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Impact of Economic Freedom on Youth Unemployment in the Gulf Cooperation Council Countries

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ABSTRACT

This study aims to examine the impact of economic freedom on youth unemployment in the Gulf Cooperation Council countries of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates during 2005–2019. Theoretically, it is assumed that the improvement of economic freedom reduces the unemployment rate. In this paper, we seek to verify this hypothesis for youth population in the Gulf Cooperation Council countries. Specifically, we will determine which specific component of economic freedom has the strongest effect on youth unemployment. Using the Panel Ordinary Least Square approach with fixed effects, we find that the greater the economic freedom score, the lower the youth unemployment rate. In addition, the results suggest that only six of the ten components of economic freedom have a significant effect on the youth unemployment rate, namely, property rights, government spending, monetary, trade, investment and, financial freedom. These areas should be targeted by policymakers in the Gulf Cooperation Council countries to develop appropriate policies aimed at enhancement of youth employment.

INTRODUCTION

Considered the richest region in the Arab world, the Gulf Cooperation Council (GCC) countries have experienced profound demographic and social changes. According to the World Bank's World Development Indicators (2020), this region has one of the fastest growing populations in the world, with an average annual population growth rate of 4.9% between 2000 and 2019. Furthermore, the GCC remains a youthful region with 31.13% of the total population below 24 years of age. Examining this by country: 37.8% in Saudi Arabia, 34.3% in Oman, 31.8% in Kuwait, 30.1% in Bahrain, 26.4 % in Qatar and 26.4% in United Arab Emirates were in the age range of 0 to 24. In joining the work force, the youth bring their talent, energy and creativity to the fore and add to the productivity of the economy (Gavurova et al. 2019). However, this skew towards a youthful population exerts pressure on the labour market and finding gainful employment for all the entrants is difficult (Snieska et al., 2020). Hence, for GCC countries, boosting youth employability has become a major area of concern.

In terms of unemployment, Qatar achieves the best results among the GCC countries. It has been quite successful in reducing unemployment rate. Over the years 2005 to 2019, the average annual growth rate of the overall unemployment is -15% while the average annual growth rate of the youth unemployment is -17%. In the same period, the score of economic freedom in Qatar grows on average by 0.96 point.

Saudi Arabia and United Arab of Emirates enjoy a comparative situation. The two countries achieve a reduction of unemployment both for the total labour force and for youth people. Over the 2005-2019 period, the average annual growth rates of the overall unemployment are -0.16% and -1.54% for Saudi Arabia and United Arab of Emirates respectively. In addition, the average annual growth rates of the youth unemployment are -0.93% and -0.36% in the two countries respectively. In the same period, the score of economic freedom increases by 1.24 points in United Arab of Emirates but it decreases by 0.27 point in Saudi Arabia.

Kuwait, Oman and Bahrain are suffering from a substantial increase in youth unemployment. Over the period 2005-2019, the average annual growth rate of youth unemployment is 4.25%, 1.94% and 1.2% for the three countries respectively. During the same period, the overall unemployment rate decreases on average by 0.2% in Bahrain and by 3% in Oman but it increases by 2% in Kuwait. In addition, Kuwait, Oman and Bahrain have experienced a reduction of their economic freedom scores. On average, during the period of 2005-2019, the score of economic freedom diminishes by 0.43 point, 0.62 point and 0.5 point respectively for the three countries¹.

The economic expansion experienced by the GCC countries during the past decades, and the structural economic reforms undertaken for income diversification were inadequate for inducing a major reduction in the high and persistent youth unemployment rate. In 2020, Saudi Arabia recorded the highest rate of youth unemployment (28.6%), followed by Kuwait (14.37%) and Oman (13.19%). Qatar has the lowest youth unemployment rate of 0.57%, while Bahrain and United Arab Emirates recorded 4.63% and 7.62% respectively (World Development Indicators, 2020). It is apparent that economic growth alone is not enough to absorb the labour market's new entrants and that youth employment efforts in GCC countries must be given a different impetus. Therefore, we propose that increasing the index of economic freedom (IEF) will contribute to finding a creative solution to this problem. Considering that economic freedom is an important determinant of economic growth in Arab Countries (Gouider, 2022), enhancing economic freedom should play an important role in policies aimed at reducing the youth unemployment rate in GCC countries. In this context, Lasagni et al. (2015) and Pařlová & Vejacka (2018) argue that the improvement of the quality of institutions (proxied by the IEF), is considered a key determinant of employment. For example, a large government sector (Feldmann 2006), strict labour and business regulation, bureaucracy and corruption (Messina, 2005; Feldmann, 2009a; Feldman, 2009b) and, high tax burdens (Daveri and Tabellini 2000) impair market competition and tend to reduce labour force participation and employment rates among female and young workers (Yoon, 2018).

Table 1 reports the IEF ranking and unemployment rates both for the overall labour force and for youth people in GCC countries in 2020.

Table 1. Economic freedom score and unemployment rates in 2020

	<i>IEF score</i>	<i>World ranking</i>	<i>Position</i>	<i>Overall Unemployment rate (%)</i>	<i>Youth unemployment rate (%)</i>
United Arab Emirates	76.2	18	Mostly free	2.35	7.62
Qatar	72.3	31	Mostly free	0.1	0.57
Bahrain	66.3	63	Moderately free	0.71	4.63
Oman	63.6	75	Moderately free	2.67	13.19
Kuwait	63.2	79	Moderately free	2.18	14.37
Saudi Arabia	62.4	83	Moderately free	5.92	28.6

Source: The Heritage Foundation (2020) and World Development Indicators (2020)

¹ Author's calculation using data from World Bank's World Development Indicators (2020)

According to the Heritage Foundation (2020), none of the GCC countries is classified as free economies. Only two countries, United Arab Emirates and Qatar, are classified as mostly free economies, while the rest are considered moderately free economies. Table 1 also indicates that greater economic freedom is associated with a lower unemployment rate mainly for youth population. Therefore, boosting economic freedom may be a key policy tool for the enhancement of employment opportunities in GCC countries, especially for the younger working population.

Numerous empirical studies have investigated how the IEF affects employment. Most of these concluded that a greater economic freedom is associated with lower unemployment rates (Feldmann, 2009a, 2009b; Heller and Stephenson, 2014; Cebula and Alexander, 2015; Cebula, 2016). Many of these studies focused on the relationship between the IEF and employment for the overall labour force. Fewer studies (Feldmann 2007, 2010; Cebula and Alexander 2015) have explored the impact of economic freedom on unemployment rates among particular sub-segments of the population like youths, women and, low-skill workers. Using panel data of 87 countries over 23 years from 1980–2003, Feldmann (2007) concludes that greater economic freedom reduces the unemployment rate for both women and the young population. Feldmann also suggests that the protection of property rights, a smaller size of government and trade freedom, lead to lower unemployment for women and youths. Further, focusing on the relationship between the IEF and unemployment in 100 industrial and developing countries from 1980 to 2008, Feldmann (2010) argues that improving IEF ratings is a key tool for reducing youth unemployment. Similarly, Cebula and Alexander (2015) demonstrated that greater labour market freedom leads to a greater female labour participation rate in the United States.

To our knowledge, apart from the works of Feldmann (2006, 2007, 2009a, 2010), no studies have measured the impact of the various economic freedom components on youth unemployment. Our study is novel in several respects. First, in contrast to most studies in the field that focus on industrialised countries, this study is the first to examine the relationship between youth unemployment and economic freedom components in the Arab world, or particularly for the homogeneous group of GCC countries. Second, most previous studies explore the effect of economic freedom on employment for the total labour force whereas, our study concentrates on the specific demographic group of the youth population. Finally, we have measured not only the whole impact of the IEF but also the effect of each component to determine which component has the strongest effect on youth unemployment in GCC countries. The rest of the paper is organised as follows: section 2 presents and describes the data and the econometric method employed by this study. The results and discussion are presented in section 3, and section 4 summarises our conclusions and recommendations.

1. DATA AND ECONOMETRIC METHOD DESCRIPTION

Our empirical investigation is based on annual data of the GCC countries from 2005 to 2019. All the macroeconomic variables used in this study were obtained online from the World Bank's World Development Indicators, except the IEF data, which were acquired from the Heritage Foundation (2020).

We use the youth unemployment rate as the dependent variable. Domestic investment rate, the percentage of the total population aged between 0 and 14 years, and economic freedom are used as independent variables.

Based on the Feldmann (2007, 2010) studies, the basic model is summarised in the following equation:

$$Yun_{it} = \alpha_0 + \alpha_1 INV_{it} + \alpha_2 Pop(0 - 14)_{it} + \alpha_3 IEF_{it} + \varepsilon_{it}$$

where:

- Yun is the youth unemployment rate defined as the number of unemployed 15–24 year-olds, expressed as a percentage of the youth labour force.

- i denotes country, t denotes time and ε is the stochastic error term.

- INV denotes the share of investment in total production. It is obtained by calculating the gross capital formation as a percentage of gross domestic production². This variable is used as a proxy of domestic investment. A negative coefficient of INV is expected, because a higher rate of investment enhances economic growth and decreases the unemployment rate.
- Pop (0-14) is the percentage of the total population between 0 and 14 years; a positive coefficient of Pop (0-14) is expected because, when the share of the population between 0 and 14 years grows, the future labour force increases and the youth unemployment subsequently increases (Feldmann 2007).
- IEF represents the overall score of economic freedom. A negative coefficient of the IEF is expected (Heller and Stephenson, 2014; Cebula et al., 2015; Cebula, 2016; Feldmann, 2007).

The IEF is multidimensional. It covers twelve quantitative and qualitative elements. Owing to the non-availability of data on fiscal health and judicial effectiveness, the IEF used in this study is based on ten elements reported in the following table:

Table 2. The ten components of economic freedom

<i>Components</i>	<i>Abbreviations</i>
Government spending	GS
Government integrity	GINTG
Tax burden	TB
Trade freedom	TRFR
Investment freedom	INVFR
Labour freedom	LFR
Monetary freedom	MFR
Financial freedom	FFR
Business freedom	BFR
Property rights	PRIGHTS

All economic freedom components are allocated a score from 0 to 100, with higher scores indicating a higher degree of freedom for that component. These elements are grouped into four areas: Rule of law, Government size, Regulatory efficiency, and Open markets (Heritage Foundation 2020).

Youth are particularly harshly affected by unemployment (Feldmann, 2010). Hence, in order to verify the probably specific aspects that may characterize youth unemployment, we also estimate the effect of the economic freedom on the overall unemployment rate (UR), measured as the number of unemployed persons as a percentage of the total labour force. Table 3 summarizes the descriptive statistics.

Table 3. Descriptive statistics

	<i>UR</i>	<i>YUN</i>	<i>POP 0-14</i>	<i>INV</i>	<i>IEF</i>
Mean	2.59	10.58	21.08	26.09	67.27
Median	2.24	7.95	21.25	24.45	66.60
Maximum	6.25	33.82	33.85	48.31	77.70
Minimum	0.14	0.45	13.08	12.84	59.60
Std. Dev.	1.83	8.99	5.67	7.39	4.79
Skewness	0.52	1.25	0.20	1.06	0.46
Kurtosis	2.06	3.47	2.21	4.07	2.19

As shown in the above table, the average value of the overall unemployment rate is 2.59% while the average value the youth unemployment is 10.58%. In addition, the mean value of the population aged

² <https://tcdata360.worldbank.org/subtopics/h802df10f?country=BRA>

between 0 and 14 years is 21.08% of the total population and domestic investment has a mean value of 26.09%. The average economic freedom score is 67.27 points, which implies that, on average, GCC economies are considered by the Heritage Foundation as moderately free.

The correlation matrix (Table 4) indicates that the independent variables simultaneously used in our basic regression are weakly correlated with each other, revealing that no multicollinearity can be detected. Furthermore, there is a high and negative correlation between the IEF and the unemployment rates which indicates that greater economic freedom leads to lower unemployment both for the total labour force and for youth population.

Table 4. Correlation matrix

	<i>UR</i>	<i>YUN</i>	<i>Pop 0-14</i>	<i>INVT</i>	<i>IEF</i>
UR	1.00	0.88	0.71	-0.42	-0.53
YUN	0.88	1.00	0.71	-0.39	-0.56
Pop 0-14	0.71	0.71	1.00	-0.34	-0.35
INVT	-0.42	-0.39	-0.34	1.00	0.14
IEF	-0.53	-0.56	-0.35	0.14	1.00

Source: author's calculation

We proceed in two stages. First, we estimate the impact of the IEF on the unemployment rate both for the total labour force and for youth population. Second, to avoid problems of multicollinearity, we separately integrate the ten components in the basic equation to determine the aspects of economic freedom that impact overall and youth unemployment rates and which do not. We use a panel approach with fixed effects, which permits better accountability for omitted variables in the regressions (Compton et al. 2011). In addition, the panel approach minimises the non-stationarity of the time series insofar as the panel unit root tests have standard asymptotic distributions (Baltagi 2001).

2. RESULTS AND DISCUSSION

The Panel Ordinary Least Square results of the effect of the IEF on the unemployment rates are summarised in Table 5. The model 1 estimates the effect of the IEF on the overall unemployment rate while the model 2 measures the effect of the IEF on the youth unemployment rate. The choice between fixed or random effects is determined using the Hausman test. For the two population groups, the results of this test show that the fixed effect model is more appropriate both for model 1 and model 2.

Table 5. Relationship between unemployment rates and the IEF

	<i>Model 1</i>	<i>Model 2</i>
Intercept	6.98 (2.89) ***	38.26 (3.45) ***
INV	-0.04 (-2.05) *	-0.17 (-1.9) *
Pop 0-14	0.2 (7.18) ***	1.00 (7.79) ***
IEF	-0.11 (-3.68) **	-0.66 (-4.7) ***
No. of Observations	90	90
F-Statistic	8.13	10.04
Prob.	0.0000	0.0000
R ²	0.65	0.7

Hausman test	11.85	20.65
Prob.	0.0001	0.0001

Notes: The dependent variables are the overall unemployment rate for the model 1 and the youth unemployment rate for the model 2; t statistics are reported in parentheses; ***, ** and * denote statistical significance at the 1%, 5% and 10 % level.

As showed in Table 5, all variables are statistically significant and have the expected sign. When the investment rate increases by 1%, youth unemployment decreases by 0.17% but the overall unemployment rate decreases only by 0.04%. In any event, when the percentage of the population aged between 0 and 14 years increases by 1%, the youth unemployment rate grows by 1% while the overall unemployment rate grows only by 0.2%. Regarding the IEF, this variable is statistically significant and has a negative sign which confirms that greater economic freedom is associated with lower unemployment rate both among the total labour force and among youth people. However, the effect of economic freedom on youth unemployment rate appears more substantial comparatively to its effect on the overall unemployment rate. In other words, greater economic freedom is more appropriate to reduce youth unemployment rate. Indeed, a one-unit increase in the score of economic freedom reduces the youth unemployment rate by 0.66% but the overall unemployment will be reduced only by 11%. This result is supported by Feldman (2010) who find that economic freedom has a more favorable impact on unemployment among youth people.

The results presented in Table 5 are based on the relationship between the aggregate freedom index and unemployment rates. However, since economic freedom is multidimensional and encompasses many factors, it will be useful for policymakers to determine the impact of each component separately to undertake reassuring reforms in terms of employment mainly for youth people. The impact of the ten components of economic freedom on unemployment rates both for the overall labour force and for the youth people in GCC countries are measured using the Panel Ordinary Least Square method. Results are reported in Table 6 and Table 7. For all the regressions, the result of the Hausman test shows that the fixed-effect regression method is better than the random-effect regression method. This confirms that the variability of the score of economic freedom components is due to change over time rather than differences across countries.

Table 6. Relationship between the ten economic freedom components and overall unemployment rate

	GINTG	PRIGHTS	GS	TB	BFR	LFR	MFR	TRFR	INVFR	FFR
Intercept	-3.98 (-2.24) *	3.23 (2.26) *	-1.95 (-1.24)	15.89 (0.9)	0.67 (0.47)	-2.57 (-1.65)	3.8 (1.93) *	3.54 (0.9)	0.86 (1.13)	1.09 (1.3)
INV	-0.05 (-2.42) **	-0.03 (-1.59)	-0.04 (-2.06) *	-0.04 (-1.86) **	-0.04 (-1.95) *	-0.04 (-1.63)	-0.05 (-2.69) **	-0.04 (-2.12) **	-0.03 (-1.94) *	-0.02 (-1.18) *
Pop 0-14	0.29 (7.39) ***	0.19 (6.88) ***	0.25 (7.49) ***	0.23 (8.4) ***	0.24 (8.79) ***	0.24 (8.52) ***	0.2 (8.11) ***	0.23 (7.62) ***	0.28 (13.28) ***	0.26 (11.62) ***
IEF										
Rule of law										
GINTG	0.03 (1.8)									
PRIGHTS		-0.06 (-4.03) ***								
Government size										
GS			0.007 (0.54)							
TB				-0.17 (-0.98)						
Regulatory efficiency										
BFR					-0.03 (-1.82)					
LFR						0.015 (1.06)				
MFR							-0.06 (-2.45)			
Open market										
TRFR								-0.06 (-1.27)		
INVFR									-0.07 (-8.01) ***	
FFR										-0.06

(-6.9)***

N	90	90	90	90	90	90	90	90	90	90
F-Statistic	6.64	8.51	6.21	6.3	6.65	6.33	39.07	6.4	15.45	13.05
R2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hausman test	0.61	0.67	0.59	0.6	0.61	0.6	0.58	0.6	0.78	0.75
Prob.	11.78	16.24	11.22	16.98	11.25	15.3	6.23	11.8	52.8	29.56
	0.008	0.001	0.004	0.002	0.001	0.0014	0.1	0.0000	0.001	0.000

Notes: The dependent variable is the overall unemployment rate; t statistic are reported in parentheses; ***, ** and * denote statistical significance at the 1%, 5% and 10 % level.

Table 7. Relationship between the ten economic freedom components and youth unemployment rate

	GINTG	PRIGHTS	GS	TB	BFR	LFR	MFR	TRFR	INVFR	FFR
Intercept	-1.12 (-0.13)	12.81 (1.88) *	-20.11 (-2.7) ***	-118.2 (-1.40)	-4.77 (-0.68)	-8.15 (-1.18)	17.78 (1.23)	39.4 (2.19) *	2.46 (0.88)	4.32 (1.15)
INV	-0.18 (-1.66)	-0.13 (-1.38)	-0.19 (-1.87) *	-0.23 (-2.13) **	-0.19 (-1.8) *	-0.21 (-1.9) *	-0.24 (-2.32) **	-0.2 (-2.05) **	-0.11 (-1.98) **	-0.07 (-0.93) *
Pop 0-14	1.06 (5.54) ***	0.99 (7.43) ***	-1.37 (8.71) ***	1.24 (9.19) ***	1.24 (9.13) ***	1.23 (9.02) ***	1.13 (8.1) ***	1.09 (7.98) ***	1.47 (19.08) ***	1.31 (12.47) ***
Rule of law										
GINTG	-0.11 (-1.23)									
PRIGHTS		-0.36 (-4.17) ***								
Government size										
GS			0.1 (1.72) *							
TB				1.09 (1.29)						
Regulatory efficiency										
BFR					-0.08 (-1.01)					
LFR						-0.02 (-0.32)				
MFR							-0.32 (-2.03) *			
Open market										
TRFR								-0.58 (-2.83) ***		
INVFR									-0.4 (-12.88) ***	
FFR										-0.29 (-7.09) ***
N	90	90	90	90	90	90	90	90	90	90
F-Statistic	6.92	9.5	7.11	6.94	6.85	6.7	7.31	7.91	31.88	14.33
R2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hausman test	0.62	0.69	0.63	0.62	0.62	0.61	0.63	0.65	0.88	0.77
Prob.	10.22	25.4	17.7	16.35	15.48	14.39	12.44	24.05	145.47	43.22
	0.0167	0.0000	0.0005	0.0010	0.0014	0.0024	0.0006	0.0000	0.0000	0.000

Notes: The dependent variable is the youth unemployment rate; t statistic are reported in parentheses; ***, ** and * denote statistical significance at the 1%, 5% and 10 % level.

As shown in Table 6, among the ten economic freedom components, only three elements are statistically significant and with expected sign. These components are: PRIGHTS, INVFR and FFR. A one-unit increase in the score of these three variables is associated with the decline of the overall unemployment by 0.06%, 0.07% and by 0.06% respectively. However, the improvement of these areas has a lower effect on the overall unemployment rate compared to the effect on the youth unemployment rate. Regarding to the effect of the IEF component's on youth unemployment (Table 7), six elements are statistically significant and with expected sign. Among the six components, four elements are statistically significant coefficients at 1%: property rights, trade, investment and financial freedom. Property rights tend to reduce the youth unemployment rate by 0.36% when its score increases by one point. This result provides evidence that a stronger rule of law, through better protection of property rights is important for the improvement of job opportunities for youth. This finding is in conformity with Feldmann (2007, 2010).

The other three components belong to the area of Open Markets. Enhancement of the trade freedom score by one point, is associated with the reduction of youth unemployment by 0.58%. Also, investment freedom exerts a positive effect on youth unemployment. It is observed that a one-unit increase in the

score of investment freedom would result in a 0.4 % decrease in the youth unemployment rate. The last component in the category of Open Markets, namely financial freedom, reduces the youth unemployment rate by 0.29% when its score is enhanced by one point. It is clear that the strategy of enhancing freedom in trade, investment and financial areas plays a key role in the improvement of youth employment in GCC countries. This result provides evidence that an open market strategy leads to a more efficient allocation of resources which is conducive to a lower unemployment rate (Feldmann 2009a).

Results reported in Table 5 also show that the components, government spending and monetary freedom have a lower statistical significance on youth unemployment. The coefficients of the two components are significant at a 10% level. Government spending is positively associated with the youth unemployment rate which increases by 0.1% when the government spending score rises by one point. This finding, which is in line with previous studies (Alesina et al. 2002; Christopoulos and Tsionas 2002; Feldmann 2007), provides evidence that a larger size of government establishment negatively affects employment through crowding out of the private sector, reducing economic competitiveness and ultimately limiting job opportunities. The coefficient of the monetary freedom component is negative and is less significant. An additional point in the score of monetary freedom leads to a 0.32 % reduction in the youth unemployment rate.

We do not find statistically significant effects of government integrity, tax burden, business and labour freedom.

CONCLUSION

Our research is the first to measure the impact of economic freedom on the youth unemployment rate in GCC countries. This study adds to the literature by determining the sub-components of economic freedom which impact youth unemployment in GCC countries. Based on a Panel Ordinary Least Square approach with fixed effects, we found that increasing economic freedom leads to unemployment reduction both among the total labour force and among youth people in GCC countries. However, the magnitude of the effect of the economic freedom on unemployment is more substantial among young people. Conversely, empirical results show that six of ten economic freedom components – property rights, trade freedom, investment freedom, financial freedom, monetary freedom, and government spending have a significant effect on youth unemployment. The largest statistically significant coefficients concern two categories of economic freedom namely – Rule of law and Open markets. Policymakers who seek to reduce the youth unemployment rate should concentrate their efforts on the improvement of these economic freedom components. It would enable them to enact reforms that promote economic freedom in these areas. Maintaining a stronger rule of law and an open market are key to reducing youth unemployment in GCC countries.

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