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Event Scale and Economic Outcomes: Assessing the Impact of Sports Events in the Middle East

Ira Gupta

Nord Anglia International School Dubai, Dubai, UAE

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ABSTRACT

This paper examines the economic effects of hosting sports events in the Middle East, with particular attention to the role of event scale. Using panel econometric models, it evaluates both short- and long-term relationships between event size, GDP growth, and fiscal balance across countries in the region, with a focus on the United Arab Emirates (UAE). The results reveal no consistent evidence that larger events yield stronger economic or fiscal outcomes. In both short- and long-term specifications, the estimated effects of event size remain statistically insignificant once broader macroeconomic variables are controlled for. These findings challenge the prevailing literature, which primarily draws conclusions from mega-events, and demonstrate that event scale alone is not a reliable determinant of economic performance.

Keywords: GDP growth, Fiscal sustainability, Sports events, Event scale, Middle East.

JEL Classification: L83, O11, H50

1. Introduction

Sports events are becoming increasingly crucial in terms of economic growth. They contribute to tourism, increase employment, and provide potential for both domestic and foreign investment[1]. For instance, in 1993, the Dubai Duty Free Tennis Championships made its debut on the ATP tour[2]. Since then, attracting professional athletes and media coverage, Dubai has managed to boost its national profile, facilitating potential for economic growth through investments and tourism[3].

[1] (Ishac, 2013)
[2] (ATP Tour, n.d.)
[3] (Ishac, 2013)

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Historically, sports events have been seen to have both positive and negative outcomes. For example, Taks et al. (2018) found positive effects on economic growth and foreign direct investment, particularly 4 to 12 years after the event. Similarly, Solberg and Preuss (2007) find that sports events can positively impact demand due to increased tourism. However, Wheatley (2024) noted a potential for economic growth, but that the effects may also be limited to short-term gains. Likewise, Firgo (2021) studied the effects of hosting the Olympic Games and only found short-term positive effects.

The existing literature highlights that sports events can also lead to negative outcomes. For example, Flyvbjer et al. (2020) have documented that the Olympic Games have consistently overrun their budget. Ferris et al. (2022) analysed several mega-sports events and found short-term market gains and GDP growth, which are not sustainable in the long term. Due to these budget overruns, several studies have examined how large events contribute to fiscal deficits. Müller et al. (2022) studied the costs and revenues of the Olympics and World Cups from 1964 to 2018, finding total revenues to be around $ 70 billion, compared to total costs exceeding $120 billion. When examining the impacts of smaller-scale events, Quirante et al. (2024) conducted a cash flow analysis, observing that while modest, these events are still susceptible to cost overruns, often produce negative externalities, and deliver only limited economic benefits.

While the aforementioned literature is quite exhaustive, the scale of sports events is an essential variable absent from the studies. There is a lack of literature that compares the impact of sports events of different sizes on long-term GDP growth and fiscal sustainability. Scale is a significant determinant of the host country’s economic future as it can influence the extent of a country's economic growth through differences in factors such as investment, tourism and employment. For example, if cities decide to host sports events beyond their infrastructure capability, financial challenges may outweigh potential benefits, and additional infrastructure built may be left unused after the event.

Particularly when looking at Middle Eastern regions, the literature on the economic impacts of sports events fails to mention the causal effect of the scale of sports events. This gap may be problematic for future planning, as large events may cause financial strain on the host region, leading to budget deficits. Also, smaller events may be capable of delivering economic and social benefits. Thus, without an actual cause-and-effect relationship, host cities may risk making inefficient allocations of sports events, leading to a suboptimal equilibrium.

This paper aims to study the aforementioned gap and provide a comprehensive understanding of the relationship between the size of sports events and both short-term and long-term economic impacts, in terms of GDP growth and fiscal sustainability, in the Middle East, specifically in the United Arab Emirates (UAE). The paper is structured as follows: Section 2 reviews the existing

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literature, first examining the scale of events in the Middle East and then their link to GDP growth and fiscal sustainability. Section 3 mentions data sources, variables and event categorisation used in the analysis. Section 4 presents the empirical analysis, looking at both GDP growth and fiscal balance. Finally, Section 5 concludes by summarising the key findings.

2. Literature Review

2.1 Middle East and the Scale of Sport Events

The Middle East's engagement with sports originated as a form of cultural expression, with traditional activities like horse riding, camel racing, and falconry[4] deeply embedded in social and ceremonial life.[5] However, until the late 20th century, the region lacked global recognition due to limited infrastructure and international integration.

This began to change with the UAE's strategic investment in sports and facilities, marked by events such as the Dubai Desert Classic (1989) and the Dubai Duty Free Tennis Championships (1993).[6] Regional cooperation through the Gulf Cooperation Council (GCC, 1981) further facilitated cross-country participation and organization. The establishment of larger events, including the Abu Dhabi Grand Prix (2009)[7] and the GCC Games (2011),[8] reflected a shift from culturally rooted sports toward internationally recognised competitions.

The culmination of this progression was Qatar's hosting of the 2022 FIFA World Cup, the region's first mega-event, symbolising the Middle East's emergence as a global sports hub.[9] Tracing this evolution in event scale is essential to evaluating its economic implications, particularly in terms of GDP growth and fiscal sustainability, which are examined in the subsequent sections.

2.2 Scale of Sports Events and GDP growth

In the Middle Eastern context, there is a dearth of papers and evidence related to the scale of sports events and their impacts. While there have only been a few large-scale sports events in the Middle East, there is sufficient literature on the Qatar World Cup to understand its influence on Qatar's GDP. Alsamara et al. (2025) explored government spending and economic growth of the 2022 Qatar World Cup, finding that Qatar's spending led to short-term GDP growth. However,

[4] (Nawar, 2021)
[5] (Edelman & Wilson, 2017)
[6] (Zeidan, 2025)
[7] (Formula 1, n.d.)
[8](Zeidan, 2025)
[9] (Lyjak, 2023)

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these gains primarily occurred before the event due to significant infrastructure development, and the rate of growth decreased closer to the event. Additionally, other factors that contributed to Qatar's GDP growth were increased tourism and business activity. However, these benefits were short-lived due to debt, inflation and multipliers dropping below 1 during and after the event.

The UAE, in particular, has hosted sports events across the spectrum of scales: beginning with traditional activities, to introducing world-renowned events and partnering with international sports organisations. GDP growth can be assessed through the comparison of medium and large events. Medium scale refers to the Dubai Duty Free Tennis Championships, with moderate investment, attendance and participation. Whereas, large-scale events include the Abu Dhabi Formula 1 Grand Prix, due to significant investment and high attendance. For instance, looking at the IPL, Prabhu (2014) found it to significantly contribute to GDP. Numerous factors contributed to his conclusion, including increased hotel occupancy, hotel revenue and an improved image for the UAE. While there is no literature on the influence of these medium-scale events on GDP, examining the economic returns of the events and the sports industry can provide insight into the economic impacts and their effect on GDP. In 2018, the economic return of the sports industry in Dubai reached USD 851 million[10], suggesting a prospect of its sports events to impact GDP.

2.3 Sports Events and Fiscal Sustainability

Large-scale events have raised concerns regarding the fiscal sustainability of sports events. These events contribute to tourism and expenditure, causing rises in short-term revenue; however, they also often place a major financial burden on the host country. The 2016 Rio de Janeiro Olympics is an example, as the event caused major financial concerns, by being over budget, with total costs exceeding $20 billion compared to the estimated cost of around $14 billion[11]. The Olympics, in particular, showcased the importance of financial planning for large-scale events. There have been several instances of projects and venues built for the Olympics becoming financial burdens rather than long-term assets that provide value to the host country. This became evident when Rio was left to combat debt, causing cuts to public services due to the large amounts of public funding being diverted to prepare for the Games[12]. Furthermore, it may have been more beneficial for the public funding to be used in more pressing areas, rather than sports and entertainment.

[10] (Kayal, 2020)
[11] (Zimbalist, 2016)
[12] (Zimbalist, 2016)

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On the other hand, there have been cases such as the 1984 Los Angeles Olympics, which were efficiently funded due to the pre-existing infrastructure. This event in particular changed perceptions about hosting the Olympics due to its strategic organisation by the Los Angeles Olympic Organizing Committee (LAOOC), which resulted in a $232.5 million surplus[13]. The event's success was achieved through a sponsorship model and the utilisation of the 100 sports facilities built by 500,000 people annually following the event[14].

In the Middle Eastern context, Lyjak (2023) highlighted that Qatar spent over 200 billion dollars to host the 2022 World Cup, which is 15 times more than Russia did in 2018 as the previous host. Although this spending led to short-term benefits such as tourism and GDP growth, there were several negative impacts. Eissa et al. (2025) identify key challenges, including high opportunity costs, as much of the capital could have been allocated to more sustainable sectors. Moreover, employment and output gains were largely temporary,[15] and many newly built facilities now face underutilisation and high maintenance costs—the so-called "white elephant"[16] effect—adding fiscal pressure. Although Middle Eastern economies, particularly those rich in oil and gas, may be better positioned to absorb such costs, the experience highlights the importance of ensuring that sports-related investments contribute to long-term efficiency and fiscal sustainability.

The UAE, especially, has utilised sports events as part of its fiscal strategy more efficiently and cautiously than, for example, Qatar, by avoiding financial pressure on public finances[17]. The UAE gradually began hosting medium-sized events and financed them mainly through sponsorships, rather than relying on public funds like other countries have done in the past. Additionally, their diversified economy, which includes tourism, oil, aviation, and real estate, distributes the financial pressure of hosting sports events across multiple sectors.

A deeper examination of the relationship between the *scale* of sports events and their long-term economic effects in the Middle East is still lacking. While existing research has partly explored short-term GDP impacts of large-scale events, broader implications—particularly for fiscal sustainability—remain largely overlooked. The limited evidence available offers little clarity on how hosting affects government balance sheets over time. This study seeks to address that gap by analysing both short- and long-term outcomes across different event scales. In doing so, it aims to provide a more comprehensive understanding of the costs and benefits of hosting sports events, assessed through their relationship with GDP growth and fiscal sustainability.

[13] (Wilson, 2014)
[14] (Wilson, 2014)
[15] (Lyjak, 2023)
[16] (Wheatley, 2024)
[17] (Eissa, 2025)

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3. Data

For the empirical analysis, two panel datasets have been constructed, one for the Middle East and one for the UAE. The first is to examine causality in the context of the Middle East, and the other, more micro, is for the UAE, particularly. The dataset for the Middle East consists of 11 countries, spans 74 years, and includes 79 observations. The UAE dataset comprises two emirates, spans 32 years, and includes 33 observations.

Table 1: Event Categorisation

Metric	Small	Medium	Large
Financial Size (USD m)	< 5	5– 50	> 50
Participants / Athletes	< 250	250 – 2,500	> 2,500
Teams	< 10	10 – 50	> 50
Nations / Countries	< 10	10 – 50	> 50
Attendance / Spectators	< 10,000	10,000 – 100,000	> 100,000

The cost of hosting the event was the primary indicator used to determine event size. For events where cost data was not available, other indicators such as participation, number of teams, nations involved, and attendance were considered. When cost information was present, events were directly categorised into small, medium, and large. For events with missing cost data, the other indicators were correlated with cost to approximate event size. Using the median values of these relevant indicators, thresholds were then established to classify the events, as seen in Table 1. In the Middle East dataset, the mean for medium events is 0.38 with a standard deviation of 0.49, and the mean for small events is 0.44 with a standard deviation of 0.50. In the UAE dataset, the mean for medium events is 0.36 with a standard deviation of 0.49, and the mean for small events is 0.49 with a standard deviation of 0.51.

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Table 2: Summary Statistics of Dependent Variables

Variable	Observations	Mean	Standard Deviation	Min	Max
Middle East					
GDP Growth rate	75	3.2572	5.390531	-27.06	23
Fiscal Balance	67	0.2079851	18.05217	-56	50
UAE					
GDP Growth rate	33	4.59697	4.261051	-5	23
Fiscal Balance	32	11.57234	14.3666	0.24	50

The variables GDP growth rate and fiscal balance[18] have been collected from international sources. The figure of 14.37, indicates relatively smaller differences across the Emirates.

The control variables include inflation, population, capital expenditure, social expenditure and unemployment rate. These have been collected from sources such as national statistics authorities, central banks, and international organisations, including the World Bank and IMF. The statistical summary of these variables is presented in the Table 3.

Table 3: Summary Statistics of Independent and Control Variables

Variable	Observations	Mean	Standard Deviation	Min	Max
Middle East					
Independent Variable of Interest					
Small	79	0.4430	0.4999	0	1
Medium	79	0.3797	0.4884	0	1
Control Variables					
Inflation	76	11.2733	32.0436	-2.59	221.3
Population	77	20.6160	29.4337	0.824	112.6
Capital Expenditure	39	15.5685	15.2725	0.4	55.5
Social Expenditure	39	16.1110	11.9561	0.68	58

[18] Refers to the difference between government revenue and expenditure in a year.

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Unemployment	66	5.8427	5.3484	0	30
		UAE			
		Independent Variable of Interest			
Small	33	0.4848	0.5075	0	1
Medium	33	0.3636	0.4885	0	1
		Control variables			
Inflation	32	2.8156	2.9901	-2.1	15.7
Population	33	6.4112	2.9415	2.2	11.4
Capital Expenditure	19	9.8447	7.3984	0.4	23.25
Social Expenditure	18	11.8544	12.9912	0.68	58
Unemployment	29	2.8324	0.6767	1.64	4.2

4. Empirical Specification and Analysis

Model 1: Impact of Event Size on State Economic Growth

To examine the effect of event size on state-level economic outcomes, I estimate a series of panel data regressions using the fixed effects (FE) estimator. The key explanatory variable is the size of the event, which is coded categorically to capture differences in scale and intensity across states and years. This specification allows me to test whether larger-scale events are systematically associated with higher state GDP growth rates.

The dependent variable is the annual GDP growth rate of each state. To mitigate omitted variable bias, I include a set of time-varying controls: inflation, population size, capital expenditure, social sector expenditure, and unemployment rate. These controls account for macroeconomic conditions and state-level fiscal and demographic dynamics that could influence growth independently of event size.

The regression equation is specified as follows:

$$y_{it} = \alpha + \beta\ \text{Event\_Size}_{it} + \gamma X_{it} + \delta_t + \varepsilon_{it}$$

Where y_{it} denotes the GDP growth rate of state 'i' in year 't'; Event_Size_{it} is the categorical measure of the size of the event; X_{it} is the vector of control variables; δ_t represents unobserved,

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time-invariant state-specific heterogeneity captured through fixed effects; and ε_{it} is the idiosyncratic error term.

OLS Results

Table 4: Relationship between GDP Growth Rate and Size of Event

	Middle East (OLS)	UAE (OLS)
	Coef.	Coef.
Category (Baseline: Large)		
Medium	1.265	2.561
	(1.575)	(2.717)
Small	0.216	1.605
	(1.567)	(2.439)
_cons	2.676**	2.887
	(1.289)	(2.186)
Number of obs	75	33
R-sq:	0.0092	0.0381

Robust standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Table 4 presents the baseline OLS estimates examining the association between event size and state GDP growth. Across both the Middle East and UAE samples, the coefficients on medium- and small-sized events are positive, suggesting higher growth relative to large events, but these estimates are statistically insignificant. The explanatory power of these baseline models is very limited ($R^2 = 0.009$ for the Middle East and $R^2 = 0.038$ for the UAE), indicating that event size alone explains little of the variation in state economic performance.

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Table 5: Relationship between GDP Growth Rate and Size of Event (With Controls)

	Middle East (OLS with Controls)	Middle East (OLS with Additional Controls)	UAE (OLS with Controls)	UAE (OLS with Additional Controls)
	Coef.	Coef.	Coef.	Coef.
Category (Baseline: Large)				
Medium	-0.101	-2.671	1.083	-0.96
	(1.539)	(2.053)	(2.592)	(2.718)
Small	-0.503	1.275	0.19	4.377
	(1.555)	(2.374)	(2.323)	(5.061)
Inflation	0.356**	-0.105	0.769**	0.317
	(0.068)	(0.531)	(0.259)	(1.325)
Populationmillion	-0.133	-0.233	-0.372	0.243
	(0.12)	(0.435)	(0.446)	(0.772)
CapexExpenditureUSDbillion		-0.207		-0.315
		(0.136)		(0.31)
SocialExpenditureUSDbillion		-0.002		0.035
		(0.081)		(0.146)
UnemploymentRate	0.071	-0.558	-0.536	0.286
	(0.268)	(0.549)	(1.582)	(1.95)
_cons	2.341	15.937	6.059	-0.009
	(4.012)	(13.782)	(7.59)	(9.16)
Number of obs	62	29	29	14
R-sq	0.206	0.002	0.368	0.611

Robust standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.See Table 3 for the list of control variables.

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Table 5 introduces a series of controls for inflation, population, capital expenditure, social expenditure, and unemployment rate. Once these factors are included, the results change markedly. In the Middle East models, the coefficients on medium and small events turn negative or remain small in magnitude, and none attain statistical significance. Inflation emerges as a significant predictor in one specification, with higher inflation associated with stronger GDP growth. However, this effect disappears once additional covariates are included—a result that may reflect the relatively small number of observations in the more saturated models rather than a genuine absence of a relationship. The explanatory power of the Middle East regressions also improves with the inclusion of controls ($R^2 = 0.206$), but it collapses when additional covariates are introduced ($R^2 = 0.002$), further underscoring the instability in model fit.

For the UAE, the inclusion of controls substantially increases the explanatory power, although the very limited number of observations restricts the robustness of the inference. The coefficients on event size remain statistically insignificant and are highly sensitive to specification, fluctuating in both sign and magnitude. Inflation is again significant in one specification but loses significance once additional controls are added, likely due to the very small sample size rather than a genuine absence of association.

Model 2: Impact of Event Size on State Fiscal Balance

The second specification focuses on the fiscal implications of event size. Specifically, I estimate a panel data model with fixed effects (FE) to capture how variations in event size affect state fiscal balances over time. The key explanatory variable is again the categorical measure of event size, reflecting differences in the scale and scope of events across states and years. This framework enables me to test whether larger events contribute to fiscal stress or, conversely, fiscal strengthening at the state level.

The dependent variable in this model is the fiscal balance of each state. To address potential confounding influences, I include a set of time-varying controls: inflation, population size, capital expenditure, social sector expenditure, and unemployment rate. These controls account for state-specific macroeconomic and fiscal-demographic conditions that could otherwise bias the estimated relationship between event size and fiscal outcomes.

The regression equation is specified as follows:

$$y_{it} = \alpha + \beta\ \text{Event\_Size}_{it} + \gamma X_{it} + \delta_t + \varepsilon_{it}$$

Where y_{it} denotes the fiscal balance of state 'i' in year 't'; Event_Size_{it} is the categorical measure of the size of the event; X_{it} is the vector of control variables; δ_t represents unobserved,

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time-invariant state-specific heterogeneity captured through fixed effects; and ε_{it} is the idiosyncratic error term.

OLS Results

Table 6: Relationship between Fiscal Balance and Size of Event

	Middle East (OLS)	UAE (OLS)
	Coef.	Coef.
Category (Baseline: Large)		
Medium	-4.363621	-13.26493
	(5.540)	(8.828)
Small	-2.434376	-8.671825
	(5.540)	(7.868)
_cons	3.012605	20.46807**
	(4.632)	(7.027)
Number of obs	67	32
R-sq	0.0054	0.1184

Robust standard errors in parentheses.*** p < 0.01, ** p < 0.05, * p < 0.1.

Table 6 reports the baseline OLS estimates of the relationship between event size and state fiscal balance. In both the Middle East and UAE samples, the coefficients on medium- and small-sized events are negative, suggesting that smaller events may be associated with a deterioration of fiscal balance relative to large events. However, these estimates are statistically insignificant in all cases. The explanatory power of the models is also limited, with R^2 values of 0.005 for the Middle East and 0.118 for the UAE, indicating that event size alone explains little of the variation in fiscal outcomes.

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Table 7: Relationship between Fiscal Balance and Size of Event (With Controls)

	Middle East (OLS with Controls)	Middle East (OLS with Additional Controls)	UAE (OLS with Controls)	UAE (OLS with Additional Controls)
	Coef.	Coef.	Coef.	Coef.
Category (Baseline: Large)				
Medium	-8.066	-6.634	-12.37	-5.245
	(6.499)	(9.717)	(9.429)	(16.073)
Small	-4.03	2.08	-5.672	-3.295
	(6.88)	(11.238)	(8.45)	(29.932)
Inflation	-0.033	0.385	1.37	1.861
	(0.302)	(2.515)	(0.942)	(7.838)
Populationmillion	0.001	-0.598	1.58	-1.091
	(0.764)	(2.058)	(1.622)	(4.566)
CapexExpenditureUSDbillion		-0.271		0.019
		(0.647)		(1.834)
SocialExpenditureUSDbillion		0.532		0.134
		(0.387)		(0.865)
UnemploymentRate	-2.336	-6.326**	-2.451	-6.425
	(1.497)	(2.598)	(5.756)	(11.561)
_cons	17.29	36.856	11.276	34.861
	(21.25)	(65.244)	(27.614)	(54.178)
Number of obs	59	29	29	14

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R-sq	0.159	0.469	0.262	0.229

Robust standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Table 7 presents results with the inclusion of control variables. In the Middle East regressions, the coefficients on medium and small events remain negative in most specifications, although small events turn positive in the model with additional controls. None of these coefficients are statistically significant, suggesting that fiscal balance does not systematically vary by event size. Notably, unemployment emerges as a significant determinant in one specification. The explanatory power of the Middle East regressions improves substantially with controls (R^2 = 0.159 to 0.469), though the fit varies depending on specification.

In the UAE regressions, the results are similarly inconclusive. The coefficients on event size remain negative in most cases but are highly unstable across specifications, and none are statistically significant. Inflation and population show positive but insignificant associations with fiscal balance, while unemployment has a consistently negative sign. However, with only 29 and 14 observations in the two controlled models, statistical power is extremely limited, making inference tentative. The explanatory power of the UAE models is moderate (R^2 = 0.262 and 0.229), but again sensitive to specification.

Model 3: Long-Term Relationship Between Event Size, Growth and Fiscal Balance

The results from Models 1 and 2 are largely short-term in nature, capturing immediate associations between event size and economic or fiscal outcomes. However, the economic impact of large-scale events is unlikely to materialise instantaneously. Infrastructure investments, tourism spillovers, reputational effects, and changes in business confidence often unfold over a longer horizon. To account for these dynamics, Model 3 explores the longer-term relationship between the frequency of events and economic growth across countries.

In this specification, the dependent variable is measured at t+3t+3t+3, namely GDP growth and fiscal balance three years after the event in state or country iii. The key explanatory variable remains the size of the event at time ttt, measured through a categorical classification of scale and scope. This setup allows me to test whether larger events are associated with sustained improvements in growth performance or whether they exacerbate fiscal pressures over a longer horizon.

The regression equation is specified as follows:

$$y_{it+3} = \alpha + \beta\ \text{Event\_Size}_{it} + \gamma X_{it} + \delta_t + \varepsilon_{it}$$

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Where y_{it+3} denotes the outcome of interest (either GDP growth or fiscal balance) for state 'i' in year 't'; $Event\_Size_{it}$ is the categorical measure of the size of the event; X_{it} is the vector of control variables; δ_t represents unobserved, time-invariant state-specific heterogeneity captured through fixed effects; and ε_{it} is the idiosyncratic error term.

This model will be estimated twice: first with GDP growth as the dependent variable, and then with fiscal balance as the dependent variable, to separately assess the long-run growth and fiscal consequences of large-scale events.

Table 8: Relationship Between GDP Growth and Size of Event in the Long Term

	Middle East (OLS with Controls)	Middle East (OLS with Additional Controls)	UAE (OLS with Controls)	UAE (OLS with Additional Controls)
	Coef.	Coef.	Coef.	Coef.
Category				
Medium	0.215	0.598	-1.043	-2.338
	(1.469)	(1.904)	(2.738)	(4.051)
Small	1.124	0.64	1.373	-4.301
	(1.508)	(2.081)	(2.43)	(8.314)
Inflation	0.039	0.126	0.126	0.514
	(0.024)	(0.47)	(0.278)	(2.228)
Populationmillion	-0.192	-0.296	-1.248**	-0.871
	(0.153)	(0.403)	(0.454)	(1.389)
CapexExpenditureUSDbillion		0.11		0.54
		(0.114)		(0.689)
SocialExpenditureUSDbillion		0.061		-0.116

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		(0.0738)		(0.248)
Unemployment Rate	-0.054	-0.536	-2.577	-1.004
	(0.184)	(0.507)	(1.595)	(2.797)
_cons	6.457	9.943	19.713**	11.999
	(3.903)	(12.403)	(7.651)	(14.783)
Number of obs	65	30	29	14
R-sq	0.001	0.031	0.17	0.224

Robust standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1. .

Table 8 reports the long-term association between event size and GDP growth three years after the event. Across all specifications, the coefficients on medium and small events are statistically insignificant, suggesting that the scale of events does not systematically influence medium-term growth. While point estimates for medium-sized events are positive in the Middle East regressions, they turn negative for the UAE, indicating heterogeneity in post-event trajectories.

Among the controls, population size emerges as a significant negative predictor in the UAE sample, implying that larger populations may experience slower GDP growth over the long term. Other variables such as inflation, capital spending, and unemployment show no consistent patterns. Overall, the results indicate that the growth effects of large-scale events are transitory, with no evidence of sustained long-term benefits once the initial momentum dissipates.

Table 9: Relationship Between Fiscal Balance and Size of Event in the Long Term

	Middle East (OLS with Controls)	Middle East (OLS with Additional Controls)	UAE (OLS with Controls)	UAE (OLS with Additional Controls)
	Coef.	Coef.	Coef.	Coef.
Category				
Medium	4.662	17.31	7.596	6.635
	(5.879)	(10.812)	(11.219)	(27.745)

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Small	-3.144	3.895	-1.07	19.824
	(5.869)	(11.819)	(9.958)	(56.938)
Inflation	0.119	-0.697	-0.672	-9.397
	(0.095)	(2.669)	(1.138)	(15.257)
Populationmillion	-0.076	2.285	-0.787	2.213
	(0.473)	(2.289)	(1.86)	(9.511)
CapexExpenditureUSDbillion		0.143		-1.568
		(0.65)		(4.721)
SocialExpenditureUSDbillion		0.056		0.387
		(0.419)		(1.697)
Unemployment Rate	-0.037	3.168	-4.186	5.053
	(0.726)	(2.878)	(6.537)	(19.152)
_cons	1.407	-81.993	27.336	-8.04
	(12.84)	(70.447)	(31.35)	(101.244)
Number of obs	66	30	29	14
R-sq	0.117	0.304	0.072	0.044

Robust standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Table 9 presents the long-run relationship between event size and fiscal balance three years after the event. The coefficients on medium and small events are mixed in sign and remain statistically insignificant across all specifications. For the Middle East, medium events appear to have a positive association with fiscal balance once additional controls are included, but this result lacks statistical robustness.

Control variables similarly do not show consistent patterns, though unemployment becomes weakly positive in one specification. Model fit improves modestly with controls in the

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Middle East regressions (R^2 rising to 0.304), but explanatory power remains limited overall. Taken together, the results indicate no systematic long-term fiscal effect of event size.

5. Conclusion

This paper investigates the economic effects of hosting sports events in the Middle East, with a particular focus on the *scale* of events—a dimension largely overlooked in existing research. While most studies examine mega-events such as the Olympics or FIFA World Cup and report short-term economic gains, little is known about whether the *size* of an event itself drives these outcomes. Using panel econometric models, this study analyses both short- and long-term relationships between event scale, GDP growth, and fiscal balance across Middle Eastern countries, with specific reference to the United Arab Emirates (UAE). The findings reveal no systematic evidence that larger events produce stronger economic or fiscal outcomes. Once macroeconomic controls are considered, the apparent advantages of scale disappear. These results question the assumption that "bigger is better," emphasising instead that the scale of an event alone does not determine economic success.

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