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TITLE: The fraud in Wirecard - An oversight over the work and responsibility of the auditor and national regulators.

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Preface

This master thesis is the last part of our master program in accounting and auditing at the University of Stavanger. The assignment is an independent work where we have used our knowledge gained through the master's program. We had to write our thesis during Covid-19, and this made an impact on several areas. The campus has had strict regulations, and it has been challenging to meet physically. We did most of the work separately, and our discussions were mainly via zoom. Because of national recommendations, we decided early to write a paper that did not require traveling or meeting other people.

In summer 2020, Europa was shocked by the collapse of the global FinTech company Wirecard. In our paper, we have evaluated what happened in the Wirecard case. We have learned that companies operating in the FinTech business can be even more challenging to audit, especially when it comes to audit risk and preventing fraud. Even though fraud has been a popular theme to study, we argue that this challenge is still of great importance, as fraud still happens.

The work with our master theses has been instructive, challenging, and provided us with greater insight into the different aspects of fraud. We believe that this experience and increased knowledge will be helpful in our position as future auditors.

We want to thank our supervisor and teacher, Iris Caroline Stuart for excellent help and guidance during the entire process. In addition, we also want to thank Bruce Stuart for reading and correcting the English language and grammar.

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Summary

In this thesis, we have taken a good look at the Wirecard scandal. Wirecard was a German company, listed on DAX index, operating in the digital payment segment in the FinTech sector.

The purpose of this study is to gain insight into the potential fraud using relevant theory to analyze the fraud. Moreover, we will also be looking at what motivates someone to commit fraud and who has the responsibility to prevent fraud. Following the International Standards on Auditing 240, we examined the work of Wirecard's auditor work to see if they fulfilled their responsibility.

Furthermore, we look into the national authorities of Germany, and their role in preventing fraud. We wanted to examine why the auditor and national authority did not reveal the fraud earlier.

Using a case study as our research method, we have collected data about the scandal from previous year's articles, reports, and other studies. When looking back at those major accounting scandals around 2000, we have learned that fraud provides an enormous cost to society. Most likely will this continue to be a severe problem in the future. We, therefore, argue that additional information about this topic is highly relevant.

With the help from the fraud triangle and several articles, we find that the management of Wirecard to most likely be a part of the fraud. As the auditors have a particular responsibility to prevent fraud, we conclude that in this case, the auditors failed to do their job and did not hold their responsibilities according to the International Standard on Auditing 240.

In our work, we discovered that lack of responsibility and halo effect in both EY and BaFin most likely were more significant issues in the Wirecard case, than a shortage of regulations.

When it comes to the Fintech business, we found that around 31% of European FinTech companies are not subject to any regulation. We find it therefore essential to improve regulation so that all FinTech companies have to comply with existing rules.

1. Introduction

This thesis focuses on the German FinTech company Wirecard, which due to massive fraud, had to seek insolvency in June 2020. Wirecard is a payment processor and financial services provider. Several years before the bankruptcy, newspapers, especially the Financial Times, wrote about fraud allegations against Wirecard. There are two people who most likely have had a big hand in the scandal. The first is Marcus Braun, the former CEO of Wirecard, and the other one is Jan Marsalek. Marsalek was Wirecard's chief operating officer and responsible for operations and sales in the company.

Our paper aims to study what happened in the Wirecard case and analyze the fraud carried out. The main questions we have asked are:

- Did the auditor of Wirecard, EY, follow the International Standards on Auditing 240, referred to as ISA 240, when auditing the financial statements?
- Why did not auditors, or national authorities in Germany, reveal the fraud earlier?

These questions are interesting to us because they relate to the work of an auditor and their responsibility. The auditing standards require the auditor to follow specific rules and procedures in order to state, with reasonable assurance, that the financial statement is free from material misstatement, whether it comes from error or fraud (Stuart, 2020, page 22).

We are definitely not the first to write about accounting frauds and will not be the last ones. Since significant economic crimes like this still occur, we argue that new and additional information is highly relevant. Our paper analyzes financial crime in a FinTech company, distinguishing our study from a lot of previous studies. We, therefore, hold that our thesis will be a vital contribution to the battle against fraud. Most likely, there will always be companies intending and succeeding in breaking accounting rules. Despite this, we argue that auditors, authorities, and others should continue their work to limit fraudulent behavior to a minimum. The fact that fraud has been a popular topic to study confirms the importance of the subject.

We considered the fraud triangle and ISA 240 to be relevant theories to this paper and present an overview in the theory chapter. In addition, we offer other relevant literature and show some of the previous research regarding the same topic.

The third section will explain the method used in this paper. To get a broader picture of what happened in Wirecard, we find it crucial to provide the reader with background information about the company. We will give the reader insight into Wirecard, the management, its business, and some history. Furthermore, we will provide an argumentation why fraud detection is important.

In chapter four we will present the different fraud allegations against Wirecard and use IFRS to analyze what has happened. IFRS stands for International Financial Reporting Standards, and

Wirecard had to comply with this framework. IFRS was necessary when evaluating the accounting policy in Wirecard. We wanted to examine if the accounting was misleading and fraudulent, or if the irregularities were a result of different ways of interpreting the accounting standards. The frauds are limited to what the media had revealed until the beginning of June 2021. Time will most likely provide a clearer picture of what has happened in the Wirecard case.

The different findings and interpretations will be found in our discussion, chapter five. The fraud triangle helps us to analyze what might have been Braun and Marsalek's motivation behind the fraud. ISA 240 is helpful when taking a closer look at the work of Wirecard's auditor, EY. EY did not reveal the fraud before Wirecard sought insolvency in June 2020. We have asked ourselves why and will look at the auditors and the national regulator of Germany, and their different responsibility due to fraud.

Management and those in charge of governance have a clear and indisputable commitment to prevent and detect fraud (ISA 240. 4). The auditor's responsibility is defined a bit differently: *"Auditors are required to obtain reasonable assurance about whether the financial statements are free from material misstatement"* (Stuart 2020, page 22).

Using available information from the media, we will look at the work performed by EY and combine this with the theory from ISA 240. The third party with a specific responsibility to prevent fraud and economic crime in Germany is the national organization BaFin. BaFin can be associated with the Norwegian jurisdiction, Økokrim. An overview of BaFin, their commitment, and how they handled the Wirecard case is considered relevant.

As mentioned, Wirecard operates in the FinTech business, which probably differentiates our paper from most previous fraud studies. In addition, digitalization rapidly changes both business and society (NHO). Because of this, we decided to include a subchapter on Fintech companies. We consider information about this business to be helpful in our discussion and evaluation. In the end, we will summarize our findings in the conclusion.

2. Theory

This chapter presents the theoretical framework for this thesis. The chapter is divided into two different segments. In the first half, the fraud triangle is presented, which will further be used to get a clearer picture of this scandal and the intention to commit such a fraud. In the second half, we will present the International Standard on Auditing (ISA 240), which is further used to explain the role of Wirecard's auditor (EY) within the framework of ISA 240.

2.1 The fraud triangle

We chose the fraud triangle as the theoretical basis in our analysis of the fraud committed by Wirecard. The theory is rapidly used when analyzing and describing fraud. The fact that the fraud triangle is used in auditing textbooks to teach students about the concept of fraud and detection also confirms its relevance (Stuart, 2020, page 199).

Criminology researchers Edwin Sutherland and Donald Cressey developed the idea behind the fraud triangle. Edwin Sutherland's approach in criminology is called "differential association," and he intends to clarify why people commit criminal acts (Albrecht W. S., 2014).

The theory, "the differential association," can be summarized with the following points:

- Criminal behavior is learned and not inherited. When a person doesn't get training in criminal behavior, they will not commit criminal acts. People adopt criminal behavior through conversations, interaction, and observation.
- Criminal behavior is mainly taught in intimate personal groups.
- Techniques, motives, attitudes, the driving force, and the rationalization of criminal acts are also part of illegal learning.
- Among those who commit a crime, there is a predominance of personal characteristics/reactions favorable to offenses (Albrecht W. S., 2014).

Sutherland's main point was that criminal activity is adopted. At the same time, the "reward" for committing a criminal act must be perceived as more significant, through rationalization and opportunity, than the "reward" for not doing so (Albrecht W. S., 2014). The fraud triangle consists of three factors: attitudes/rationalization, opportunities, and incentives/pressures (incentives and perceived pressure). Each factor is present when fraud occurs, but the relationships between them vary (Stuart, 2020, page 198 and 199). A manager that experiences high pressure to reach sales targets might not need many rationalizations to justify the scam. A person that has learned from others to use company benefits without paying might do the same and not consider the action as a crime. Examples of fraud that some people might not consider to be fraudulent actions can be bringing home stationery, using the company car in private errands, printing personal copies at work without paying, and so on.

2.1.1 Opportunities

An idea, a thought, or a desire to acquire the benefits of fraud is not sufficient. It must be possible to carry out the scam. According to Stuart, there is a possibility that individuals can override the company's internal control (Stuart, 2020, page 199). According to the auditing standards, internal control is a process designed by management and others charged with governance to ensure that company responsibilities are met (Stuart, 2020, page 55). Internal control, established by management as a tool to prevent fraud, is probably the most crucial step to reducing fraud scams. When management highlights and values ethical behavior, other employees learn by their behavior (Albrecht et al., 1995, page 27 and 28).

Some types of fraud are more likely to be committed by management and employees in other unique positions. When management commits fraud, internal control will most likely not reveal the scam. The control is then done by people that intend to shelter fraudulent behavior. Examples of this can be falsifying sales contracts, recording fictitious journal entries, early revenue recognition, failure to write down inventories, and failing to disclose facts that might affect the amount recorded in the financial statement. Stealing company assets, both cash and inventory, are examples of misappropriation of assets (Stuart, 2020, page 199).

2.1.2 Incentives and perceived pressure

Incentives and perceived pressure is the second factor that must be present for fraud to take place. Dechow and Schrand have presented interesting research on motivation that may encourage managers to commit accounting manipulation. Transactions related to the capital market were the most common cause and were present in more than 50% of the cases. At the top is the leader's desire to issue securities at higher prices. Then comes the pressure to report an ever-increasing EPS¹. Rising EPS is likely to meet the expectations of both shareholders and analysts through increased share price (Dechow & Schrand, 2004).

In addition to the desire to satisfy shareholders and the board of directors, management salary often includes a bonus agreement. Some managers might have a fixed salary and will earn an additional bonus if sales increase by, for example 5% compared to last year. An eagerness to achieve a bonus can exclusively be an incentive to commit fraud. According to Dechow and Schrand, the desire to obtain compensation emerged as the third most common reason for accounting manipulation (Dechow & Schrand, Earnings quality, 2004).

Along with the ambition to earn bonuses, and meet shareholders' and the board's expectations, managers might also seek to resolve other personal needs. There may be a devotion to appear like a skilled and successful leader.

¹ Earnings per share (EPS) is calculated as a company's profit divided by the outstanding shares of its common stock (Fernando, 2021).

Highly emotional and personal problems can also lead to fraud. Examples of this could be drug addiction, alcoholism, or difficulties related to repaying credit card debt (Stuart, 2020, page 198). An article from the International Journal of Financial Research, published in 2019, confirms that perceived pressure increases the likelihood of fraud. Their study also refers to several other articles that demonstrate their findings (Mat, Ismawi, & Ghani, 2019).

2.1.3 Attitudes and rationalization

Attitudes and the tendency to rationalize illegal acts are the third factor in the fraud triangle. Whether we like it or not, most people break the law many times in their lifetime. Sometimes we rationalize our actions, and sometimes we break rules unconsciously. It's not always easy to be honest if you do not like your friend's new hairstyle or the color of their car. Some might exaggerate their abilities when applying for a job. To justify our choices, people often use the ability to rationalize. A child can steal Saturday candy from siblings and rationalize that "*I shared my candy last week.*" As an adult, many drivers break the speed limit when driving without thinking about it. Some might argue that a few kilometers per hour above the speed limit is not dangerous to traffic, and the penalty is relatively low.

In a work context, an employee can choose to take private printouts at work. The action can be justified by thinking that one works a lot of overtime or that the cost is insignificant for the company. Some claim that one crime often leads to another. In a company, management behavior influences the atmosphere in the organization. Dishonest and inappropriate actions are learned and adopted by other employees (Albrecht et al., 1995, page 28) (Albrecht, Wernz, & Williams, 1995). A study conducted in Malaysia regarding motive and earnings management fraud found that past offenses correlate positively with the propensity to rationalize offenses. The study also finds evidence that increased financial pressure escalates the likelihood of fraud (Hasan, Mahenthiran, & Rahman, 2013). These findings are consistent with other professional literature claiming that honest people, who would not typically commit fraud, can do so if the perceived pressure is significant (Stuart, 2020, page 200).

2.2 International Standard on Auditing 240

Users of financial statements are constantly looking for ways to get more useful information from the financial statements. The users need this information to make decisions and monitor the company for their purposes, ranging from financial information for shareholders to environmental information for environmentalists. Both of them have a common interest in the presentation; it must be correct and fair. However, history has shown that an accurate and unbiased view is always not presented. Early in accounting, most companies were owned and managed by the same person and could access all information. Only a minority of the companies had separated owner- and leadership. As the number of shareholders outside the company increased, governments and other regulatory bodies tried to improve reporting rules and protect investors.

As a result, the International Financial Reporting Standard was issued in 2001. Furthermore, in 2002 The International Federation of Accountants Issued International Standards on Auditing. The purpose of these standards is clear, to help the users of the financial statement. One of The International Federation of Accountants' goals is that the statement shows an accurate and fair view of the company. Accounting fraud can cause significant 'errors' in a company's accounts. This challenge caught much attention in the late nineties and early 2000s. With extraordinary amounts of money, the major fraud cases shocked the public. In 2002, IFAC issued International Standards on Auditing, which also includes standards for the fraud area. In particular ISA 240 "The auditor's responsibility for relating to fraud in an audit of financial statements."

The primary purpose of the ISA is to establish basic principles, essential procedures and to provide guidance on the auditor's responsibility for assessing fraud in an audit of the financial statements. It extends, the standards and guidelines in ISA 315, and ISA 330, should be applied concerning the risk of a material misstatement due to fraud. The ISA standard's guidance is integrated into the overall audit process. The standard distinguishes between incorrect information in the accounts that may arise from fraud or error. There are two types of intentional misinformation relevant to the auditor. The first is fraudulent accounting reporting, which essentially lies and manipulates the accounts. The second is called the misuse of assets, which is the idea of theft. The standard specifies the auditor's responsibility to detect misstatements of fraud.

Furthermore, the standard requires the auditor to maintain an attitude of professional skepticism and recognizes the possibility that material misstatement due to fraud may arise. Members of the engagement team must discuss the case that the accounts may be exposed to fraud. The standard contains a comprehensive list of what is to be performed and requires the auditor to, which will be presented in detail in the following paragraph.

Briefly summarized, the standard requires the auditor to reduce the risk to an acceptably low level when planning, performing, and auditing, which also assesses the risk of material misstatement of the financial statements due to fraud.

The primary responsibility for the prevention and detection of fraud rests with both those responsible for the management of the unit, and the management (ISA 240.4). Management must place great emphasis on fraud prevention. A clear focus can reduce the chances of fraud because the likelihood of detection and punishment seems dissuasive. It is the responsibility of those responsible for the management of the company to ensure, through supervision of the management, that the company establishes and maintains internal control to provide reasonable assurance regarding the reliability of financial reporting, the efficiency and effectiveness of operations, and compliance with applicable laws and regulations.

ISA 240.6 recognizes difficulties for an auditor concerning fraud. The risk of not discovering material misstatement due to fraud is higher than the risk of not finding material misstatement due to error. Deception can involve sophisticated and carefully organized schemes designed to

hide it, such as counterfeiting, deliberate failure to record transactions, or intentional misrepresentations made to the auditor. Such attempts to hide can be even more challenging to detect when accompanied by a conspiracy. Cooperation may lead the auditor to believe that audit evidence is convincing when it is false. In addition, the risk of not detecting material misstatement due to management fraud is greater than that of employee fraud (ISA 240.7). Some management levels may be able to override control procedures designed to prevent similar fraud by other employees. Until 2002, the auditor had no responsibility for the fraud area. ISA 240.5 states that an auditor who performs an audit in accordance with ISAs obtains reasonable assurance that the financial statements as a whole are free from material misstatement, whether due to fraud or error. From ISA 240.10 et seq., A guide to assess the risk of fraud in an audit and design procedures to detect material misstatement due to fraud.

In general, ISA recognizes the fraud triangle (which was discussed in more detail in the section above), which identifies three conditions to be present; an incentive or pressure (financial or emotional force pushing towards fraud), opportunity (ability to execute a plan without being caught), and rationalization (personal justification of dishonest actions). Due to various circumstances, not all factors are relevant, and the list is not comprehensive. Size, complexity, and ownership characteristics have a significant influence on the relevant risk factors for fraud. When performing analytical procedures to understand the entity and its environment, including internal control, the auditor should consider unusual or unexpected circumstances that may indicate a risk of material misstatement due to fraud (ISA 240.22). The auditor should not limit information gathered through analytical procedures to understand the company and whether other information obtained indicates a risk of material misstatement. When an auditor identifies risk, he or she should evaluate the design of the company's related controls, including relevant control activities, and determine if they have been implemented. (ISA 240.29) The auditor must respond to the risks identified. When choosing overall responses to deal with the risk of material misstatement due to fraud in the financial statements, the auditor should:

- Assess the allocation and supervision of personnel.
- Assess the accounting principles used by the business.
- Incorporate an element of unpredictability in choosing the nature, timing, and scope of audit procedures.

One of the significant risks is that management can override internal control since an auditor uses internal control to ensure that the information provided is correct. This issue is also recognized in ISA 240.32 and gives the auditor the responsibility to design and perform audit procedures for:

- Test the appropriateness of records kept in the general ledger and other adjustments made in the preparation of the accounts.
- Review accounting estimates for biases that may lead to material misstatement due to fraud and
- Gain and understand the business rationale for significant transactions that the auditor becomes aware of outside the entity's ordinary activities or that otherwise seem to be unusual based on the auditor's understanding of the entity and its surroundings.

After audit procedures, and when the tests have taken place, the results must be evaluated. The auditor should first consider analytical procedures performed at or near the end of the audit. They form an overall conclusion as to whether the financial statements as a whole are consistent with the auditor's knowledge. (ISA 240.34) The auditor must determine if any particular trends and conditions exist, indicating a risk of material misstatement due to fraud. ISA 240.35 states that when an auditor identifies misstatements, the auditor should consider whether such misstatements may be indicative of fraud. If such an indication occurs, the auditor should consider the consequences of the misstatement in relation to other aspects of the audit, particularly the reliability of management representations. If an auditor confirms that or cannot conclude that the financial statements have material misstatement due to fraud, the auditor should consider the consequences for the audit. (ISA 240.39) An auditor should obtain a written statement from management that management recognizes its responsibility for the implementation and the design of internal control to prevent and detect fraud. In addition, management must inform the auditor of the assessment results of the risk that the accounts may have material misstatement due to fraud. Management must inform the auditor of their knowledge of fraud or suspected fraud affecting the entity involving:

- Management.
- Employees who have essential roles in internal control.
- Others where the fraud may have a significant impact on the accounts.

Finally, the auditor should obtain a written statement from the management that it has informed the auditor of any allegations of fraud or suspicion of fraud affecting the entity's accounts. (ISA 240.40) If the auditor has discovered the fraud, he or she must communicate these matters to management as soon as possible.

After looking at what an auditor should do and their area of responsibility, it is essential to mention that an auditor must document every step of the work. Audit documentation is a critical part of the auditor's work. "Audit documentation, referred to as working paper or work paper, includes a record of the audit procedures performed, the audit evidence obtained, and the conclusions reached by the auditor from a review of the evidence" (Stuart 2020, page 194). Auditors need to have the correct documentation of the audit work to be used as evidence of the work done to support the audit statement they form. The documentation is also of great help to the audit team members for the entire audit process. Since documentation is necessary, there is a whole standard that deals with audit documentation, namely ISA 230, but also mentioned in ISA 240. An auditor should include the following points in the audit documentation:

- The discussion among the engagement team regarding the susceptibility of the entity's financial statements to material misstatement due to fraud.
- Assessed and identified risks of material misstatement due to fraud at the assertion- and financial statement level (ISA 240.44).

Furthermore, an auditor should include the overall actions to deal with the assessed risks of material misstatement due to fraud and the nature, timing, and extent of the audit procedures, and the association's connection with the assessed risks of material misstatement due to fraud. And, of course, document the results of the audit procedures, including those designed to address the risk of overriding management controls (ISA 240.45).

Finally, the auditor should document the communication with management regarding fraud. Suppose the auditor concludes that there is a risk of material misstatement due to fraud related to inventory. Even though there is a risk, the risk can be considered not to be relevant for this particular engagement. In that case, the auditor should document the rationale for this conclusion (ISA 240.46 & ISA 240.47).

2.3 Relevant literature:

To write this thesis, we have looked into previous literature on scandals such as Worldcom, Enron, Tyco International, and Adelphia. Thoresen & Jakobsen (2008) found that fraudulent financial reporting has consequences that affect many parties, negatively affecting the reliance of companies and audit institutions. Stock owners lose all or part of their investment, and creditors, like banks, might not get their loans repaid, people lose their job. Such scandals provide an enormous cost to society, especially when global and large listed companies carry out false financial reports. Furthermore, when analyzing the Enron scandal, Ali (2001) found that the relationship between advisory and management influenced the information sent to the board and affected controls used to monitor deals. The board was dependent on advisory approval first, before board approval. The board received limited access to information regarding Enron's operation, which required Board approval. Moreover, O'Shea (2019), in her research on WorldCom, stated that WorldCom's scandal demonstrates the importance of ethical standards and internal controls in the workplace.

We similarly analyze the Wirecard fraud as the previous researchers to see where the failure is. Because every one of the previous frauds failed in different ways, we look at the past to figure out how to avoid a particular problem in the future. Furthermore, our contribution is an analysis of a new national fraud, probably a fraud that occurred in somewhat different ways than the previous frauds.

3. Method

As a methodological approach to this thesis, the choice of the research method fell on case study design. This is a research method that depends on a single case instead of a population or sample. A case study is unique in the social sciences for its focus on a single unit, which can be a person, group or organization, event, action, or situation. When researchers focus on a single case, they can make detailed observations over a long time, which cannot be done with large samples without costing much money. The case study is also helpful in the early stages of research when exploring ideas, testing, and perfectly measuring instruments, and preparing for a more extensive study (Greelane, 2019).

The data that has been used is from the previous year's article published by various publishing sites about what has happened with Wirecard. We will be looking at articles from contemporary publications that are talking about this particular potential fraud. We have tried to apply the fraud triangle theory and ISA 240 to figure out if this fraud could have been prevented by the auditors, national authorities, better regulation or a combination.

3.1 Data

3.1.1 About Wirecard:

Wirecard was a large company operating in the digital payment segment in the FinTech sector. The German Fintech company was founded in 1999 and nearly went bust the following year with the dotcom crash. The company recapitalized with the help of capital from Markus Braun. Braun is an Austrian Tech investor and digital entrepreneur who started working at Wirecard in 2002 and became CEO and chief technology officer (Berg, 2020). Markus Braun merged Wirecard with another competitor from Munich, Electronic Business Systems. Since 2005 the company has been listed on the Frankfurt Stock Exchange when they took over the listing of a closed customer center group. At that time, the company had 323 employees. Braun expanded the company internationally and opened a subsidiary in the Asia Pacific in Singapore, reaching the US market to acquire Citigroup's prepaid card services division (McCrum, 2020). According to their website, Wirecard lists FedEx, Fitbit, and the Dutch airline KLM as customers. In addition, the company has its mobile payment app called Boom, as well as a licensed subsidiary.

Remarkable among Braun's presentation was Wirecard's sharp rise in the share price and Commerzbank's replacement in Germany's DAX index in 2018. Since 1999, the company has grown to include subsidiaries worldwide. As of 2020, the company has 5,800 employees in 26 countries around the world. The company, which had a share value of around 100 euros at the beginning of 2018, increased rapidly to 200 euros at the end of 2018 (Browne, 2020).

The group reported on the company's presentation capability through three segments:

- Payment Processing and Risk Management (PP&RM). This stands for all products and services for electronic payment processing and risk management.

- The procurement and issuance (A&I) segment, which consists of the activities of Wirecard Bank AG. It includes credit card issuance and credit card sales, revenue for online and terminal payments. In addition, they offer processing of customers' payment transactions via accounts maintained in Wirecard Bank AG.
- The Call Center & Communication Service segment (CC&CS) provides all products and services related to Call Center. This segment supports relationship management of corporate and private clients, including customer service and postal activities, among others (Wirecard, 2019).

Wirecard acted as an "intermediary" between online stores and the payment networks of issuing banks or credit cards companies, such as Visa and Mastercard. This is vital in order to understand relevant facts further in our paper. The company thus receives cash and keeps it for a short time before paying it to sellers and retains some of this amount as commission income on the transaction (Bakarich, 2020).

Wirecard has branches in many countries globally and therefore has connections with third parties who also settle payments. Through cooperation with their third party, they gained access to the nations and markets where Wirecard could not use its license. An increasing number of transactions from these third parties have taken place in countries such as Dubai, the Philippines, and Singapore via two of Wirecard's branches, based in Ireland and Dubai (Crijns, 2020). Some of these subsidiaries provided merchants with credit card payment terminals supported through Wirecard's payment system technology. The income from these transactions was deposited in trust accounts.

Al Alam, a Dubai-based and third-party acquirer, provided payment processing for 34 of Wirecard's most prominent customers worldwide. It is said that they processed around 386 million euros each month on behalf of Wirecard. Al Alam was one of Wirecard's most valuable assets. When the Financial Times visited Al Alam, they came across a small company with only seven employees.

In March 2018, in Wirecard's headquarters in Singapore, the group's staff started investigating three finance team members. In August 2018, Wirecard shares reached 191 euros and increased by more than 24 billion euros. The company's counterfeit transactions returned to the agenda in 2019. The German Financial Supervisory Authority (BaFin) initiated an investigation of those who brought this news to the schedule instead of raising questions about Wirecard. This will be elaborated in the subchapter, BaFin. During all of these processes, EY performed the audit procedures of the Wirecard and they audited the company's results for more than ten years (Drozdiak, Arons, & Syed, 2020).

It turned out that Wirecard had suspicious transactions related to Singapore, and after this, the company's shares were reduced. The police raided Wirecard's office in Singapore as a result of the allegation of irregularities in the accounts of various subsidiaries in Asia. In a series of articles written by the Financial Times in 2015, questions were asked about the inconsistencies in the company's accounts.

When James Freis joined Wirecard, he envisioned a job where he would help support and further develop the company. Freis' area of responsibility included securing banking licenses for other countries such as the USA. In the spring of 2020, EY refused to sign the annual report, and Freis was asked to consider the matter. Freis was initially engaged from July 1, 2020, but started two weeks earlier because of the situation. (Tokar & Davies, 2021). He quickly realized that Wirecard was caught in a massive scam. The company had 1.3 billion in short-term debt as soon as told. Freis was critical of the claim that Wirecard should have more than \$ 2 billion in a bank account in the Philippines. As a result, he decided that Wirecard should apply for insolvency. It was done June 25, 2020 (Tokar & Davies, 2021). The decision was made due to the threat of bankruptcy and excessive debt (Schuetze, Wollrab & Uhlig, 2020).

3.2 People in Wirecard who committed the fraud

3.2.1 Marcus Braun, the former CEO and CTO in Wirecard



Figure 1. (Storbeck, 2020)

Marcus Braun was born in 1969 in Vienna, Austria (MarketScreener, 2021). He had a degree in commercial computer science after graduating from the Technical University of Vienna. After that, Braun earned a PhD. in social and economic sciences from the same university in 2000. Before starting his career in Wirecard, he worked as a consultant at Contrast Management Consulting GmbH and with KPMG Consulting AG in Munich until 2002. Then he joined Wirecard and became CTO and CEO of the company (Wikipedia, 2021).

Former employees have described Braun as the storyteller of Wirecard. He spoke to investors and responded to media allegations. At FinTech conferences, he was known for his turtleneck pullover and spoke confidently about his grand predictions of future payment, big data, and artificial intelligence. People describe Braun as a shy man who lived quietly in the suburb of

München. Employees rarely saw him, except at the annual summer and Christmas events (Hybel, 2020). Even though Braun was a wealthy billionaire, he did not live a flashy life. Wirecard was active on all five continents and people have said that Braun was proud of the global tech success they achieved (Davies & Steinberg, 2020). Since 2012 Wirecard increased its sales figures every year and probably met investors' expectations (Davies, Wall Street Journal, 2019). The success of Wirecard made Braun even more famous, and simultaneously, his private fortune increased. We do not know the CEO's primary motivation, and perhaps Braun will never clarify his intention. Like many others, he faced a tremendous loss when Wirecard stock prices fell due to insolvency. If his primary interest was to expand private wealth, why commit fraud to an extent where you risk losing it all?

In the FinTech world, Marcus Braun enjoyed a position as a well-known and successful businessman. The essential experience of being famous is the confirmation that you are unique and special. Another aspect, besides personal confidence, is the desire to make an impact and change the world (Rockwell & Giles, 2009). When Braun was reappointed as CEO in 2017, he stated his mission for Wirecard:

"We will drive the digitization of payment processes using internet technology on a global level, and we will make Wirecard a global leader in this sector" (Wikipedia, 2021).

From the very beginning, Braun wanted to be a leader of a global, world-class FinTech company. His role models were Elon Musk, Jeff Bezos, and Mark Zuckerberg. Like Apple founder Steve Jobs, he created an image by wearing a black turtleneck sweater (Hybel, 2020).

Even though employees described their boss as shy, Braun seemed comfortable and calm when talking at conferences. At a meeting in January 2020, Marcus Braun explained how Wirecard would help merchants increase sales and profits. They intended to raise the convergence rate. A merchant spends, according to Braun, an enormous amount of money to bring his customers to the checkout page. Still, between 40% and 60% do not fulfill the payment process. Some because they changed their mind about buying. But many also stop because of dysfunctional checkout solutions. Braun claimed that Wirecard could raise the convergence rate by 10%. They could also reduce negative transactions, callbacks by up to 50%. Their technical solution would boost the sale and profit of the merchants (DLD conference, 2020).

For many years Braun succeeded in his ambitions. Wirecard grew and became a global FinTech company operating on all five continents. Among other outstanding and influential people, he wanted to make a difference, and in his business, a large number held that he did. At this point, we do not know precisely when fraud began, and indeed Braun's appearance. According to an American article studying fame, it isn't easy to live without fame when used to it. Some have described celebrity life as:

"providing flattery, warmth, ego gratification, adoration, unlimited access, enormous wealth, and membership in an exclusive club in which other famous people surround one" (Rockwell & Giles, 2009).

3.2.2 Jan Marsalek, the former COO in Wirecard



Figure 2 (Stave, 2020)



Figure 3 (Bartz & Hesse, 2020)

Jan Marsalek started his career in Wirecard in 2000. From 2010 he entered the company board and became Wirecard's chief operating officer. He was now responsible for operations and sales in the company. From 2015 he also supervised Wirecard's relationship with third parties in Asia. We will provide greater insight into the Asian business later in the paper (Bender, 2020).

Marsalek was born on March 16, 1980 in Vienna, Austria. He never finished a degree but attended different schools in Austria. While Braun had his iconic turtleneck sweater, Marsalek typically wore an exclusive Ermenegildo Zegna suit, white shirt, open at the collar (Jones, Murphy, & Warrell, 2020) (Hope, Davies, & Kowsmann, 2020).

After his suspension from Wirecard on June 18, employees explained that all contact with the company stopped. BaFin and German authorities have been criticized for not requesting an immediate arrest warrant against Jan Marsalek when Wirecard disclosed that €1.9bn of cash was missing. Their explanation was that the crime initially was not severe enough (Storbeck, Financial Times, 2021). German police received help from The International Criminal Police Organization (Interpol) in their hunt for Marsalek. Almost a year later, he is still on Interpol's most-wanted list. Travel records indicated that he arrived in the Philippines and then departed a plane to China. Investigators learned that this itinerary was staged. The National Bureau of

Investigation in the Philippines is asked to prosecute two men for falsifying travel records. According to the Media, Marsalek seemingly escaped to Belarus via Austria with a private jet, paid with cash (Irish Times, 2021) (Grozev, 2020). Austrian prosecutors arrested two men in January 2021, accused of organizing the escape. One of them used to work for the Secret State Police².

People have described Marsalek as a strange and mysterious man, and it wasn't easy to tell if he was honest or staged. According to the media, Marsalek had a remarkable passion for Libya and had secretive projects in the middle east. He bragged about visiting the desert of Palmyra in Syria, right after the area was released from ISIL³, as guest of the Russian military. An intelligence officer questioned if Marsalek was adventurous or didn't realize how he was dealing (Jones, Murphy, & Warrell, 2020) (Grozev, 2020).

We find it highly possible that Marsalek is guilty of fraud in Wirecard. It is also likely to presume that he played a significant part in the crime. Marsalek had the opportunity as a chief operating officer, and he was supervising the Asian market where revenue most likely was falsified. Marsalek immediately escaped in June 2020, of course, strengthens the assumption that he is a criminal on the run. Hiding when German authorities and Interpol are looking for him, is considered a crime itself.

3.3 Why fraud detection is important

When studying fraud is knowledge of why people decide to commit a crime of great importance. Fraud detection and studies have been the reason for many improvements and changes in audit standards and new regulations implementation. The European Commission (EC) has since June/July 2020 investigated how such a large-scale accounting fraud as Wirecard was possible. The commission hopes that an understanding might help to prevent future inadequate audits and supervision failures. New regulations can come as a result of this investigation (Dias, et al., 2021). Sarbanes-Oxley Act (SOX) is an example of a new law that was enacted as a reaction to many major corporate and accounting scandals, including those affecting Enron, Tyco International, Adelphia, Peregrine Systems, and WorldCom. As mentioned, these scandals cost investors billions of dollars due to decreased share prices and shook public confidence in the US securities markets (Wikipedia, 2021).

It is easy to believe that a company listed on the German stock exchange (DAX index) has little effect on Norwegians outside the stock market. That in itself is correct, but indirectly we are probably all affected by the stock market in one way or another. An example is the Norwegian sovereign wealth fund, the Oil Fund, which is the world's largest and subsidizes Norway's welfare system (Steinberg, Wall Street Journal, 2021). Norwegians enjoy free schooling, dentist

² The Geheime Staatspolizei (Secret State Police) was the secret police service of the Archduchy of Austria. Their tasked was domestic counterintelligence as well as the monitoring of political subversives and public opinion. (Wikipedia, 2020)

³ The Islamic State of Iraq and the Levant (ISIL) is a militant group and former unrecognized proto-state[89] that follows a Salafi jihadist doctrine (Wikipedia, 2021).

and doctor until the age of 18, free hospital treatment, and many other benefits. Many of these benefits are subsidized by taxes, but also funds from the Oil Fund. Norway accesses excellent security through the Oil Fund, and the investment decisions are, of course, significant. Petroleum Fund spending increased rapidly in 2020 and 2021 due to challenges arising from the corona crisis. People lost their jobs and needed welfare, and businesses needed economic benefits to avoid bankruptcy. The 2021 budget has never been this high and was 404,3 billion NOK (Dagsavisen, 2020). The Petroleum Fund had an ownership interest in Wirecard of 1.14% in 2019, which corresponded to NOK 1.5 billion in late 2019. When the share price collapsed in June 2020 it was reduced by 99% during the last six months.

Deputy CEO of Norges Bank Investment Management, Trond Grande, has explained that they were observant of the company Wirecard. Because of adjustments in the portfolio before the collapse, they managed to limit the loss to the oil fund. Grande will not reveal how they make their assessments. Still, he says that a confusing ownership structure is often a warning signal, and the fact that no one audited this part of Wirecard's balance sheet (Nilsen, 2020). Nicolai Tangen, CEO of Norges Bank Investment Management, also explained that the Petroleum Fund's managers followed the allegations in the media at an early stage, and the irregularities in the accounts (Steinberg, Wall Street Journal, 2021). Several studies confirm that the press can play an essential role in uncovering accounting fraud. For the Petroleum Fund, the media was one of several factors that enabled them to reduce the share loss in Wirecard (Dechow & Schrand, Earnings quality, 2004) (Miller, 2006).

Most employees in Norway are required to sign a pension agreement with their employees (Lovdata, 2001). When choosing the defined contribution pension, the earned amount goes into investment portfolios. An investment portfolio can, for example, consist of mutual funds. A "high-risk profile," which invests a more significant proportion in equity funds, is often recommended to people distant to their retirement age. Equity funds often yield higher risk and return than, for example, fixed-income funds. This can be an example of people being connected to the stock market, and might think about it.

Bankruptcies and financial fraud are costly for society and affect many. The REC bankruptcy in Norway is one of Norway's most expensive. The claim in the estate as of August 21, 2013, was as much as NOK 1.758 billion. The auditor's and trustee's fees for the same year were between NOK 21 and 22 million (Andersen, 2014). A US study from 2017 estimates that fraud among significant US companies costs between 181 and 364 billion USD (Dyck, Morse, & Zingales, 2017). Wirecard's investors have lost, by the summer of 2020, about 99% of their investment. In a short time stock price fell from almost 200 Euro to 2 Euro (Dominik, 2020). It was not only shareholders who owned shares directly in Wirecard who lost their investment. Many others also suffered financial losses through investments in funds where Wirecard was part of the portfolio. In an article by Cunaut Eti Ripple, it appears that several German pensioners lost money due to pension fund investments in Wirecard (Eti, 2020). Apart from investors, banks, creditors, other partners, also society, in general, are losing out on bankruptcies. At the time of writing, there is a parliamentary consultation and extensive investigation in Germany into Wirecard and the parties involved (Storbeck & Chazan, 2021). This of course costs a lot of money.

To preserve cash, approximately 730 Wirecard employees lost their jobs after the bankruptcy in August 2020 (Finance Magnates, 2020). Redundancies have both financial and often also psycho-social consequences for those affected. Some people can experience a grieving process by losing their job, according to psychologist Robert Sperre (Grosvold, 2016).

As mentioned, confidence in the stock market in general also often weakens when large listed companies, such as Wirecard, goes bankrupt. A study by Gianetti and Wang shows that the probability of participating in the stock market decreases as a result of fraud due to lower confidence (Gianetti & Wang, 2014). Most large listed companies are dependent on raising capital in the stock market. The price of capital tends to increase when fewer people want to invest in the stock market. When the price of capital increases, companies' overall cost often increases. Professional analysts, investing in the stock market, can be essential contributors in preventing fraud. Even short-sellers, constantly exposed to harsh criticism, can contribute with crucial signals in the stock market. Reporters have claimed that short-sellers provided vital information for the market when betting against the Wirecard stock (O'Mahony, 2020). Professional investor's substantial valuation of security and analysis of financial statements are essential in investment decisions. Their awareness of the possibility of earnings management and fraud can give a valid signal to less experienced investors. When analyzing the quality of financial statement, the analyst tries to understand:

1. The business.
2. The accounting policy.
3. The business area where accounting quality is more doubtful.
4. Situations in which management is tempted to manipulate.

(Penman, 2013, page 598)

Dentists, car dealers, and childcare are simple and well-known businesses. The business of Wirecard is probably more ambiguous and complex to the majority of people. Wirecard was, as explained previously, a payment processor and financial service provider. Their earnings came mainly from contactless payments. Their earnings are all electronically generated and posted to bank accounts in the Middle east, Asia, Australia, South Africa, America, and Europe (Wikipedia, u.d.). One question of interest now is whether it is reasonable to claim that the digital business Wirecard was operating and their complex organizational structure made it difficult for investors to predict future earnings?

As explained, Wirecard used IFRS as their accounting policy. Still, with considerable IFRS knowledge, it was probably challenging for professional investors to evaluate the accounting quality of Wirecard. There are several reasons for this, for example, Wirecard's confusing organizational structure and the fact that Wirecard disclosed little information about the size of revenue that came from acquired third partners, located in Asia. (Storbeck, Financial Times, 2021). Deputy CEO of Norges Bank Investment Management, Grande claimed that this part of Wirecard's balance sheet was not audited (Nilsen, 2020). These third parties had their own

financial statements and we assume are less available and understandable, due to language and access. In Asia the credibility of the financial statement varies, and some parts are less reliable due to accounting quality (Financial Service Agency, 2019). The unqualified audits, provided by EY for almost a decade, might indicate that it was challenging also for them to reveal the fraud (Storbeck, Financial Times, 2021).

Short-sellers claimed to profit around 2,6 billion US Dollars from Wirecard's collapse (Davies & Chung, Wall Street Journal, 2020). Even though some were able to limit their losses, like the Norwegian Oil Fund, and some profited by Wirecard's bankruptcy, most investors and society, in general, were left with considerable losses.

4. Result:

Here we will present an overview of some of the fraud allegations against Wirecard that have appeared in the media. In the spring of 2021, hearings are taking place in Germany in connection with the Wirecard case. The public will probably know more when the German authorities have finished their investigation, and at the time of writing much is still unclear. The allegations about what has happened are many, they cross national borders, and involve people in companies other than just Wirecard. Our focus will be from the auditor's perspective, and we will see if the fraud violates the international accounting regulations, IFRS. We will thus not discuss whether the incidents violate other laws in Germany, such as company law.

4.1 The potential fraud in Wirecard

4.1.1 Germany - loans without arm's length

In January 2020, Marcus Braun borrowed 35 million Euros from Wirecard Bank. Wirecard Bank is one of the subsidiaries of the parent company, Wirecard AG (Federal Ministry of Finance, 2020). The background for the loan was, according to the media, refinancing of an existing loan. In 2017, Braun took out a loan in Deutsche Bank of 150 million Euros, with security in half of its own shareholding in Wirecard. Deutsche Bank did not want to extend the loan, and Marcus Braun was informed at the end of 2019 (Storbeck, 2020). It is alleged that most of the supervisory board of the parent company, Wirecard AG, were not informed of the loan until it was disbursed. Despite ownership, Braun believed that the supervisory board of the parent company had no formal requirement to supervise who Wirecard Bank lent money to (Storbeck, 2020).

The loan must be approved by the management and board of Wirecard Bank. However, one may ask whether this is done at an arm's length distance, and whether the loan is granted on market terms. The CFO of Wirecard AG, the parent company, which reported to Braun, is said to have been involved in approving the loan through his position as a board member of the bank. The key to the alleged fraud was the dual role Wirecard played as a commercial service company that in turn controlled a bank, James Freis was, as mentioned, the man who took over for Braun, said: "The bank would make loans in the parent company's strategic interest," he said. "This is something that a third-party bank at arm's length might have treated differently" (Tokar & Davies, 2021).

It appears in the media that loans to related parties violate German regulations, but not IFRS. Loans to close relatives are permitted, but IAS 24 requires them to be disclosed, and then most often in notes (Myrbakken & Haakanes, 2018). According to Beerbaum and Jani, it is a well-known challenge that transactions between related parties are not disclosed, even though the requirement in IAS 24 has existed for more than two decades. The loan Marcus Braun received from Wirecard Bank was not disclosed in notes as a loan between related parties (Beerbaum & Jani, 2021). It is still unclear whether the auditor, EY, was sufficiently informed about the loan, but forgot/failed to disclose this in notes, or whether the management kept this hidden from the auditors. The media reports that Braun received the loan without the majority of the board being informed (Storbeck, Financial Times, 2020). Based on current information about Wirecard, we consider it possible that the management of Wirecard might have withheld information about the loan granted to Braun.

4.1.2 Assets that are missing

There have been several articles in the media about missing assets in Wirecard. Whether this applies to other assets, in addition to the money that was missing from the bank accounts in the Philippines, is currently unclear. It is also uncertain where the 2 billion USD went, and whether the money has existed at all.

As told, EY signed Wirecard's audit opinion for 2018 in 2019. On October 31, 2019, the board of Wirecard entered into an agreement with the auditing company KPMG. KPMG was to investigate some of the allegations against Wirecard that were published in the press and on the internet. The results were summarized and presented in a report, hereinafter referred to as the KPMG report, or just the report. The report reveals several issues worthy of criticism. It proves difficult to obtain necessary information from both Wirecard and their affiliates (third party information). KPMG has problems verifying bank accounts, as they receive screenshots, instead of original documents. Several media outlets have criticized Wirecard's auditor, EY, which has previously accepted this type of confirmation. In the KPMG report, one can read that missing confirmations are due to both the scarcity of time and the Covid-19 situation. KPMG concludes that they cannot verify the confirmations they have received (KPMG, 2020, page 23).

Wirecard used a number of escrow accounts, and these were booked in the balance sheet as cash and/or similar. *"Escrow, or escrow agreements, is a contractual arrangement whereby a third party receives and pays money or property to the primary parties to the transaction, with payment depending on conditions agreed by the parties to the transaction"* (Wikipedia, 2021).

The definition of a financial asset is regulated in IAS 32. Financial assets such as bank deposits, financial receivables and accounts receivable must be accounted for in accordance with IFRS 9. An asset is a resource, controlled by the company, where financial benefits are expected to accrue to the company as a result of previous incidents. To classify an asset as cash, or cash equivalent, the asset cannot be limited so that it cannot be exchanged, or that it must be used to settle a liability (Myrbakken & Haakanes, 2018, page 449). Contacts are expected to be liquid funds available to the company immediately, and without deduction for any costs.

According to the KPMG report, Wirecard's escrow accounts do not meet the definition of cash, nor should they have been recorded as cash (KPMG, 2020, page 34).

4.1.3 Misleading and opportunistic accounting

Wirecard transferred the income of subsidiaries to gross amounts (principal). This means that they booked the entire sale of the subsidiary and deducted the costs. Alternatively, Wirecard could act as an agent. In that case, only the net amount, the commission Wirecard received to process the transaction, is recognized as income. In terms of results, the lead does not have any significance, but revenues will be higher with the principal method, and some key figures will be better. Key figures may affect the share price as they are used for benchmarking between companies.

	Gross sales	Net profit
Income	100	60
Expenditure	- 40	
Profit	60	60

Rules for revenue recognition, and the amounts to be used, are regulated in IFRS 15. When a company operates through its own name, own the responsibility and risk, they are considered to be a principal and must use gross accounting. An agent only acts as an intermediary between the principal and the end customer, and one must then use net bookkeeping. In some cases, it can be difficult to determine where the distinction between principal and agent goes. If a company only has a temporary ownership right to a product or service before it is transferred to the customer, the company may not qualify as a principal (Myrbakken & Haakanes, 2018, page 398).

According to KPMG, Wirecard should have booked as an agent, and used net bookkeeping (KPMG 2020, page 33). The auditors in KPMG thus assessed the principal/agent relationship differently than EY, which accepted gross accounting.

4.1.4 Money laundering - US.

March 24, 2021, Wirecard is mentioned in a money laundering case in the United States. Two businessmen were convicted of misleading banks into conducting transactions related to the purchase of marijuana for about \$ 160 million (Davis O'Brien, 2021). More specifically, the company, which sold marijuana, should have received help to accept credit cards as a payment solution (Burns & Levison, 2021).

Wirecard was one of several banks in Europe where bank accounts are said to have been opened and used to camouflage marijuana trade. According to the Wall Street Journal, witnesses during interrogation said that both the company, Wirecard, and Jan Marsalek personally, were actively involved in the crime. It is alleged that Wirecard, along with other banks, were aware that their systems were being used to trade marijuana, even though they outwardly banned this type of trade. Banks make money when their credit cards are used, regardless of whether the transaction is legal or illegal. One of the two businessmen, Mr. Hargreaves, together with his team, are accused of helping criminals to establish websites for so-called "shell companies". To build the credibility of the pages, they paid individuals to click on the websites so that traffic was generated. Furthermore, they established business plans and connected active telephone lines to these websites. When the webpage was operational, and looked trustable, they applied to Wirecard and other European banks to open accounts (Davis O'Brien, Wall Street Journal, 2021).

«A shell company is a company without significant capital or activity. The corporate form is not illegal, and they may have legitimate business activities, but are often used as a key component in the black economy (Wikipedia, 2015).

Jan Marsalek, and another Wirecard employee, are said to have met Mr. Hargreaves in London in early February 2018. According to Wall Street Journal, the meeting was largely about how they could minimize chargeback on the dubious business using shell companies and banks with sympathetic leaders (Davis O'Brien, Wall Street Journal, 2021).

“Chargeback means that goods that have been ordered and paid for with a credit card can in some cases be demanded back from the bank, card issuer or credit card company. The transaction then returns the money from the card acquirer. For example, you can claim the money back if the ordered item does not arrive, or if the website has charged you without your authorization / approval (Njarga, 2014)”.

Many cases of chargeback can lead to credit companies revoking the seller's license to receive card payments. Customers who use credit cards often get better security when shopping through the chargeback function (Iversen, 2015).

4.1.5 Asia - counterfeiting revenue through roundtripping

Wirecard is accused of using "round tripping" in several countries where they operated in order to get the auditors to sign the annual reports. Roundtripping is a well-known method of inflating the balance. More specifically, money must have been transferred from Wirecard's bank account in Germany to subsidiaries in other countries that needed more assets on the balance sheet. Once the auditor approved the annual report, the money could be transferred to another company's bank account. The same money was thus used to verify income in several of Wirecard's subsidiaries. According to the Financial Times, it was Edo Kurniwan who outlined the solution with round-tripping in 2018. Kurniwan was responsible for Wirecard's accounting and finance in the Asia-Pacific.

Wirecard wanted the license to issue payment cards in Chinese territory. To get this license, regulators in each territory had to approve Wirecard. "Round-tripping" was therefore a tool to achieve satisfying accounting numbers, which in turn hopefully convinced the local regulators (McCrum & Palma, 2019). The transfer of money was also used to achieve other goals. A subsidiary in Indonesia is said to have received money corresponding to the amount they lacked to achieve the profit target in 2015. The company tried to verify income with fake and backdated sales contracts. Wirecard is also said to have transferred money to a third party who in turn used the same money to buy goods and services from Wirecard. In this way, Wirecard generated "real" income that could be approved by the auditor. The Financial Times claims that at least two top executives at Munich's headquarters, CFO Thorsten Holten and chief accountant Stephan von Erffa, were aware of the roundtripping scheme (McCrum & Palma, 2019).

Counterfeiting of income through round-tripping clearly violates with IFRS 15, operating income from contracts with customers. False contracts are of course illegal, and Wirecard has probably not fulfilled its delivery obligations. In an interview conducted in the spring of 2021, it appears that EY carried out "test purchases" to verify income and activity in Asia. Daniel Steinhoff, one of Wirecard's former top managers, is said to have explained that the test purchases made by EY were manipulated by Oliver Bellenhaus. Bellenhaus was head of Wirecard's office in Dubai and head of business in Asia. He is currently imprisoned and is now

cooperating with German prosecutors (Storbeck, Financial Times, 2021). Bellhaus is said to have referred EY to specific websites and asked them to pay by credit card issued by Wirecard. The companies from which EY "traded" did not exist, and the credit cards were fake. As previously mentioned, Wirecard, in collaboration with other companies, has created fake websites. EY was confronted, in interrogation, and asked why they used credit cards issued by Wirecard. They explained that EY's auditors did not want to use their own credit cards when buying "adult entertainment" (Storbeck, Financial Times, 2021). Wirecard has on several occasions been linked to payment solutions for dubious industries such as porn and gambling.

4.1.6 Third parties

The Financial Times has accused Wirecard of listing fraudulent affiliates in its financial statements. As previously told, the newspaper contacted 34 of the companies that were presented as Wirecard's partners through the company Al Alarm. Upon request, 15 of the companies stated that they had never heard of Al Alarm. Only four of the companies stated that they used Wirecard as a payment intermediary at that time. Eight companies were terminated when they were presented in Wirecard's financial accounts (McCrum, Financial Times, 2019). When KPMG was to assess the accusations from the Financial Times, the list of partners from 2017 was not identical to the one that appeared in the media. They could therefore neither confirm nor deny the media's allegations. KPMG received a new list from 2019, and most of these firms confirmed cooperation with Wirecard. IFRS obviously requires that partners who are presented in the financial statements are correct in relation to existence and estimated value. «The financial statements shall provide a comprehensive presentation of the enterprise's financial position, financial earnings and cash flows. A comprehensive presentation presupposes a faithful reproduction... »(Myrbakken and Haakanes, 2018, page 441).

4.1.7 Acquisition of other companies at a premium.

German prosecutors are investigating possible cases of embezzlement at Wirecard, and then also cases in connection with previous acquisitions (Tokar & Davies, 2021) (Davies & Bender, 2020).

Wirecard took over companies in India through acquisition for about 340 million Euros. Since the reported currency is Euro, and not Indian rupee, we assume that this is not Indian companies, but a foreign companies, located in India. What is suspicious is that the same companies were sold for 37 million Euros just a week earlier (McCrum, Financial Times, 2019). It is alleged that Wirecard lost more than 800-900 million Euros as a result of significant overpricing, counterfeit software contracts and counterfeit loans (Davies, Wall Street Journal, 2020). Already in January, November 2015 and in January 2018, long before EY signed the audit opinion for 2017 and 2018, the Financial Times questioned why Wirecard paid far above market price when buying these companies, located in India (McCrum, Financial Times, 2015) (McCrum, Financial Times, 2018).

IFRS 3 must be applied if the transaction meets the definition of a business: "that the acquired assets and assumed liabilities constitute a business" (Myrbakken and Haakanes, 2018, page 64). Furthermore, the identifiable assets, acquired liabilities and any non-controlling interests in the

acquired company must be recognized. In this recognition, goodwill must be excluded (Myrbakken and Haakanes, 2018, page 65). Wirecard has claimed that the acquisitions were strategically important, and that due diligence was carried out, which is a requirement for acquisitions. The KPMG report also states that due diligence was carried out in connection with the acquisition. "Due diligence is a systematic review to verify the assumptions on which the valuation of a company is based, normally in an acquisition context."

4.1.8 Merchant cash advance loans in Brazil and Turkey

Another possible fraud of Wirecard was presented in an article in the Financial Times in 2019. According to the article, Wirecard claimed in 2018 that they had 400 million euros in short-term loans to customers, and many of them were located in Turkey and Brazil. Companies that use Wirecard as a payment intermediary must wait a month for payment. These short-term loans, Merchant cash advances (MCA), will help cover this gap. A group of short sellers have raised critical questions about Wirecard's explanation of the MCA loans. On their website, critics claim that this type of loan is illegal in Turkey, and that the balance sheet of Wirecard Brazil shows that the numbers Wirecard cannot possibly match. Appendix 1 shows the balance sheet in the first quarter of 2019. Critics point out that the difference between "receivables" and "payables" is too low and MCA cannot possibly be of the order of magnitude Wirecard claims (MCA Mathematics, 2020).

MCA does not correspond to the definition of a loan because it is in reality, a sale of future income but is often referred to as a short-term loan. The MCA scheme gives the store an advance towards future sales, and Wirecard provided this type of solution. Suppose that Hennes & Mauritz (HM)'s online store used Wirecard as a payment intermediary. To avoid waiting for the income, Hennes & Mauritz receives an advance from Wirecard. The advance is repaid when HM sells goods to its customers. MCA transactions with international customers in Turkey were permitted, according to KPMG. The auditors in KPMG also pointed out that one cannot use the difference between receivables and payables to identify MCA. The amounts of MCA are determined by the management of Wirecard using estimates and separate calculations (KPMG, 2020).

IFRS 9 states, among other things, that "an entity must measure expected credit losses for a financial instrument in a manner that reflects an objective and probabilistic amount determined by assessing several possible outcomes" (Myrbakken and Haakanes, 2018, page 187). Whether the management of Wirecard had an opportunistic assessment of MCA and violates IFRS 9 is difficult to determine. If allegations on earnings management are true, it is likely to assume that their MCA values were opportunistic.

5. Interpretation and discussion:

5.1 Intention of the people who might have committed the fraud

5.1.1 Opportunities:

In June 2020, when the accounting scandal at Wirecard was reported, we know that Wirecard somehow opened up for fraud. According to the media and the KPMG report, the allegations are mainly crimes that most certainly were committed by people in leading positions. In recent testimony, Sabine Heinzinger, said that she helped execute two large cash withdrawals for clients of Wirecard Bank. Heinzinger was working in Wirecard and was one of Jan Marsalek's former assistants. She explained that several senior employees had signed off on the cash withdrawal. Approval with a signature from more than one employee can be an example of internal control. Heinzinger referred to these signatures when arguing that there was no suspicion of fraudulent behavior (Storbeck, Financial Times, 2021). Accounting fraud accomplished by a single individual is more likely to happen than when people have to cooperate to engage in the fraud. Thus, segregation of duties should help prevent fraud. Still, experience from other scandals implies that people also cooperate and commit fraud together.

5.1.2 Incentives and perceived pressure:

Marcus Braun owned 7% of the Wirecard stock, and an increase in Wirecard stock price increased his private fortune (Kelly, 2020). Personal profit can be one of several motivation factors for earnings management. Investigation of Wirecard is far from concluded. We, therefore, do not know what thoughts the management of Wirecard has in mind regarding the accusations. Is Braun guilty of massive fraud, or is there truth in his claims of innocence? Did Marcus Braun experience severe pressure to expand?

Wirecard hoped that the KPMG report would deny that Wirecard's balance sheet was falsified. On their website April 28, 2020, one can read that the report will soon be published. Furthermore, it also states that no crime was found and confirmed charges against them. KPMG's final report shows that they were not able to conclude. The reason was lack of information, such as original documents that much of the information came far too late (Davies, The Wall Street Journal, 2020) (Wirecard.com, 2020).

During one of the hearings in March 2021, Financial Times argued that a former board member of Wirecard, Thomas Eichelmann, was subjected to psychological pressure from the company's management (Storbeck, Financial Times, 2021). It is alleged that while KPMG was working on the report, the director, Braun, should have warned board member Eichelmann and said if the news were too negative, it would have significant financial consequences. Braun was accused of writing the following text message to Eichelman: "the Supervisory board is personally liable if it allows a wrong regulatory statement or a wrong (KPMG) report destroys (shareholders) value" (Storbeck, Financial Times, 2021). Suppose Braun held board members personally responsible for how the outcome of audit reports affected share value. It's easy to assume that

some employees in Wirecard experienced severe psychological pressure. Being imposed on a vast responsibility outside your control must be a significant burden. It is not unlikely to believe that such a threat and burden could push people to commit actions they would normally not do.

5.1.3 Attitudes and rationalization:

As described, a former board member accused Braun of putting pressure and making board members responsible for the outcome of the KPMG report. This pressure may lead to fraudulent actions, but we still do not know how board members perceived this message or even if the allegations are true. Assume allegations are true, then board members probably sense pressure, but they might agree with management. Their biggest motivation can come from rationalizing. They might think that: *"if I manage to get KPMG to issue a neutral report, which clarifies suspicions of fraud, I will protect (innocent) shareholder's investments."*

In this example, there is both pressure and rationalization from the fraud triangle, and with management that opens up and encourages criminal acts, the opportunity condition is also there. Which one of the circumstances that are more present will perhaps be more apparent later in the investigation.

In conclusion with the fraud triangle in mind, we know people have some drivers that typically are more tenacious and influence them more. Addiction and unwillingness to give up fame, together with the fear of losing face, might influence Braun's decisions more than preserved pressure from saving a private economic fortune. If money was Mr. Braun's greatest motivation, one may think that he would have chosen a different path and protected more of his prosperity. From the impression drawn by media and from watching conferences, it is easy to get an impression that the desire to be a well-known and successful leader was a decisive condition for Marcus Braun. Whether or not these conditions drove him to commit a crime is still not clear. In May 2021, Braun was still not sentenced, but apparently, few people believed in his total innocent claim.

We think that the opportunity part of the fraud triangle, played a significant role in the fraud of Wirecard since fraud most likely when performed by people in leading positions. When it comes to Marsalek, we cannot know if he perceived pressure from stakeholders, the supervisory board, etc. After reading plenty of articles and watching videos, we get the impression that pressure was a diminished part for Marsalek. He seems more driven by his bizarre interest and seeks adventure. We assume that attitudes, rationalization, and opportunity played an essential role for Marsalek when he, assumingly, decided to break the law. It is necessary to clarify that the investigation is ongoing and Marsalek is still not convicted.

5.2 EY's place in the potential fraud

Wirecard was required to report results for the full year 2019 and the first quarter of 2020, June 18, 2020. This report was delayed three times. In the end, auditor EY failed to publish the audit opinion and said that the company did not find "sufficient audit evidence" for 1.9 billion euros on the balance sheet.

For more than three years, EY could not request important account information from OCBC. OCBC is a bank in Singapore where Wirecard claimed to have 1 billion euros in cash. Lack of confirmation indicates that EY did not fulfill its audit responsibilities. Instead of checking directly with OCBC Bank, EY relied on documents and screenshots provided by Wirecard and a third-party trustee to verify this large amount of cash. Wirecard told its auditors that the money moved late last year from OSBC to banks in the Philippines, with a so-called deposit of 1.9 billion euros. The fact that EY did not confirm the bank balance correctly shows weaknesses in the audit (Storbeck, 2020). A detective investigating a crime will probably get in trouble with his boss if he releases the main suspect just because he/she claims innocence. In Norway, one can be convicted of a crime, without confession; *"when evidence proves that the indictment has taken place beyond any reasonable doubt"* (Overgrep.no, 2017).

Why do auditors, who play a similar role in examining the truth and fairness of the company's accounts, trust a director or senior manager to the extent where they chose not to gather evidence correctly? This scandal is not the first, nor will it be the last scandal we will witness where this issue is associated with fraud. When confirming assets, such as bank accounts with large deposits, as in this case, it is normal for the auditor to receive confirmation directly from the bank. It is vital to ensure that the respective accounts exist and present the correct amount of money claimed by the company. EY failed to confirm asset and Wirecard's sales numbers. We hold that EY violated accepted practice, particularly the International Standards on Auditing (ISA 500 Audit Evidence), which states that the auditor should obtain adequate, appropriate audit evidence to draw reasonable conclusions to support their audit report. We hold that other auditors could reach the conclusion that documents and screenshots from another party are not sufficient and reliable evidence. Especially when this evidence was to confirm the existence of the 1.9 billion euros.

According to ISA 240, this may indicate that EY has not fulfilled its independent auditing responsibilities. As stated in ISA 240, the risk of not detecting management fraud is high. In the Wirecard scandal, management provided the fraudulent transaction. In this context, EY defends itself by saying that there are clear indications that this is an elaborate and sophisticated fraud. It involves several transactions around the world in various institutions with a view to deliberate deception. EY claims that even the most robust audit procedures may not reveal such fraud. However, auditing standards clearly state that when auditing a company, it is ``not enough`` for the auditor to rely on account approvals given by third parties. The auditor should have complete control over the delivery of account approval.

The ISA 240 might seem a bit unclear about the responsibility of the auditors. Auditors have a responsibility to reduce risk to an acceptable low level, but are not responsible to reduce all

risk. It would be extremely difficult for auditors to take on assignments if they were responsible to detect all possible fraud. On the other hand, it would also be very expensive to hire an auditor because working hours would probably increase rapidly. With this in mind, it seems reasonable that ISA240 is conducted in a way that auditors cannot always be blamed if their client commits a fraud which is not discovered during the audit.

We have questioned what put an international auditing firm like EY in this position? One might think this is due to two reasons. First one being, that the audit theme performing the audit may have found it difficult to believe that this respectable and highly valued company could be involved in fraud. The auditors, in this case, are inclined to believe in the insurance they receive because they agree on how they view the business. Second, audit partners in large audit firms and CEOs in large companies often share the same views about the world, and also might belong in the same social circle. This can create an informal working environment, in this informal relationship, and due to the halo effect, the possibility of fraud becomes unthinkable until it occurs.

Furthermore, it was announced on the agenda that an EY partner stated that his company felt they were victim to "criminals" committed by Wirecard. They reject allegations which claim that EY did not do enough to uncover offenses, now-defunct payment processors. They were alarmed when they learned that Wirecard had moved trust accounts from Singapore to the Philippines, as mentioned earlier. EY had received statements from the trust banks and declared that the accounts were accurate. In addition, they asked Wirecard to transfer 440 million euros in four installments to prove that the accounts existed. The payments were postponed for various reasons. In the end the lenders' top managers admitted that the certifications were "fake" (Matussek, 2021).

Income is usually one of the most significant and risky accounts included in an accounting audit. Revenue is recognized when earned, for example, when the service is delivered or when the goods are delivered. The auditor's role in an audit is to determine whether the account in the business process has been prepared in accordance with the applicable financial reporting framework. The most effective way to do this is for the auditor to assess the misinformation that may arise in the business process and then gather evidence to see if this misinformation has occurred. If the information can influence a reader's decision, it is considered material.

In the Wirecard case, the main question will be whether the absence of 1.9 billion euros in bank accounts affects investors' decisions? Of course, because of the huge amount, it would affect their decision. The proceeds of this scandal were recorded for offshore transactions that never existed. It was all undiscovered by the auditors, and it was two journalists from the Financial Times who brought this to light. The auditor has been criticized for not sending confirmation letters to external partners such as Singapore's OCBC Bank. According to the auditing standard, an auditor can use alternative confirmation methods where either the management does not want the auditor to send an external confirmation letter or in the event of a lack of response.

Based on the information available, we understand that this is not a "non-response case" since the auditor did not initially send the confirmation letter. We do not know whether Wirecard management rejected the auditor's request to send external confirmation letters. However, it may be possible that the company does not prefer their auditors to send confirmation letters in some cases. Still, then an auditor with professional skepticism should ask why. Asking questions is considered to be the auditor's primary job. The answers given must then determine whether the evidence gathered can confirm that the financial statement has been prepared in accordance with the applicable financial reporting framework (Stuart, 2020, page 3).

Audit documentation is an essential part of auditor work as mentioned in ISA 240 because these documents are evidence of the work performed by the auditor. If situations arise where the credibility of the auditor's work is called into question, they can thus show what they have done, step by step. The Wirecard scandal has put the spotlight on EY, and the auditors are now being investigated due to the scandal. Suppose the auditors at EY have carried out the audit work properly. In that case, they may hereby certify their working documents, which contain audit evidence confirming that the auditor performed his work in accordance with the International Standards on Auditing. An auditor will most likely not be convicted of discovering fraud if they have complied with the auditing standards.

It is not entirely clear how Wirecard could continue its alleged fraud scheme for several years despite oversight by both EY and KPMG and the investigations by German authorities and journalists (Pymnts, 2020).

Due to risk, the auditor's responsibility is to assess risk at the financial statement and assertion level (Stuart, 2020, page 51). In our opinion, EY also fell short in their risk analysis and their professional skepticism due to management. The result was that investors trusted Wirecard's financial statement to be prepared in accordance with the applicable financial reporting framework when it was not. The media wrote about fraud suspicions, but it does not seem like EY increased its audit risk. All auditors must conduct a "professional skepticism, which is closely linked to due professional competence and due care" (Stuart 2020, page 12). Since there were differences in what KPMG could accept as audit evidence and what EY accepted, we hold that this was not accomplished. One might think that the auditor did not exercise due care. The auditor, in this case, did not do what another auditor would have done in this situation, hence KPMG did not accept the word of Wirecard. When an auditor fails to do their job, there will probably not be anyone else that reveals the fraud, until the company is in big trouble.

5.3 BaFin

This chapter will overview BaFin's role as a supervisor and its responsibility to detect fraud.

After the insolvency of Wirecard, BaFin received harsh criticism in their investigation of Wirecard. Now, in retrospect it is always easy to be wise, and we aim to provide a broader picture. Only five years before the Wirecard scandal, a paper concluded that the German two-step system effectively detected earnings management (Böking, Gros, & Worret, 2015). We will explain more about the two-step system in this chapter.

Even if we determine that our tools are sufficient in preventing fraud, the Wirecard example demonstrates that crime can still occur.

About the system

In Germany, they have a two-step system in detecting financial crime as fraud, consisting of BaFin and FREP. FREP⁴ is the first step and this means that they are the first to examine whether the financial statements of a company comply with IFRS, the relevant accounting framework. Every year FREP selects some companies and examines their financial report. The selection is a mix of both risk assertion and random sampling. BaFin doesn't investigate the companies' financial reporting themselves, but they can, and are obligated to, impose a special investigation when there is an indication of fraud. BaFin only reacts in the second step after FREP finishes their examination (Jakubeit, 2021).

FREP's expedition often takes between eight and twelve months and sometimes even longer. The long duration may be a result of FREP's insufficient resources. They have only 15 employees and a limited annual budget of 6 million Euros (Jakubeit, 2021). We consider this length of response time to be unpleasant and, in some cases, troublesome. An early disclosure could probably help diminish the economic consequences of the scam. According to history, fraud commonly starts slowly and builds up over time (Churyk, Lee, & Clinton, 2008). FREP checked the 2014 accounting books of Wirecard and couldn't find any inconsistency. Despite massive allegations of fraud in the following years, neither FREP or BaFin took a closer look at Wirecard before February 2019. When FREP completed their report sixteen months later, Wirecard had already sought insolvency.

The KPMG report, disclosed in April 2020, was the first inspection which gave some consistency in media allegations towards Wirecard. As quoted, Wirecard faced FREP's findings after their breakdown in June 2020. On July 15, 2020, Wirecard responded to FREP: *"due to the current circumstances, we can't comment on the results."* FREP could not accept this answer. Therefore, the second step was initiated, and BaFin was allowed to start their investigation of Wirecard (Jakubeit, 2021).

BaFin's responsibility is to supervise financial systems like banks and financial institutions (Langenbucher, Leuz, Krahn, & Pelizzon, 2020). They are also responsible for protecting all consumers in the financial services sector. For example, in the interests of all consumers, it monitors the various financial institutions, ensuring stability and the financial system's integrity. It pursues complaints in supervised companies and offers a wide range of assistance to consumers (BaFin, 2021). From a Broschüre, provide by BaFin in 2020, they state their supervision priorities for 2020 as:

"At the national level, BaFin's Sectors are responsible for the supervision of credit institutions, financial services providers, asset management companies, insurance undertakings, pension funds, and the supervision of securities trading. As they are combined in a single authority, they

⁴ The Financial Reporting Enforcement Panel (FREP) (Deutsche Prüfstelle Für Rechnungslegung)

can share information directly, agree on a course of action, and act quickly" (Bundesanstalt für Finanzdienstleistungsaufsicht Federal Financial Supervisory Authority, u.d.).

In 2020 BaFin's Banking Supervision Sector had institutions with shortcomings in money laundering prevention as one focus area (Bundesanstalt für Finanzdienstleistungsaufsicht Federal Financial Supervisory Authority, u.d.). Objectives are essential but require sufficient resources to comply with their ambition.

With all their good intentions, several people have questioned why BaFin did not stop this scandal earlier. Was BaFin blinded by the Wirecard success and as a result had lost their objectivity? Did BaFin experience pressure from German authorities and politicians to protect German's most successful FinTech company? Was BaFin lacking resources, or is the two-step design ineffective, even though some claim it is effective (Böking, Gros, & Worret, 2015)? Is the system good enough in theory but failed because of employment passivity? Or is the Wirecard scandal a mix of several aspects, like we anticipate?

Sometimes, when we indeed want something, it can be troublesome seeing the opposite. Often are earlier impressions given greater weight than later impressions (Stuart, 2020, page 391). If BaFin and FREP, for many years, saw Wirecard as an impressive and reliable company that gave value to its investors, it could have been challenging to change this view. As mentioned, FREP clarified Wirecard's 2014 financial statement and could not find inconsistency. This clarification might strengthen the beliefs that the allegations from the media were only false rumors. When we tend to like or dislike a situation, a person, or a company, this impression influences our feelings in other areas. This issue is called the Halo effect (Stuart 2020, page 391). Challenges due to the halo effect are vital for auditors to be aware of. In our analysis of EY's work, we questioned if their decisions were influenced by the halo effect. We hold that also other professions, with an investigation role, can benefit from consciousness around the possible halo effect.

Wirecard was classified as a financial holding company by BaFin and the Bundesbank⁵. As a result, BaFin's responsibility for supervising financial institutions did not include FinTech companies like Wirecard. If classified differently, Wirecard would be under BaFin's authority, and the German regulator's monitoring rights might have been more appropriate for this company (Jakubeit, 2021). Independent of FREP, BaFin is obligated to react if they suspect fraud. We can understand the frustration due to BaFin's late reaction (February 2019).

The German politicians acknowledge shortcomings in the financial regulation. In January 2021, BaFin leader, Felix Hufeld, and his deputy, Elisabeth Roegle, had to step down and leave BaFin. Finance minister, Olaf Stolz, justifies and explains that Germany's regulation: *"needs to be reorganized, so that it can fulfill its supervisory role more effectively"* (Chazan & Storbeck, 2021).

⁵ The Deutsche Bundesbank is the central bank of the Federal Republic of Germany (Deutsche Bundesbank Eurosystem).

Also, Angela Merkel, the German chancellor, has testified in the parliamentary hearing for Wirecard. During a visit to China in 2019, she lobbied for Wirecard, as she did for other German companies. Merkel defends herself and explains that there were no severe suspicions of irregularities of Wirecard at that point. It was natural for her to mention Wirecard because German authorities wanted German financial service companies to enter the Chinese market. Still, Merkel claims that Wirecard did not get any special treatment. Merkel was asked about the allegations by the Financial Times. Even though she reads business papers, Merkel justifies that the Financial Times is not a newspaper she would read. Just days before Merkel's trip to China in September 2019, she met with her former defense minister, Karl-Theodor zu Guttenberg. Wirecard had Guttenberg as their advisor at this time. It was convenient for them that he could ask the German chancellor to give her their recommendation (Kappeler, 2021) (Chazan, Financial Times, 2021) (Irish Times, 2021).

Approximately two months later, Financial Times wrote about Wirecard's acquisition of All Score. Wirecard's motivation behind the purchase was: "*attractive license portfolio [for digital payments]*", adding that the transaction underlines its "*strategy to expand its global technology platform by way of cross-border licenses*" (Storbeck, 2021). Politicians from other German parties have referred to the Merkel and Guttenberg meeting as unacceptable politics (Knight, 2021).

Olaf Scholz is responsible for overseeing BaFin as Germany's finance minister. Scholz has also received strict reviews, and some indicate the ministry protected Wirecard. In testimony, Scholz demanded that the German government could not be held accountable for the Wirecard collapse. According to Germany's finance minister, the auditor, EY, failed their job (Chazan, Financial Times, 2021). In a report provided by The European Securities and Markets Authority (ESMA)⁶, they raise questions regarding BaFin's independence from the German finance department. EU⁷ asked ESMA to investigate BaFin concerning Wirecard after the collapse. ESMA also points out that Wirecard should have been investigated between 2016 and 2018, as a result of risk assessment (The European Securities and Markets Authority, 2020).

Besides slow action, BaFin received criticism because of the two-months ban of short-sellers. Short-selling is often considered ethical and associated with something negative. These investors thrive when stockholders lose money. Short-sellers bet on falling stock prices and often provide negative news about the company's prospects. We believe that it is human nature that we tend to dislike when some profit from other people's loss. Still, most of us want stock market information to be accurate and that stock prices reflect future earnings. The theory "Efficient Market Hypothesis" (EMH) claims that stock prices incorporate all information (Fama, 1970). Studies have concluded that inconsistent stock prices do not reflect all public information (Sloan, 1996) (Burton, 2003). After all, if the EMH theory is 100% correct, it would not be possible to benefit from market speculation. Most of us agree that investing in the stock market can provide profit. Several studies have concluded that short-selling does not harm the market, and banning this type of betting does not benefit. Some researchers even claim the

⁶ The European Securities and Markets Authority (ESMA) is an independent European Union (EU) Authority that contributes to safeguarding the stability of the EU's financial system by enhancing the protection of investors and promoting stable and orderly financial markets (The European Securities and Markets Authority, u.d.).

⁷ European Union

opposite, that short selling is a crucial market regulator (Beber & Pagano, 2012) (Battalio, Mehran, & Schultz, 2011). The efficiency of security prices improves, liquidity increases, and short selling also helps corporate governance (Committee on Capital Markets Regulation, u.d.).

Even though short selling is considered a vital market regulator, there are times when the law opens up for banning short sales. Critics of the short sale banning of Wirecard between February and April 2019, focuses mainly on BaFin. BaFin's responsibility is indisputable. Still, we think it is important to highlight that ESMA approved the decision (Bundesministerium der Finanzen, 2020). Without their approval, the ban would only apply in Germany (Nicol, 2020). We assume that a professional organization like BaFin is well aware of the positive aspect of short-selling. Their inspection of Wirecard was a reaction to the indictment towards the company. The banning of short sales and investigation decisions were seemingly taken at the same time, February 2019. Why put a market regulator on hold if you suspect fraud? Especially if you know that short-selling can provide helpful information to investors.

BaFin justifies their settlement by pointing at the negative media coverage of Wirecard. From BaFin's webpage:

"The events described have resulted in uncertainty in the market, particularly concerning the appropriate price determination for shares of Wirecard AG. There is a risk that this uncertainty will increase in the current situation and escalate into general market uncertainty" (BaFin, 2019).

ESMA decided not to investigate BaFin's short-selling banning of Wirecard stocks. Instead, they focused on the approach and compliance of the Guidelines on the Enforcement of Financial Information (GLEFI) by BaFin and the Financial Reporting Enforcement Panel, the authorities for the supervision and enforcement of financial information in the Federal Republic of Germany under the Transparency Directive (TD). ESMA also focuses on the two-step system's effectiveness, consisting of FREP and BaFin related to the Wirecard scandal.

When examining the independence of BaFin from issuers and government, ESMA pointed at the same issues reported by the media (The European Securities and Markets Authority, 2020). In January, the Wall Street Journal revealed that authorities investigate one of BaFin's employees for insider trading⁸ of Wirecard stocks (Kowsmann, 2021). BaFin also allowed employees to trade Wirecard stocks when simultaneously investigating the same company (Kowsmann & Bender, 2020).

BaFin ordered FREP to investigate Wirecard in January/February 2010, but it was revealed after the insolvency. Now when ESMA has examined their work, they are not satisfied with the investigation job. The analyses, level of professional skepticism, timelines of examination procedures, assessment of disclosures, and records were displeasing (The European Securities and Markets Authority, 2020) (Jakubeit, 2021).

⁸ Insider trading is when trading of a stocks or other securities (such as bonds or stock options) is based on material information about the company, which is not public. (Wikipedia, 2021).

ESMA considers the two-step system to be an inefficient tool in preventing fraud. The roles between BaFin and FREP seem unclear, and BaFin could not control the work done by FREP. Both BaFin and FREP are tied up in a strong confidentially establishment that might cripple and make information flow ineffective (The European Securities and Markets Authority, 2020).

The most crucial source in disclosure of the Wirecard scam was, in our opinion, the media. We can understand that Wirecard management, in March 2019, decided to sue Financial Times and their reporter, Dan McCrum. After all, most criminals do not want to get caught. The majority have an idea that their plan will succeed, and they will never get arrested (Samenow, 2016). It is more remarkable that BaFin was filing a criminal complaint against approximately ten short-sellers and two journalists from Financial Times (Storbeck, Financial Times, 2019). Some investors' perhaps saw this action as a signal that BaFin supported Wirecard. This signal could potentially reassure Wirecard investors not to sell their stock after all.

In sum, it seems like both BaFin, FREP, and German politicians could have handled the Wirecard case differently. We are surprised by the German public bodies' lack of willingness to admit responsibility and that they all seem to blame each other. ESMA wrote in their report that the internal control in BaFin needs improvement. Insider trading is illegal in Germany and deemed a crime and should not occur (BaFin, 2017). It sounds like the required rules are at hand, and changing them would probably not be revolutionary. First, the definition of responsibility needs to be more explicit. When people are made accountable for their actions or lack of activities, it will impact the work done. Studies show that accountability affects perceived responsibility in detecting fraud. These inquiries were with auditors, but we consider the findings relevant for other occupations (Yusnaini, Ghozali, & Fuad, 2017) (Dezoort & Harrison, 2008). We understand that BaFin and FREP have a responsibility, like auditors, to try to detect fraud. Still we think the most crucial part is the auditor. When they provide a company with an unqualified opinion, most people and organizations tend to put high reliance on this statement. We have read that Germany is planning to change the two-step system and already has several reports suggesting improvements because of the Wirecard scandal. Also former reports have suggested new rules and regulations (Langenbucher, Leuz, Krahn, & Pelizzon, 2020).

We hold that responsibility clarification would be the best place to start. Rules and regulations are worthless if they are not followed.

5.4 FinTech:

FinTech is a collective term for technology used in financial products and services, for example, customer-oriented services such as payment, savings, financing, stock trading and insurance. FinTech solutions help digitize, simplify and improve processes in a business, such as robotization of manual case processing. The specific thing about FinTech companies is that they specialize in a niche of products or services that are traditionally offered by traditional financial, investment, or insurance companies. FinTech is constantly evolving. Norway is ranked as one of the world's most digitized countries and is at the top for the use of technology. Norway's financial system also scores very highly on quality, which means that Norway is vital in developing new financial technology (Pwc.no).

FinTech services are rapidly changing the payment industry. More and more consumers are switching to FinTech versus traditional payment products/services. When the growing global environment responds to Covid-19, FinTech companies that offer payment services are subject to increased fraud risk. As the movement restriction continues to be prevalent in many jurisdictions, people stay at home. This leads to increased online commerce; individuals and businesses are increasing their reliance on online payment methods. The accelerated shift from the usual payment method such as cash and card presentation at a physical store to online forms prepares for the possibility of fraud (Deloitte, 2020).

As FinTech companies evolve, companies may feel increasing pressure to formalize their risk management organization, policies, and practices to match the other central banks and other institutions they compete with. Financial technology is moving faster than regulation and internal risk management. The Wirecard scandal is not just a single case of fraud. It also reveals gaps in how FinTech companies are increasingly implementing their risk management process. As expectations of sound risk management grow, the industry must close these gaps (Pell, 2020).

According to Financial Times, Wirecard processed payments for a Maltese online casino which was later accused of money laundering, to an influential member of Ndrangheta. Ndrangheta is one of Europe's most dangerous mafia organizations. Wirecard processed payments for Centurion Bet, a Malta-based gaming company. The company was later found by Italian courts to be a Ndrangheta way of moving money out of the country in a sophisticated money-laundering operation. Wirecard continued to trade with Centurion Bet, which was incorporated in Malta but owned by a Panamanian company until 2017. In 2017 the Maltese authorities suspended the player's license and ceased trading after an anti-mafia raid that saw the arrest of 68 people. Since then, more than 30 people have been convicted of mafia-related crimes. Centurion Bet's revenues included only a fraction of Wirecard's global business. Still, the discovery raises further questions about the German company's business model, once considered a pioneer in European FinTech.

As a regulated payment institution, Wirecard must comply with the strict rules for money laundering and report suspicious transactions to competent authorities. Wirecard also processed payments to another major Maltese gaming company that has been investigated by Italian

authorities for money laundering organized crime groups. It may be possible that Wirecard was not aware of the company's alleged links to organized crime (Johnson, 2020).

The former FinTech pride, Wirecard was cherished by many Germans and investors, as it was one of the few technology companies that had gone up in the prestigious DAX 30. It is interesting that Wirecard has revealed weaknesses in how FinTech companies are regulated. Despite several warnings about Wirecard in the media, analysts, investors, and regulators (such as Germany's financial regulator BaFin and the Financial Reporting Enforcement Panel (FREP)) ignored allegations. Financial consumers should be aware that FinTech can be used as an alluring word to get investors to invest in a company rationally. FinTech companies are synonymous with words like "innovation" and "Disruption." It is thus not wrong to say that Wirecard's FinTech nature played a significant role in attracting market participants and convincing the financial market society and politicians that the company was a new success story in Germany (Zernaski & Sancak, 2020). This may be why BaFin gathered around Wirecard and sued the newspapers, including McCrum, the leading investigative journalist from the Financial Times, for suspected market manipulation (Guereca-Adair, 2020).

The UK division of Wirecard was forced to stop carrying out its planned activities, following orders from the Financial Conduct Authority. This meant that thousands of customers did not have access to their money due to the fact that several online banking apps were dependent on Wirecard, such as Curve, Pockit, and Anna. Public confidence in the FinTech industry will most likely decline due to this scandal and the freezing of accounts. The effects reached a broad audience ranging from individual users to all sizes of businesses. Consumers can first turn to more traditional and established banks to avoid such "disruptions" and thus affect the broader FinTech sector. Second, Wirecard's former customers can look for viable alternatives when considering the company's analytics and marketing features. Therefore, clients can search for reliable FinTech companies that can offer similar features, thus leading to a more even scope between competing companies (Guereca-Adair, 2020).

Furthermore, the Wirecard scandal has also revealed shortcomings in how Fintech companies are regulated. According to the European Banking Authority, around 31% of European FinTech companies are not subject to any regulation. This highlights how Fintech companies fall into a gray regulatory area due to their hybrid character and rapid development. Thus, regulation, risk management, and compliance in these companies must advance at the same speed as FinTech to avoid several similar incidents. Other similar companies in this sector may realize that they are in the business of trust and that they will not be able to recover from such a scandal. As a result, they might actively seek to improve the management and credibility of the business (Guereca-Adair, 2020).

According to the Global FinTech Index report, FinTech companies expand their ecosystem by collaborating with listed companies. The FinTech partner companies try to achieve synergy benefits with a combination of other services such as Big data analysis and sharing/finance companies for the value/addition of the economy. At the same time, the threats of poor-quality governance integrated with FinTech companies inhibit future growth (Findeable, 2020). Weak corporate governance remains a primary concern for all Fintech companies, as it hinders growth. The academic survey shows that an increase in the number of FinTech companies

prevails in weak regulatory enforcement countries. According to FinTech's census, almost 25% of respondents suggest that the quality of corporate governance is a significant challenge for FinTech management (Najaf, Chin & Najaf, 2020).

Although Wirecard has been part of Prime Standard, the market segment on the Frankfurt Stock Exchange with the highest transparency standards, the company was considered a Fintech company. Wirecard partnered with other FinTech companies. They engaged in alliances with major financial conglomerates such as the insurance company Allianz. To provide lending services, Wirecard operated the subsidiary Wirecard Bank, which had a mortgage license and was fully regulated and monitored by BaFin. As mentioned earlier, Wirecard did not qualify as a financial holding company. Only the subsidiary had been entitled as a financial company by BaFin, suggesting that the holding company's activities were only loosely monitored, and accounting fraud remained undetected (Haddad & Hornud, 2020).

Following a severe financial objection, the leaders of the regulator describe Wirecard insolvency as a "total disaster." Following the same premises, the German Minister of Finance categorizes this incident as a "FinTech scandal". As previously explained, there will be a review of the internal regulatory system of the FinTech companies. An error event such as Wirecard is an indicator of a flawed monitoring system and acts as a wake-up call for adequate legislation for Fintech companies (Najaf, Chin & Najaf, 2020).

Following the company's collapse, the German legislature proposed a draft law to strengthen financial market integrity aimed at a wide range of financial market rules. While the Wirecard scandal did not affect the European or German financial system, questions were raised about how financial subsidiaries of technology companies can operate smoothly after the holding company files for defaults and how partners can easily switch businesses to another institution. As FinTech companies become more mature and interconnected, concerns about market risk and systematic risk increase (Haddad & Hornud, 2020).

6. What has happened a year later?

BaFin's leader, Felix Hufeld, and his deputy, Elisabeth Roegle, were forced to step down and leave BaFin (Chanzan & Storbeck, 2021). Former CEO, Marcus Braun, Stephan Von Effa, former head of accountant, and Oliver Bauhaus are still in prison. Bauhaus was leading a subsidiary based in Dubai. After three months in custody, Wirecard's CFO, Burkhard Ley, was released on bail (Storbeck, Financial Times, 2020). The reason was that most of the fraud that caused severe damage happened after Ley left the company's management board (Storbeck, Financial Times, 2020).

There is a file against one of BaFin employees for insider trading. Just a day before the scandal was out in the open, one of BaFin's employees sold structured securities based on Wirecard shares (Storbeck, 2021) (DW, 2021).

APAS⁹ is the audit regulator in Germany. Ralf Bose was the former leader of APAS. He had to step down from his position because of trading Wirecard stock while APAS discussed the company with BaFin (Bender & Kowsmann, 2020).

Bundesrat¹⁰ accepted new legislation, and the Federal Council gave their approval at the end of May 2021. This new law provides BaFin with the increased power of attorney. Auditing companies with a public interest will face higher penalties if offenses occur. In cases of gross negligence, the auditor companies will now face total financial responsibility (Handelsblatt, 2021). When the insolvency application was a fact, the Bundestag parliamentary committee in Berlin ordered an investigation of EY and their audit works with Wirecard. The report was delivered to Bundestag in April 2021 and increased the misfortune of the accountancy firm. Shareholders, creditors, and high-profile clients are already suing EY. There will probably also be legal action by Wirecard's administrator (Storbeck, O., 2021).

EY's auditor work and their former signing of Wirecard's financial statement is being investigated. The quality of their work due to risk assortment, a potential violation of rules, and professional duties will be further examined (Storbeck, Financial Times, 2021). Hubert Barth, EY's leader in Germany for five years, has already been replaced to restore trust in the market. Barth now works in EY on a "European level." According to EY, they will improve internal control in EY Germany in the next two following years. Last year, essential clients like Commerzbank, Deutsche Bank's asset manager DWS, and state-owned lender KfW¹¹ stopped cooperating with EY (Storbeck, 2021).

⁹ APAS - Abschlussprüferaufsichtsstelle is the auditor oversight body which helps maintaining the quality and professional standards of statutory audits in Germany (APAS, 2021).

¹⁰ Deutscher Bundesrat is a body established on the basis of the German Constitution. The members of the Federal Council are appointed by the Länder of Germany and are most often members of the government of these Länder (Wikipedia, 2020).

¹¹ KfW stands for Kreditanstalt für Wiederaufbau and is a German public investment and development bank (Förderbank) (Wikipedia, 2021).

7. Conclusion

In our paper, we questioned whether the auditor of Wirecard, EY, did follow the requirements of ISA 240, when auditing the financial statements. In addition, we wanted to examine why auditors, and national authorities in Germany, did not reveal the fraud earlier.

After reading and evaluating newspapers and different reports that both auditors and other students wrote, we conclude that the management of Wirecard most likely is a part of the fraud.

BaFin had the permission to double check Wirecard's financial statement. However, the Wirecard case shows that an unqualified audit opinion will most likely prevent others from examining a company again. If the auditor accepts the client's word, then why would someone else care to look at this company again. This confirms the high trust that an audit opinion has in the market.

We conclude that in this situation the auditor probably failed to do their job. They most likely put the audit risk too low and as a result they didn't gather enough and sufficient evidence. In addition, they accepted evidence provided by Wirecard. The same evidence was not accepted by auditor KPMG. The result of an audit should be the same independent of which audit firm performs the audit.

Several reports and studies regarding Wirecard have suggested new rules and regulations. At this point, our findings differ from some of the past reports. Even though we support a few improvements, we do not think that new rules and regulations will diminish the problem. Rules are worthless if people do not feel obligated to follow them.

Many people apparently considered the global FinTech company to be national pride. We do not know BaFin's motivation but assume that unwillingness to take on responsibility and halo effects might have been present. It can then be difficult to question the company's honesty and imagine that they are involved in fraud. Therefore, we hold that lack of responsibility and halo effect are more significant issues in the Wirecard case than a shortage of regulations.

In recent months, we have learned that FinTech companies probably have new, creative, and different ways to camouflage fraud. The rapid expansion of digitalization will most likely demand new skills and provide auditors with increasing challenges due to fraud detection also in the future.

There is one area where we find new and additional regulations to be important. The Wirecard scandal has revealed shortcomings in how Fintech companies are regulated. As mentioned, around 31% of European FinTech companies are not subject to any regulation. We find it essential to improve regulation so that all FinTech companies have to comply with existing rules.

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9. Appendix

The balance sheet of Wirecard Brazil in the 1st Q of 2019

BCB Code	Balance Sheet Item	Jan-19	Feb-19	Mar-19	Apr-19
10000007	A. Current and Non-Current Assets	271,854,958	297,173,137	311,814,877	324,659,925
11000006	i. Cash and Cash Equivalents	447,104	443,933	233,236	417,130
11100009	1. Cash	4,332	3,378	3,147	2,683
11200002	2. bank deposits	442,772	440,554	230,089	414,447
11300005	3. distributable reserves				
11500001	4. cash and cash equivalents in foreign currency				
12000005	ii. Interbank Investments				
12100008	1. investment in repo operations				
13000004	iii. Securities and Derivative Financial Instruments	3,550,162	4,173,295	4,069,770	3,564,155
13100007	1. Free	3,550,162	4,173,295	4,069,770	3,564,155
14000003	iv. Interfinancial Relations	257,085,931	282,951,483	297,569,473	310,729,834
14100006	1. rights to participants of settlement and payment arrangements - Accounts Receivable	257,085,931	282,951,483	297,569,473	310,729,834
14200009	2. bound loans				
18000009	v. Other credit	9,670,159	8,497,204	8,889,985	9,259,503
18300008	1. income receivable	785,360	916,815	577,252	408,300
18800003	2. Sundries	8,884,798	7,580,388	8,312,733	8,851,203
18900006	3. (-) provision for other creditors				
19000008	vi. Other Assets	1,101,600	1,107,220	1,052,412	689,301
19900005	1. prepaid expenses	649,432	655,052	581,938	509,833
19800002	2. other assets	452,167	452,167		179,468
20000004	B. Fixed Assets	28,476,613	28,992,374	29,548,434	33,366,124
21000003	i. Investments				
21200009	1. Equity in Affiliates and Wholly-Owned Subsidiaries				
22000002	ii. Fixed assets	3,321,525	3,247,629	3,173,915	6,531,461
22300001	1. real estate for own use				3,431,838
22400004	2. facilities	-	-	-	-
22900009	3. other	41,838	40,703	39,568	38,433
25000009	v. Intangibles	25,155,087	25,744,744	26,374,519	26,834,662
25100002	1. Intangible Assets	25,155,087	25,744,744	26,374,519	26,834,662
25200005	2. Goodwill on acquisition of investments				
30000001	C. Offset	5,390,713	5,701,783	5,294,175	4,725,471
30300000	i. Marketable securities	3,550,162	4,173,295	4,069,770	3,564,155
30900008	ii. Control	1,840,550	1,528,488	1,224,405	1,161,315
39999993	Total Assets	305,722,284	331,867,295	346,657,487	362,751,521
40000008	A. Current and Long-term Liabilities	269,488,565	294,772,456	309,595,652	326,138,381
41000007	i. Deposits	241,860,323	266,622,478	285,155,609	304,725,548
41900004	1. other deposits - Accounts Payable	241,860,323	266,622,478	285,155,609	304,725,548
49000009	ii. Other obligations	27,628,241	28,149,978	24,440,043	21,412,833
49100002	1. Demand and payment of tax and duties				
49300008	2. Social and statutory duties	458,529	917,058	1,375,587	1,834,116
49400001	3. Taxes and social security expenses	3,757,299	1,651,471	1,809,077	1,736,949
49900006	4. Sundries	23,412,413	25,581,448	21,255,378	17,841,767
61000001	B. Shareholders' Equity	30,766,135	30,766,135	30,766,135	30,766,135
61100004	i. share capital	25,059,869	25,059,869	25,059,869	25,059,869
61300000	ii. capital reserves	289,954	289,954	289,954	289,954
61800005	iii. accumulated profit/loss	5,351,564	5,351,564	5,351,564	5,351,564
61500006	iv. profit reserves	64,747	64,747	64,747	64,747
70000009	C. Earnings Accounts	8,524,263	17,194,456	26,801,358	36,005,972
71000008	i. Operating Income - Revenues YTD	8,524,263	17,194,456	26,801,358	36,005,972
71500003	1. Income from Bonds and Securities	19,006	35,033	50,129	67,224
71700009	2. Income from Services Rendered	4,926,852	9,792,395	15,314,768	20,452,666
71800002	3. Income Originating from Equity				
71900005	4. Other operating income	3,578,404	7,367,027	11,436,460	15,486,081
73000006	ii. Other non-operating Income				
80000006	D. Earnings Costs	- 8,447,392	- 16,567,536	- 25,799,834	- 34,884,440
81000005	i. Operating Expenses	- 7,961,350	- 15,320,466	- 23,861,788	- 32,368,794
81400007	1. FX costs		- 27,969	- 114,701	- 125,196
81700006	2. Administrative Costs	- 3,923,843	- 7,738,002	- 12,031,532	- 16,047,049
81800009	3. Provisions of Owners Equity Adjustments	- 275,651	- 550,807	- 825,799	- 1,693,609
81900002	4. Other Operating Expenses	- 3,761,856	- 7,003,686	- 10,889,754	- 14,502,939
83000003	ii. Non-Operating Expenses				49,379
83100006	1. Losses incurred in transactions involving values and goods				
83900000	2. Other Non-Operating Expenses				49,379
89000007	iii. Results/Income Tax/Closing Process	- 486,041	- 1,247,070	- 1,938,046	- 2,466,266
89400009	1. income tax	- 4,087	- 306,586	- 539,033	- 608,724
89700008	2. profit sharing	- 481,954	- 940,483	- 1,399,012	- 1,857,541
90000003	E. Offset	5,390,713	5,701,783	5,294,175	4,725,471
90300002	1. Marketable Securities	3,550,162	4,173,295	4,069,770	3,564,155
90900000	2. Control	1,840,550	1,528,488	1,224,405	1,161,315
99999995	Total Liabilities	305,722,284	331,867,295	346,657,487	362,751,521