

Exploring the Drivers of Fintech Stocks Returns

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This problem situation was written by Jesús Enrique Molina Muñoz (jesus.molina@tec.mx), with the purpose of serving as discussion material in the classroom; it does not intend to illustrate good or bad administrative practices. The story on this document is based on different people's experiences; some data has been modified at the request of the people and institutions involved.

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The company

Techvestments (TV) is an investment fund focused on designing strategies for alternative financial markets that include cryptocurrencies, emerging markets, energy assets, and the technology sector. The company, founded in 2015 by Joaquín Zalgari, has become one of the Mexican funds with higher profitability since its creation, offering interesting and innovative portfolios and hedging strategies to its clients. The latter have been increasing in the last years given the opportunities concerning alternative markets and the high potential that the company has for the next years.

TV's investment fund obtains its exceptional gains employing different diversification techniques to conform portfolios characterized by moderate risk and high returns. This approach has brought about an outstanding position in the market for the firm given the profitability offered to its clients. As expected, one of the cornerstones of TV's corporate strategy is the adequate financial risk management that allows the fund to obtain remarkable results with moderate risk levels.

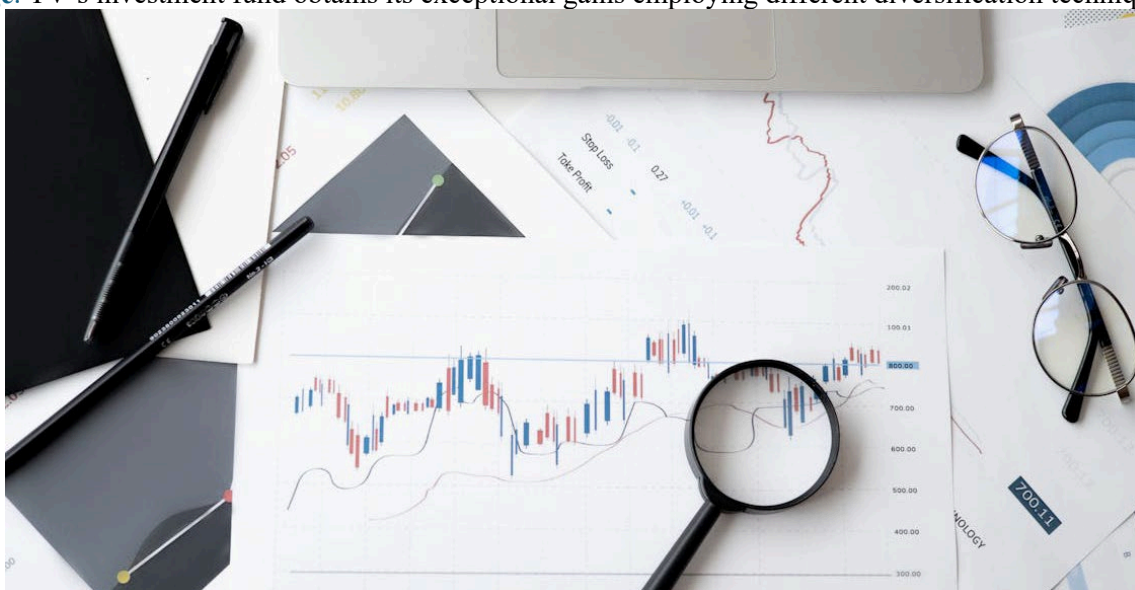
The *Quants X team*

One of the main challenges faced by TV is the understanding of Fintech companies and their stocks. This, given the peculiarities and novelty of these firms and the difficulty to obtain historical data to analyze the stock price dynamics of their stocks. Therefore, Joaquín Zalgari has decided to create a team, "The *Quants X team*", which includes some of the best quants in the company. The people in this team are specialists, and their deliveries will help the people in TV to design a model that can explain Fintech stock returns considering different factors. This task holds significant importance for the company as its findings will contribute to the development and optimization of Fintech portfolios for the next year.

The *Quants X team* has retrieved historical data for some of the most relevant variables to explain Fintech's financial returns. Moreover, in order to capture the dynamics of the principal stocks in the sector, the newly created team has decided to employ the KBW Nasdaq® Financial Technology Index that tracks the performance of financial technology companies that are publicly traded in the U.S., including 49 constituents since July 18, 2016.

SEE Data [HERE](#).

Image. TV's investment fund obtains its exceptional gains employing different diversification techniques.



Source. Anna Nekrashevich en Pexels, 2021.

Some challenges

TV's *Quants X team* must prepare a financial report for the following week based on calculations performed in Python. However, right now the people in the team are deciding whether it is better to employ the variables in their original form or to make any type of transformation. Moreover, the leader of the *Quants X team* is considering splitting the database into intervals that comprise the periods before and after the COVID-19 pandemic (considering the changes in financial markets dynamics caused by this event).

In addition, despite the urgency of presenting the report in the following week, the team has not decided to develop a single model or two models (based on the idea of the leader of the team) or five models (analyzing the effects of each variable in the KBW Nasdaq® Financial Technology Index).

The clock is ticking, and the *Quants X team* of specialists has not reached a concrete definition regarding the database approach. The people in the team have decided to seek Joaquín Zalgari's guidance, who has advised them to select the most robust option from the ideas presented, focusing on the strength of the models in terms of their underlying assumptions.

The expected financial report from the Quants X team must be prepared in the style of a financial document suitable for presentation to the TV board of directors: concise, visually appealing, and professional; it must also highlight the key findings derived from the various models considered. In addition, it is necessary to analyze the expected performance of the KBW Nasdaq® Financial Technology Index during the next year, considering the possible states of the U.S. economy based on simulations.

References

Fintech: Fintech index and independent variable. Source: Bloomberg® database.