Research Report

Buying into Fraud – German Retail Investors and the Wirecard Scandal

ON JUNE 18TH, WIRECARD'S SHARE PRICE PLUMMETED BY MORE THAN 60% FOLLOWING THE FIRM'S ADMISSION OF BEING SUBJECT TO "ENORMOUS FRAUD" AND BILLIONS OF EUROS MISSING. THIS REPORT DOCUMENTS GERMAN RETAIL INVESTORS' RESPONSE AND FINDS THAT THE POPULARITY OF WIRECARD AMONG RETAIL INVESTORS LED TO SUBSTANTIAL LOSSES IN THEIR PORTFOLIOS. THESE LOSSES WERE EXACERBATED BY STRONG BUYING SENTIMENT AFTER THE ANNOUNCEMENT. THE FAILING STOCK WAS PURCHASED BY INVESTORS ALREADY ENGAGED IN IT AS WELL AS NON-EXPOSED CUSTOMERS.

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Introduction

In an unprecedented event, Wirecard, a member of the prestigious German DAX index, lost more than 60% of its market value in a single day and became virtually worthless in subsequent trading days. This day, June 18th, was the first time Wirecard's board admitted missing escrow accounts worth billions of Euros and resembles the finale in a long story of accusations and denials of fraud. This report dissects the investment reaction of German retail investors on the largest corporate scandal in recent history destroying billions in market capitalization in a matter of days.

Long History of Allegations

First allegations of balance sheet irregularities concerning the payment service company surfaced already in 2008 from a German shareholder association. In the following years, Wirecard grew fast and expanded internationally fueled by acquisitions mainly in Asia. Yet, the questions raised on irregularities in the books became more evident. Most prominently, the Financial Times started to publish its series "House of Wirecard" in 2015 followed by a report from the short investor "Zatarra" in 2016. However, the stock price was never impressed by these allegations and, supported by Wirecard's denials, rose to a peak of EUR 195 in August 2018 valuing the company close to EUR 25 billion. Only a month later, Wirecard replaced Commerzbank in the German DAX index and was finally considered the most important and successful German (Fin-)Tech startup. Despite BaFin banning short sales on Wirecard for two months in 2019, the pressure of public fraud allegations increased, and the stock price declined to around EUR 100 at the end of the year. Reports for both audits, the annual 2019 and a special one to investigate the allegations on cash positions, were delayed multiple times and finally not exonerating the company (DGAP, 2020). After the police searching Wirecard's headquarters, the management released a video statement addressing missing escrow accounts, an "enormous fraud case", and the failure to get the balance sheet certified on June 18th. The same day, the COO was suspended and the following day, the CEO stepped down being arrested shortly after. This was the first admission of irregularities by the company and led the firm's value to vanish within days leading to the filing of bankruptcy only a week later on June 25th.

Data

We obtain data from a German bank with a holistic offering in retail banking services. The bank provides us with data including customer demographics and administrative records of individual customer's financial assets, portfolio holdings, and security transactions. The complete sample period ranges from July 2017 until July 2020 and includes a five-digit number of individual investors of which roughly 5% directly held shares of Wirecard on June 17th, the day before the admission of fraud and the price drop.

Who Was Invested Beforehand?

Examining the cross-sectional characteristics of investors directly holding Wirecard shares on June 17th, right before the release of the board's statement, we find significant differences compared to non-holders. Wirecard holders are more likely to be male and tend to be more affluent in terms of their financial assets managed by the bank. In fact, their average net wealth is more than double the amount of the non-holders, which is driven by both a 135% higher value within their brokerage accounts and a 76% larger amount of deposits. Furthermore, they also have an almost 20% higher regular net income. In line with holding a position in a single stock, the self-reported risk aversion of Wirecard investors is lower, i.e., they consider themselves more tolerant towards risk, than investors not holding Wirecard shares. This higher risk tolerance translates into a 35% higher propensity to hold single stocks and a 50% higher share of single stocks in their overall portfolios. Consequently, Wirecard investors also show on average five times higher monthly activity in their brokerage accounts resulting in an average of two monthly trades. A further indicator of their experience in investment decisions can be derived from their likelihood of investing into passive investment vehicles which is almost three times higher than for non-Wirecard investors. These differences in investor and portfolio characteristics point towards a selection of wealthier, less diversified individuals, who are more experienced in capital markets and allocate deliberately a larger amount into Wirecard as a single investment. This single position comprises on average EUR 17,000 or 7% of their portfolio values. Relative to the book-value of their holdings on June 17th, Wirecard investors lost on average more than EUR 16,000 until the end of June. The median loss of EUR 5,000 and losses exceeding EUR 34,000 for 10% of all investors clearly show a highly right skewed distribution of losses. On the other side, only very few investors could limit their losses by selling quickly during the fast drop in stock price. And even more investors enlarged their losses by increasing their Wirecard exposure on June 18th.

How Did Investors Respond to the Share Price Drop?

Figure 1 shows daily transaction volumes of our investor sample in Wirecard shares. Strikingly, on June 18th, buying volumes are almost three times as high as those of sales despite the board's announcement. On this very day, almost 700 investors bought Wirecard shares worth roughly EUR 5 million while sales only summed up to less than EUR 2 million (by 189 investors). The average transaction volume was around EUR 7,800. This substantial shift in the buy-sell-imbalance is present in Euro volumes, number of investors trading, as well as transactions, and implies a strong positive sentiment amongst retail investors despite the public announcement of the firm being part of an "enormous fraud". Most of the sampled retail investors apparently assigned only a very small probability to a potential aggravation of Wirecard's position and instead used the chance to (re)purchase at lower prices. The significant increase in purchasing volume was driven not only by existing investors (i.e., those who held shares as of June 17th), but also by new investors purchasing Wirecard for the first time. This increased the number of Wirecard holders in the sample by more than 10% as shown in Figure 2. In this figure, it is also evident that a large "flight" out of Wirecard only occurs a week later when the bankruptcy filing was announced and more than a third of investors liquidated their positions entirely. These results reflect recent evidence on retail investors' trading behavior during the COVID-19-induced stock market crash in which retail investors "acted as a (small) market-stabilizing force" (Welch, 2020). Despite the settings being vastly different, our sampled retail investors also provided a certain liquidity during times of high uncertainty to the market. This is quite remarkable since Kuvvet (2015) finds that market liquidity is depressed following corporate fraud events.

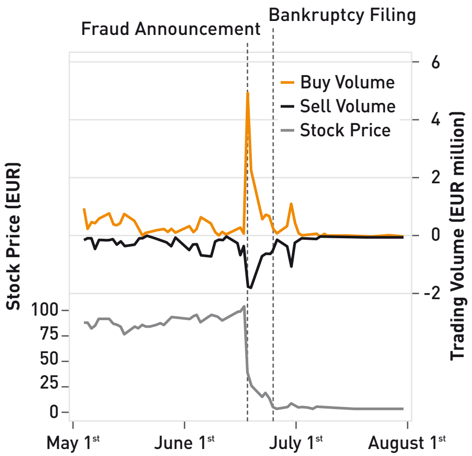

Figure 1: Daily Stock Price and Trading Volume of Wirecard over Time

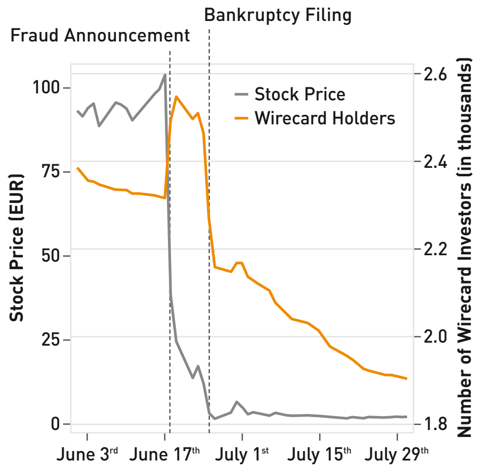

Figure 2: Daily Stock Price and Number of Investors Holding Wirecard Shares

Conlusion

With their investment in Wirecard, many retail investors experienced substantial losses. Since we generally find that these affected investors are on average more experienced, more affluent, and less risk-averse than non-invested customers, their relative loss remains, despite total losses in Wirecard for many, seemingly manageable. This indicates that these investors are (at least partially) aware of downside potentials in single stock positions. As a next step, we investigate the impact of this negative wealth shock on investor behavior in both the financial realm as well as their everyday life. Interesting questions to answer on subsequent financial decision-making include, for example: Do affected investors trade less after the shock or reduce their exposure to risky assets further? Do they change their asset allocation or security selection towards less idiosyncratic risk? For affected investors' everyday life, it will be interesting to investigate whether these losses translate into adjustments of consumption and/or savings behavior as well as consequences in the standard of living. On the aggregate market level, it will be interesting to see whether retail investors can provide market stabilizing liquidity in uncertain times.

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