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Financial Economics 136

Professor Shawn Chi

10 August 2023

Data Exercise: Analyzing Compass (NYSE: COMP)

Topic and methodology:

Our goal is to analyze the publicly available data of an institution traded in the NASDAQ, one of the premier ECNs. This company, Compass, has been in the news for experiencing significant losses in its stock price. We hope to uncover some of the fundamental underlying figures behind its asset price, as well as examine year over year trends in these figures where applicable with the aim of investigating its recent performance. As Compass is a new company, founded in 2012 and IPO'd in 2021, it makes for an exceptionally relevant candidate for an analysis. Lastly, we will make a sell, hold, or buy recommendation based on our discoveries for prospective investors.

Corporate information:

Compass is a real estate brokerage firm that has been operating since its founding in New York City in 2012. Its investor contact is Rich Simonelli, whose email address is richard.simonelli@compass.com, and its media contact is Rory Golod, whose email address is rory@compass.com. Its office is located on 90 Fifth Avenue, New York, New York 10011, its telephone number is (212) 913-9058, and its website is compass.com. The firm's officers include Robert Reffkin (founder and chief executive officer), Ori Allon (founder and chief strategist), Greg Hart (chief operations officer), Scott R. Wahlers (chief accounting officer), Bradley K. Serwin (general counsel and corporate secretary), Neda Navab (president of U.S. operations) and

Arjun Chauhan and Ian Dutta

Financial Economics 136

Professor Shawn Chi

10 August 2023

Kalani Reelitz (chief financial officer). Their board members are Allan Leinwand, Charles Phillips, Dawanna Williams, Frank Martell, Jeffrey Housenbold, Josh McCarter, Pamela Thomas-Graham and Steven Sordello. By its own description, “Compass, Inc. provides real estate brokerage services in the United States. It operates a cloud-based platform that provides an integrated suite of software for customer relationship management, marketing, client service, operations, and other functionality, as well as brokerage and adjacent services in the real estate industry. The company offers mobile apps that allow agents to manage their business anywhere as well as designs consumer-grade interfaces, and automated workflows for agent-client interactions. The company was formerly known as Urban Compass, Inc. and changed its name to Compass, Inc. in January 2021. Compass, Inc. was incorporated in 2012 and is headquartered in New York, New York” (source: S&P Global Market Intelligence).

Methodology:

We would like to preface with a concession. Given the rigor of our summer schedules, with work and two other courses apiece monopolizing much of our time, we were unable to conduct underlying market research regarding Compass’ competitors in order to determine whether a sell, hold, or buy signal should be taken for the stock. This would require a high level of synthesis of subsequent chunks of Python/Pandas code with multiple data sets in play, a skillset that we will doubtless attempt to hone in our professional lives, revisiting this project and updating it with more robust code. That being said, we find that the S&P Capital IQ database’s files for Compass provided adequate time-series data to conduct several enlightening analyses of

Arjun Chauhan and Ian Dutta

Financial Economics 136

Professor Shawn Chi

10 August 2023

the company's recent performance. While we will save our presentation of comparison summary statistics for a future research project, we find it more than worthwhile to present what we found in our data exploration for Compass' recent public data. First, we downloaded two Compass data sets from Capital IQ, converting these .xlsx files to .csv files in order to transfer these as foundational components of our Pandas environment. Then, in Datahub via an Anaconda terminal, we began our exploratory data analysis by first importing the necessary libraries in the form of 'pandas', which handles data manipulation, 'matplotlib', a library for visualization, 'numpy' for mathematical operations, and 'sklearn' to gain the ability to conduct simple linear regressions. Next, we defined a function dubbed 'clean_currency' in order to clean the data responsible for parsing dollar symbols in strings into floating-point numbers. We then organized Compass' financial data into a data frame titled 'financials_data_csv'. The next step in the data cleaning process was to extract key rows for financial analysis like "Total Revenue", "Net Income", etc. Continuing our procedure, we renamed columns for better clarity and converted financial strings to floating-point numbers. We then began analyzing the data on a more granular basis, beginning with computing Compass' year-over-year growth rates for revenue between 2019 and 2022, then plotting it to visualize the firm's revenue trend for these recent years.

Pictured here is this plot:

Arjun Chauhan and Ian Dutta

Financial Economics 136

Professor Shawn Chi

10 August 2023



Source: S&P Global Market Intelligence.

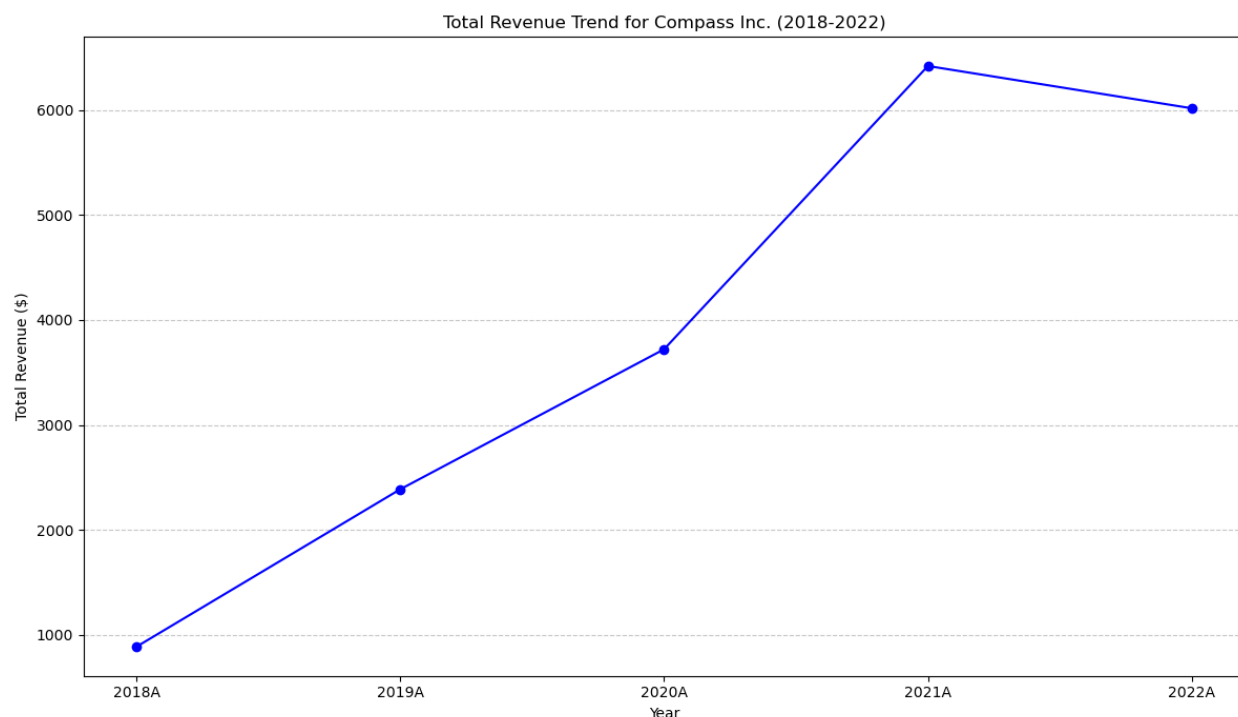
We then visualized the total revenue trend over these same years for Compass' operation, delivering us more context in our analysis. Here is that graph for reference:

Arjun Chauhan and Ian Dutta

Financial Economics 136

Professor Shawn Chi

10 August 2023



Source: S&P Global Market Intelligence.

As the last step in this initial exploration of Compass' recent data, we decided to tap into the sklearn library of Pandas in order to forecast revenue for the current year. Our code aimed at and succeeded in using a simple regression model in order to take into account recent years' total revenue for Compass to graph an additional year as a target variable. This model helped us to account for previous years' figures in the company's history and complement the trajectory of its revenue into the current day, which we can compare to the actual revenue when it is released for all four quarters of 2023 in order to determine whether or not the company underperformed, held

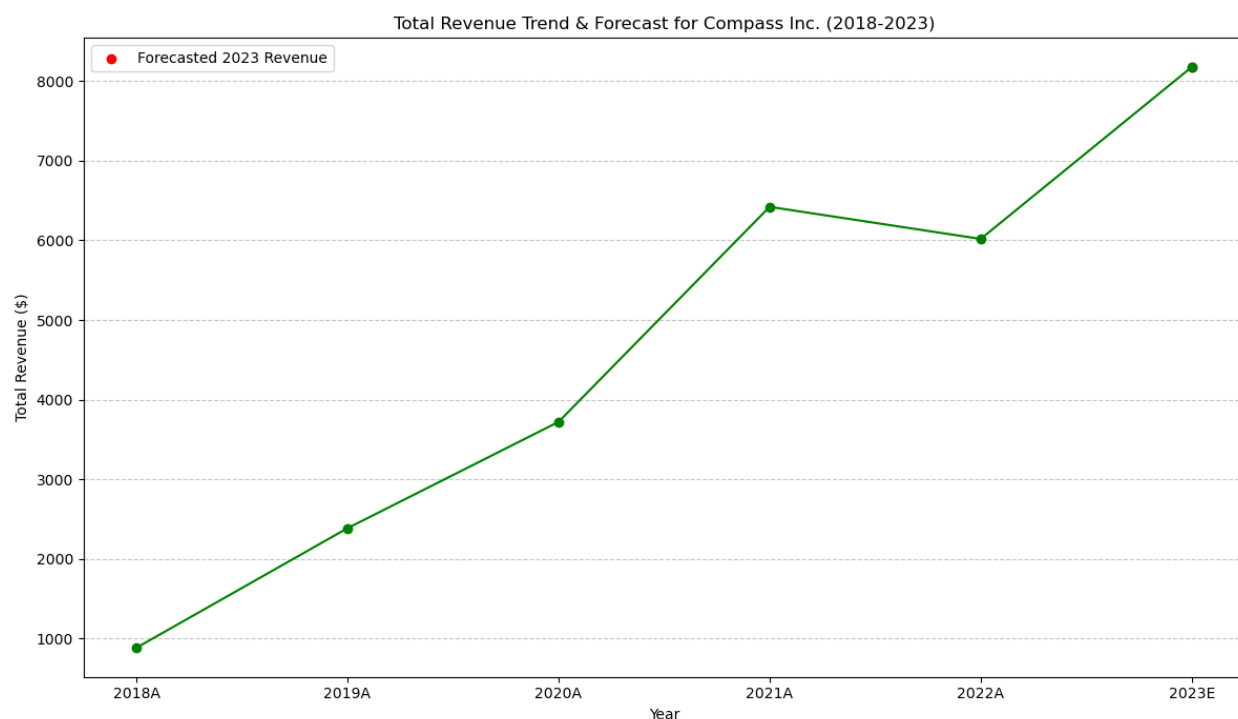
Arjun Chauhan and Ian Dutta

Financial Economics 136

Professor Shawn Chi

10 August 2023

station, or overperformed our prediction for sales less expenses. Pictured is the visualization of this prediction:



Source: S&P Global Market Intelligence.

We can draw a few certain conclusions from these initial explorations into recent data for Compass. It has seen a sharp decline in its growth rate in the past calendar year compared to the three years prior. This corresponds to a slowdown in the California housing market as interest rates from the Federal Reserve have skyrocketed in the recovery period after the Covid-19 pandemic. The sluggish growth of the firm of late is contextualized by reputable financial news aggregator Motley Fool: “Compass, which is now the nation's largest real estate brokerage

Arjun Chauhan and Ian Dutta

Financial Economics 136

Professor Shawn Chi

10 August 2023

platform, continued to struggle with the slowdown in the housing market. Revenue in the quarter fell 26% to \$1.49 billion, slightly below estimates at \$1.51 billion. Transactions in the quarter fell 19% to 54,207, and average home prices in its sales also fell as the sales mix shifted outside of high-value markets like California. Gross transaction value was down 26% to \$56.8 billion.

Its market share still improved 13 basis points to 4.6% from the first quarter, and it continued to add agents. Compass has been cutting costs in order to drive profitability and adapt to the slower housing market, and it has made progress on that front. Adjusted earnings before interest, taxes, depreciation, and amortization (EBITDA) improved from \$4 million in the quarter a year ago to \$30 million. The company also reported positive free cash flow of \$51 million, meeting its goal of being free-cash-flow positive” (source: Jeremy Bowman of the Motley Fool, August 8, 2023).

Here, we can supplement our observation of a dip in underlying growth with the contention of keen market observers that Compass is diverting its earnings from the lower interest rate period in streams of free cash flow, indicating that it has several advantages at the moment. Firstly, Compass’s positive free cash flow allows it liquidity and financial flexibility, enabling reinvestment in its operation to secure its foothold in the housing markets it does business in and eliminate sources of debt saddling its balance sheets. It is generating real cash profits despite seeing investor interest wane as the luxury housing market becomes more uncertain as a speculative financial arena. Additionally, Compass can fund itself and issue new equity in this position, and has hope for its future as the market will eventually stabilize as interest rates lower in the face of sustained employment and a perceived need to improve the average American’s

Arjun Chauhan and Ian Dutta

Financial Economics 136

Professor Shawn Chi

10 August 2023

standard of living in legislative circles. A potential economic downturn has already been priced into Compass' stock price, which has bounced between two and five U.S. dollars during the time period we analyzed, currently sitting at a relatively healthy 3.69 USD per share. In conjunction with the upward trajectories both in total revenue we plotted between 2018 and 2022, and our forecast that this year will continue that trajectory via our linear regression, this news bodes well for current investors of Compass, who hope that its star-studded cast of officers and board members can navigate the firm through a choppy period in the housing market.

Underlying financial analysis:

In order to supplement our initial musings on the performance of Compass, we decided to import a second data set from S&P's Capital IQ service to our Pandas environment, titled 'Compass Inc NYSE COMP Financials Key Stats.csv', and create a data frame that skips the first ten rows due to them containing non-data information in the form of headers and other text-based strings. Next, we cleaned and extracted the data using a couple functions as in the

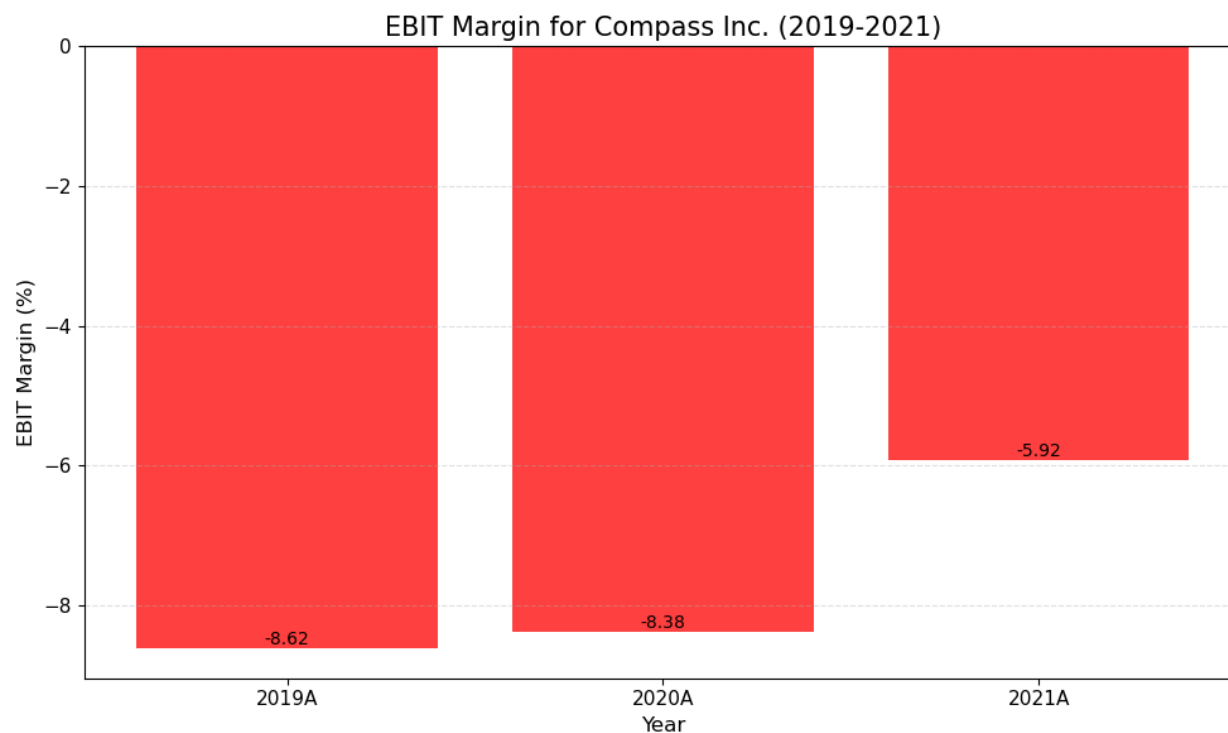
Arjun Chauhan and Ian Dutta

Financial Economics 136

Professor Shawn Chi

10 August 2023

previous step, and calculated EBIT margin for Compass, plotting it here:



Source: S&P Global Market Intelligence.

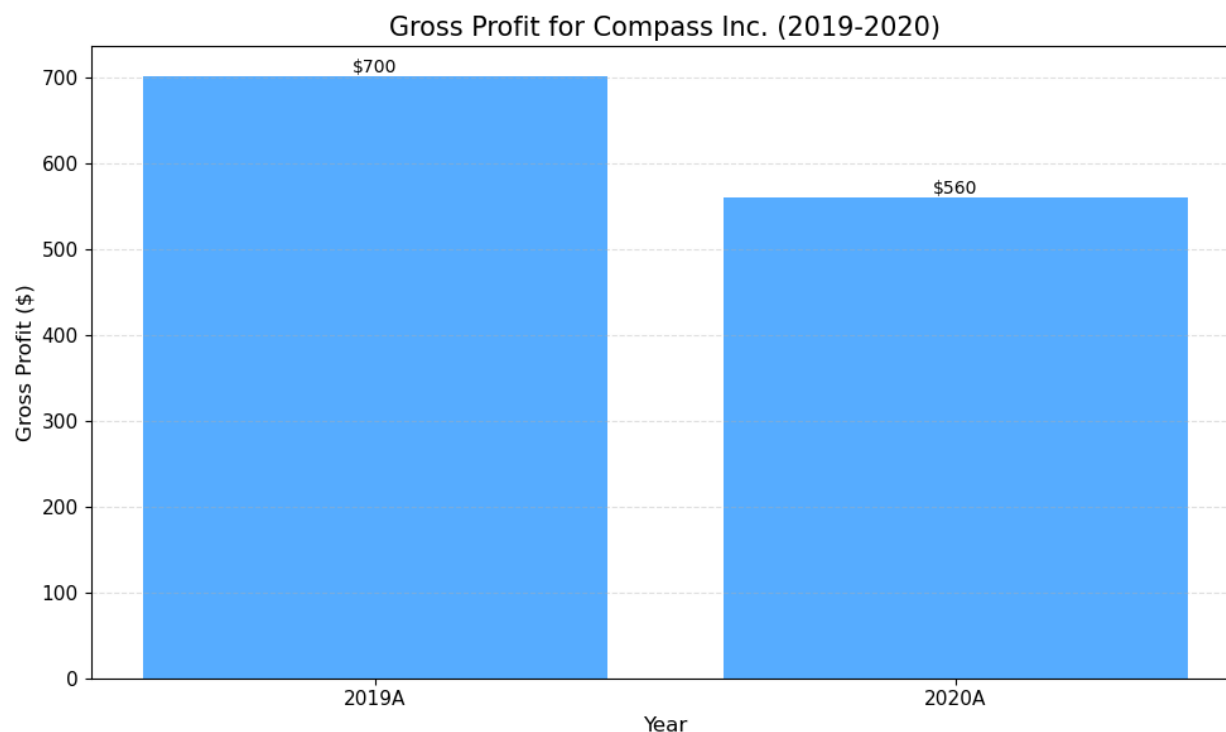
Given that we had access to 2019 and 2020 gross profit for the company, we decided to clean and extract this in a plot, as well:

Arjun Chauhan and Ian Dutta

Financial Economics 136

Professor Shawn Chi

10 August 2023



Source: S&P Global Market Intelligence.

Of course, this is from a time period before the pandemic, so it is not extremely useful for current analysis, but it allows us the perspective that the company was earning hundreds of millions from its business. This contradicts the persistently negative EBIT, or earnings before interest and taxes, rates that marred the company's balance sheet during that same time period. We can conclude that the company was spending large sums of money in order to secure its share of the housing markets it chose to operate within.

Conclusion:

Arjun Chauhan and Ian Dutta

Financial Economics 136

Professor Shawn Chi

10 August 2023

Our analysis of Compass' financial metrics was illuminating, giving us a look at a company with a current market capitalization of 1.7 billion USD, making it one of the smaller cap stocks in the NASDAQ index, and how this smaller firm is trying to augment its weight in an intensely competitive housing market. We will attach our code file with the submission of this research paper in order to allow insight into our computational practices that made up our exploration of the data. Although we cannot deliver a confident recommendation as a professional investing firm would be able to, we can come to some conclusions about Compass. The company has solid underlying revenue figures and delivers the promise of a positive cash flow to investors, enabling it resilience to any potential downturns in the broader U.S. housing market and making it a possible defensive asset. That being said, it is operating at a deficit and has been doing so for years, which is not necessarily a bad sign, as it has already earned the backing of powerful investors across its board, many of whom have had officer experience at other similarly sized firms and made names for themselves as competent leaders of these types of companies. We recommend that the average investor watch for Compass as a potential small investment to diversify the nature of their portfolios. We recommend that anyone reading this consults with a financial advisor before investing in securities of any sort, as this class has taught us that careful allocation of capital in any sort of investment strategy is paramount to ensure the long-term success of the individual. We hope that this analysis can be bolstered by professional recommendations to give more clarity to Compass' market position, and urge our readers to explore these ratings at their own discretion.

Arjun Chauhan and Ian Dutta

Financial Economics 136

Professor Shawn Chi

10 August 2023

References

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- Capital IQ*, www.capitaliq.com. Accessed 11 Aug. 2023.