political stability and economic prosperity: are coups bad for growth?. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3618841
- Chang, H. J. (1994). The political economy of industrial policy. Palgrave Macmillan.
- Chang, H.-J. (1994). The Political Economy of Industrial Policy. St. Martin's Press.
- Curvale, C. (2023). Measuring latin american political instability since independence. Research Society and Development, 12(13), e19121344228. https://doi.org/10.33448/rsd-v12i13.44228
- Dickey, D. A. and Fuller, W. A.(1979), "Distribution of the Esimators for Autoregressive Time Series With a Unit Root", Journal of American Statistical Association, 74 (366).
- Dickey, D. A., & Fuller, W. A. (1979). Distribution of the estimators for autoregressive time series with a unit root. Journal of the American Statistical Association, 74(366a), 427-431. https://doi.org/10.2307/2286348
- Digital government authority (2023). Digital government authority. From: https://dga.gov.sa/ar/news/KSA-ranks-3rd-globally-among-198-countries
- Easterly, W., & Levine, R. (1997). Africa's growth tragedy: Policies and ethnic divisions. The Quarterly Journal of Economics, 112(4), 1203–1250. https://doi.org/10.1162/003355300555466
- Engle, R., Granger, C., 1987. Co-integration and error correction representation: estimation and testing. Econometrica 55, 251–276.
- Galabada, J. (2022). Towards the sustainable development goal of zero hunger: what role do institutions play?. Sustainability, 14(8), 4598. https://doi.org/10.3390/su14084598
- Granger, C. W. J. (1969). Investigating causal relations by econometric models and cross-spectral methods. Econometrica, 37(3), 424-438. https://doi.org/10.2307/1912791
- Haan, J. de., & Siermann, C. L. J. (1996). Political instability, freedom, and economic growth: Some further evidence. Economic Development and Cultural Change, 44(2), 339–350.
- Haggard, S., & Kaufman, R. R. (1997). The political economy of democratic transitions. Comparative Politics, 29(3), 263-283. https://doi.org/10.2307/422121
- Hamdaoui, M., Ayouni, S. E., & Maktouf, S. (2022). Capital account liberalization, political stability, and economic growth. Journal of the Knowledge Economy, 13(2), 723–772.
- Hayek, F. A. (1945). The use of knowledge in society. The American Economic Review, 35(4), 519-530. https://www.jstor.org/stable/1809376
- Huang, S. & Throsby, D. (2011). Economic, political, and social determinants of peace. The Economics of Pace and Security Journal. ISSN 1749-852X.
- Khan, R. and Farooq, S. (2019). Corruption, political instability and sustainable development: the interlinkages. Journal of Quantitative Methods, 3(1), 56-83. https://doi.org/10.29145/2019/jqm/030104
- Kirikkaleli, D. (2023). The impact of political stability on environmental quality in the long run: the case of turkey. Sustainability, 15(11), 9056. https://doi.org/10.3390/su15119056
- Knack, S., & Keefer, P. (1995). Institutions and economic performance: Cross-country tests using alternative institutional measures. Economics & Politics, 7(3), 207–227. https://doi.org/10.1111/j.1468-0343.1995.tb00111.x
- Kramer, G. H. (1971). Short-term fluctuations in U.S. voting behavior, 1896–1964. The American Political Science Review, 65(1), 131-143. https://doi.org/10.2307/1955049
- Kurečić, P. and Kokotović, F. (2017). The relevance of political stability on fdi: a var analysis and ardl models for selected small, developed, and instability threatened economies. Economies, 5(3), 22. https://doi.org/10.3390/economies5030022
- Kuznets, S. (1966). Modern economic growth: Rate, structure, and spread. Yale University Press.
- Langroodi, R. R. (2021). Schumpeter's Capitalism, Socialism and Democracy: A Twenty-First Century Agenda. Springer.

- Lipset, S. M. (1960). Political man: The social bases of politics. Doubleday.
- Lucas, R. E. (1988). On the mechanics of economic development. Journal of Monetary Economics, 22(1), 3–42. https://doi.org/10.1016/0304-3932(88)90168-7
- Lucas (2004), The Industrial Revolution: Past and Future, American institute for economic research, Vol XLIV, from: https://www.aier.org/wp-content/uploads/2013/11/EEB-8.04-IndustRev.pdf
- Mandal, R. (2022). Impact of political instability on economic growth of nepal. Economic Journal of Nepal, 45(3-4), 55-74. https://doi.org/10.3126/ejon.v45i3-4.63149
- McKelvey, R. D. (1975). Intransitivities in multidimensional voting models and some implications for agenda control. Journal of Economic Theory, 12(3), 472-482. https://doi.org/10.1016/0022-0531(75)90062-1
- Meyer, D. (2018). An analysis of the impact of economic growth, political instability, and exchange rate on tourism growth in south africa. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3303311
- Mohammed, Faraj Abdullah, Ahmed, Doaa Akl, and Al-Jarwani, Mohammed Saeed Bassiouni. (2018). The relationship between political instability and economic growth in Egypt(unpublished master's thesis). Benha University, Benha. Retrieved from http://search.mandumah.com/Record/876741
- Moore, B. (1966). Social origins of dictatorship and democracy: Lord and peasant in the making of the modern world. Beacon Press.
- Nair, Nisha (2016). Constructing Indices of Peace: A Critical Reappraisal with particular Reference to Global Peace Index. 38(1): 71–100
- Narayan, P. K. (2005). The saving and investment nexus for China: Evidence from cointegration tests. Applied Economics, 37(17), 1979-1990. https://doi.org/10.1080/00036840500278103
- Nasrulddin, V. M., Khayat, S. H., & Alharbi, M. A. (2023). Foreign Direct Investment and its Impact on Value Added in the Industrial Sector of the Kingdom of Saudi Arabia. Journal of Economic, Administrative and Legal Sciences (JEALS), 7(3), 132–150. http://search.mandumah.com/Record/1368485.
- Natalini, Davide. Jones, Aled. Bravo, Giangiacomo (2015). Quantitative Assessment of Political Fragility Indices and Food Prices as Indicators of Food Riots in Countries. ISSN 2071-1050.
- Nawaz, A., Anwar, U., & Aquil, F. (2021). An economic impact of political instability: an evidence from pakistan. Journal of Economic Impact, 3(1), 47-54. https://doi.org/10.52223/jei3012106
- Olson, M. (1982). The rise and decline of nations: Economic growth, stagflation, and social rigidities. Yale University Press.
- Pesaran, M. H. (1997). Testing for unit roots in heterogeneous panels. Journal of Econometrics, 68(1), 79-113. https://doi.org/10.1016/S0304-4076(94)01654-9
- Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. Journal of Applied Econometrics, 16(3), 289-326. https://doi.org/10.1002/jae.616
- Phillips, P. C. B., & Perron, P. (1988). Testing for a unit root in time series regression. Biometrika, 75(2), 335-346. https://doi.org/10.1093/biomet/75.2.335
- Radu, M. (2015). Political stability - A condition for sustainable growth in Romania? Procedia Economics and Finance, 30, 751–757. http://creativecommons.org/licenses/by-nc-nd/4.0/
- Ramadhan, A., Jian, Z., Henry, K., & Pacific, Y. (2016). Does political stability accelerate economic growth in tanzania? a time series analysis. Global Business Review, 17(5), 1026-1036. https://doi.org/10.1177/0972150916656652
- Rodrik, D. (2000). Institutions for high-quality growth: What they are and how to acquire them. Studies in Comparative International Development, 35(3), 3–31. https://doi.org/10.1007/BF02699764
- Romer, P. M. (1986). Increasing returns and long-run growth. Journal of Political Economy, 94(5), 1002–1037. https://doi.org/10.1086/261420
- Sabir, S., Rafique, A., & Abbas, K. (2019). Institutions and fdi: evidence from developed and developing countries. Financial Innovation, 5(1). https://doi.org/10.1186/s40854-019-0123-7
- Sadaqa, Abdulaziz Ali, and al-Jibani, Saqr Hamad. (2021). The impact of economic stability on political stability and the absence of violence and terrorism in Libya.Journal of Diplomatic Affairs, 5(8) ,85-111 .Retrieved from http://search.mandumah.com/Record/1276176
- Se Jelaly, H., & Mukhtari, F. (2020). Political instability and economic growth in the Arab Spring countries. Journal of economic heralds, 2(2).
- Seghiri, S., Rezazi, I., & Boulesnam, M. (2021). The Impact of Political Stability and Economic Freedom on Economic Growth in Europe and Central Asia during the Period (1996–2018): Using the Panel ARDL Model. Journal of Economic Studies, 12(1), 387–404..
- Schumpeter, J. A. (1942). Capitalism, socialism and democracy. Harper & Brothers.
- Schumpeter, J. A. (1961). The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle. Harvard University Press.

- Shasha, L., & Nasrulddin, V. & Alhithali, M. (2023). The Impact of Foreign Direct Investment on the Growth of the Industrial Sector in the kingdom of Saudi Arabia During the Period (2000–2020). Journal of Economic, Administrative and Legal Sciences (JEALS), 7(9), 65–80.
- Shin, Y., & Sun, Y. (1998). A simple method for estimating cointegration vectors with applications to dynamic OLS. Oxford Bulletin of Economics and Statistics, 60(1), 37-61. https://doi.org/10.1111/1468-0084.00083
- Siddik, M., Kabiraj, S., Hosen, M., & Miah, M. (2021). Impacts of political stability on shadow economy: evidence from bay of bengal initiative for multi-sectoral technical and economic cooperation countries. Vision the Journal of Business Perspective, 26(2), 221-231. https://doi.org/10.1177/0972262920988387
- Sims, C. A. (1972). Money, income, and causality. The American Economic Review, 62(4), 540-552. https://www.jstor.org/stable/1806097
- Solow, R. M. (1956). A contribution to the theory of economic growth. The Quarterly Journal of Economics, 70(1), 65–94. https://doi.org/10.2307/1884513
- Statistics Authority, (2023). General Authority for Statistics. Retrieved from https://www.stats.gov.sa/ar/news/551
- Svoboda, I., Новакова, О., Balatska, O., Karchevska, O., & Tulinov, V. (2021). Political extremism in modern democratic transformations. Cuestiones Políticas, 39(70), 504-523. https://doi.org/10.46398/cuestpol.3970.30
- The PRS Group (2024). The International Country Risk Guide, from: https://www.prsgroup.com/wp-content/uploads/2012/11/icrgmethodology.pdf
- The U.S. National Archives and Records Administration (2024). Global War on Terror. From: https://www.georgewbushlibrary.gov/research/topic-guides/global-war-terror
- The White House (2001). The Clinton-Gore Administration: Sustaining America's Prosperity Highlights of the 2001 Economic Report of the President. From: https://clintonwhitehouse5.archives.gov/WH/new/html/Fri_Jan_12_113936_2001.html
- The World Bank (2013). EU11 Growth Drops in 2012 and Remains Slow in 2013 Amid Weak External Confidence. From: https://www.worldbank.org/en/news/press-release/2013/06/13/eu11-regular-economic-report-june-13-2013
- UN: United Nations. (2023). Security Council decides to ease sanctions on the Federal Government of Somalia. United Nations Security Council. https://www.un.org/securitycouncil
- Vasilyeva, R. and Mariev, O. (2021). Determinants of foreign direct investment in developed and developing countries: impact of political stability. Economy of Region, 17(4), 1390-1404. https://doi.org/10.17059/ekon.reg.2021-4-24
- Vasilyeva, R., Mariev, O., Plotnikov, S., & Фоминых, М. (2020). The role of political stability in foreign direct investment attraction: cross-country analysis. Proceedings of Cbu in Economics and Business, 1, 76-83. https://doi.org/10.12955/peb.v1.22
- Vision of Humanity (2024). The Global Peace Index: Exploring the 23 Indicators of Peace. https://www.visionofhumanity.org/chart-of-the-week-indicators-of-peace/
- World Bank (2024). Worldwide Governance Index. From: https://www.worldbank.org/en/publication/worldwide-governance-indicators
- World Bank. (2023a). World Development Indicators. Retrieved from https://www.worldbank.org/en/publication/worldwide-governance-indicators/interactive-data-access
- World Bank. (2023b). World Development Indicators. Retrieved from https://databank.worldbank.org/source/world-development-indicatorsYounis, M., Lin, X., Sharahili, Y., & Santhirasegaram, S. (2008). Political stability and economic growth in asia. American Journal of Applied Sciences, 5(3), 203-208. https://doi.org/10.3844/ajassp.2008.203.208
- Zhang, W., Narayanan, S., & Feng, S. (2023). Why there has been no anti-regime movement on college campus in china for three decades? a survey study at thirty-five universities (2015–2018) and its implications. Journal of Current Chinese Affairs, 52(1), 89-118. https://doi.org/10.1177/18681026221145393
- Zhou, H. (2023). Food export stability, political ties, and land resources. Land, 12(10), 1824. https://doi.org/10.3390/land12101824