

From Pitch to Portfolio:**Did France's 2022 FIFA World Cup Run Move the CAC 40?**Author: Cecilia Khalil¹*Affiliation:*

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Abstract:

This study examines whether France's performance during the 2022 FIFA World Cup was associated with short-term movements in the CAC 40. Drawing on behavioral-finance research about investor sentiment and limited attention, it uses an event-study design based on France's seven World Cup matches. The main variable is the CAC 40 close-to-close return on the first trading day after each match. Seven post-match observations are compared with 13 control trading days during the tournament period. The average post-match return was -0.57%, compared with +0.13% on control days, a difference of about -0.70 percentage points. A Welch two-sample test finds that this difference is not statistically significant ($t = -1.44$, $p = 0.188$). Returns after wins were also not stronger than returns after losses. A sensitivity test shows that the overall result is strongly affected by 15 December 2022, when the CAC 40 fell 3.09% as the European Central Bank raised its key interest rates by 50 basis points and signaled further tightening. Removing that observation changes the average post-match return to -0.15%. The results therefore do not provide evidence of a stable daily football-sentiment effect in this small French sample. They also show why macroeconomic news must be considered when studying sports and financial markets, and why future research would benefit from larger, multi-country intraday datasets.

Keywords:

Behavioral finance, Investor sentiment, FIFA World Cup, CAC 40, Event study, France, Stock returns

Introduction:

Football is usually discussed as entertainment, but a major tournament can also create a strong emotional shock and capture people's attention for hours. During a FIFA World Cup, millions of supporters follow their national teams at the same time, and one result can quickly change the public mood. This matters in behavioral finance because investors are people too: their decisions are not always completely separated from emotion, attention, and sentiment. Research has shown that investor sentiment can affect how information is processed and, in some situations, how assets are priced (Baker & Wurgler, 2006). The World Cup is therefore an interesting setting for testing whether an event that has little direct connection to the cash flows of most listed companies can still show up in stock-market behavior.

This paper looks at France during the 2022 FIFA World Cup in Qatar and focuses on the CAC 40, France's main stock-market index. France is a useful case because the national team played seven matches and reached the final, creating several major sporting events within only a few weeks. The main question is simple: were CAC 40 returns on the first trading day after a France match different from returns on the other trading days during the same World Cup period?

The problem is important because previous research has found two related but distinct football effects. First, match outcomes can influence investor mood. Edmans, García, and Norli (2007) report that international football losses are followed by negative abnormal stock returns, with stronger effects for important matches. Second, the matches themselves can distract investors. Ehrmann and Jansen (2017) find substantial reductions in trading activity when national teams play, while Drummond (2023) documents changes in trading volume, volatility, spreads, and price efficiency around World Cup matches. More recent work using country-specific exchange-traded funds also finds abnormal trading-volume behavior during World Cups, while abnormal-return evidence is weaker (Lobato et al., 2023).

The gap in this paper is not whether sport can affect financial markets in general, since earlier studies have already examined that relationship. Instead, the paper applies the idea to France's long run in the 2022 World Cup using recent daily CAC 40 data. This matters because Qatar 2022 took place in a very different financial environment from many of the World Cups studied in earlier research. Inflation was high, central banks were tightening monetary policy, and investors were reacting to important economic news at the same time as the tournament. The study therefore tests whether a football-related sentiment effect can still be seen when strong macroeconomic forces are also affecting the market.

The study asks three research questions: (RQ1) Were first-post-match CAC 40 returns different from non-event trading-day returns during France's 2022 World Cup run? (RQ2) Did returns differ after French wins and losses? (RQ3) Are the results robust to an obvious macroeconomic outlier during the event window? The objectives are to construct a transparent event-study dataset, calculate post-match returns, compare event and control observations, test the mean difference statistically, and interpret the findings without overstating causality.

Literature Review:

Behavioral finance provides the main theoretical foundation for this study. Traditional finance generally explains prices through factors such as expected cash flows, risk, and the rational processing of information. Behavioral finance adds another possibility: investor sentiment and limited attention can sometimes influence market decisions. Baker and Wurgler (2006) show that investor sentiment is related to stock returns, especially for securities that are harder to value and arbitrage. Their study is not about football, but it helps explain why a change in mood that is unrelated to company fundamentals could still matter in financial markets.

Sport is useful for studying this idea because match results are public, immediate, and emotionally important, while they normally have little direct effect on the cash flows of an entire national stock market. Edmans et al. (2007) use this feature to study international sporting events. They find that football losses are followed by negative abnormal national stock returns, with larger effects after more important matches. They report that a World Cup elimination loss is followed by an abnormal next-day return of about -49 basis points. An important point is that the effect is not symmetrical: negative reactions after losses are easier to identify than positive reactions after wins. This suggests that disappointment may influence investors more strongly than sporting success.

Kaplanski and Levy (2010) shift the focus from individual national-team outcomes to the World Cup as a global sentiment event. They document unusually weak U.S. market performance during World Cup effect periods and argue that widespread negative sentiment generated by the many countries that eventually lose can aggregate internationally. Their study is relevant because it shows that football-related sentiment need not remain confined to the country directly playing a match.

A second literature focuses on attention rather than mood. Ehrmann and Jansen (2017) analyze 15 stock markets during the 2010 and 2014 World Cups and find that traded volume can fall by as much as 48% when the national team is playing. Their earlier high-frequency analysis of the 2010 tournament also reported a 45% reduction in the number of trades and a 55% reduction in volume while national teams played, together with weaker comovement between domestic and global returns (Ehrmann & Jansen, 2012). The interpretation is intuitive: some market participants temporarily move their attention from financial information to the match.

Later research develops this attention mechanism. Drummond (2023), using 95 matches and data from 24 countries, finds that trading volume rises before matches but trading activity declines during them; volatility follows a related pattern, and realized spreads increase during match periods. In a separate study, Lobato et al. (2023) use country-specific U.S.-listed ETFs across six World Cups. They find significant abnormal trading volume and weaker evidence of abnormal returns. Together, these studies suggest that attention effects may be more consistently visible in trading activity than in daily index returns.

Recent work on stock-return comovement adds another dimension. A 2022 *Journal of International Money and Finance* study uses intraday data for more than 750 stocks in 19 countries and finds that World Cup distraction changes the way investors allocate attention between firm-specific and global information. This supports the broader idea that the financial effect of football may operate through information processing rather than through a stable directional return premium. Studies have also shown that investor sentiments directly impact

equity prices (Khalife et al., 2025), and non-financial elements such as entertainment and sustainability are becoming increasingly important (Kaspard et al., 2026). Both investors and consumer awareness are attributing to this trend (Beainy & Kamel, 2025).

The existing research does not suggest that every World Cup match should move a country's stock market in the same direction. Instead, several effects may be happening at once. A loss can hurt investor mood, a match can distract traders from financial information, and major economic news can easily outweigh both effects. This paper adds a small and transparent 2022 case study to that discussion. Rather than trying to claim a new universal market anomaly from only seven matches, it asks whether the well-known post-match pattern can be seen in a recent French case and how sensitive the result is to important financial news occurring at the same time.

Methodology:

This study uses a quantitative event-study case design. Each France national-team match at the 2022 FIFA World Cup is treated as an event, and the main outcome is the CAC 40 close-to-close percentage return on the first available trading day after the match. The observation window runs from 21 November to 19 December 2022, covering France's participation in the tournament and the immediately relevant trading days. FIFA and UEFA tournament records are used for match dates, opponents, stages, and results. Daily CAC 40 closing levels come from a historical series reported by Algotab, which identifies Yahoo Finance as its data source.

France played seven matches: Australia (22 November), Denmark (26 November), Tunisia (30 November), Poland (4 December), England (10 December), Morocco (14 December), and Argentina (18 December). When a match occurred on a weekend, the following Monday is used as the event trading day. For weekday matches, the next exchange trading day is used. This creates seven post-match observations. All remaining return observations inside the defined window are classified as control trading days. The final comparison contains seven event returns and 13 control returns.

The dependent variable is the daily CAC 40 return. MatchDay is an event indicator equal to 1 for the first trading day following a France match and 0 for control days. Win equals 1 when France won the match in regulation or extra time and 0 otherwise. Loss identifies Tunisia and the final against Argentina; the final is treated as a sporting loss because France lost the penalty shoot-out. Stage is recorded as group, round of 16, quarter-final, semi-final, or final. A macroeconomic-outlier flag is also used for 15 December 2022 because the European Central Bank announced a 50-basis-point increase in its three key interest rates that day and signaled further tightening (European Central Bank, 2022).

For each trading day t , the percentage return is calculated as: $R_t = [(P_t - P_{(t-1)}) / P_{(t-1)}] \times 100$, where P_t is the CAC 40 closing level. The basic event effect is the difference between the average post-match return and the average control-day return: $\text{Effect} = \text{mean}(R_{\text{event}}) - \text{mean}(R_{\text{control}})$. Because the event and control groups are small and have different variances, a Welch independent-samples t-test is used to compare their means. Statistical significance is assessed at the 5% level. Given the very small event sample, the test is interpreted cautiously rather than treated as proof of causality.

A sensitivity test removes 15 December, the trading day immediately after France's semi-final win over Morocco. This observation is important because the CAC 40 fell sharply on the same day that the ECB delivered a major monetary-policy announcement. Removing it does not prove what the return would have been without the ECB decision, but it shows whether the average event result depends heavily on one clearly confounded observation. All calculations can be reproduced from the closing levels and formulas reported in this paper.

Results:

Table 1 reports every event observation. The post-match returns are mixed rather than consistently positive after wins or negative after losses. The first trading day after the Australia win gained 0.32%, while the day after the Denmark win fell 0.70%. After the group-stage loss to Tunisia, the CAC 40 gained 0.22%. The market fell 0.67% after the Poland win and 0.40% after the England win. The largest movement was a 3.09% decline on 15 December, one day after France defeated Morocco in the semi-final. Finally, the first trading day after France lost the final to Argentina rose 0.31%.

Match date	Opponent	Outcome	Stage	Event trading day	CAC 40 return
2022-11-22	Australia	Win	Group	2022-11-23	0.32%
2022-11-26	Denmark	Win	Group	2022-11-28	-0.70%
2022-11-30	Tunisia	Loss	Group	2022-12-01	0.22%
2022-12-04	Poland	Win	Round of 16	2022-12-05	-0.67%
2022-12-10	England	Win	Quarter-final	2022-12-12	-0.40%
2022-12-14	Morocco	Win	Semi-final	2022-12-15	-3.09%
2022-12-18	Argentina	Loss*	Final	2022-12-19	0.31%

Table 1. France match events and first-post-match CAC 40 returns. *The Argentina final is classified as a loss because France lost the penalty shoot-out. Returns are author calculations from the daily closing series.

Across the seven event observations, the average return on the first trading day after a France match was -0.57%. The 13 control observations had an average return of 0.13%. This gives a raw difference of -0.70 percentage points between event and control days. Post-match returns also varied more widely: their sample standard deviation was 1.20%, compared with 0.64% for control days. The Welch t-test gives $t = -1.44$ and $p = 0.188$. Since the p-value is above 0.05, the difference is not statistically significant at the conventional 5% level.

Measure	Post-match days	Control days
Observations	7	13
Average return	-0.57%	0.13%
Standard deviation	1.20%	0.64%
Difference (event - control)	-0.70 pp	—
Welch t-statistic	-1.44	—
Two-sided p-value	0.188	—

Table 2. Event-versus-control summary. The test is descriptive and inferential within the narrow sample; the small number of events limits statistical power.

The win-loss comparison does not show the simple mood pattern we might expect. The five observations after French wins averaged -0.91%, while the two observations after losses averaged 0.27%. This should not be interpreted as evidence that losing caused the market to rise. It simply means that this small 2022 France sample does not reproduce the direction found in much larger international studies such as Edmans et al. (2007). With only two loss observations, there is not enough evidence to make a reliable causal comparison between wins and losses.

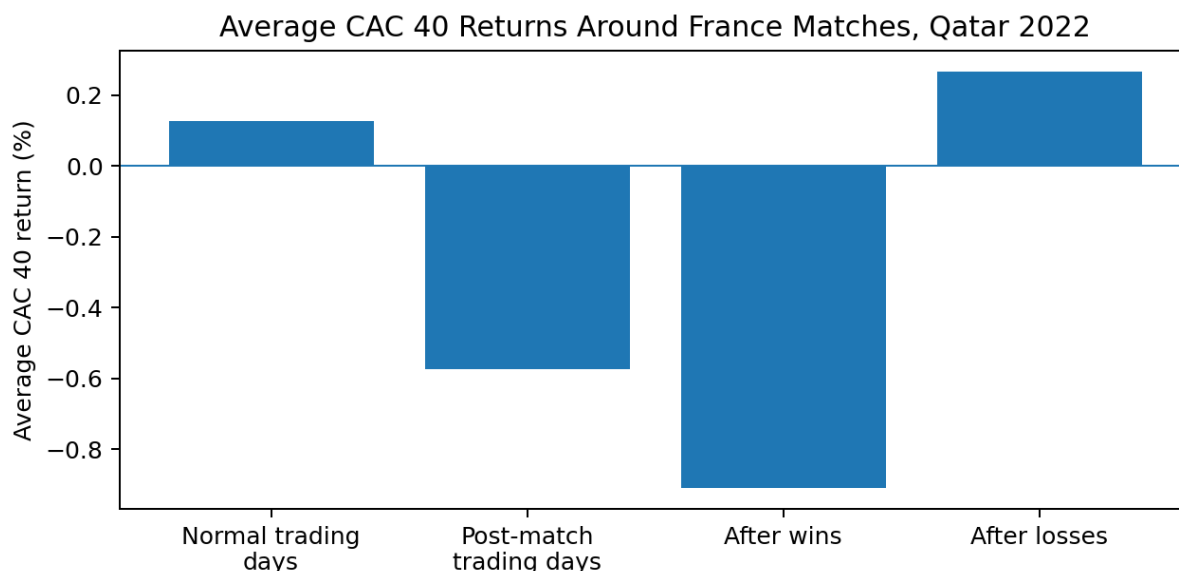


Figure 1. Average CAC 40 returns for control days, all post-match days, post-win days, and post-loss days.

The sensitivity test is especially important. When 15 December is removed, the average post-match return changes from -0.57% to -0.15%. This means that a large part of the negative post-match average comes from one trading day: the day after France beat Morocco in the semi-final. On 15 December, the ECB also raised its three key policy rates by 50 basis points and stated that rates would need to rise further because of the inflation outlook (European Central Bank, 2022). In other words, investors were reacting to major monetary-policy news at the same time. This makes it risky to explain the market decline using the football result alone.

For RQ1, the data do not show a statistically significant difference between post-match and control-day returns. Post-match returns were lower on average, but the difference is not statistically distinguishable from zero in this sample. For RQ2, returns after wins were not higher than returns after losses. The descriptive result actually goes in the opposite direction, although the sample is far too small for a strong conclusion. For RQ3, removing the 15 December observation changes the result substantially. Overall, the evidence suggests that broader financial-market forces mattered more for daily CAC 40 returns during France's 2022 World Cup run than any stable football-sentiment effect.

Discussion and Conclusion:

This study asked whether France's matches during the 2022 FIFA World Cup were followed by unusual movements in the CAC 40. Across seven match events, the average return on the first following trading day was -0.57%, compared with +0.13% across 13 control trading days. The difference of about -0.70 percentage points looks noticeable at first, but the Welch test shows that it is not statistically significant ($p = 0.188$). The results also do not follow a simple win-loss pattern: the two post-loss observations were positive on average, while the observations after wins were negative on average.

The clearest lesson from the analysis is that context matters. A World Cup match can create a strong emotional and attention shock, but a stock index is also reacting to interest rates, inflation expectations, company news, geopolitical developments, and changes in global risk appetite. The 15 December observation shows this clearly. France had just won its World Cup semi-final, but the CAC 40 fell 3.09% on the same day that the ECB raised interest rates and signaled further tightening. When that observation is removed, the average post-match return falls in magnitude to only -0.15%. Ignoring the economic news on that day could therefore lead to the wrong conclusion about football's effect on the market.

These findings do not contradict behavioral-finance research. Instead, they support a more careful interpretation of it. Large international studies have found sentiment effects after football losses, while high-frequency studies often find clearer evidence in trading volume, attention, spreads, volatility, and market comovement than in broad daily index returns (Drummond, 2023; Ehrmann & Jansen, 2017; Lobato et al., 2023). The France case suggests that data frequency matters. Investors may be distracted for the two hours of a match without that distraction producing a clear next-day movement in a broad stock index.

There are several limitations to this study. First, seven match events are too few for a powerful statistical test. Second, the analysis covers only France and one stock-market index. Third, daily closing prices cannot show what happens while a match is actually being played. Fourth, the control comparison does not fully account for global stock-market movements, interest-rate surprises, sector effects, or other macroeconomic shocks. Finally, the short World Cup period leaves only a small number of control observations. These limits are important because they restrict how widely the findings can be generalized.

Future research could extend the same design to all countries that participated in Qatar 2022 and use intraday prices and trading volume instead of only daily closing data. A stronger model could estimate abnormal returns against a global market benchmark and include country fixed effects, match stage, wins and losses, whether kickoff times overlap with exchange hours, and major macroeconomic announcements. The 2026 World Cup also offers a useful setting for a larger replication because the tournament format expanded. This would help separate three effects more clearly: investor mood after a result, investor distraction during the match, and ordinary financial-market news. The main lesson from this case is simple: an interesting correlation becomes stronger research when alternative explanations are tested instead of ignored.

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