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Nexus between Macroeconomic Factors and Corporate Investment: Empirical Evidence from GCC Markets

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Abstract: The current study aims to explore the role of various macroeconomic factors in determining corporate investment. Using firm-level data of six Gulf Cooperation Council (GCC) region countries for a 14 year period (2007–2020), the current study establishes the empirical analysis by employing the system generalized method of moments (GMM) technique. The empirical results reveal the negative impact of foreign direct investment whilst the positive impact of economic growth, financial development, and inflation rate on corporate investment decisions. Due to high market competition, foreign direct investment can hamper the growth of domestic industrial sectors. However, economic growth, financial development, and inflation rate positively drive the investment by enhancing the demand for industrial products, cheap financing, and price appreciation effect on production enrichment respectively. Based on results, it is suggested that corporate managers should consider the economic sensitivity of investment. The novelty of study can be listed, as the current analysis presents the dynamic role of various economic factors in determining the corporate investment decisions specifically in GCC region countries.

Keywords: corporate investment; financial development; GCC countries; GMM; macroeconomic factors

JEL Classification: G32; F20; F21

1. Introduction

Corporate capital investment refers to the investment in physical projects of a company. Typically, such investment is made for more than one year and for the purpose of extending the existing production volume or facilitating other production-related activities. Capital investment requires a strong motivation for managers due to the slow payback period and more chances of default due to high uncertainty of return. Moreover, such investment requires many funds that a firm can bind for the long term (Farooq et al. 2021). Therefore, corporate investment is a crucial firm-level decision that determines the financial success of a firm. There exist many factors e.g., firm size, financial leverage, and managerial board characteristics that can influence this decision (Agyei-Mensah 2021). In addition, corporate investment decisions have a close link with the macroeconomic condition of a country. Specifically, volatile economic condition can dynamically affect industrial decisions. In this regard, many studies have previously explored the impact of economic uncertainty on corporate investment decisions (Wang et al. 2014; Akron et al. 2020; Xie et al. 2021). Similar to economic uncertainty, there exist other economic factors, e.g., inflation rate, foreign direct investment, financial sector development, and economic growth that can

affect the industrial investment. However, the literature is still scant on how these factors can impinge upon investment decisions. Thus, the current study aims to unveil the role of various economic factors on corporate investment decisions in the GCC (Gulf Cooperation Council) region. The main research question is that how the macroeconomic condition of a country influences the firm-level investment decisions.

The macroeconomic condition of a country has a close link with many corporate financial decisions. The economic environment of a country in which a firm operates can asymmetrically change financial decisions. The literature has provided some empirical evidence on the relevant role of macroeconomic factors in determining the firm-level decisions. For instance, the study of D'Mello and Toscano (2020) has investigated the effect of various economic factors on trade credit activities of enterprises and found that corporate firms actively react to any change in economic uncertainty condition of a country. Similarly, the analysis of Chow et al. (2018) suggested that the macroeconomic uncertainty of a country has an inverse relationship with the financing decision of enterprises. However, this negative impact can be curbed by enhancing the corporate governance quality. The empirical outcomes of these studies reflect that the corporate firms are affected by the economic environment in which they are operating. Specifically, the financial strategies of a firm are more sensitive towards any change in the economic situation. Similar to other financial decisions, corporate investment is also a firm-level financial decision that might have a close link with changes in economic condition. It requires a high financial reserve. Any unfavorable change in economic condition can place the firms into more financial distress and thus discourage them to invest in capital projects. Conversely, the favorable economic condition, specifically economic policy stability, positively derives the capital investment. In better economic conditions, corporate managers have more optimistic views regarding future investment and thus enhance the volume of investment. However, such theoretical assumptions regarding the impact of economic factors on corporate investment have not yet been positively explored empirically in the literature.

In the GCC region, the industrial sector is not yet mature enough to resist any external shocks. The financial decisions of industrial enterprises in this region are more sensitive to any change in the economic situation. Moreover, the GCC region has a different institutional, economical, and geopolitical environment from the rest of the developed economies. According to IMF, the financial sector including banks, stock markets, and other loan-extending agencies are not yet developed in this region (IMF 2018). Most non-financial sector companies rely only on the banking sector as other financial institutions are too small and unable to completely meet the financial needs of other sectors of the economy. Certainly, the stock markets in the GCC region have captured the attention of international investors, stemming from the ease in the financial and economic environment by the state members. Due to ease in restrictions, the volume of foreign investors has increased to 49% in Saudi Arabia and Oman, while 100% in the residual member countries (Guizani and Ajmi 2021). This change in investor's volume demonstrates the change in financial systems due to changes in an economic environment. In the GCC region, the political regimes are much different from the rest of the world because the monarchy system still exists. Many industries are owned by royal families and thus they need less external financing to perform their business operations. However, GCC economies are earning a significant proportion of their total GDP from the export of oil and related products and are more open to any change in economic systems of the world. Any change in economic situation of other world has a substantial impact on the export volume of GCC region countries. This phenomenon shows that all investment activities, monetary growth, and performance of capital market largely depend upon the oil exports. Any shock in oil exports due to change in economic situation of other world has a significant impact on all industrial sectors of this region.

This study checks the effect of various economic factors including foreign direct investment, economic growth, financial development status, and inflation rate on corporate investment decisions of GCC region enterprises. We sample the 14 year financial infor-

mation for the years 2007 to 2020 of non-financial sector enterprises of six GCC region countries. For empirical analysis, the current study employs the system GMM model due to the potential presence of endogeneity issues. The statistical analysis reveals the significant negative impact of foreign direct investment while a significant positive impact of economic growth, financial sector development, and inflation rate on corporate investment. The change in such economic factors tends to determine the corporate investment dynamically. Besides macroeconomic factors, the current analysis includes a list of firm-specific variables as control variables. The statistical analysis suggests the positive impact of profitability and firm size while a negative effect of leverage on corporate investment.

The undergoing empirical analysis contributes in several ways. First, it extends the empirical literature on corporate investment by checking the impact of macroeconomic factors in the GCC region. In the literature, no study exists that explores a similar relationship in the GCC region. Furthermore, the current study adds new theoretical debates on investment decisions of enterprises from macroeconomic perspectives. Second, this study provides the empirical robustness to the study of Farooq et al. (2021) in alternative data specification. We sample the non-financial sector enterprises and employ the GMM (generalized method of moments) model which provides an unbiased analysis. It provides a more valuable insight on the relevant role of various economic factors in determining the corporate investment of GCC region countries that are more sensitive to any change in economic situation. Third, the empirical outcomes of the current study provide direct policy advice to the policy officials of this region. The policy analysts can utilize the current analysis to develop the more transparent policies for industrial sectors.

The other parts of the paper contain the discussion on the following sections. Section 2 is of literature review and hypotheses development, Section 3 provides the details about material and methods while Section 4 presents the empirical analysis. In Section 5, the discussion on empirical analysis has been offered while Section 6 is of conclusion and policy suggestions.

2. Literature Review

In this section, we build the directional hypotheses by reviewing the previous literature. The term "macroeconomic factors" may have a salutary or catastrophic impact on an economy, and it may differ from country to country. Such factors of dwindling economies are unable to perform in befitting manners. In this section, we examine how in the past country level factors affected corporate investment decisions. It will confer the effect of such factors on the whole economy (Zaman et al. 2012; Almustafa et al. 2023). The previously mentioned studies in the literature have exposed that the country level factors accompanied with firm level variables have potential impact on decisions regarding firm level (Barakat et al. 2016; Horra et al. 2022). The study conducted by Khan (2014) has revealed that the better country level factors assist to uplift the organizational victory and bring enormous opportunities for entrepreneurs to invest in fresh business ventures. The decisions regarding firm level investment have numerous assumptions at micro and macro level. Before procuring the property, plant, and equipment, the corporate experts (managers) perform critical analysis (Bokpin and Onumah 2009).

2.1. Foreign Direct Investment and Corporate Investment

The foreign direct investment (FDI) assists the development of the host company economy. It draws widespread positive impact to those economies which have high impetus to investment. The influx of FDI is often appreciated due to the opportunistic mindset for fresh and new businesses ventures (Nwanna 1986). Most of the previous studies have stated that the FDI brings favorable impact on investment opportunities (Saqib et al. 2013). The study of Deok-Ki Kim and Seo (2003); Tung (2018, 2019); and Tung and Thang (2020) found insignificant impact of FDI on investment decisions, but the study of Farooq et al. (2021) have stated negative impact of FDI influx on investment decisions. The incoming of FDI in host country enhances competition among domestic

and international businesses. The developing and underdeveloped economies are already facing the lack of modern technological advancement. Moreover, FDI brings contemporary technology which discourages local investors to invest in domestic business. Due to the mentioned and controversial arguments, it can be hypothesized that there is significant liaison between FDI and corporate investment decision.

2.2. Economic Growth and Corporate Investment

The term "gross domestic product" (GDP) portrays a picture of the whole economic condition of an economy. It may divert the decision regarding corporate investment. The firms enhance their investment in highly profitable ventures to certify their return in a boom period (Mauro and Becker 2006). In brief, high GDP growth develops the life of an individual, according to the Keynesian theory of consumption that high income brings high consumption which boosts the demand of individual. Moreover, increasing demand encourages investors to invest in corporate sector. A study organized by Valadkhani et al. (2009) stated that a declining GDP growth has an inverse link with corporate investment decisions. A better GDP growth rate catalyzes overall economic operations and gives relaxation to businesses which invites investors for more investment (Tokuoka 2013; Bird and Choi 2020). The above-mentioned studies reveal positive and negative links between GDP and corporate investment decisions. It helps us to develop a directional hypothesis that there is significant connection between GDP and corporate investment decisions.

2.3. Financial Development and Corporate Investment

The development in the financial sector in any economy provides hefty funds to firms at low financing cost. The easy availability of funds at low-cost assists firms to fulfill the optimal level of investment (Khan et al. 2018). A work created by Castro et al. (2015) stated that GDP has direct and significant liaison with corporate investment because financially weak firms can acquire benefit from availability of funds in financial institutions. However, the work of Xie and Mo (2015) asserted that the less financially developed economies failed to impart several opportunities due to stern terms of credit financing. The above-mentioned works of various scholars assist us to generate a directional hypothesis that there is a significant and positive relationship between financial development and firm investment decisions.

2.4. Inflation Rate and Corporate Investment

The word "inflation" means the general upsurge in the value of goods and services in an economy. An upsurge in general prices will make each unit of currency buy fewer things and, consequently, inflation causes a decline in the purchasing power of currency. In brief, an expansion in inflation rate indicates that the currency value is depreciating. This country level factor is a crucial factor and determines various economic operations in an economy. Furthermore, it influences economic growth which affects business operations indirectly in an economy (Ayyoub et al. 2011; Bandura 2022). A study arranged by Fischer (2013) recommended an inverse liaison between inflation and investment decisions due to ambiguous economic situations and considerable risk. The rising prices of goods and services due to rising inflation place more pressure on corporations to eliminate their investment (Omay and Kan 2010; Farooq et al. 2021). However, high values of goods and services attract investors to expand their investment. Different studies have found an inverse relationship between inflation and corporate investment decisions (Olanipekun and Akeju 2013; Onwe and Olarenwaju 2014; Azimli 2022). The above-mentioned works give us clues to develop hypotheses that there is a positive and significant link between inflation and investment decisions.

2.5. Firm-Specific Determinants of Corporate Investment

An upsurge in return on assets (ROA) brings more profitability, which ultimately enhances the capital reserves and in this way the company has a choice of further investment.

High return gives confidence to firms to invest more. Such firms are focused on more profitable investment whose payback period is very short. The study of Pacheco (2017) asserted that there is a positive link between ROA and investment due to availability of capital reserve. Bokpin and Onumah (2009); Gill et al. (2012); Pacheco (2017); and Driver and Muñoz-Bugarin (2019) described that the ROA positively affects corporate investment decisions due to availability of hefty funds. Such funds boost and encourage investors to invest in new projects of the company. The above studies give direction to develop a hypothesis that there is a direct and significant relationship between return of assets and corporate investment decisions. Decision-making matters in a company and it decides the destiny of the company. The decisions regarding finance are most debated in the prior literature of financial economics, financial management, and corporate finance. The term "corporate finance" is linked to the fundamental types of decisions: capital decisions, investment decisions, assets management, and dividend decisions (Nga et al. 2019). Firms always try to maintain the specific balance of debt and equity. If leverage balance exceeds its limit, then the companies automatically increase their financial stress, and they may lose their confidence. It discourages investors to invest more. It shows the inverse link between leverage and corporate investment decisions. Vo (2015) and Zhang et al. (2022) described that the leverage has an inverse connection with corporate investment decisions. In brief, high levels of debt in poor growth firms would lead to a decrease in investment (Bokpin and Onumah 2009; Gill et al. 2012; Pacheco 2017; Driver and Muñoz-Bugarin 2019). Above-mentioned works guide us to develop a prediction that the leverage is inversely associated to corporate investment decisions.

Firm size is measured by the log of total sales. The manager's primary goal is to maximize the wealth of the company. Therefore, an increment in the sales of a company contributes a major chunk to maximize the profit. Moreover, it reveals positive liaison between firm size and corporate investment decisions. Massive firms attract investors to invest more in the company (Bokpin and Onumah 2009; Gill et al. 2012; Pacheco 2017; Driver and Muñoz-Bugarin 2019). Such massive firms invest at enormous levels because they do not face stern financial limitations. Furthermore, expert individuals and professionals, who manage funds professionally, mitigate and alleviate the risk of failure. According to the above-mentioned works, we can hypothesize that there is a positive and significant link between firm size and corporate investment decisions.

3. Data and Methods

To explore the designed empirical relationship, the current study samples the 14 years data ranging from 2007 to 2020 of non-financial sector enterprises founded in six GCC region countries. The GCC group includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. The Gulf Cooperation Council (GCC) is a union of six countries established in 1981 and is a place of diversified economic and social activities. These economies have undergone a profound economic transformation and are now considered as fast-growing economies of the world. Initially, the sample size comprises 389 publicly listed firms from six underlying economies of the GCC region. However, we apply different sampling criteria, e.g., having no missing information, non-financial sector companies, to make the sample clearer and save from outlier effect in the sample. The final sample consists of accumulated 254 enterprises (3556 firm-level observations). The data is a balanced panel as we select or delete the specific company based upon fulfillment of selection criteria. The detail about the strength of selected economies and their relevant percentage contribution towards the total sample has been provided in Table 1. This strength of sample is based upon certain criteria. Financial data of firm-specific variables were collected from the "Wooldridge" while the statistics on macroeconomic variables were obtained from the world development indicators (WDI), The World Bank.

Table 1. Sample Distribution.

Country Name	No. of Companies	% Contribution in Total Sample
Bahrain	14	5.511
Kuwait	49	19.291
Oman	66	25.984
Qatar	18	7.086
Saudi Arabia	70	27.559
United Arab Emirates	37	14.556
Total	254	100%

Note: the strength of companies shows the selected companies from specific country.

3.1. Variables of Study

In this study, the corporate capital investment serves as a dependent variable and is measured with total expenditures on fixed assets divided by total assets. This ratio exemplifies the volume of capital investment made by the enterprises to expand their existing production systems. The corporate capital investment reflects the investment in three types of capital assets including property, plant, and equipment (PPE). Corporate firms acquire such assets to enhance their production capacity and are regarded as vital for the long-term sustainability of companies. However, such investment has a slow payback period and might come under passive investment options, given that such type of investment requires a great motivation of corporate managers and enough availability of financial reserve. This measurement of capital investment has been utilized by Akron et al. (2020); and Farooq et al. (2021). In the current analysis, foreign direct investment, economic growth, financial development, and inflation rate are the proxy variables of the macroeconomic situation and serve as explanatory variables. Foreign direct investment is a volume of investment made by non-resident individuals into the long-term projects of the host country for the purpose of gaining profit. Moreover, such type of investment shows the interest of foreign investors in business ventures of the host country.

Economic growth is a percentage increment in annual GDP while financial sector development exemplifies the percentage amount of funds extended by the financial sector to the other sectors of an economy. The higher percentage of funds offered by the financial sector, specifically the banking sector, to other sectors of an economy is an illustration of financially development and vice versa. Besides to these factors, we have also included the inflation rate as a proxy measurement of the economic situation of a country. The inflation rate shows the percentage change in CPI (consumer price index), which is a basket of goods purchased by the retail customers at a specific price. The increment in this price shows the higher inflation rate. Despite the literature (Chow et al. 2018; Guizani and Ajmi 2021; De Simone et al. 2022), the World Bank has specified such measurement of economic factors.

To control the effect of firm-specific variables, the current analysis considers profitability, leverage, and firm size as control variables at the firm level. The profitability ratio is a fraction between EBIT (earnings before interest and tax) and total assets. This ratio demonstrates the ability of a company to earn a profit by utilizing the existing assets. This ratio has a direct link with investment decisions as a higher profitability ratio indicates the more financial reserves that have a substantial positive impact on investment behavior. Similarly, the leverage ratio shows the percentage of bank loans acquired to finance the assets. This ratio further shows the financial stability of a company. A high leverage ratio indicates that the company is in a volatile condition due to more reliance on external funds. Lastly, the firm size is a log of total sales and shows the net volume of a company in terms of sales. Larger firms might be interested in more capital investment due to more demands for industrial products and vice versa. Some recent studies have specified these factors as determinants of corporate investment (Agyei-Mensah 2021; Ullah et al. 2021; Xie et al. 2021). In addition, to the theoretical explanation, Table 2 briefly shows the description of all variables.

Table 2. Variables Description.

Variable	Acronym	Measurement	Reference	Data Source
Corporate Investment	INV	Capital expenditures in fraction with total assets	(Chen et al. 2021; Park and Jang 2021; Jiang et al. 2022)	Wooldridge
Foreign direct investment	FDI	Foreign direct investment, net inflows (% of GDP)	(Contractor et al. 2018)	WDI, The World Bank
Economic growth	GDP	Annual GDP (%)	(Kalantonis et al. 2021; Ki and Adhikari 2022)	WDI, The World Bank
Financial development	FFD	Domestic credit to private sector (% of GDP)	(De Simone et al. 2022)	WDI, The World Bank
Inflation rate	IFR	Consumer price index (annual %)	(Farooq et al. 2021)	WDI, The World Bank
Profitability	ROA	EBIT/total assets	(Agyei-Mensah 2021)	Wooldridge
Leverage	LVG	total debt (short term + long term)/total assets	(Homapour et al. 2022)	Wooldridge
Firm Size	FS	Log (total sales)	(Ullah et al. 2021)	Wooldridge

Source: previous literature published on same theme.

3.2. Econometric Model and Methodology Discussion

The econometric relationship between dependent and independent variables can be presented as follow.

$$INV_{ijt} = \beta_{\circ} + \alpha_1 FDI_{jt} + \alpha_2 GDP_{jt} + \alpha_3 FFD_{jt} + \alpha_4 IFR_{jt} + \gamma_1 ROA_{ijt} + \gamma_2 LVG_{ijt} + \gamma_3 FS_{ijt} + \omega_i + \delta_t + \varepsilon_{ijt} \tag{1}$$

In Equation (1), INV is an acronym for corporate investment, FDI shows the foreign direct investment, GDP is for economic growth, FFD indicates the financial development, and IFR is an abbreviation for inflation rate. Similarly, ROA shows the profitability, LVG is for leverage, and firm size is abbreviated as FS. The subscripts ijt are for cross-section, country, and time, respectively. The symbol of $\beta_{\circ}$ is used to show the intercept of regression line while α, and γ are the vectors of coefficients representing the degree of change in explained variable due to change in relevant explanatory variable. Similarly, ω_i is used for cross-section fixed effect while δ_t is denoted for time fixed effect. The symbol of ε_{ijt} shows the residual term.

For regression analysis, the current study employs the system GMM (generalized method of moment model). However, it is necessary to perform the various pre-estimation techniques that suggested the specific model for final analysis. The selection of these pre-estimation techniques depends upon the nature of data and variables. As in the current case, most variables are macroeconomic; therefore, it is necessary to first check the stationarity status of variables. To investigate the stationarity, we employ the unit root testing and select the two econometric techniques named ADF test (Dickey and Fuller 1979) and Im, Pesaran, and Shin W-stat test (Im et al. 2003). The statistical analysis shown in Table 3 specifies that most variables (except financial development that carry the stationarity status at first difference) are stationary at the level 1(0) and have no issue of stationarity. The significant probability values ($p \geq 0.05$) reject the null hypothesis, i.e., unit root exist. Next,

as the analysis includes both macroeconomic and firm-specific variables, there are more chances of endogeneity in which the error term correlates with explanatory variables and make the analysis biased. Therefore, it is necessary to check the endogeneity issues. In doing so, we employ the Wald test and report the results in Table 4.

Table 3. Unit Root Testing.

	Im, Pesaran and Shin W-Stat		ADF—Fisher Chi-Square	
	Statistics	**Probability**	**Statistics**	**Probability**
Corporate Investment	−3.124	0.000	475.992	0.000
Foreign direct investment	−5.269	0.000	509.916	0.000
Economic growth	−3.651	0.000	443.784	0.048
Financial development (−1)	−16.538	0.000	963.787	0.000
Inflation rate	−32.286	0.000	1738.550	0.000
Profitability	−2.055	0.019	513.806	0.000
Leverage	−2.541	0.005	382.774	0.039
Firm Size	−4.937	0.000	450.055	0.031

Note: the significant values suggest the rejection of null hypothesis, i.e., no unit-root exist. Source: self-estimation.

Table 4. Endogeneity Identification.

	Wald Test		
Test Statistics	**Value**	**d.f.**	**Probability**
F-statistic	91.470	(6, 1759)	0.000
Chi-square	548.824	6	0.000
Null Hypothesis Summary			
Restriction Terms		**Value**	**Std. Error**
C (1)		−1.102	0.052
C (2)		0.001	0.009
C (3)		0.002	0.002
C (4)		−0.001	0.001
C (5)		0.003	0.006
C (6)		0.056	0.024

Note: the statistical outcomes suggest the existence of endogeneity issue. Source: self-estimation.

The significant probability values of restriction terms accept the alternative hypothesis, i.e., error term is correlated with explanatory variables and hence confirms the existence of endogeneity. In the presence of endogeneity, the simple OLS (ordinary least square) cannot produce unbiased results. Therefore, we employ the system GMM (generalized method of moments) model to estimate the regression. The GMM model produces more efficient results for micro-panel data (N > T), and in the presence of (i) endogeneity and (ii) multicollinearity. The GMM model was first argued by Arellano and Bond (1991) and later developed by Arellano and Bover (1995) and is commonly known as the AB model. This model has been repeatedly assumed by various studies for regression estimation arranged on the same theme (D'Mello and Toscano 2020; Farooq et al. 2021; Guizani and Ajmi 2021).

4. Empirical Analysis

The overall descriptive analysis of variables is shown in Table 5 while the country-wise average values of variables have been presented in Table 6. In Table 5, the mean value of INV (investment) is 0.392, illustrating the percentage investment in capital projects. If we look at the statistics provided in Table 6, it can be viewed that Oman has the highest mean value of INV (0.453), followed by Saudi Arabi (0.406), Kuwait (0.369), U.A.E. (0.344), Bahrain (0.338), and Qatar (0.290). The mean value of FDI is 2.181, indicating the percentage inflow of foreign funds as compared to total GDP. The mean value of GDP is 2.610% with a

maximum value of 19.592 (Qatar has the highest GDP growth rate in 2010) and a minimum value of −8.685 (Kuwait has a negative GDP growth rate in 2020). Similarly, the mean value of FFD is 63.554, indicating the percentage of funds extending by the financial sector to the private sectors of the economy. The overall mean value of the inflation rate is 2.776%, with a maximum value of 15.050 (Qatar in 2008) and a minimum value of −4.863 (Qatar in 2009). If we compare the country-wise inflation values in Table 6, the highest average inflation rate is in Kuwait (3.659), followed by Saudi Arabia (3.224), U.A.E. (2.679), Oman (2.633), Qatar (2.391), and Bahrain (1.903). Besides descriptive analysis, Table 7 presents the correlation values of variables. Most values are less than the benchmark value of 0.70; thus, it can be argued that there is no issue of multicollinearity.

Table 5. Descriptive Analysis.

	Mean	Median	Std. Deviation	Maximum	Minimum
INV	0.392	0.373	0.220	0.908	0.010
FDI	2.181	1.650	0.164	19.592	−8.658
GDP	2.610	2.699	0.126	19.599	−8.685
FFD	63.554	59.597	0.198	138.857	34.1007
IFR	2.776	2.346	0.128	15.050	−4.863
ROA	0.061	0.044	0.126	0.855	−0.731
LVG	0.266	0.242	0.175	0.822	0.010
FS	5.252	5.381	0.151	8.272	1.934

Acronyms: INV = corporate investment, FDI = foreign direct investment, GDP = economic growth, FFD = financial development, IFR = inflation rate, ROA = profitability, LVG = leverage, FS = firm size Source: self-estimation.

Table 6. Country-wise Trend.

	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	U.A.E.
INV	0.338	0.369	0.453	0.290	0.406	0.344
FDI	3.573	0.538	3.127	1.384	2.735	2.891
GDP	3.315	0.623	3.291	7.205	2.609	2.321
FFD	70.282	79.301	49.446	63.743	46.774	82.305
IFR	1.903	3.659	2.633	2.391	3.224	2.679
ROA	0.075	0.035	0.056	0.074	0.061	0.072
LVG	0.148	0.257	0.280	0.298	0.259	0.241
FS	4.087	4.393	3.976	5.872	5.972	5.755

Acronyms: INV = corporate investment, FDI = foreign direct investment, GDP = economic growth, FFD = financial development, IFR = inflation rate, ROA = profitability, LVG = leverage, FS = firm size Source: self-estimation.

Table 7. Correlation Analysis.

	INV	FDI	GDP	FFD	IFR	ROA	LVG	FS
INV	1.000							
FDI	0.034	1.000						
GDP	0.007	0.168	1.000					
FFD	−0.130	−0.301	−0.471	1.000				
IFR	0.058	0.215	0.286	−0.305	1.000			
ROA	0.083	0.079	0.126	−0.147	0.051	1.000		
LVG	−0.066	−0.065	−0.008	0.005	−0.020	−0.038	1.000	
FS	0.068	0.032	0.076	−0.018	−0.035	0.139	0.157	1.000

Acronyms: INV = corporate investment, FDI = foreign direct investment, GDP = economic growth, FFD = financial development, IFR = inflation rate, ROA = profitability, LVG = leverage, FS = firm size Source: self-estimation.

Regression Analysis

For regression analysis, the current study employs the fixed-effect model and system GMM model and reports the results in Table 8. The coefficient value of the foreign direct

investment is −0.022, which is significant at the 10% level, indicating the statistically significant but inverse relationship with corporate investment. Economic growth has a significant positive coefficient value of 0.026, implying that a one-unit increase in economic growth can improve corporate investment by 2.6%. Similarly, financial development and inflation rate have coefficient values of 0.005 and 0.022, respectively. Both values are significant at a 1% level and demonstrate a positive influence on corporate investment. At the firm level, the coefficient value of ROA is 0.251 while the coefficient value of LVG is −0.200, indicating the positive impact of profitability while a negative impact of leverage on investment decisions. Lastly, the coefficient value of FS is 0.318, inferring that a one-unit increase in firm size can enhance the firm investment by 31.8%.

Table 8. Effect of Macroeconomic Factors on Corporate Investment.

	Corporate Investment as a Dependent Variable			
	Fixed Effect Model		System GMM Model	
Variables	Coefficient	Probability	Coefficient	Probability
Constant	−1.102 ***	0.000	−1.681 ***	0.000
Foreign direct investment	−0.003 ***	0.000	−0.022 *	0.106
Economic growth	0.002 ***	0.000	0.026 ***	0.000
Financial development	0.002 ***	0.004	0.005 ***	0.001
Inflation rate	0.003 ***	0.000	0.022 ***	0.012
Profitability	0.056 ***	0.019	0.251 ***	0.005
Leverage	−0.248 ***	0.000	−0.200 ***	0.000
Firm Size	0.294 ***	0.000	0.318 ***	0.000
Adjusted R-square		0.871	0.625	
S.E. of Regression		0.078	0.131	
Prob (F-statistics)		0.000	-	
Prob. (J-statistics)		-	0.171	

Note: ***, * denoting the significance level at 1% and 10%, respectively. Source: self-estimation.

5. Discussion

This study tends to unveil the role of various economic factors in determining corporate capital investment. For empirical analysis, we employ the panel fixed effect and system GMM models and report the results in Table 8. The coefficient value of the foreign direct investment is −0.022, stating the statistically significant but inverse relationship with corporate investment. The inflow of foreign direct investment uplifts the depressing economy by enhancing the pace of industrialization and more employment opportunities (Yeboua 2021). Nonetheless, this negative effect of FDI inflow can be explained as an inflow of foreign direct investment can harm the growth of domestic industries by injecting unfair market competition. This negative effect of foreign direct investment on the growth of domestic businesses is more explicit in less technology developed economies. Domestic businesses are unable to meet the foreign competition regarding product quality and quantity and thus are expelled from the market. Specifically, an unmatured economy where the industrial units are not well established cannot withstand the entry of foreign investors. Foreign direct investment captures the product market and thus the demand for local industrial units decreases which eventually leads to low investment. Due to the crowding-out effect, the inflow of foreign direct investment replaced the domestic industrial investment and thus demonstrates the negative effect on capital investment. Supporting this, the analysis of Eren et al. (2019) supports the negative correlation between FDI and domestic business growth which reflects the negative impact of FDI on business investment.

The coefficient value of economic growth states the positive relationship with corporate investment. The higher GDP growth rate reflects overall economic prosperity and high per capita income, which substantially enhances the consumption behavior of the local

community. More consumption of industrial goods eventually promotes the production of industrial goods, which further derives more investment in production systems. In addition, the higher economic growth allows the government to offer subsidies to industrial sectors, encouragement of exports for industrial goods, low risk of industrial failure, and technological advancement. All these factors positively determine the industrial investment (Bird and Choi 2020). The empirical analysis of Barakat et al. (2016) suggests the positive influence of economic growth on business performance, which further enhances industrial investment. Similar to economic growth, the financial development shows a positive relationship with corporate investment. The developed financial sector serves as a backbone of an economy as it ensures the availability of funds for industrial sectors. Corporate firms always require external financing to exaggerate the various business operations continuously. In this essence, the developed financial sector provides cheap financing at a low-interest rate and thus ensures the continuity of firms. Moreover, the developed financial sector ensures the transparency of financial transactions executed by the industrial sectors and thus reduces the time uncertainty and risk of asymmetric financial information (Khan et al. 2018). All these factors positively determine the corporate capital investment.

The inflation rate demonstrates a positive link with corporate investment. Certainly, the higher inflation rate can enhance the business risks by enhancing the prices of raw materials and other operating costs. Nonetheless, higher inflation can stimulate the growth of the industrial sector by appreciating the future sales prices. During a high inflation rate, the prices of industrial products have a high probability of future price appreciation effect, and thus corporate managers are more optimistic about the production of products. They continuously enhance the production of goods which necessarily requires more capital investment. In this support, the analysis of Farooq et al. (2021) argues the similar impact of the inflation rate on demand for business products which positively derives the corporate investment. Besides macroeconomic factors, the current study includes the profitability, leverage, and firm size as control variables in regression analysis. Profitability shows a positive relationship with corporate investment. Higher profitable firms have more retained earnings and financial reserve to invest in capital projects and thus are more likely to invest in venture investment options. The likelihood of investment increases when firms earn more due to high sale volume and more demand for industrial products. Moreover, high profitable firms have low information asymmetric issues, financial experts, and production efficiency (Ullah et al. 2021). All these factors positively determine the investment.

The coefficient value of leverage implies the negative relationship between leverage and corporate investment. More loan procurement to finance the business operations can place the enterprises into financial instability and risks. Bank loans contain fixed liability of interest payments and thus increase the costs of doing business, which discourages corporate investment. Moreover, the high leverage ratio indicates that the specific business unit is unable to fulfill its financing needs and is not working efficiently. This factor damages the market reputation of a company and discourages investors to invest in the equity of such businesses. Therefore, the higher leverage ratio inserts a negative impact on corporate investment (Gill et al. 2012). Lastly, the firm size shows a positive relationship with corporate investment. Larger firms always invest in the expansion of production units and thus have more balance of fixed investment in their balance sheets. Moreover, larger businesses entail continuous growth in their production systems due to the growing demand for their products. Given that, they have more volume of investment. In conclusion, the empirical analysis shows the negative impact of foreign direct investment whilst the positive and statistically significant impact of other economic factors including economic growth, financial development, and inflation rate on corporate investment. The current analysis further implies the sensitivity of corporate investment regarding the economic situation of a country.

6. Conclusions and Policies

This study is an attempt to investigate the economic sensitivity of corporate investment. For regression analysis, we collect the financial information from non-financial sector enterprises founded in six GCC region countries and employ the system GMM model. The empirical results demonstrate the statistically significant and negative effect of foreign direct investment while a positive impact of economic growth, financial development, and inflation rate on corporate investment. Due to the crowding-out effect, foreign direct investment can hamper the investment of the domestic sector by enhancing the market competition and overlapping the market share. However, the favorable economic growth uplifts the industrial investment as it expands the demand for industrial products, which further has a positive impact on capital investment. Similarly, the developed financial sector offers cheap financing and more funds for exploration of business investment and thus has a positive relationship with corporate investment. The positive effect of the inflation rate can be explained through the price appreciation effect on the supply of industrial goods. During a high inflation rate, the enterprises enhance their production, which further has a positive relationship with corporate investment. Moreover, the analysis suggests that the profitability and firm size have a positive contribution in determining the corporate investment, whilst leverage has a negative contribution. The empirical analysis accepts the theoretical laying of alternative hypotheses.

Research Implications

In view of empirical analysis, the current study claims some policies for policy officials and corporate managers. The policy officials from GCC region countries should remodel the policies regarding the inflow of foreign direct investment as it has a negative impact on corporate investment. The policy analysts can set a limit on the inflow of FDI or some other regulations, e.g., quota for production to protect the growth of domestic industrial units. In contrast to other developed economies, it seems that the industrial sectors in GCC region countries are not yet matured enough to bear the foreign competition due to the late revolution in industrialization. Therefore, it is recommended to policy officials to establish such policies for incomings of foreign direct investment that protect the growth of domestic industrial units. Notably, the current analysis shows the positive impact of financial sector development on corporate investment. Therefore, it is recommended to accelerate the development of the financial sector to enhance industrial investment. To better harvest industrial growth, the government of GCC region countries should design policies that take forward the development of the financial sector. In addition, the policy officials can utilize the high inflation rate as a policy tool to boost industrial investment. However, the long-term prevalence of a high inflation rate can hamper the overall economic growth due to multiple negative consequences of a high inflation rate on the economic health of a country.

This study has made a significant contribution to the growing literature on financial economics by exploring the effect of various economic factors on the corporate investment of GCC region enterprises. However, we found some limitations in our analysis, e.g., combining analysis of all countries. Each country has different economic settings even in a single group setting. Furthermore, the current analysis has another shortcoming of not considering the other economic forces, e.g., policy stability, monetary policy, interest rate, and exchange rate even as control variables. We do not consider the interest rate due to low relevance of interest rates in the GCC region. GCC economies are considered as hubs for Islamic finance industry. They follow the Islamic banking principles and, therefore, the addition of interest rate in analysis cannot make a significant contribution to determining investment decisions. For debt effect, the debt rate effect can be captured by the leverage ratio that demonstrates the percentage of bank loans acquired to finance the assets. Future studies can be conducted by addressing the impact of debt on corporate investment in the context of GCC economies.

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