The Messi Effect: How One Star Ignited Inter Miami Ticket Prices

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Abstract

This study delves into the economic impact of Lionel Messi's arrival, a legendary superstar, on Inter Miami, focusing on changes in ticket prices and game revenues. Through regression analysis, it identifies a substantial increase in ticket prices following Messi's debut, accompanied by signs of potential demand stabilization over time. Based on these findings, the study estimates Messi's contribution to Inter Miami's annual revenue. When considering only the initial impacts, the annual revenue is projected to increase by \$40.9 million, far surpassing Messi's \$20.4 million annual salary. However, after accounting for time effects, the estimate drops to \$8.4 million, falling short of his salary. These findings highlight Messi's transformative short-term economic value while emphasizing the need to evaluate longer-term constancy and broader revenue streams.

Keywords: Ticket Pricing, Superstar Effect, Revenue Projection, Time-Varying Effects

1 Introduction

The intersection of sports economics and superstar theory provides fertile ground for exploring how elite athletes influence market dynamics. In 2023, the Major League Soccer (MLS)—the top professional soccer league in the United States and Canada—witnessed the transfer of Lionel Messi to Inter Miami CF, a relatively new team, for a reported annual salary of \$20.4 million (ESPN, 2024). This move offers a unique case to study the economic ramifications of a global superstar's entry into an emerging market. Widely regarded as one of the greatest soccer players of all time, Messi's arrival brought unparalleled attention to Inter Miami and the MLS, sparking significant changes in ticket prices, fan engagement, and revenue generation (AS, 2024).

Messi's transfer has not merely been a sporting milestone but also an economic event, underscoring the "superstar effect" theorized by Rosen (1981). Early observations highlight

unprecedented surges in ticket prices and attendance, both at home and away games (CNBC, 2023), with some ticket prices skyrocketing by over 1,000%, reflecting the immense demand to witness Messi play.

This paper aims to quantify the economic effects of Messi's arrival, focusing on changes in ticket prices for Inter Miami games from 2021 to 2024. Using data from SeatData.io and multiple linear regression models, the study evaluates how variables such as seating zones, game location, and opponent popularity vary with Messi's presence to shape ticket pricing trends. Through regression analysis, we identify a substantial increase in ticket prices following Messi's debut, accompanied by signs of potential demand stabilization over time. We also estimate his economic impact by analyzing ticket sales using the estimated ticket prices and quantities, which exceed his annual salary in the short term but fall below it in the long run.

The structure of this paper is as follows: The next section provides a background on Inter Miami's position within MLS, prior research and key questions, setting the stage for the data and methodology presented in Section 3. Section 4 discusses the results of the regression analysis and their economic implications, followed by a conclusion summarizing the findings and highlighting their broader significance for the sports industry.

2 Background Information

2.1 Inter Miami CF and MLS

Established in 2018, Inter Miami CF is one of MLS's youngest franchises. Since its debut in North America's top soccer league, the team has struggled with performance and fan engagement. Before Messi's arrival, the team's average ticket prices and attendance figures lagged behind those of more established clubs (Leagues Cup, 2023). Nonetheless, Inter Miami's signing of Messi exemplifies a growing trend among MLS teams to invest in high-profile players to bolster their visibility and competitiveness.

MLS, founded in 1993, has consistently sought to expand its fan base and global recognition, with limited success. However, the league's introduction of designated player rules in 2007 allowed teams to sign marquee players outside salary cap restrictions, thus attracting stars such as David Beckham, Zlatan Ibrahimović, and now Lionel Messi. Messi's arrival aligns with the league's broader strategy of leveraging superstar athletes to enhance its reputation and market value (Inter Miami FC, 2023).

2.2 The Economic Impact of Superstars in Prior Research

The phenomenon of superstars driving economic activity is well-documented in the economic literature. Sherwin Rosen's 1981 theory of superstars highlighted how small differences in talent among top performers can lead to disproportionately large differences in income, particularly in markets characterized by scalability and imperfect substitution. This theory provides a framework to understand Messi's transformative impact on Inter Miami and MLS.

The concept has been validated in various sports contexts. Shapiro et al. (2016) examined the "Beckham Effect" in MLS, revealing substantial increases in ticket sales, media attention, and sponsorship revenue following David Beckham's signing with the LA Galaxy. Jewell (2017) extended this analysis to other stars of the MLS, confirming their role in boosting game attendance, particularly in their debut seasons. These studies underscore the economic potential of star athletes, situating Messi's case within a well-established narrative. However, Messi's transfer presents a unique scenario. Unlike Beckham or Ibrahimovic, who joined MLS in the earlier stages of its growth and through one of its most prominent teams, Messi enters a league with a more mature infrastructure but still striving to solidify its global status, via a young and struggling team.

2.3 The Immediate Impact of Messi's Transfer

Messi's arrival at Inter Miami instantly captured global attention. Prior to Messi's signing, Inter Miami's ticket prices were modest, with seats available for as low as \$29. However, following the announcement of his signing, prices surged dramatically. For instance, the lowest-priced tickets for Messi's debut match against Cruz Azul escalated from \$29 to \$329—a 1,034% increase (ESPN, 2023). This surge reflects the unprecedented demand to witness Messi's MLS performances. Furthermore, Inter Miami experienced a substantial increase in social media followers (Statista, 2024), merchandise sales, and international visibility (ESPN, 2023), solidifying Messi's role as a catalyst for the team's brand transformation.

The economic effects of Messi's transfer extended beyond Inter Miami. Attendance figures rose across MLS as fans from opposing teams sought to watch Messi play. This phenomenon mirrors patterns observed in other leagues, where superstar players significantly boost away game revenues. Messi's influence also sparked increased media coverage and higher television ratings, drawing new audiences to MLS (ESPN, 2023). These developments highlight the broad appeal of Messi's presence and its potential to reshape the league's economic landscape.

2.4 Research Context and Objectives

This study aims to build on existing literature by exploring Messi's impact on ticket prices for Inter Miami games from 2021 to 2024. By analyzing detailed ticket price data and incorporating game-specific variables, this study seeks to provide a nuanced understanding of how star power interacts with market dynamics in professional sports.

Key research questions include:

- To what extent did Messi's arrival affect ticket prices for Inter Miami games?
- How did factors such as seating zones, home vs. away games, and whether Messi played influence the magnitude of this effect?
- What has been his total impact on the club's revenues from ticket sales?

These questions align with broader discussions on the superstar effect, offering insights into market valuation, fan behavior, and revenue optimization in sports.

3 Data and Model Description

This study leverages data acquired from SeatData.io¹, encompassing comprehensive ticket order details of Inter Miami from 2021 to 2024². The dataset includes specific information such as ticket price, purchase time, seating zone, row, and quantity of tickets purchased, providing a detailed view of the pricing landscape.

3.1 Visual Overview of the Data

Before delving into the econometric analysis, we present a visual summary of the data to highlight key trends. Figure 1³ shows a histogram of ticket prices in the supporter zone (Goal), a popular and affordable seating category compared to premium zones like Sideline. The chart reveals significant differences in price distributions before and after Messi's arrival.

Figure 2 illustrates the monthly trends in ticket prices within the same seating zone and the total quantities of tickets sold per game across all zones. A significant surge in ticket prices is observed in July 2023, aligning with Messi's debut. Before this, prices showed a moderate decline from April 2021 to June 2023. After surging in July, prices remained elevated through August, before gradually stabilizing and declining from September 2023 onward. Similarly, the total quantity of tickets sold per game saw a sharp increase in July 2023, maintaining consistently high levels in the following months. These patterns underscore Messi's substantial and enduring influence on ticket pricing and overall demand.

¹SeatData.io is a platform that provides real-time ticket sales data from the secondary market for concerts, sports, and theater events.

²Specifically, we use data from the first game of the 2021 regular season (April 18, 2021) to the final game of the 2024 regular season (October 19, 2024).

³Outliers were removed to better highlight the clear distinction in price distributions.

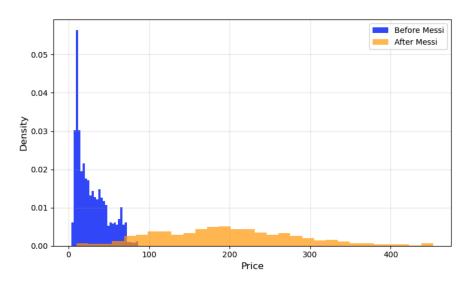


Figure 1: Price Distribution Before and After Messi

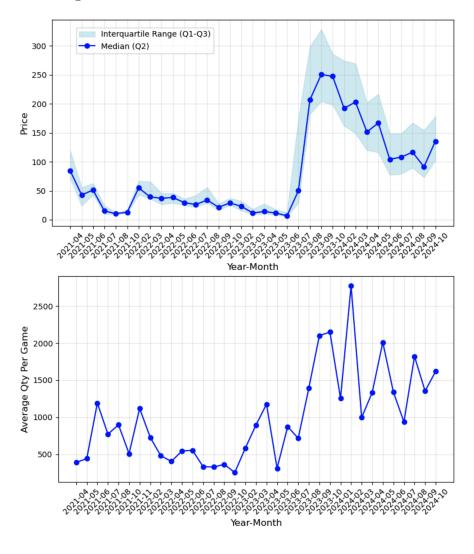


Figure 2: Monthly Trends in Ticket Prices and Total Ticket Quantities

3.2 Model Description

To analyze the impact of Messi joining Inter Miami on ticket prices, we employ a multiple linear regression model. This model accounts for various factors that could influence ticket prices, ensuring a comprehensive analysis of Messi's effect. Table 1 provides a detailed description of the variables used in the regression model.

$$\log (\text{Price}) = \beta_0 + \beta_1 \cdot \text{Messi} + \beta_2 \cdot \text{Messi_Played} + \beta_3 \cdot \text{Zone} + \beta_4 \cdot (\text{Messi} \times \text{Zone}) + \beta_5 \cdot \text{Opponent} + \beta_6 \cdot \text{Home} + \beta_7 \cdot (\text{Messi} \times \text{Home}) + \beta_8 \cdot \text{DaysToGame} + \beta_9 \cdot \text{Weekend} + \beta_{10} \cdot \text{Month} + \beta_{11} \cdot \text{Year} + \epsilon$$
(1)

Table 1: List of Variables

Variable	Description
Messi	Whether Messi was part of the team (1 if post-Messi, 0 otherwise).
$Messi_Played$	Whether Messi played in the game (1 if yes, 0 otherwise).
Zone	Seating category of the ticket, represented as dummy variables.
${\rm Messi}\times{\rm Zone}$	Interaction term between Messi's presence and seating zone.
Opponent	Opposing team, represented as dummy variables.
Home	Whether the game is a home game (1 if yes, 0 otherwise).
$\mathrm{Messi} \times \mathrm{Home}$	Interaction term between Messi's presence and whether it is a home game.
DaysToGame	Number of days before the game when the ticket was purchased.
Weekend	Whether the game is on a weekend (1 if yes, 0 otherwise).
Month	Month of the game, represented as dummy variables.
Year	Year of the game, represented as dummy variables.

To ensure clarity and focus, we will concentrate on key factors of primary interest. Specifically, for seating zones, we compare the luxury zone (Sideline) with the supporter zone (Goal). Regarding opponents, we compare one of the most successful and popular teams, Columbus Crew, the MLS Cup champions in 2023, to a more modest team, Chicago Fire FC, which ranked last in the 2024 season and consistently remained in the bottom three from 2021 to 2024. The DaysToGame and Month variables control for timing and seasonal fluctuations, and their coefficients are not the focus of analysis. As for the year variables, 2022 serves as the base year, allowing for a comparisons with 2023 and 2024, years in which Messi has played for Inter Miami⁴.

⁴Although the Messi variable takes a value of 1 for all games after July 2023, potentially resembling the dummy variables for 2023 and 2024, the dataset includes an average of over 1,000 observations per month. This high volume of data mitigates concerns about multicollinearity.

4 Results of Model and Estimated Economical Effects

4.1 Results of Model

Table 2 presents the regression results analyzing the impact of Messi's arrival on ticket prices and estimated percentage price increase⁵. The No Controls model estimates Messi's effect alone, the Key Controls model adds game-related factors such as seating zone and opponent, while the All Controls model includes both game-related and temporal factors—weekend, month, and year—for a more comprehensive analysis.

Table 2: Regression Results and Estimated Price Increase(%)

	No Controls		Key Controls		All Controls		
Variable	β	Price Increase (%)	β	Price Increase (%)	β	Price Increase (%)	
Messi	1.811***	511.86	1.631***	410.73	3.163***	2263.02	
	(0.007)	(503.33, 520.51)	(0.034)	(377.35, 446.44)	(0.039)	(2088.05, 2451.99)	
Messi Played		_	0.098***	10.30	0.169***	18.42	
	_	_	(0.009)	(8.32, 12.33)	(0.011)	(16.00, 20.89)	
Sideline	_	_	0.378***	45.91	0.379***	46.11	
	_	_	(0.015)	(41.78, 50.15)	(0.014)	(42.26, 50.07)	
Messi \times Sideline	_	_	-0.145***	-13.46	-0.175***	-16.05	
	_	_	(0.019)	(-16.57, -10.24)	(0.017)	(-18.86, -13.14)	
Columbus	_	_	0.432***	54.04	0.797***	121.87	
	_	_	(0.022)	(47.68, 60.68)	(0.022)	(112.34, 131.82)	
Home	_	_	-0.467***	-37.30	-0.140***	-13.08	
	_	_	(0.026)	(-40.43, -33.99)	(0.027)	(-17.50, -8.43)	
${\rm Messi}\times{\rm Home}$	_	_	0.399***	48.99	-0.050	-4.85	
	_	_	(0.032)	(40.03, 58.53)	(0.032)	(-10.55, 1.21)	
Weekend	_	_	` _ ´	_	0.146***	15.75	
	_	_	_	_	(0.009)	(13.78, 17.76)	
2023	_	_	_	_	-0.667***	-48.69	
	_	_	_	_	(0.016)	(-50.32, -47.00)	
2024	_	_	_	_	-1.442***	-76.36	
	_	_	_	_	(0.022)	(-77.36, -75.31)	
Observations		47170		47170		47170	
R^2		0.575		0.730		0.767	
Adjusted \mathbb{R}^2		0.575		0.729		0.766	
Time Controls		No		No		Yes	

Note: *p<0.1; **p<0.05; ***p<0.01. Standard errors and confidence intervals are presented in parentheses.

According to Table 2, the parameter for Messi's arrival consistently shows a substantial and statistically significant impact on ticket prices. Notably, Messi's effect is estimated at 511.86% in the no-controls model and 410.73% in the key-controls model, while soaring to an extraordinary 2,263.02% in the all-controls model, which incorporates time variables. To

⁵Since the dependent variable is the logarithm of ticket price, the percentage increases were computed by exponentiating the regression coefficients and subtracting 1. This adjustment focuses on the proportional change, transforming the log-transformed parameters into interpretable percentage increases and providing clearer insights into the magnitude of each effect.

understand this dramatic increase, the parameters for 2023 and 2024 were examined, both of which exhibit strong negative impacts on ticket prices. As shown in Figure 2, ticket prices declined both before and after Messi's arrival, likely reflecting demand fluctuations. This trend may reflect various factors; for instance, in 2024, it could result from viewers' satisfaction after attending Messi's games or hesitation due to high ticket prices. Combining the effects of Messi's transfer and the year 2024 yields an estimated ticket price increase of 459.01%⁶, closely aligning with the key-controls result. This underscores Messi's extraordinary impact on the ticket market, even accounting for potential overestimations introduced by time controls.

Predictably, ticket prices also increase when Messi is expected to play, as fans are more likely to attend games when his participation is confirmed. Although this effect is smaller than Messi's overall impact, it may highlight fans' hesitation to purchase tickets for games when they know he is engaged with his national team.

It is important to note that these variables, being dummy indicators activated after Messi's arrival, may also capture overlapping effects, such as the influence of other star players from F.C. Barcelona who joined during the same period⁷. This necessitates cautious interpretation of results within the broader team context. However, given that fans drawn to these teammates are also likely interested in watching Messi play, the model predominantly reflects Messi's arrival effect.

Seating zones play a critical role in ticket pricing. Luxury zone tickets are consistently more expensive than supporter zone tickets, with the all-controls model estimating a 46.11% difference. However, the interaction between Messi's presence and the luxury seating zone (Messi × Sideline) reveals a more nuanced effect: the price increase for luxury seats after Messi's arrival is smaller compared to supporter zone tickets, aligning with expectations that lower-priced tickets might experience larger proportional increases. These variables show strong statistical significance.

For other variables, games against strong opponents, such as Columbus, exhibit higher ticket prices, which aligns with the expectation that demand increases for matches against renowned teams. Conversely, home games are associated with lower ticket prices, suggesting that away games are more expensive, likely due to higher demand or elevated costs in metropolitan areas like Los Angeles. Interestingly, the interaction between Messi's presence and home games does not exhibit a significant effect, indicating Messi's impact on ticket prices is consistent regardless of game location. Additionally, weekend games show a 15.75% price increase, which is reasonable given the greater availability of attendees during weekends.

 $[\]overline{{}^{6}(e^{(3.163-1.442)}-1)} \times 100$

⁷Around Messi's signing, Sergio Busquets (June 20) and Jordi Alba (July 20) also joined Inter Miami.

4.2 Estimated Economic Effects

In this section, we evaluate the economic impact of Messi's arrival on Inter Miami, focusing on whether the estimated annual revenue increase exceeds his reported annual salary of \$20.4 million. To do this, we calculate the average revenue per game before and after Messi's arrival, then estimate Messi's effect by extrapolating the difference across 34 regular-season games.

For ticket prices, we use the average price in the supporter zone before Messi's arrival, \$32.76, as a baseline. After applying the Messi effect from all-controls, the adjusted price rises dramatically to \$774.03. For ticket quantities, we use the average total number of tickets sold per game, which increased from 537 before Messi to 1,578 after his arrival—a 2.94-fold increase. Based on these figures, the average revenue per game rose from \$17,590 to \$1,221,482 after Messi's arrival. Projecting this over the 34-game regular season, the annual revenue increase is estimated at \$40.9 million, far exceeding Messi's salary of \$20.4 million.

While these figures highlight Messi's significant short-term economic impact, the negative parameter for 2024 in the all-controls model suggests that demand may shrink over time. To account for this potential decline, we turn to the key-controls model, which estimates the adjusted ticket price at a more conservative \$167.30. Under this scenario, the annual estimated revenue increase is \$8.4 million, falling short of Messi's salary.

These findings suggest that while Messi generates substantial short-term economic benefits for Inter Miami, the long-term effects may diminish as the initial surge in demand normalizes. However, it is crucial to consider revenue streams beyond ticket sales. Messi's presence has already enabled Inter Miami to qualify for the postseason, creating new revenue opportunities. Additionally, increased merchandise sales, lucrative sponsorship deals, and heightened global visibility further amplify the economic impact of Messi's arrival. Thus, even if ticket sales alone may not cover his salary in the long run, Messi's broader contributions underscore his value as a transformative asset for Inter Miami.

5 Conclusion

This study highlights the significant economic impact of Lionel Messi's arrival on Inter Miami through an analysis of ticket price trends and regression results. Our analysis confirms a substantial and statistically significant effect of Messi's presence on ticket prices. The all-controls model estimates an extraordinary 22.6-fold increase in ticket prices, reflecting the extraordinary demand surge following Messi's debut. However, the strong negative parameter for 2024 suggests this effect may not persist in the long term, as ticket prices show a declining trend after the initial excitement. The key-controls model provides a more

conservative estimate of a 4.1-fold increase, indicating a potential normalization over time.

Building on these findings, we estimated Messi's contribution to Inter Miami's revenue. Under the all-controls model, Messi's arrival is projected to boost annual revenue by \$40.9 million—far exceeding his reported \$20.4 million annual salary. In contrast, the key-controls model estimates a more conservative revenue increase of \$8.4 million, which falls short of covering Messi's salary. These results reflect Messi's dual financial impact: immediate, substantial benefits tempered by the potential for diminishing returns over time. Despite these trends, Messi's broader contributions extend beyond ticket sales. His presence has elevated Inter Miami's global profile, unlocked new revenue streams, and strengthened the club's financial prospects, underscoring his transformative value.

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