

### September 9, 2022

Dear Client,

This is a first for the firm. We are including an Investment Commentary that I have written and another letter, a presupposition, written by Brian Valencia.

Fair Isaac is intriguing to me and a source of stimulation for our investment discipline.

We have begun to develop a process very similar to Fair Isaac's in which we will conduct mathematical processes to score companies based on a multitude of factors to determine whether or not they are good investments.

The firm has been fortunate to recruit two bright people, Brian Valencia and Cathy Karney, you will enjoy meeting them.

Best Regards,

Fredric E. Russell

September 9, 2022

#### INVESTMENT COMMENTARY

### FAIR ISAAC CORPORATION (NASDAQ: FICO)

### IS IT MORE VALUABLE TO HAVE A HIGH CREDIT SCORE THAN A HIGH I.Q.?

It was 5:45 in the evening, and Bruce Smith, a senior vice president at a large Tulsa bank, was at his favorite booth at the Polo Grill in Tulsa, Oklahoma.

Bruce enjoys the Polo Grill, especially when he is on expense account. This privilege can be especially valuable when Bruce loosens up, and orders drinks for himself and his potential clients. He enjoys the music of Mark Bruner and the gracious hospitality of the owner Robert Merrifield. Bruce is such an excellent restaurant patron that he always has the same private booth. He is one of the few clients who are privileged enough to have a house charge account.

Tonight, Bruce was quite excited about visiting with a bank client who was a partner at a prominent downtown law firm. Laura Jones graduated from the University of Tulsa and the University of Oklahoma. She graduated from law school in 2002 and finished number two in her class. At age 42, she is already earning a high six figure compensation.

She understands the power of sheltering income from taxation through a 401(k) plan. Even after her annual contributions to her firm's 401(k) plan, Laura has plenty of discretionary power with her money. She can afford a comfortable home in one of Tulsa's most attractive neighborhoods near Cascia Hall Preparatory School on South Yorktown Avenue. However, she now wanted a library, a home office, and an exercise area in her dream home, which she envisioned she could use when she did not have time to go to the Ascension St. John Health Club. She had purchased a plot of land in the same neighborhood as her present home, where she had decided to build her dream house. She had decided she wanted to take a loan for half of the appraised value of the lot, which she estimated would be half a million dollars, and to share her plans with Bruce. After contacting Bruce a few before the dinner, they adjusted their schedules to meet at the Polo Grill later tonight.

Whether the economy reflects a period of prosperity or hardship, there is one thing we can count on: there will always be a need or want to borrow money. It is credit that gives the economy horsepower. A multinational domestically based pharmaceutical company--Pfizer (NYSE: PFE) is an example—may need to borrow funds to build plant additions in Asia, the Middle East, or South America. Pfizer may turn to Morgan Stanley (NYSE: MS) for these funds to expand or underwrite a sale of common stock in a secondary offering. Or it may turn to another investment banker, Goldman Sachs (NYSE: GS) or Merrill Lynch (NYSE: BAC), to raise funds, for example, by offering bonds with staggered maturities of five, ten, and fifteen years. If Pfizer were to go the fixed income route, that is, selling bonds, it would seek a high credit rating from Moody's (NYSE: MCO). (The higher the rating, the lower the cost to borrow). Moody's would amass thousands of ratios that purport to reveal a firm's financial strength and arrive at a score to determine their client's financial health. Moody's does not use the word 'score' to describe its credit ranking system, but its bond ratings are a type of score.

Fair Isaac, too, is in the business of evaluating financial health. It calls its method 'scoring,' and it has created a brand through the 'FICO' score.



There are three different credit reporting firms that calculate credit scores, namely Experian (which uses the Fair Isaac model), Transunion (which supports the Emperica model), and Equifax (which calls its model Beacon). While the credit scores have different underlying methodologies, the scores generically are referred to as 'FICO scores.'

(Fabozzi, Frank. The Handbook of Fixed Income Securities, 2018. McGraw-Hill. Pg. 499)

Here we will be concerned with borrowing for entertainment, travel, dining out, private jet trips, and other indulgences. This is the market for Fair Isaac's work and where credit cards come in. (Fair Isaac also plays an important role in scoring mortgages.)

The puritanical history of the United States produced a fear of borrowing money. Yet, Americans have eagerly recognized that without credit and its ability to open up new avenues of commerce and pleasure, we would not have material prosperity.

MasterCard (NYSE: MA), Visa (NYSE: V), and American Express (NYSE: AXP) have proven that you can take anything you want, manipulate it with the right psychology, and presto, you have a need. In its ads, MasterCard acknowledges the importance of happiness and human connection. Still, just as importantly, these messages say that beyond these intangibles, as mentioned above, for everything else, there is MasterCard.

So, a logical question is this: on the consumer side, who decides who gets the credit? Who gets to borrow money, and on what terms? Who decides whether a corporation or an individual is creditworthy? Before the advent of Fair Isaac, banks issued credit cards without the aid of computers and were unable to correlate borrower characteristics with payment histories easily. They relied on variables such as age, employment history, earning power, and other considerations, with some being more objective than others. The problem with this approach was that it could not paint a precise picture of predictive reliability with such a scheme. Banks could only do a cursory job of deciding how these factors worked together. To improve predictive precision, a lender must correlate hundreds of variables (on-time payments, past due fees, balance amounts, accounts active, history of funds, and more) and collect hundreds of thousands of consumer profiles.

Precise prediction of consumer behavior concerning loan repayments was impossible before the widespread popularity of the personal computer. In 1954, however, Bill Fair and Earl Isaac, two statistics professors who had worked together at the Stanford Research Institute in California, came up with a scoring system to predict who would be the best credit card customers: the ones likely to pay on time and the ones who did not require painful, expensive negotiation.

The FICO score is not personal. The decision is based on analyzing the common characteristics of a class of borrowers. It has all the pluses and minuses of the college entrance exams given every year to hundreds of thousands of high school students under the direction of the Educational Testing Service in Princeton, New Jersey. The scoring system is not perfect in its predictive power, but it works and is now part of the American way of life.

# If the Fed had FICO's predictive ability, could it shorten recessions and temporary inflation?

If you asked Jerome Powell, Chairman of the Federal Reserve, whether he could perfectly calibrate the discount rate to make anti-inflation and antirecession moves the least painful as possible, he would say, off the record, that was impossible. The Fed, he would say, would now like to have a soft landing, that is, no recession or small recession, in response to its anti-inflationary moves. The extreme challenge of this tightrope walking is reflected in today's forecasts that economists make. Some say we are headed into a recession; some say we are already in a recession. The ones who wish to be honest and humble in their forecasts would say that it is hard to tell if the economy has hundreds of thousands of moving parts, so no one, even economists, can know which state—expansion or contraction, we are in. But one thing he was certain about: the American appetite for credit was real, it was the Fed's challenge to manage the cost of credit.

As Bruce sips his ginger ale while waiting for Laura, he wonders whether the Fed is as acute in predicting



recessions as FICO as predicting someone's ability to make credit card payments on time.

In his brilliant allegorical piece, Animal Farm, George Orwell (1945. England. Secker and Warburg) describes the Communist takeover Joseph Stalin engineered in 1917, assuming control of the Communist party. His dictatorship, which foreshadowed Putin's oppressive rule in modern Russia, would lead to disillusionment with the promises of the Communist party, one of which was that all work would be equal and that all rewards would be equal.

In Animal Farm, the animals execute a revolt and assume power. Two pigs, Napoleon and Snowball, co-oped the revolution, emerging as leaders. The other animals, accepting the premise that all animals are equal in power and rewards, later discover the difference between promise and execution. This was a false promise. It would be naïve to believe that after the Communist revolution, everyone in the Soviet Union shared rewards equally or had equal access to privileges: this is Orwell's message.

Take access to credit in the western world, for example. People get millions of solicitations for credit cards every year. But the terms of credit are radically different from one person to another. Conclusion: Power is never shared equally, and access to credit is never shared equally.

For example, one credit card user may pay ten percent on unpaid monthly balances. Another may pay five percent, another three percent. These differences may be arbitrary, and sometimes they are, but the differences are based on millions of relationships and millions of examples of these relationships.

Let's take a person who is 24 years old, with no college degree, and has never paid for their shelter. In that case, the credit scoring or predictive behavior models of Fair Isaac will rule that the chance of paying for a credit card bill with a \$10,000 monthly spending limit is decidedly inferior to that of a woman who is 32 years old and has a history of paying for her own home, and with a high earning job that only a graduate degree could give access to. Even more dramatically different would be her automobile insurance score compared to a person in the 19-24 age group, a group in which the brain has not matured to its full potential.

### Fair Isaac plays an important role in scoring home mortgages, as well as scoring credit cards

Fair Isaac supplies millions of scores to banks that must evaluate the creditworthiness of people wishing to take out a mortgage. Americans love big houses and usually need to borrow money from a bank or other financial entity to get their feet in the door. So, let us see how these dynamics work.

In good times, when the economy is beset by neither inflation nor recession, banks lend with prudence, neither recklessly nor too cautiously, respecting risk but not submissive to risk; banks are most eager to lend money and to underwrite home mortgages for the right customer, that is, a customer who does not need to borrow money. This is important business for Fair Isaac. But who are these customers, and how do the banks find them? That is the \$64,000 question. If you are a banker serving the ultra-rich in Aspen, San Francisco, or Manhattan, this might be the next \$64,000,000 question. (Incidentally, just because someone has the earning power of one million dollars does not guarantee that she is a good credit risk for a mortgage on a million-dollar home.) Such a person may already have one or two houses, for which monthly mortgage payments are needed. An expensive divorce may burden them, or as Tom Wolfe chronicles in A Man in Full (1998. England. Farrar Straus & Giroux.), they have developed a cocaine habit to keep their energy perpetually boosted in overdrive so that they could plan and execute multimillion-dollar trades for an investment banking firmrisking the firm's capital but setting the stage for extraordinary returns on that capital, by, for example, completing a transaction in the NASDAQ market by providing liquidity to a buyer and seller, crossing a 100,000 block of shares when the average daily volume in that security is less than 50,000 shares.

Bruce knows bankers, like himself, look for clients who live an emotionally uncluttered lifestyle, have their egos under control, and live below their means. He knows bankers are thrilled to lend money to someone who does not need to borrow money. But how will a banker find enough of these perfect prospects to earn their salary and a bonus?

Bruce, however, is not worried about having to find the perfect prospect because Fair Isaac significantly reduces his workload. Fair Isaac has developed highly accurate



forecasting software that gives a predictive score for each potential borrower. The buyer of such a score, whether it be J.P. Morgan (NYSE: JPM), Citibank (NYSE: C), or Bank of Oklahoma (NASDAQ: BOKF), must build standards or rules. If the bank that buys the Fair Isaac score believes that the minimum score for a certain amount of money is eighty-five, she will reject that application if the applicant scores seventy-eight. Conversely, a score of ninety-two will get a loan. In either case, acceptance or rejection, the background check as it were, the research, the creation of a statistical database, is the work of Fair Isaac.

Bruce has been looking forward to the dinner with Laura because, like all good salesmen, he envisions this meeting as an important cultivation with a very promising client.

As Laura approaches Bruce's booth, Bruce greets her with a warm smile, which reflects his intense interest in their relationship. The dinner proceeds smoothly as Laura proudly regales him with recapitulations of her children's recent achievements.

Before ordering dinner, Bruce had unctuously smiled at Laura, and had encouraged her to order several drinks, strong ones as a matter of fact, in hopes that the drinks loosened her up so he could begin his well-rehearsed pitch encouraging the purchase of an expensive house. When she had sliced into her well-marbled prime steak, it would have been hard, almost impossible, not to feel flattered, even important, and tempted to believe the banker is a true friend. (He may be, in fact, a friend. But reality tells us that first and foremost that he is a salesman.) He convinced her to buy a house offered for \$1,000,000, with a 20 percent down payment, a monthly interest, and an obligatory payment to reduce the principal amount of \$6,500 is an American challenge that she could easily meet.

During the dinner, Bruce probes gently, asking a few questions about Laura's lifestyle but being careful not to get too invasive.

It is unnecessary to be too aggressive because Bruce has read the FICO report on Laura, and that's all he has to do. (Even the best scoring reports are, of course, vulnerable to some events. Suppose the scoring information assumes a loan on 80 percent of a home's value, a transaction that will close within August. Bruce

does not know that quietly Laura has been assiduously researching second homes in Aspen and has decided to seek a mortgage on this home after she secures a mortgage for her Tulsa home.)

Later, after dinner, Laura asks herself, how can the banker with whom she had never spent more than a half hour before this wonderful dinner know so much about her and her financial picture? How can he risk millions of dollars when he has done little research? Is the banker reckless? Does he immaturely ignore risk? Is his mind divorced from reality? What fantasy world does he inhabit? If she has trouble with ego control, she might even succumb to the belief that her charm greased the wheels to a large loan. The fact is, however, that Bruce knows much more about her financial behavior, her financial picture, and her financial obligations. The reason for the banker's quiet, self-assured behavior? He knows her credit score.

The banker knows much more than you can imagine and is a professional researcher. He is not reckless, as he has been doing this for years and is skilled in assessing credit score reports. He has learned to accurately predict if and when you will make your monthly mortgage payment. If you are delinquent, Fair Isaac will tell the banker what to charge as an interest penalty high enough to discourage overdue payments but not so high to precipitate a monthly burden that will lead to an inability to pay and then bankruptcy. (Contrary to some wisdom, banks do not want to repossess a home or a car and be in the asset management business.)



Fair Isaac is the beneficiary of the well-entrenched mortgage interest deduction, which millions of homeowners take every year in their tax filings

# Is it Wise to Encourage Universal Homeownership?

'As a corollary of the American dream of homeownership, the mortgage market in the United States has emerged over the last decade as one of the largest asset classes. As of the fourth quarter of 2003, the total face value of one- to four-family residential mortgage debt outstanding was approximately \$7.3 trillion, with roughly \$4.2 trillion having been securitized into a variety of investment vehicles. As a point of comparison, at the same point in time, the outstanding amount of U.S. Treasury notes and bonds totaled \$3.7 trillion.' (Fabozzi, Frank. *The Handbook of Fixed Income Securities*, 2018. McGraw-Hill. Pg. 487)

The beginning of the 2007-2009 crisis could be traced to the assumption that owning a home per se is the most logical plan for a family's living quarters. Equally dangerous was the misguided belief that all families could afford homeownership. Suppose that the idealistic assumption was faulty. In that case, the government could make homeownership alluring and safe for the millions of families who were entranced by the idea of owning a home, being proud to take care of a lawn, and boastful of the slew of appliances, such as the lawn mower, which was necessary to maintain and beautify their home. (My observation on the advantages and disadvantages of homeownership is based on discussions with Brian Valencia, the latest addition to our very competent workforce. Brian is very excited as he has just closed on a mortgage for a new home. Brian is able to fix things, so owning a home does not worry him. I do not know how to fix things. Having a condominium at the Yorktown is suitable for me.)

Little did these homeowners see that with their lawns on display for the entire neighborhood to see and judge, they were giving up a subtle kind of privacy as they conformed to what the community viewed as curb appeal. Little did they know that the promised privacy of a privacy fence was not a

foolproof answer to neighborhood envy and a desire for power. Little did they know that the homeowners' association, whose president would find an SUV or a truck too difficult to handle, would push through a bylaw that would outlaw trucks or SUVs in the driveway. Little did they know that when an offender of this bylaw was approached by a neighbor who believed in loco parentis, negotiations over the proper place for a two-ton Ford (NYSE: F) monster might lead to a physical altercation. (Homeownership is a strange term. It implies that the people living in a house with a mortgage attached to it have uninhibited financial control of the property in which they reside.) Often, however, people in such a position must meet monthly mortgage payments, or they must surrender their home to the mortgagor.

This is not an academic issue, especially when the average homeowner's budget is stretched as millions live paycheck to paycheck. It does not take much of a slowing economy to put these households on the street, with such a painful event followed by the appearance of furniture, appliances, and other possessions landing on the front lawn. There appears to be a garage sale, but the reality is a tragic development.

The price of credit and the cost of borrowing money reflects the periods of growth and contraction, inflation, and recession that the American economy has experienced. The development of the American economy, whether vigorous, faltering, or even negative, has always been responsive to the cost of credit, the cost of borrowing money. When access to credit has been easy, the Federal Reserve has wanted to encourage investment, borrowing, and risk. When it tried to move the country out of a recession, it lowered the discount rate or the cost of credit, making money cheap and affordable, an accommodative stance. This was the Federal Reserve's stance under its Chairman, Ben Bernanke. After the Great Recession of 2007-2009, Bernanke engineered massive liquidity through a program called Quantitative Easing, buying billions of treasuries to lower the yield on fixed income instruments and send a cascade of attractively priced credit throughout the economy. Conversely, when the Fed has determined to slow or tame inflation.



Risks are only an abstraction for many consumers, especially young ones. Worrying about risk is something older people do. But for financial professionals, such as bankers underwriting mortgages, risk is a formidable entity to be managed and respected.

With credit scoring, you may not entirely eliminate risk, but you can make the percentages of default and other lethal non-compliant exercises much less punitive for the lender.

You can make a good argument for saying that without Fair Isaac, the credit card industry--American Express, MasterCard, Visa, and the hundreds of financial institutions that issue credit cards--would see a very diminished credit card revenue.

For example, I have experience with Freedom Car Wash at 2635 South Harvard Avenue. You could pay cash, but that is awkward. It is much easier to insert your MasterCard into the machine, and voila, the drawbridge opens, and you drive straightaway into the carwash. You can choose three wash levels, each with a different cost, whether premium, intermediate, or basic. (I do not want to be unproductively cynical, but I have found it difficult to determine whether I got a premium or a basic wash. The price may not be correct when I paid for a premium one, but it is still a great deal as I remember the tedious hours it took to wash the first car I owned.)

The more I learned about credit cards, the more I realized my knowledge of this industry was basic, maybe superficial and primitive. For example, I thought that managing a credit card business involved two factors: was there a high probability that the person using the card would pay the monthly bill and pay it on time? No, there are many other considerations. To properly think of credit cards profitably, you had to turn your thinking upside down if you were to understand how a manager of a credit

card operation of a bank thought about credit card cash flow. Consumers who believed they led a life bound by strong ethics felt they should pay their bills on time and not incur any finance charges. They carried this behavior to credit cards. (Before the prevalence of today's credit cards, department stores that issued their department cards would only hope that their customers would make timely payments on their balances. It wasn't until the fruition of credit cards, like American Express, that punitive past due payment charges with percentages many multiples higher than the risk-free rate were introduced to enforce payments on these balances.) What was a credit manager to do? You could not imprison the cardholder and force them to make delinquent payments. This was no academic aberration. In 1980, for example, 37% of Visa customers, accounting for half of Visa's volume, paid their bills in full every month. These upstanding citizens thought they were good customers; the banks thought otherwise.

The answer was imaginative, if not distasteful, to the consumer. Citibank, in 1976, began to charge a fifty-cent fee to customers who did not keep a balance. Congress did not approve of the cost.

Few activities would be susceptible to measurement and from which using Fair Isaac software could be assigned some probability of occurrence. One huge field is healthcare, virgin territory for Fair Isaac.

Best Regards,

Fredric E. Russell



### Bibliography

- "About Fannie Mae and Freddie Mac." Federal Housing Finance Agency, https://www.fhfa.gov/about-fannie-mae-freddie-mac. Accessed 1 August 2022. Web.
- "About Us." *FICO*, https://www.fico.com/en/about-us. Accessed 1 August 2022. Web.
- Fabozzi, Frank. And Steven Mann. (1 January 2018). *The Handbook of Fixed Income Securities*. 7th ed., New York. McGraw-Hill. Print.
- FactSet Financial Data and Analytics, FactSet.com. Accessed 1 August 2022. Web.
- Fair Isaac Corporation. (10 November 2021). Form 10-K the Fiscal Year Ending Sep. 2021. Retrieved from FactSet. Web.
- Orwell, George. (17 August 1945). *Animal Farm.* England. Secker and Warburg. Print.
- "Understanding the Teen Brain." University of
  Rochester Medical Center,
  https://www.urmc.rochester.edu/encyclopedia
  /content.aspx?ContentTypeID=1&ContentID
  =3051. Accessed 1 August 2022. Web.
- Wolfe, Tom. (October 1987). *The Bonfire of the Vanities*. New York. Farrar Straus & Giroux. Print.
- Wolfe, Tom. (12 November 1998). A Man in Full. New York. Farrar Straus & Giroux. Print.

September 9, 2022

## **Brian's Presupposition**

### FAIR ISAAC CORPORATION (NASDAQ: FICO)

Hello clients, my name is Brian Valencia. I have recently joined the firm in aid of the head honcho Mr. Russell. He's already having me write a paper! He must think I have great potential! Fred and I have got to know each other over the years, and we had discussed working together, and it has come to fruition. Something we are both very excited about. I expressed my interest in investments. I told him that I had previously done some research on technology companies. Fred noticed the eagerness and brightness in me, and after he explained his common sensical financial strategy. I knew that he would be the person I wanted to work for. Even only after a few handfuls of encounters, I could tell that our talks were synergistic and constructive. As far as I know, Fred recognized my potential, and I hope my hard work and intuition will reflect that.

Fair Isaac is a unique and beautiful investment. In today's day and age, it's rare for someone not to know the term "FICO." With such strong recognition, followed by a top-notch and consistent track record, FICO easily dominates its industry in credit reporting, making it a great investment. To be fair, there really isn't a company that exists like FICO. They are the pioneers of predictive analytics. What exactly is predictive analytics? To keep it simple, it's a branch of advanced analytics that predicts a future outcome based on historical data.

Credit Karma is a similar company to FICO, founded in March 2007. They provide information from two of the three credit bureaus, Equifax and Transunion, and allow you to view credit scores from the respective bureaus for free. They also provide personalized recommendations on financial moves. I remember seeing the commercials on Credit Karma when I was younger, and I always wanted to give it a try to see what my numbers would be. (Even though I was still in my

teens and didn't have any credit.) So, when I finally had built up credit, I was excited to see what numbers I had achieved. The process was userfriendly, easy, and fast. My scores weren't bragworthy yet, just your average "good" scores. But to me, they were numbers that would carry weight in my future. Credit Karma was later acquired by Intuit (NASDAQ: INTU), another great company, in December 2020. Since Intuit's primary services revolve around tax services and collecting data from people that use their service, it's easy to understand why they were so interested in Credit Karma. Intuit wanted to expand into the business of credit scoring. They had some background into how people lived based on their taxes but not all the critical information to determine a credit score. That's where the acquisition of Credit Karma comes in. Now, as a subsidiary of Intuit, they share all their information and can have better personalized financial products for consumers.

However, Intuit primarily does business in small businesses and consumer services. Through Credit Karma, they provide individuals insight into their credit scores. Contrary to FICO, which provides a comprehensive and predictive mathematical analysis to large organizations. Now despite the differences in targets, we can flirt with the idea that a possibility of an even larger merger between these two may still exist. They are in the same business, but if they can come together and expand their reach, they could become quite a formidable force.

The term FICO score has now become synonymous with credit score. It has become such a solidified concept that it's beginning to be taught in schools. I remember my time at Daniel Webster High School when a financial literacy course was required to graduate. During my time in that class, I had it drilled into me that being financially smart was essential to having a successful life. And one of

those key determining factors is having good credit. After getting my first credit card, a Visa (NYSE: V) provided by my bank, and slowly building up credit, I began to get mail for pre-approved credit cards. At first, I thought, "Oh sweet! Free money!" but after reading lengthy terms and conditions, followed by higher interest rates, I was quickly enlightened that it wasn't "free money."

Being 18 and having a credit card can really reflect your maturity regarding finances. Luckily, I was mature enough to make on-time payments and not spend amounts that I knew I would not be able to pay off. After years of keeping consistent payments, I started with and maintained a 720+ FICO score. When I mentioned it to Fred, I must have aroused a competitive eagerness in him, as I heard him say under his breath with a surprised face, "That's pretty impressive. I don't think mine is even that high." It has proven to be very beneficial to me today, as I am currently in the process of closing on a mortgage to purchase my first permanent residence. I was slightly worried when I first spoke to my loan officer about pulling my credit. (If you have a credit card with Bank of America (NYSE: BAC), they will provide you with an estimated credit score at the end of each month. Viewing it doesn't lower your credit because it is not what they consider a "hard check," but it is relatively accurate.) I worried that my score may have been lower than I had expected, but I was quickly reassured that my score was very good, considering my circumstances, and before I knew it, I was pre-approved for the loan.

Many people told me it was good to have multiple credit cards as I grew older. Despite many enticing offers, I would always be skeptical and have never applied for a new card. This goes to show how prevalent the FICO credit scoring system is in society for companies to buy the information FICO provides to attempt to get a gain of their own.



1959 American Express Credit Card. Apic—Getty Images

In today's world, it's nearly impossible to obtain a loan without first having a credit check. Many loaners have adopted the use of the FICO score to deem clients worthy of a loan. There is no way for them to know if they are going to make timely payments or not otherwise. The FICO scores are calculated from data that are grouped into five categories. Payment history (35%), amounts owed (30%), length of credit history (15%), new credit (10%), and credit mix (10%). Bill Fair and Earl Isaac must have been alchemists with the golden mathematical process they had created.

"Fair Isaac Corporation ("FICO"), a Delaware corporation, was founded in 1956 on the premise that data, used intelligently, can improve business decisions. Today, FICO's software and the widely used FICO® Score operationalize analytics, enabling thousands of businesses in nearly 120 countries to uncover new opportunities, make timely decisions that matter, and execute them at scale. Most leading banks and credit card issuers rely on our solutions, as do insurers, retailers, telecommunications providers, automotive companies, public agencies, and organizations in other industries. We also serve consumers through online services that enable people to access and understand their FICO Scores, the standard measure in the U.S. of consumer credit risk, empowering them to increase financial literacy and manage their financial health."

Form 10-K the Fiscal Year ending Sep. 2021; Fair Isaac Corporation, November 10, 2021; pg. 60 Who knows how businesses would've determined eligibility for loans if not for this system they created? Before the credit score, it was common for lenders to visit your house and ask around town to see if you were a reliable person (They might have even asked for a pinky promise.) This process proved not to be so accurate. Bill Fair and Earl Isaac revolutionized how money should be lent to people who need it—shifting lender approval from a qualitative stance to a quantitative one. According to the US Census, the total percentage of homeowners' mortgages is 64.8%. I'm sure that makes FICO quite the commodity to lenders.

FICO provides predictive modeling, identifying and mathematically representing underlying data to predict future events. They provide analytic data with a streamlined pace allowing for actions to proceed with ease. With hardly any other competitors, it's easy to see why FICO dominates the market. The service they provide is genuinely unique.

Through strenuous research, I've found one company similar to FICO. Upstart Holdings (NASDAQ: UPST), a cloud-based artificial intelligence (AI) lending platform. Their AI models are provided to lending organizations and, from there, configured to their credit policy to analyze data and provide a credit score. Upstart had explosive growth since its IPO in December 2020, it started at \$29.47 per share, and by October 2021, it peaked at \$401.49. Unfortunately for them, as of writing this today, they have plummeted to a mere \$28.33. With a cumulative loss of -3.87% since its first trade day on December 16, 2020. Other packaged software creators exist, like Citrix (NASDAQ: CTXS), but they create digital workspace solutions; they are an enterprise software company helping work be secure and consistent, same market but different targets. And even then, their Compound Growth Rate (CGR) is only 5.87%, compared to FICO's 26.63%. Salesforce (NYSE: CRM), a cloud-based enterprise software for customer relationship management, has an impressive 19.53% CGR but is still quite the disparity compared to FICO. Despite being founded in 1956, and the fast evolution of technology, FICO continues to demonstrate superiority in its market. The CGR provides an investment's mean annual growth rate over a specific amount of time longer than one year. It is one of the most accurate ways to determine returns on assets/portfolios. It also takes into account the wonderful effect of compounding, the process of generating earnings on an asset's reinvested earnings. Simply put, your interest gains interest, and your money builds upon itself.

FICO has continued to grow its revenue at the end of each fiscal year, and for 2021, its basic earnings per share had jumped by \$5.50. In March, the board authorized a \$500 million repurchase program, which they view as an attractive way to use cash. Their growth as a company is consistent and magnificent. FICO has achieved an over 960% cumulative price change, with an outstanding annual 26.63% CGR in price change, compared to the 11.55% CGR for the S&P 500, an over 15% difference. As of right writing this report, the current value of FICO is \$474.25. If a CGR of 26.81% is maintained for five years, the final value will rest at an extraordinary value of \$1,555.16. Compared to an unexciting \$330.18 from the S&P 500, with today's value of \$191.16, if a CGR of 11.55% is maintained for the same time period. Making FICO absolutely tantalizing.

With great success as a business comes a great appeal for future endeavors. FICO has expanded its software in many other forms and has its footing in over 120+ countries. From protecting payment cards from fraud, to helping people get credit, and ensuring airplanes are at the right place at the right time. FICO's reach for business in software knows no bounds. Their immaculate reputation in software and predictive analytics has made their services irresistible to growing and established companies in and outside the United States. I would say that FICO, as a brand, carries as much weight as a brand like Microsoft (NASDAQ: MSFT). Here's an excerpt from their 2021 10-K that shares who their clients are to give a little more insight into how prominent FICO is.

"Our scores and software products and services serve clients in multiple industries, including banking, insurance, retail, healthcare and public agencies. End users of our products include 96 of the 100 largest financial institutions in the U.S., and two-thirds of the largest 100 banks in the world. Our clients also include more than 600 insurers, including nine of the top ten U.S. property and casualty insurers; more



than 300 retailers and general merchandisers; and more than 200 government or public agencies. All top ten companies on the 2021 Fortune 500 list use one or more of our solutions. In addition, our consumer solutions are marketed to an estimated 200 million U.S. consumers whose credit relationships are reported to the three major U.S. consumer reporting agencies."

We are confident that FICO will once again prove to be a valuable asset as there does not seem to be any challengers to attempt to dethrone the irrefutable king (or queen) of credit.

If you have endured reading until the end of this letter, you must have immeasurable resilience to have not been taken out by this writing. All jokes aside, I'm very excited to be with the firm and to make important contributions to the upstanding record of the firm. I look forward to meeting you all.

Sincerely,

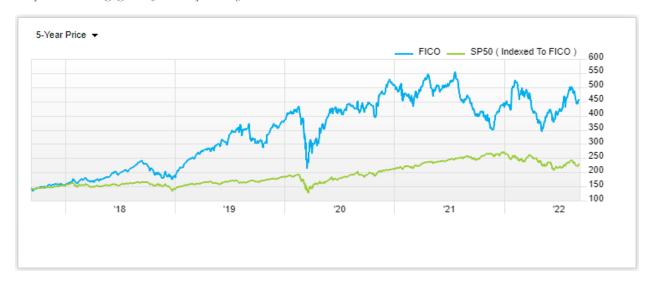
Brian Valencia



## Fair Isaac's History of Growth



Graph 1: Percentage growth from the past ten years



Graph 2: Five-year price growth comparison of FICO and S&P500 (Indexed to FICO)

#### Comparable Returns

	Price Cl	Price Change (%)		Total Return (%)	
	Cum	Ann (CGR)	Cum	Ann (CGR)	
Fair Isaac Corporation	977.36	26.81	983.45	26.88	
—S&P 500	198.72	11.55	263.28	13.76	

Table 1: FICO's significant growth compared to the S&P 500. From FICO's first trading day (22 Jul '87) to today (4 Aug '22)

Source: © 2022 FactSet