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Interpreting interpretations

An exploratory study of enforcement authorities' interpretation of IFRS

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Abstract

This thesis investigates the identified research gap concerning enforcement of IFRS, in the presence of potential interpretation differences. An exploratory, qualitative case study has been made to analyse one enforcement process in Sweden involving six authorities, forming their opinion on whether the company of interest had violated IAS 39 when valuing its trading portfolio. The analysis of the authorities' interpretations is made by using the theoretical perspective of epistemic communities together with findings from existing research concerning the transition to IFRS. In addition to the archival data, interview data has been gathered from the Swedish Economic Crime Authority to further problematise the enforcement pressure of IFRS put on individual jurisdictions. Our empirical findings conclude that various interpretations of IAS 39 exist and consequently we have identified three epistemic communities. We suggest that a possible reason for the interpretation dissimilarities is due to the communities' approach to validate knowledge, in this case how they rely on different expertise to form their opinion. We question this reliance on experts as it is, according to us, subjective and we find it problematic that the expertise of the authority that has the aim to promote harmonisation of IFRS in the EU has been neglected. Moreover, we analyse the difficulty of pursuing valuation cases from an enforcement perspective, which is supported by our empirical evidence where two enforcement authorities valued the same asset with a significant difference.

Keywords: IFRS, Enforcement, Epistemic communities, Interpretation differences

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List of abbreviations

EBM	Swedish Economic Crime Authority (Ekobrottsmyndigheten)
EC	European Commission
EECS	European Enforcers Coordination Sessions
ESMA	European Securities and Markets Authority
FI	Swedish Financial Supervisory Authority (Finansinspektionen)
IAS	International Accounting Standards
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
Nasdaq	The disciplinary committee of Nasdaq Stockholm
RI	The Swedish Inspectorate of Auditors (Revisorsinspektionen)

1. Introduction

"Sometimes the scandal is not what law was broken, but what the law allows." - Edward Snowden

On the summer Saturday morning of August 28 in 2010, the Swedish financial sector was served with unexpected news along with their morning coffee. One of the banks in Sweden, HQ Bank AB, with more than SEK 90 billions of assets under management had lost their banking licence and was forced to liquidate their business. Little did anyone know that the decision to revoke their licence made by the Swedish Financial Supervision Authority (Finansinspektionen [FI]) would be the beginning of almost a decade long enforcement process and discussions of who to blame for this messy situation. In the enforcement process, six authorities have been involved, all forming their opinions on the central issue whether HQ Bank AB had violated the International Financial Reporting Standards (IFRS), and in particular the International Accounting Standards (IAS), when valuing its trading portfolio. The interpretations of the regulations vary among the authorities, and divided opinions exist regarding whether the bank used observable market data in its valuation in accordance with IAS 39. The enforcement process involving HQ Bank AB is used as empirical evidence in this thesis, together with interview data from the Swedish Economic Crime Authority (Ekobrottsmyndigheten [EBM]), to make an empirical contribution to the identified research gap presented below.

In 2002, the European Commission (EC) decided that all listed entities must adopt IFRS (European Commission, 2002). The International Accounting Standards Board (IASB) issued the standards to cope with the new magnitude of multinational companies. The aim of the regulations is to increase transparency, accountability and efficiency to the world's financial markets (IFRS Foundation, 2018). Previous research studies the transition to IFRS from different perspectives, yet the discussion is mainly focused on the benefits and the shortcomings, such as high complexity and inconsistencies in adoption (Alexander & Alon, 2017; Ball, 2006; Carmona & Trombetta, 2008; Jermakowicz & Gornik-Tomaszewski, 2006; Nobes & Zeff, 2008; Walton, 2009). Additionally, researchers elaborate on the principles-based nature of the standards, how it requires preparers and auditors to develop their professional judgement and how it may lead to interpretation dissimilarities (Hoogendorn,

2006; Jermakowicz & Gornik-Tomaszewski, 2006; Maines et al., 2003; Nobes, 2006; Schipper, 2003).

As the IASB does not have an enforcement body of their own, it is up to the individual jurisdictions to ensure that the judgements made by preparers and auditors are in accordance with IFRS (European Commission, 2002). The lack of a uniform enforcement mechanism is frequently criticised in previous research, as there will naturally be differences in how well the standards are followed due to pre-existing local forces continuing to impact accounting practices (Ball, 2006; Holthausen, 2009; Nobes, 2006; Soderstrom & Sun, 2007). Nevertheless, we argue that the research area concerning enforcement can be extended. We have identified a research gap problematising the enforcement pressure put upon individual jurisdictions in the presence of potential interpretation differences. This undiscovered area of research is immensely interesting, as shared agreements in interpretations of regulations are essential for their enforceability (Gillqvist, 2016). In light of the quote by Edward Snowden, how valuable is actually any rule if there is not a coherent and powerful enforcement mechanism in place to enforce compliance, or if several contradicting interpretations are allowed to be made?

Consequently, the research question we are interested in is:

"How do enforcement authorities in Sweden interpret IFRS and what impact does that have on enforcement processes?"

To address the highlighted gap and answer our research question, the concept of epistemic communities is used as a theoretical perspective, together with the findings from the broad existing literature exploring the transition to IFRS. Black (2002) argues that in order to understand rules and regulations epistemic communities are formed, defined as communities of actors who share the same principled beliefs and values, hence interpreting issues similarly. By conducting an exploratory, qualitative case study, using the enforcement process of HQ Bank AB and interview data from the EBM, we analyse the enforcement authorities' interpretations of IFRS in order to identify epistemic communities, and problematise the findings to the context of enforcement.

In our findings, we have identified three epistemic communities based on the authorities' interpretations. The altering interpretations can, according to us, be due to the influence from experts that seems to be essential for the authorities to validate knowledge, hence impacting their decisions. The authorities in epistemic community A refer to each other as source of expertise, whereas for community B and C, external experts physically present in trials seems to have high impact on the authorities' decisions. However we argue that relying on experts is subjective, and find it paradoxical that one important source of expertise has not been used, namely the expertise from the European Securities Market Authority (ESMA). Furthermore, our findings problematise the difficulties for enforcers to pursue valuation cases when using principles-based standards, supported by our empirical evidence where two enforcement authorities valued the same asset with a significant difference of SEK 140 million.

The thesis is structured as follows. In the first section we provide an overview of the existing research made on the transition towards IFRS. After this we present our theoretical perspective as well as our theoretical framework used in the analysis. This is followed by a section covering the research method. In section four, the background context of HQ Bank AB is presented, followed by the case analysis consisting of the authorities' decisions in the enforcement process and the interview data from the EBM. After presenting our empirical findings, we analyse these and discuss our main insights. We conclude by summarising our main discussion points and elaborate on how we contribute to previous literature. Finally, we acknowledge the limitations of our study and make suggestions for future research.

2. Literature review

In order to answer our research question, this section will present the existing literature that supports the study. As the research focusing on enforcement in the presence of interpretation differences is limited, we use findings from various areas concerning the transition to IFRS in order to give analytical support to our theoretical perspective. In section 2.1, the literature discussing the benefits of IFRS is presented, followed by existing research on the problems caused by the standards' nature, the challenges of implementation and the concerns raised about enforcement. In section 2.2, the analytical perspective of epistemic communities is presented. The theoretical framework, based on an integration of the literature in section 2.1 and 2.2, is presented in section 2.3 and will be used to analyse our empirics.

2.1 IFRS transition

2.1.1 Accounting harmonisation

The rise of IFRS

The transition to IFRS is referred to as the biggest change within accounting in Europe in the last 30 years (Jermakowicz & Gornik-Tomaszewski, 2006). Increased globalisation of markets and political forces has resulted in an increased demand for accounting information that is internationally comparable and transparent to primarily investors (Ball, 2016; Carmona & Trombetta, 2008; Gillis, Petty & Suddaby, 2014; Nobes & Alexander, 2016). With the aspiration of creating a single European stock market, the EC issued in 2002 Regulation No. 1606/2002 (the IAS regulation) that required all listed companies to adopt the standards for fiscal years starting in 2005 (Jermakowicz & Gornik-Tomaszewski, 2006; Soderstrom & Sun, 2007). However, seeking global harmonisation in accounting has been on the agenda long before 2005. After World War II, in the late 1950s, the term harmonisation of global standards was first introduced as a response to the economic integration and increased flow of capital across borders (Financial Accounting Standards Board, 2018). In 1973, the International Accounting Standards Committee was formed and several IAS were issued up until 2001 when the body was restructured into the IASB of today. Since the first version of IFRS was released, the construction of the framework has been a dynamic process with continuous development of new standards and amendments.

Expected benefits of implementing uniform accounting standards

In 2005, the expectations of implementing the standards were high and the expected benefits were promoted by market participants of all ranges, including politicians, managers, financial analysts, the press, accounting firms and academics (Ball, 2016). The following benefits were, and still are, to be expected with IFRS implementation:

- I. Lower risk levels because investors are provided with more accurate, comprehensive and timely information (Ball, 2006; Nobes & Zeff, 2008).
- II. Improved conditions for smaller, often less informed investors due to higher quality of information, reducing the adverse selection issue (Ball, 2006).
- III. Increased market efficiency due to improved international comparability and reduced information processing costs, which also enable cross-border business opportunities (Alexander & Alon, 2017; Ball, 2006; Etnyre & Singhal, 2011; Hail, Leuz & Wysocki, 2010; Walton, 2009)
- IN. Indirectly, a reduced cost of equity capital due to higher quality of information, less risk and lower return requirements from investors (Ball, 2006; Daske 2006; Kim, Shi & Zhou, 2014; Nobes & Zeff, 2008; Walton, 2009).

Although the standards were aimed to provide the benefits mentioned above, several issues have also been raised. One concern discussed in previous research is the principles-based nature of the standards and the problems it may cause, such as manipulations of financial statements. The next section provides an overview of this research area.

2.1.2 The nature of the standards

A catch-22 and a double-edged sword

In general, accounting standards aim to harmonise accounting practice through providing definitions of accounting concepts in order to guide judgements made in practice (Hronsky & Houghton, 2001). The difficulty of creating a clear rule for every imaginable accounting event (Gillqvist, 2016), is the underlying reason for the principles-based construction of IFRS, and is necessary for achieving the aim of global adoption (Carmona & Trombetta, 2008). In the discussion of whether it is to prefer an accounting system that is based on rules or built on principles, the dialogue often centres on relevance and reliability. A rules-based framework, where there is only one correct accounting treatment, leaves no room for judgement calls or interpretations. This results in equal accounting practice among preparers and consequently high reliability of the financial statements. As opposed, a principles-based

framework aims to create more relevance through timelier reporting, which requires preparers to make estimates and own classifications, compromising the reliability (Schipper, 2003)¹. Hoogendorn (2006) refers to this trade-off as a catch-22 and argues that since IFRS intentionally leaves room for interpretation, there will be unavoidable diversity in practices. However, trying to avoid the diversity in practice in turn promotes a rules-based method, as Donelson, McInnis and Mergenthaler (2012) mention: *"Many standards begin with a simple principle, but ultimately begin to take on rules-based characteristics"* (p. 1250).

On a similar note, Maines et al. (2003) refer to the principles-based standards as a doubleedged sword. The authors argue that although managers are allowed to choose the accounting treatment that reflects their informed understanding of the underlying economics of a transaction, the standards also permit managers to choose the accounting treatment that does not reflect the underlying economics of a transaction. In order to achieve financial reporting that reflects the underlying economics, they argue that managers and auditors must possess both expert judgement and a desire for unbiased reporting (Maines et al., 2003). In close relation to this is the discussion of the effect market liquidity has on the reliability of the reporting. The volatility in the market can have large impacts on the fair value reported in the financial statements, and illiquid markets create opportunities for managers to manipulate their financial statements as they can influence the choice of models and estimates used to assess the fair value (Ball, 2006). However, even without managers' incentive to manipulate the statements, illiquid markets impose problems. Since it forces managers to make judgements, and such judgements will be based on past, diverse experiences, differences in accounting practices are not unexpected. Further, the principles-based nature of IFRS was a central discussion point during the financial crisis of 2009. Managers of financial institutions argued that the use of fair value accounting was unrealistic and even amplified the crisis, since there was no intention to sell the assets valued at market value on their balance sheets (André, Cazavan-Jeny, Dick, Richard & Walton, 2009). Other market participants argued that the method rather shed light on issues that should have been discovered sooner and that IFRS assisted the market to adjust in time (Andre et al., 2009).

Previous research has also discussed if it is even appropriate to label standards rules-based or principles-based, since regulations often is a combination of rules and principles, or as

¹ Looking at the terminology used to describe the difference between rules and principles, Nelson (2003) argues that "rules include specific criteria, 'bright line' thresholds, examples, scope restrictions, exceptions, subsequent precedents, implementation guidance etc.", whereas principles-based standards refer to "fundamental understandings that inform transactions and economic events" (Carmona & Trombetta, 2008).

mentioned above, transform over time from being built on principles into being more rulesbased (Donelson et al., 2012; Gillqvist, 2016; Schipper, 2003). Nevertheless, the majority of the studies make a distinction of principles-based and rules-based when analysing the IFRS transition.

2.1.3 Implementation challenges

Organisational level

Two interesting studies that both engage in the discussion above about the principles-based nature of the standards, but which also contribute with new perspectives on how organisations perceive the transition to IFRS, are the studies made by Jermakowicz and Gornik-Tomaszewski as well as Weaver and Woods. Looking back in time, Jermakowicz and Gornik-Tomaszewski (2006) researched companies that were complying with the standards for the first time. The result from the 112 listed companies that responded to their survey shows that the general opinions were that it is a costly, burdensome and complex process to adopt IFRS, in line with Hoogendorn (2006). Two standards on financial instruments, IAS 32 and IAS 39, were regarded as especially complex to implement. Furthermore, the companies reported inadequate implementation guidance, lack of uniformed interpretation, poor previous knowledge and non-existing training of how to use the framework as challenging.

Drawing upon the study of Jermakowicz and Gornik-Tomaszewski (2006), Weaver and Woods (2015) examined the operational challenges that emerged during the transition phase in individual companies. In their qualitative study, with a sample consisting of six auditors and eight consultants, contrasting results to Jermakowicz and Gornik-Tomaszewski (2006) are found. It is not the complexity of IFRS and complying with certain standards that are mentioned as the major issues. Instead support from top management, the inability to identify and respond to wider business-related implications of the transition, problems with gathering enough information to report under IFRS and, as Jermakowicz and Gornik-Tomaszewski (2006) also conclude, insufficient education and training are mentioned as most challenging. Summarising, Weaver and Woods (2015) conclude that organisations were under-prepared for the transition to IFRS.

Besides from the studies by Jermakowicz and Gornik-Tomaszewski and Weaver and Woods, several researchers mention the problems accountants and auditors encounter when complying with IFRS. Specifically, how IFRS forces them to change their mind-set and

develop new skills as the principles-based framework is a mismatch to their previous experience and education in rules-based national generally accepted accounting principles (Ball, 2016; Carmona & Trombetta, 2008; Jermakowicz & Gornik-Tomaszewski, 2006; Schipper, 2003; Weaver & Woods, 2015). Carmona and Trombetta (2008) discuss this tension and further argue that accountants not only need to change their mind-set to make judgements, they also need to gain extensive knowledge of the operations and economics of the businesses they work within. Auditors have, on the other hand, another problem to solve. Hoogendorn (2006) argues that the complexity of IFRS requires auditors to be deeply involved in the process of preparing the financial statements since the companies lack sufficient expertise to prepare them independently, which can compromise their objectivity. To summarise, companies and auditors have experienced several implementation issues, however problems have been encountered on a national level as well.

National differences

As of today, more than 125 countries worldwide use IFRS in their financial reporting (IFRS Foundation, 2018). Although a large number of countries have adopted IFRS, national implementation issues still exist and Ball (2006) refers to this as the standards' Achilles heel. This is widely discussed in previous research, mainly focusing on the accounting differences that still occur both between and within countries even though IFRS is implemented (André, 2017; Ball, 2006; Carmona & Trombetta, 2008; Ding, Hope, Jeanjean & Stolowy, 2007; Holthausen, 2009; Hoogendorn, 2006; Kvaal & Nobes, 2010; Nobes, 2006, 2013).

Ball (2006) argues that there will continue to be international differences in accounting practices since deep-rooted political and economic factors that influence the incentives for financial statement preparers remain local. National political and economic dimensions such as the legal system, the extent and nature of government involvement in the economy, depth of the financial market and the role of the press all persist in a local context, not in a global one. He argues that uniform financial reporting would only occur in a world with perfectly integrated markets and political systems. Nobes (2006) extends the discussion and introduces two main factors, motives and opportunities, which obstruct international accounting harmonisation. First, in line with Ball's theory, nations will have different motives not to adopt IFRS and thus continue with their own accounting practices. These motives depend on the countries' financial, legal and tax systems as well as the desire to minimise the burden for preparers and users to transition to IFRS. In regards to opportunities, Nobes (2006)

concludes, similarly to Ball (2006), that pre-existing practices will have a large impact on the financial statements prepared with IFRS, and that the principles-based nature of IFRS will result in interpretation differences (Nobes, 2006).

2.1.4 Enforcement

IASB - The toothless watchdog

In the IAS regulation, the following statement can be found:

A proper and rigorous enforcement regime is key to underpinning investors' confidence in financial markets. Member States [...] are required to take appropriate measures to ensure compliance with international accounting standards. (European Commission, 2002, paragraph 16)

In light of the statement above, an issue that is repeatedly discussed in previous literature concerning enforcement is the structure of IASB as a standard-setter but not in possession of an enforcement mechanism for its standards (Ball, 2006; Holthausen, 2009; Nobes, 2013; Soderstrom & Sun, 2007). This means that the organisation can encourage and push for IFRS adoption, but not demand enforcement in practice or penalise misuse (Ball, 2006). Enforcing compliance is a national issue, and as a consequence, many of the researchers active in this area are very sceptical if IFRS will de facto lead to accounting harmonisation (Ball, 2006; Holthausen, 2009; Nobes, 2006; Soderstrom & Sun, 2007). As Ball (2006) puts it, IASB is a toothless watchdog that nations will most likely not obey if its practices do not suit their own economic and political agenda.

Litigation

Soderstrom and Sun (2007) further problematise the lack of a unified enforcement mechanism and connect it to the principles-based nature of IFRS. The authors argue that since IFRS will not (or cannot) cover all accounting situations that potentially can occur, together with the room for interpretations of the principles, it is the legal system that in the end will assure reporting quality. Since legal systems vary between countries, differences both in enforcement practices and reporting are inevitable. Schipper (2003) contribute to the discussion and argues that the lack of implementation guidance supplementing principles-based standards causes two other enforcement problems. First, detailed guidance and rules-based systems reduce the difficulties for enforcers in after-the-fact disagreements over a given accounting treatment. Secondly, clear rules protect companies against litigation. The

idea that rules-based standards protect firms against litigation is supported by the research made by Donelson et al. (2012). The evidence from their empirical testing provides confirmation of the Protection Theory, which states that it is difficult for plaintiffs to argue the occurrence of a violation if firms do not publicly admit to a misstatement, due to the lack of discovery. If firms do admit to a violation, they can blame it on the complexity of the rules-based standards due to "*the volume of implementation guidelines, exceptions and high level of details*" (p. 1248).

2.1.5 Concluding remarks highlighting the identified research gap

To conclude, previous research studying the transition towards IFRS has explored the benefits of implementing the standards, the interpretation differences that may arise due to the nature of the regulations and the challenges the framework imposes for preparers and auditors. In terms of national adoption, it is questioned if implementing IFRS will lead to accounting harmonisation in reality, as pre-existing forces will continue to impact accounting practices on a local level. In regards to enforcement, it is concluded that principles-based standards are more difficult to enforce and that clear rules are to be preferred by all parties involved. Additionally, concerns are raised about the absence of a uniformed enforcement mechanism enforcing compliance of IFRS. However, we believe that there is more to add to this discussion, as Ball (2016) stated the following in one of his recent articles:

The Law of Unintended Consequences reminds us that purposeful intervention in a complex system normally leads to unanticipated outcomes, both good and bad, however well intentioned the intervention may be. So it would be surprising if a substantial system intervention like IFRS did not lead to some blind alleys. (p. 558)

We argue that the research area concerning enforcement is one of those blind alleys not being explored enough as of today. More specifically, we have identified a gap in the literature, as previous research has not problematised the enforcement pressure put upon individual jurisdictions in the presence of potential interpretation differences. We want to address this gap by using the enforcement process involving HQ Bank AB as empirical data. This has been an extensive IFRS enforcement process in Sweden, involving several authorities, all playing important roles independently and interdependently. The authorities' interpretations of IFRS have been essential for the outcome of the process, and in order for us to analyse these interpretations we use the theoretical perspective of epistemic communities, presented in the following section.

2.2 Theoretical perspective: Epistemic communities

2.2.1 Definition of epistemic communities

To understand rules and regulations, Black (2002) argues that the formation of "interpretative communities" is critical to enable interpretations to be made. She clarifies that this is not unique to written laws, but that legal language may be more complex in nature and consequently demands training to understand it. When relating to practitioners, these interpretative communities can be referred to as "epistemic communities". The term was first introduced by Ruggie in 1975, but became popularised through Haas' analysis of epistemic communities in international relations in 1992 (Christensen, Newberry & Potter, 2010). In the first generation of research starting in 1992, epistemic communities are distinguished from other groups through the "combination of having a shared set of casual and principled beliefs, a consensual knowledge base, and a common policy-making aim" (Himick & Brivot, 2018, p. 4). In accounting research, the concept of epistemic communities has recently begun to attract attention from researchers, often in the context of policy-making (Durocher & Gendron, 2014; Gillqvist, 2016; Himick & Brivot, 2018; Lovell & MacKenzie, 2011). In this thesis, we apply the concept to the context of enforcement, and use the definition proposed by Black (2002):

Epistemic communities are networks of knowledge-based communities with an authoritative claim to policy-relevant knowledge within their domain of expertise. They are characterized by shared values or principled beliefs as to the normative rationales for social action, shared understandings of the nature of a problem and of causal linkages between possible policy actions and desired outcomes, intersubjective and internally defined criteria for validating knowledge; and a common policy enterprise. [...] Epistemic communities could be seen as a particular form of interpretive community: in addition to sharing linguistic practices and normative commitments, members of epistemic communities are professionals, and share a technical knowledge as to causes and effects and a common policy enterprise. (p. 189, including note 128.)

Epistemic communities thus have different perspectives when interpreting various issues. However, according to Gillqvist (2016), actors within one community can easily convert to another, as well as belong to the same community as other actors with different backgrounds and occupations. Nevertheless, in order to achieve effective regulation and thus attain norms and practices, Black (2002) argues that it is important to reach certainty in interpretations.

2.2.2 Epistemic communities and effective regulation

Certainty is achieved once there is a sufficient level of mutuality in the interpretations made. It is especially important that "*the body that has the power to determine interpretations and impose sanctions for breach*" (p. 179) does not have a completely different interpretation than other actors, otherwise the effectiveness of the enforcement process is compromised (Black, 2002). This seems to be supported by Gillqvist who argues that shared agreements on how to read accounting standards are central for their enforceability (Gillqvist, 2016). Increasing the precision of rules is often considered a solution to avoid disparities, however, Black (2002) argues that such an act often results in new complications such as "rule overload" and "rule system complexity", in line with the research of Donelson et al. (2012), and instead focus should remain on reaching mutuality in interpretations.

In the context of enforcement in Sweden, Gillqvist (2016) conducts a study of the enforcement body Nasdaq Stockholm where she analyses regulatory conversations regarding three different accounting standards. By questioning the assumption that an enforcement body must be "independent" to be an effective regulator, she concludes instead that the enforcement body must cooperate with other relevant actors in order to increase its influence on accounting practice. Therefore, she argues that it is critical that the enforcement body is properly staffed, so that "those who execute enforcement of accounting standards are comparable to their counterparts, in terms of knowledge levels, professional backgrounds and familiarity with accounting issues discussed." (Gillqvist, 2016, p. 245). Gillqvist (2016) further finds evidence of the difficulty for an international body to gain attention from local communities, as the enforcement extracts of the European Enforcers Coordination Sessions (EECS) were seen merely as examples of possible opinions rather than authoritative answers to accounting issues. We find these conclusions interesting and believe that they can be compared and contrasted to our empirical findings. Below we present the theoretical framework, used to analyse the empirics.

2.3 Theoretical framework

We argue that the theoretical perspective of epistemic communities, defined by Black (2002) as communities of actors who share the same principled beliefs and values, can be used to study interpretations of IFRS. We apply the concept to enforcement, to analyse the interpretations made by the involved authorities in the enforcement process of HQ Bank AB.

Analysing their interpretations is interesting as both Black (2002) and Gillqvist (2016) argue that shared agreements and mutuality in interpretations are important to understand written laws, and central for the enforceability.

Using this theoretical perspective, we aspire to contribute to the current research gap problematising the enforcement pressure of IFRS put upon individual jurisdictions in the presence of potential interpretation differences. This will be achieved by answering our research question: *"How do enforcement authorities in Sweden interpret IFRS and what impact does that have on enforcement processes?"* To be able to answer our research question, the concept of epistemic communities is given analysing support from the broad existing literature studying the transition to IFRS. Due to the limited research studying the impact of interpretation differences in the context of IFRS enforcement, we will use findings from the research areas presented in section 2.1 as we argue that these are relevant for our empirical setting.

For instance, the challenges that preparers encounter such as the complexity of IFRS, lack of education, insufficient implementation guidelines and no uniform interpretations (Jermakowicz & Gornik-Tomaszewski, 2006; Weaver & Woods, 2015), can according to us also be used in the context of enforcement. Additionally, the studies problematising the subjectivity in interpretations (Hoogendorn, 2006; Maines et al., 2003; Schipper, 2003), can be applied to other actors than solely managers trying to manipulate financial statements (Ball, 2006). Furthermore, we argue that gaining extensive knowledge in order to make judgements is not only a hassle for preparers and auditors (Carmona & Trombetta, 2008) but also for other actors, such as enforcement authorities, deeming to interpret the standards. Relatedly, it may not only be companies that need to rely heavily on external expertise to comply with IFRS when their own knowledge is limited (Hoogendorn, 2006). Finally, the research arguing that differences in accounting practices between countries will always occur if we have domestic enforcement processes that are rooted in dissimilar legal systems (Nobes, 2006; Soderstrom & Sun, 2007) can be extended and further problematised. By applying these theories, together with the other theoretical conclusions in section 2.1, to the context of enforcement we can problematise the existence of different epistemic communities and contribute with new findings.

3. Research method

In this section we present our research method. We start off by presenting our research setting and design in section 3.1, followed by a description of how the data was collected in section 3.2. In section 3.3 we present how the data was analysed and in section 3.4 we disclose our delimitations. Finally, in section 3.5 we problematise the quality of the study.

3.1 Research setting and design

According to Edmondson and McManus (2007), the archetypes of methodological fit in field research can be divided into three different categories depending on the state of prior research; nascent, intermediate and mature. A number of qualitative studies have explored the adoption of IFRS, but these have primarily been focused on the perspective of preparers, auditors and investors. Only a limited amount of research concerns the topic of IFRS enforcement and the enforcement authorities, thus we consider this a nascent research field. Due to the limited knowledge of this context in previous literature, a qualitative, in-depth single case study was found appropriate in order to get as close as possible to the phenomenon of interpretation differences in an enforcement process and reach a deeper understanding of the case of interest (Dyer & Wilkins, 1991; Edmondson & McManus, 2007). We also believe studying enforcement issues to be favoured by a qualitative research approach due to the complexity and nature of the subject.

3.1.1 Research approach

According to Eisenhardt and Graebner (2007), there are two types of research approaches, deductive and inductive. The aim of an inductive approach is to generate new theories from empirical data, while the aim of a deductive approach is to use empirical data to test a theory. An abductive approach combines the two, as it formulates a theoretical foundation similarly to the deductive approach, tests the predictions empirically in line with the inductive approach, and then continuously iterates between theory and empirics to develop the theory (Dubois & Gadde, 2002). Due to the exploratory nature of this study and the nascent state of the existing research, an abductive approach was found appropriate.

Consequently, the study was initiated by a comprehensive literature review, in order to generate an understanding of the research field and generate a theoretical framework. During the data collection, the literature and theoretical framework were continuously revised, based

on interesting empirical findings contrasting existing theories. The scope of the data collection has been changed when new empirical or theoretical findings have been identified. The abductive approach has proven valuable, as it has guided the process and enabled us to continuously analyse the empirical findings and allowed the theories and empirics to shape each other.

3.1.2 Case selection

Our selection of the enforcement process concerning HQ Bank AB² was based on several considerations. Firstly, both the civil and the criminal case are two of the most extensive economic prosecution cases in Swedish history, and the acquittals have raised discussions in the media about the Swedish legal system and IFRS adoption. Secondly, as we are interested in studying the enforcement of IFRS, the enforcement process of HQ Bank AB was a natural choice as it concerns several authorities and their interpretations of IFRS in a Swedish setting. To further strengthen the analysis, we decided to interview relevant professionals at the EBM involved in the prosecution process to further problematise the enforcement pressure of IFRS put on individual jurisdictions. The data from the decisions of the six enforcement authorities combined with the interview data, depict an interesting empirical setting that has not yet been studied in the research field of IFRS enforcement, making the enforcement process of HQ Bank AB ideal to provide an empirical contribution.

3.2 Data collection

The empirical data was derived in two ways, through analysing the six authorities' decisions and through conducting interviews with relevant professionals at the EBM. The primary data collection has been made through a qualitative text analysis of the authorities' decisions regarding the valuation of the trading portfolio in HQ Bank AB. A comparison between the different parties' statements and arguments has been made to analyse the differences in the interpretation of IFRS. It should be noted that the various authorities have had different objectives and reasons for commenting on the issue, however all have commented on the valuation of the trading portfolio. One of the key issues for authorities to determine was if the bank had, to the maximum, used market inputs when valuing its financial instruments according to IAS 39 paragraph 48A with the application guidelines in AG69-82³. The

 $^{^{2}}$ HQ Bank AB is a subsidiary of HQ AB, and while the enforcement process has involved both companies, the trading portfolio in HQ Bank AB is of focus in this thesis.

³ See appendix for the full version of the paragraph and corresponding guidelines.

published decisions from the six enforcement authorities are presented below in chronological order.

- The Swedish Financial Supervisory Authority decision of August 28, 2010 diary no. 10-7854, which entails the decision to revoke HQ Bank AB's banking license.
- II. The Nasdaq Stockholm decision 2011:1 of May 19, 2011, consisting of the decision made by the disciplinary committee.
- III. The Swedish Inspectorate of Auditors decision of October, 18 2011 diary no. 2010-1391, consisting of a disciplinary decision against the auditor of HQ Bank AB.
- IV. The ESMA/2013/444 report from April 3, 2013, including the reference to EECS/0113-08 - Disclosures related to fair value of financial instruments.
- V. District Court judgement of June 21, 2016 in case B 15982-11, which is the criminal case involving HQ Bank AB and HQ AB.
- VI. District Court judgement of December 14, 2017 in the civil case T 9311-11 concerning HQ AB.

In a text analysis, the text should be carefully read in its entirety and in the context in which it is included (Esaiasson, Gilljam, Oscarsson, Towns & Wängnerud, 2017). Thus, applicable regulations and publicly available documents regarding HQ Bank AB and HQ AB's operations, and information regarding the various accounting and enforcement authorities in Sweden, as well as internal documentation of the EBM, have been explored to understand the setting of the enforcement process. The findings from these studies are presented in the empirical section. Further, according to Esaiasson et al. (2017), appropriate selections of the text should be chosen and systemised by logical order to understand the essential aspects of the complex content. Therefore, the decisions are systemised according to their associated epistemic community.

We chose semi-structured interviews as our secondary data collection method, as this gave us flexibility to explore areas of interest throughout the interview process, and to capitalise on the expertise and experiences of our interviewees. Our sponsor at the EBM introduced us to three relevant interviewees at the EBM. These will be remained anonymous throughout the thesis and referred to as Respondent A, B and C. In addition, one interview was held with an accounting expert at the FI, to get an external perspective of the work of the EBM and the connection between the two authorities and their combined efforts towards enforcement of IFRS. In total, five in-depth semi-structured interviews were conducted between December

2017 and May 2018. The interviews lasted between 60-90 minutes each and were conducted in person. All interviews have been recorded and transcribed. The interview questions were based on the reviewed literature, applicable accounting regulations and the case of HQ Bank AB. Furthermore, the questions were refined throughout the process once empirical data was collected to be able to provide additional insight to the subject.

3.3 Data analysis

The analysis of the empirical data can be separated into three phases. The initial focus was to investigate the criminal case concerning HQ Bank AB in detail. A conclusion from this analysis was that the prosecutor and the defendants' experts interpreted IFRS differently. This led us into the literature of Black (2002) and Gillqvist (2016), concerning the importance of mutual interpretations and the concept of epistemic communities. These theories broadened our perspective and inspired us to look at the entire enforcement process instead. Thus, we decided to analyse all decisions published by the various enforcement authorities involved in the case, with the focus on their interpretation of IAS 39.

Next, in the qualitative text analysis of the authorities' decisions, the different interpretations were compared and contrasted against each other. Esaiasson et al. (2017) argue that it is especially fruitful in a text analysis to compare similarities and differences of statements made by various actors and show how different facts are framed. Through analysing the authorities' interpretations of the standards, we concluded that altering opinions existed. We examined which authorities experienced mutuality in interpretations, and thus identified epistemic communities.

In the final phase, the text analysis and the interview data were combined in order to analyse the topic comprehensively. The data gathered from the interviews was compared to the issues identified in the text analysis, and the findings were further analysed from the perspective of epistemic communities and linked to previous literature on the topic of IFRS transition.

3.4 Delimitations

This study is delimited to examining the enforcement process of a Swedish company. Before the company was liquidated, it was listed on the Stockholm Stock Exchange and in possession of a license to conduct banking business, implying that the company had to follow Swedish law and additional regulations applicable to credit institutions. This study concerns the involved enforcement authorities' opinions regarding the bank's compliance with IFRS that was prevalent at the time, and in particular whether the bank had violated the regulations when valuing its trading portfolio. To be able to make comparisons, we have deliberately focused on objectively analysing the authorities' interpretation of IAS 39 paragraph 48A and its applicable guidelines. Although the full extent of the enforcement process includes the company's compliance with other applicable regulations, such as capital requirements, as well as other parts of the company's operations besides from the trading department, such as the bank's risk management, these issues will not be elaborated on in this thesis. As all these factors impact the authorities' decisions, we will not analyse the decisions in their entirety.

3.5 Data quality

This study is of interpretive nature, as it is characterised by having the aim of understanding a unique phenomenon (Lukka, 2014). In interpretive research, there is a strong reliability of the interpretations and theorisation made by the researcher of the studied phenomenon, and consequently this type of research is often associated with a degree of subjectivity (Lukka & Modell, 2010). In order to improve the validity of our study, we have followed the suggestion by Lukka (2014) and used an abductive research approach, as it ensures that the empirics are well grounded in theory.

In addition, qualitative case studies involve the risk of containing biased data. According to Hoholm and Araujo (2011), interviewees may see a linear path when looking at a past process, and lose the view that events could have easily turned otherwise. Hence, it was important to interview several professionals at the EBM and ask similar questions to the interviewees, as well as cross-check the collected data to public documents and internal documentation of the authority. However, the majority of the data collected consists of public enforcement authorities' decisions, reducing the risk of biased empirics.

4. Case analysis

In this section we present the empirical findings of our study. In the first section, the context of our company of interest is provided. In section 4.2 we first present an overview of the enforcement process, followed by the decisions made by the authorities involved, systemised according to their associated epistemic community. This is followed by a presentation of the data collected during the interviews with the professionals at the EBM.

4.1 Background and context

4.1.1 The history of the HQ AB Group

In 1981, the Swedish business executive Sven Hagströmer founded the financial company Sven Hagströmers Fondkommission. The company, renamed to Hagströmer & Qviberg once Mats Qviberg joined as a partner in 1990, was listed on Nasdaq Stockholm in 1992. In 2006, as the company received a license to conduct banking business from the FI, it was renamed HQ AB and the subsidiary HQ Bank AB was formed. The difference between the holding company and the bank was blurry, as HQ AB did not have any operating activities and shared the same CEO and board of directors as HQ Bank AB. By the end of 2009, the group had 300 employees and assets worth more than SEK 12 billion (HQ AB, 2009).

4.1.2 HQ Bank AB's troublemaker

In 2010, HQ Bank AB was divided into the business areas private banking, asset management and investment banking. Within the investment banking division the trading department could be found. The trading portfolio, funded by own capital, consisted of financial instruments such as stocks, stock options, index futures and stock market index options in OMX⁴ and DAX⁵. The bank's strategy for the stock market index options was to take long index option positions in DAX with a short maturity, in order to hedge the short positions taken in OMX with a long maturity, under the assumption that OMX and DAX were fully correlated (Finansinspektionen, 2010).

⁴ Stock market index consisting of the 30 most actively traded Swedish companies on the Stockholm Stock Exchange.

⁵ Stock market index consisting of the 30 most actively traded German companies on the Frankfurt Stock Exchange.

When valuing its European options, the bank used the Black & Scholes option model. According to IAS 39, a company should value its financial assets and liabilities to fair value⁶. The best evidence of fair value is quoted prices in active markets. If an active market is not evident, the company should estimate a fair value by using a valuation technique that makes maximum use of market inputs, i.e. that includes "[...] recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value or another instrument that is substantially the same, discounted cash flow analysis, and option pricing models" (European Commission, 2011, p. 14). According to IFRS 7, companies are also required to disclose the methods and assumptions applied in determining the fair value.⁷ When using a valuation technique, companies must accept the assumption of going concern, i.e. the valuation should not be based on prices obtained during a forced liquidation or in other unfavourable sales situations. Due to the principles-based nature of the standards, companies are required to make own judgements, for instance regarding what is to be defined as an active market.

If HQ Bank AB's trading department assessed that an active market existed for the instruments, implicit volatility⁸ was used in the option valuation. If an active market was not prevalent, theoretical volatility, or historic straight volatility⁹, was calculated and used instead. The decision to use historic straight volatility was based on two assumptions. First, the bank had adopted the assumption of mean-reversion, meaning that if the volatility of the underlying asset deviates from the historic values it is seen as a temporary deviation and should not result in a revaluation of the instrument. Secondly, the bank used an interpretation of the going concern principle built on the logic that as the bank would continue its trading activities, the estimated future value of an instrument was more accurate than the market value at the time of valuation, since the implicit volatility would at that point be in line with the historic straight volatility. When the bank opened an option position that was regarded to be trading on an inactive market, the company immediately revalued its position using the

⁶ The definition of fair value is "the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction." (European Commission, 2011, p. 5)

⁷ IFRS 7 presents a fair value hierarchy consisting of three levels of inputs: 1) quoted prices for similar instruments, 2) inputs other than quoted prices, that are observable for the asset or liability, either directly or indirectly or 3) inputs that are not based on observable market data. (European Commission, 2012)

⁸ Implicit volatility is the market's perception of the volatility of the underlying asset.

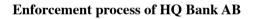
⁹ Historic straight volatility means that the company had the same volatility percentage for the options with the same underlying assets and time of expiration, regardless of the strike price of the option.

theoretical model. If the value presented by the model deviated from the market value, a socalled day-one-outcome¹⁰ was reported.

The trading division had experienced great success in the past, but in the later part of the 2010s, the division became the bank's troublemaker. The trading strategy, together with unstable market conditions, resulted in heavy losses and in 2009 the trading division alone reported a negative result of SEK 29 million. On May 17, 2010, a special board meeting was held in HQ AB where the decision to force a liquidation of the trading portfolio was taken. The forecasted cost was between SEK 0-500 million, but HQ AB quickly discovered that it would cost significantly more than expected. On June 29, 2010, when the liquidation of the portfolio was completed, the total cost amounted to SEK 1.23 billion (HQ AB, 2010).

4.2 The extensive enforcement process

The major loss caused by the liquidation of HQ Bank AB's trading portfolio marked the starting point of almost a decade long enforcement process involving HQ Bank AB and several enforcement authorities. The timeline below visualises this process and the authorities involved.



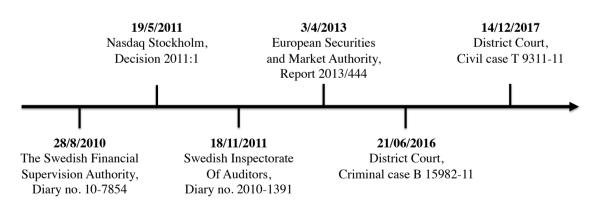


Figure 1. The enforcement process of HQ Bank AB.

¹⁰ If the fair value differs from the transaction price at initial recognition, an entity should recognise the resulting gain or loss as income or expense if, and only if, a specified observability criterion is met. If not, an entity measures the financial asset or liability at fair value, adjusted to defer the difference between the transaction price and the initial fair value. (European Commission, 2011)

The central issue that all authorities had to express their view on was if HQ Bank AB's trading portfolio was incorrectly valued, based on the IFRS regulation prevalent at the time, IAS 39¹¹. In particular, the authorities had to determine if the bank had, to the maximum, used market inputs when valuing its financial instruments according to IAS 39 paragraph 48A with the application guidelines in AG69-82. Based on each authority's interpretation, three epistemic communities have been identified, and labelled as community A, B and C. In this section their interpretations are presented and contrasted.

4.2.1 Community A: HQ Bank AB has violated IAS 39

The first identified epistemic community, community A, consists of the FI, the disciplinary committee of Nasdaq Stockholm¹² (Nasdaq), The Swedish Inspectorate of Auditors¹³ (Revisorsinspektionen [RI]) and the ESMA. These four authorities share the understanding that HQ Bank AB has violated IAS 39. The authorities and their decisions are outlined in detail below, starting with the FI who was the first authority to publish their decision, followed by Nasdaq, the RI and the ESMA in chronological order.

The Swedish Financial Supervision Authority

The responsibility for the enforcement of financial information in Sweden is regulated in the Swedish Securities Market Act (SFS 2007:528). The purpose of enforcement is to protect investors and strengthen confidence in the securities market. The law states that the FI bears the ultimate responsibility for the enforcement of financial information. At 11 A.M. on August 28, 2010, the FI announced that they had decided to revoke HQ Bank AB's license to conduct banking business and requested a liquidation of the company. In the decision, the authority explained that they had found severe shortcomings in the bank's trading division, causing the bank to be undercapitalised. The following statement can be found the decision:

The bank has during a long period of time overvalued its trading portfolio rigorously, which consequently has had an incorrect impact on the bank's reported financial position in the external reports. A correct valuation would have resulted in the bank being undercapitalised since 2008. The bank has thus violated both accounting regulations as well as capital requirements. (Finansinspektionen, 2010, p. 3)

¹¹ The standard was introduced in January 2006, later replaced by IFRS in 2013, and outlines the requirement for recognition and measurement of financial assets and liabilities.

¹² Nasdaq Stockholm was renamed from Nasdaq OMX Stockholm in 2014.

¹³ Revisorsinspektionen was renamed from Revisorsnämnden in 2017.

The FI reached the conclusion that the bank had overvalued its trading portfolio through conducting an investigation that analysed the valuation technique used for the instruments. The following is stated in the appendix of the decision:

The investigation demonstrates that HQ Bank AB has on 31 December 2009 concluded that the market has been inactive for approximately 98 per cent of all instruments in the trading portfolio. Furthermore, the bank has used a valuation technique for approximately 70 per cent of the instruments that is based on unobservable market input data, i.e. classified in the third level of the fair value hierarchy. (Finansinspektionen, 2010, pp. 31-32)

Once the FI had analysed how the bank valued the instruments, the authority performed an independent analysis of the market activity. They found contradicting facts to the bank's analysis of the availability of market data, and consequently concluded that the bank had violated IAS 39 and overvalued its portfolio, as demonstrated in the following extract:

For most of the instruments that have been placed in the third level, the FI has concluded that market data regarding the volatility of put and call options were available. Sometimes even market transactions for the same instruments were available, which the bank has not used. Consequently, the FI concludes that the bank has violated IAS 39 paragraph 48A when valuing a significant part of its financial instruments classified to level three by not using available market information to the largest possible extent. The FI estimates that the bank has overvalued its trading portfolio by SEK 632 million in December 2009. Further, the bank has not calibrated the accuracy of the valuation technique by comparing it to observable market data, which is another violation of IAS 39 paragraph 48A. (Finansinspektionen, 2010, pp. 31-32)

The Disciplinary Committee of Nasdaq Stockholm

Although the FI is responsible for enforcement, the authority has delegated the actual enforcement procedures to the stock exchanges Nasdaq Stockholm and Nordic Growth Market, which monitor issuers' release of information to the market (Nasdaq Stockholm, 2018; Nordic Growth Market, 2018). The stock exchanges have disciplinary committees that investigate suspicions raised by the surveillance department and issue decisions with potential sanctions if breaches against the exchange's regulations have been made (SFS 2007:528). On November 26, 2010, HQ AB was delisted from the Nasdaq Stockholm upon their own request. Nevertheless, in 2011, Nasdaq decided to inspect if HQ AB had violated IFRS for the financial year of 2009. The following can be found in the decision:

The disciplinary committee notes, in line with the FI's investigation, that HQ AB has for approximately 70 per cent of its trading portfolio used a theoretical valuation technique with unobservable market inputs, i.e. a valuation of the third level, even though market inputs for the instruments classified in the third level were available. Consequently, the disciplinary committee believes that HQ AB has violated IAS 39 paragraph 48A by not using market inputs to the maximum for the instrument classified as level three. Furthermore, the bank has not met the requirement in IAS 39 48A to calibrate the accuracy of the valuation technique by using observable market data. (Nasdaq Stockholm, 2011, p. 3)

Accordingly, both the FI and Nasdaq concluded that the bank had violated IAS 39 paragraph 48A when valuing a significant part of its financial instruments by not using available market information to the maximum. The inspection by Nasdaq resulted in HQ AB being imposed to pay a fine of SEK 480,000.

The Swedish Inspectorate of Auditors

Besides revoking HQ Bank AB's banking license and requesting a liquidation of the company, the FI also reported HQ AB's responsible auditor to the RI for his auditing of the external reports for the financial years of 2008 and 2009. The responsibility of the RI is to determine if the auditor has fulfilled his obligation in accordance with generally accepted auditing standards, which in turn largely depends on the information the auditor has disclosed about the auditing. The aim of the investigation is thus not to conclude if HQ Bank AB had followed IFRS correctly, however the decision is interesting to include as it touches upon the valuation and reporting of the trading portfolio. The investigation states the following:

The auditing of HQ Bank AB's involves complex issues about the valuation of the trading portfolio and the reporting of day-one-outcomes. The reporting of the day-one-outcomes appears to the Swedish Inspectorate of Auditors to be in conflict with IAS 39 AG76A. The auditor has commented on the issue, stating that he investigated it and concluded that since only a small amount of the financial instruments were valued with unobservable market data, the bookkeeping practice did not cause any significant error in the annual report, which the RI accepts. He has thus not been obliged to comment on this in his audit report. However, the RI concludes that the auditor should have documented his considerations regarding the reporting of day-one-outcomes. (Revisorsinspektionen, 2011, pp. 29-30)

The RI thus concludes that the bank violated IAS 39 AG 76A. However, as the auditor did not consider this violation to have significant impact on the annual report, which the RI finds trustworthy, he was not obliged to mention it in his auditor report. Nevertheless, the RI declares that the auditor should have documented this consideration, and left him with a disciplinary measure in the form of a reminder, which is the mildest form of a disciplinary action.

The European Securities and Market Authority

The ESMA is responsible for coordinating the enforcers of IFRS in Europe (European Commission, 2002). On a regular basis, the ESMA publishes extracts from a database belonging to the European Enforcers Coordination Sessions (EECS), consisting of enforcement decisions taken by individual European enforcers. The aim of the publication is to provide "[...] issuers and users of financial statements with relevant information of the appropriate application of the International Financial Reporting Standards (IFRS)" (European Securities and Markets Authority, 2013, p. 3). In the ESMA's 13th report, published in April 2013, the decision taken by Nasdaq regarding HQ Bank AB is presented. First, the ESMA presents HQ Bank AB and the decision taken by the FI to revoke the license.

The issuer is a holding company that carries out banking activities through a subsidiary. In 2010, the prudential regulator withdrew the banking license of the subsidiary for breaches of the banking regulations, especially regarding: risk management procedures in its trading activities, valuation of the derivatives and consequent failures to correctly calculate and report the capital requirements of the bank. (European Securities and Markets Authority, 2013, pp. 15-16)

Regarding the valuation of a portfolio consisting of financial instruments, the ESMA clarified their view of the applicable accounting standard, IAS 39, through the following statement:

IAS 39 paragraph 48A states that the best evidence of fair value is quoted prices in an active market. The relevant guidance on valuation is found in IAS 39 paragraph AG76, which requires a valuation technique to incorporate all factors that market participants would consider in setting a price and to be consistent with accepted economic methodologies for pricing financial instruments. In addition, IAS 39 requires an entity to calibrate the valuation technique and test it for validity using prices from any observable current market transactions in the same instrument or based on any available observable market data. (European Securities and Markets Authority, 2013, pp. 15-16)

After explaining the applicable legislation, the ESMA referred to the investigation made by the FI and highlighted the availability of market data. They agreed on the view that the trading portfolio was materially overstated, as can be seen in the extract below:

The investigation by the prudential regulator showed that there was market information on the instruments available for all trading days during 2009 and the first quarter of 2010 and that there were market transactions for part of the instruments held at times close to the issuers reporting dates. There were doubts raised about the valuation model used, but the enforcer did not pursue this further as the availability of market information already clarified that level 3 categorisation was not appropriate. Consequently, the trading portfolio was materially overstated as at 31 December 2009, relative to a valuation based on market observable inputs. (European Securities and Markets Authority, 2013, pp. 15-16)

Since the ESMA published the decision by Nasdaq in their 13th report, as well as referred to the FI, they support the opinions of both authorities regarding the bank's violation of IAS 39. Thus the three authorities, together with the RI, can be labelled as an epistemic community.

4.2.2 Community B: HQ Bank AB has not violated IAS 39

The second identified epistemic community, community B, consists of the first district court, ruling in the criminal case B 15982-11. This authority had the understanding that HQ Bank AB did not violate IAS 39, contradicting the statements made by all members of the first epistemic community. The criminal case and the district court's decision is explained in detail below.

District Court - Criminal Case no. B 15982-11

The authorities belonging to community A are all involved in the process of enforcement of financial information and can penalise misuse and impose sanctions. However, in case of a potential criminal offense, none of those authorities can pursue a legal prosecution. The authority that is responsible for prosecuting economic crime in Sweden is the EBM. It is a specialised authority within the public prosecution service that is involved in intelligence gathering, investigation, prosecution and the court process (Ekobrottsmyndigheten, 2018). The term economic crime covers a wide range of different types of crime such as tax evasion, accounting fraud, market abuse and insider trading. After the FI's decision in 2010, a collaboration between the FI and the EBM was immediately initiated. The collaboration lasted for almost five years, until January 9, 2015, when EBM chose to prosecute four of the

active board members as well as the auditor. The charges involved gross bookkeeping crime and swindling. The criminal case was settled in court one year later, and the final verdict was given on June 21, 2016. During the legal process, the prosecutor shared the same opinion as the members of community A, as can be seen in the statement by the district court in the verdict:

The prosecutor has emphasised that the historic straight volatility that the trading division has used when valuing its options does not constitute as observable market data in accordance to IAS 39, and consequently day-one-outcomes are not allowed to be directly accounted for in the profit and loss statement. (Stockholm District Court's judgement case B 15982-11, pp. 135-140)

However, the district court listened to both sides during the court process, and after listening to the defendants' side, the district court shared the opinion of the defendants' expert Professor Kallunki, that historic straight volatility could be considered to be observable market data. The following can be found in the verdict:

According to the district court, IAS 39 and especially AG82 (f), permits that historic volatility in the underlying asset used in the Black & Scholes valuation model is considered to be observable market data. It does not exist any statement that historic volatility in the underlying asset is not considered observable market data in neither IAS 39 nor in its preparatory work. The court thus concludes that historic volatility for a stock market index, when valuing a stock market index option to fair value, is included in the term "historic market inputs" mentioned in VT82 (f). Since the volatility in the underlying index is considered observable market data, it is deemed reasonable that historic straight volatility in index series is also in accordance with IAS 39. The underlying index actually only displays historic volatility, regardless of the strike prices of options associated with the index. (Stockholm District Court's judgement case B 15982-11, pp. 135-140)

It is evident that the district court had another opinion than the prosecutor and instead shared the view of the defendants' expert. The prosecutor did not use external expertise in the trial but referred to the decisions made by the FI, Nasdaq and the RI, as well as referred to a statement from KPMG UK as evidence. However, the court disregarded the statement made by the KPMG UK, as they did not consider it legally binding and that it concerns other circumstances than the specific case in question. The district court hence concluded the following:

Historic straight volatility in the underlying stock market index is considered observable market data in accordance with IAS 39, and consequently such input data is allowed to be

used when valuing a stock market index option if the market is not active. This means that the unrealised gains/losses arising from these valuations are in accordance with IAS 39 AG76 and AG76A. (Stockholm District Court's judgement case B 15982-11, pp. 135-140)

Contradicting the statements made by all members of community A, the district court concluded that historic straight volatility in the underlying stock market index is considered observable market data and hence could be used if the market is not active, meaning that the bank's valuation technique was in accordance with IAS 39.

4.2.3 Community C: HQ Bank AB has violated IAS 39, but differently

The third epistemic community, community C, consists of the second district court, ruling in the civil case T 9311-1. This authority had the understanding that HQ Bank AB violated IAS 39, thus in accordance to community A and contradicting to community B, but with another interpretation than community A. The civil case and the district court's decision is explained in further detail below.

The District Court - Civil Case no. T 9311-1

When HQ Bank AB lost its license and the company was liquidated, the shareholders of the holding company HQ AB, were put in an unfavourable position. As a consequence, the board of HQ AB was replaced and a civil case was initiated against the former board members, the auditor, the auditor's firm KPMG, and the former majority owner Investment AB Öresund. The charges involved infliction of damage and repayment of illegal dividends. The case was settled in court on December 14, 2017 and resulted in a 2,604 pages long verdict. Similarly to the other decisions, the valuation of the trading portfolio was in the centre of the civil case, but in this trial the district court was presented to experts from both sides, providing their view on the valuation. The district court stated the following regarding the bank's valuation technique:

The bank used a theoretical valuation model, the Black & Scholes, to value all options with an estimated volatility as input data. The valuation was highly influenced by the historic theoretical volatility that the bank had decided on, which created room to deviate from the market's perception about the value of the financial instrument at the time of valuation. The bank had no internal guidance on how to determine the historic volatility. The volatilities and henceforth the valuations have been liberally made, influenced by subjective assumptions, with the aim to find the volatility level that provided the

theoretical value that the bank had in mind, without any clear connection to the available market prices prevalent at the time of valuation. (Stockholm District Court's judgement case T 9311-11, pp. 82-91)

As can be seen above, the district court questioned the objectivity of the bank's methods, and argued that the bank could have tweaked the assumptions used to achieve the most favourable outcome. The court further outlined its viewpoint on the use of straight volatility, and the following can be found in the verdict:

Without any consideration of how the volatility was decided, the bank used straight volatility, i.e. the same volatility was used for all options with the same underlying asset and time of expiration. The assumption of straight volatility was not in accordance of IAS 39 48A since the valuation should be made option by option according to the paragraph stating *"If the market for a financial instrument is not active, an entity establishes fair value by using a valuation technique"*. This is due to the fact that within one series of options (for example options with the same underlying asset and time of expiration), options with different strike prices can be traded either on an active or an inactive market, thus the activity need to be determined for each option. (Stockholm District Court's judgement case T 9311-11, pp. 82-91)

The district court's view of the use of straight volatility differs from both community A and B. The district court argued that the use of straight volatility was not in accordance with IAS 39, similarly to community A, by reason of the fact that the valuation should be made option by option, which was not discussed within either community A or B. Further, the court commented on the valuation of the portfolio, which can be seen in the following statement:

The district court acknowledges that the bank has not used observable market prices to the maximum and henceforth incorrectly valued its trading portfolio. Consequently, since the bank reported all valuation changes regardless if the valuation was made with observable market data or not, it has violated IAS 39 AG76. The bank has neither fulfilled the requirements according to IAS 39 paragraph 48A to calibrate the accuracy of the valuation technique. The district court concludes that the trading portfolio was overvalued with SEK 492 million at the end of 2009. (Stockholm District Court's judgement case T 9311-11, pp. 82-91)

As can be seen above, the district court argued that the bank had not used market inputs to the maximum, as the bank did not value the options separately, or determined the market activity for each option. Instead, they used the same volatility for all options with the same underlying asset and time of expiration, regardless of their strike prices. Hence, the bank had

overvalued the trading portfolio, and according to the district court the overvaluation amounted to SEK 492 million. The district court further placed the overvaluation in relation to the entire holding of the trading portfolio at the end of 2009, which, according to the annual report, amounted to SEK -934 million. A correct valuation would imply that the value of the portfolio was approximately SEK -1,426 million.

4.2.4 Concluding notations regarding the epistemic communities

From the empirical data consisting of the decisions of the six authorities involved in the enforcement process of HQ Bank AB, three epistemic communities with different interpretations of the accounting standard have been identified. Two of the communities, community A and C, agree on that the bank has violated IAS 39, but they interpret the standard differently. The outlier, community B, argues that the valuation is in accordance with the standard. Since the EBM was responsible for the prosecution leading up to community B's opinion, the next section incorporates the view of the authority.

4.3 Interviews with the Swedish Economic Crime Authority

The enforcement process involving HQ Bank AB, and especially the two district court cases, has gained wide attention in the media. It has been publicly questioned how the two district courts could reach such different conclusions. Once the process was over, the EBM also wondered what really went wrong in the prosecution, especially as their view was supported by the civil court verdict. Below, the empirical data from the interviews with the professionals at the EBM is presented.

4.3.1 Problems when pursuing valuation cases

When the EBM initiated the criminal case against HQ Bank AB, the initial focus was to prosecute on the basis of an incorrect value of the bank's trading portfolio. However, the authority changed prosecutor in the middle of the preliminary investigation, and as the new prosecutor had noted an error in the bank's valuation method and bookkeeping practice for its financial instruments, the focus of the investigation shifted.

When asked why the valuation question was dropped, it was mentioned in the interviews that valuation cases, where you base your charges on an incorrect value of an asset, are difficult since the authority needs to verify what the true value should be. The authority also needs to

contend criminal intent, and it is not easy to prove that someone has deliberately valued an asset incorrectly. Respondent B noted: "We started with valuation questions, but my experience with these kind of questions is that you immediately walk on thin ice. Then there is never one right or wrong answer." Respondent A problematised the issue further and commented:

There are always two different opinions when it comes to valuation questions. If we are prosecuting a case where we claim that a certain valuation of an asset is incorrect, the defendant will always find an auditor or professor somewhere telling that their value is correct. That is what happened in HQ. [...] The general opinion in-house is that we should watch out for valuation cases.

4.3.2 The risk of entering a battle between experts

As the case of HQ Bank AB regards IFRS, questions were raised if the authority hires IFRS experts when encountering this framework, and Respondent B said:

There was a discussion some years ago if the EBM should buy expert help from external auditors but then the question is: who do we buy this help from? Should we go to KPMG? Should they suddenly represent the prosecution side, which is normally their counterpart? Which auditor would be willing to do so? Because if you are working as an auditor for KPMG and also help the EBM with some cases, would that be a merit when you apply for a new job later? I don't think so.

He explained that they do hire professionals from the financial markets to leverage on their experiences and gain relevant in-house expertise, but problematised the fact that as time passes, their expertise becomes out-dated. Additionally, since the authority is seldom involved in IFRS cases, the need for specific IFRS experts is limited. In the criminal case against HQ Bank AB, the defendants' side had two experts helping them with the case, whose statements the district court continuously refers to in the verdict. The EBM chose not to utilise any experts and in hindsight this decision has been questioned, as maybe the outcome would have been different. Respondent B said: *"We did not want any battle between experts in the courtroom. Since it is our side that institute a claim, we thought that it becomes weird if we were to be relying on an external expert."*

4.3.3 Two different valuations, but not too different

Since previous literature often makes a distinction about principles-based and rules-based standards, questions were asked about if the EBM perceive IFRS as more difficult to interpret and work with than Swedish regulations. The nature of the two regulations was not seen as contrasting in the interviews. Rather, the interviewees' perception was that the Swedish regulations are also of the principles-based nature. They argued that it is important that the regulation is as neutral as possible, since not all accounting events can be regulated. During the court process, the defendants continuously referred to the argument that two companies can value the same asset differently. When we asked the respondents to comment on this, it was a shared agreement that of course two companies can differ in their valuation, but the valuations must be in accordance with current regulations. For example, a valuation difference up to SEK 1 million could be understandable for an asset with an estimated fair value of SEK 500 million, but a difference of SEK 100 million could be considered a misuse of the system. Respondent B had an additional comment on the principles-based nature of the standards, and problematised the authority's resistance towards pursuing valuation cases:

I understand that it is difficult to write laws, if you write them too specific then it is very clear what you rule out. Then it is never a judgement call. [...] However, sometimes you write in the legislation that issues will solve themselves by praxis, but I mean, if we don't pursue any valuation cases for instance, then we will never have any praxis.

Hence, the authority seems be caught in a catch-22, as the difficulty of pursuing successful valuation cases creates a resistance to initiate them, and this resistance in turn makes it more difficult to win cases due lack of guiding praxis.

5. Discussion

In this section we will continue the analysis of the empirical data by using the theoretical framework in order to answer our research question presented earlier: "*How do enforcement authorities in Sweden interpret IFRS and what impact does that have on enforcement processes*?" In section 5.1 we summarise the identified epistemic communities and discuss the findings in relation to previous literature. In section 5.2, we problematise the reliance on experts and section 5.3 contextualises the findings with regards to valuation cases.

5.1 The identified epistemic communities

Previous research has stated that accounting differences will still occur both between and within countries even though IFRS has been implemented (André, 2017; Ball, 2006; Carmona & Trombetta, 2008; Ding et al., 2007; Holthausen, 2009; Hoogendorn, 2006; Kvaal & Nobes, 2010; Nobes, 2006, 2013), and that harmonisation of financial information will be compromised by pre-existing local forces of nations (Ball, 2006; Nobes, 2006). The empirical findings of this study show evidence of differences within a country, as it exists diverse interpretations among enforcement authorities.

To manage regulatory language and enable interpretations, Black (2002) argues that actors need to form "interpretative communities", or epistemic communities. By using this theoretical perspective of epistemic communities, we have been able to map the authorities' decisions based on their view of the valuation of HQ Bank AB's trading portfolio. We have identified three epistemic communities, labelled community A, B and C. The communities, their interpretations of IAS 39 and their interplay are summarised in the table below.

	Authority	Opinion regarding the valuation	Referred to	Referred to by
Community B Community A	FI	The bank violated IAS 39 paragraph 48A when valuing a significant part of its financial instruments classified to level three by not using available market information to the maximum. The FI estimates that the bank has overvalued its trading portfolio by SEK 632 million in December 2009.	1	All
	Nasdaq	The bank violated IAS 39 paragraph 48A when valuing a significant part of its financial instruments classified to level three by not using available market information to the maximum.	1	All subsequent
	RI	The bank has violated IAS 39 AG76 when reporting day-one-outcome not valued using observable market data.	1	Both district courts
	ESMA	Supports the opinions of both the FI and the Nasdaq regarding the violation against IAS 39 48A.	×	None
	District Court Criminal Case	Historic straight volatility in the underlying stock market is considered observable market data according to IAS 39 AG82(f) and could be used if the market is not active, meaning that the valuation was in accordance with IAS 39 48A.	1	District court in civil case
Community C	District Court Civil Case	The bank did not used observable market prices to the maximum and thus valued the portfolio incorrectly according to IAS 39 48A. More specifically, the options should have been valued separately and the market activity should have been determined for each option, instead of using the same volatility for all options. The district court concludes that the trading portfolio was overvalued with SEK 492 million at the end of 2009.	×	None

Figure 2. Identified epistemic communities, their interpretations and interplay.

We find it interesting that community A consists of authorities involved in the IFRS supervision and enforcement process as defined by the IAS regulation and the Swedish Securities Market Act (SFS 2007:528), together with the RI. In contrast, community B and C consist of the district courts, which are responsible for the legal part of enforcement. It thus seems as if the members of the district courts share another type of understanding of the nature of the problem. We find this logical, when thinking of the pre-existing knowledge the lay judges in the district courts possess, i.e. from attending law school and participating in previous legal cases, compared to the accounting- and financial markets expertise pertaining to the members of the FI, the ESMA, the RI and Nasdaq. Additionally, we argue that the causal linkages between possible policy actions and desired outcomes (Black, 2002) differ between the district courts and the other authorities, which may impact their interpretations. As the aim of the FI, the RI, the ESMA and Nasdaq is primarily to increase the quality of financial information for investors and ensure a well-functioning financial market, it varies from the aim of the district courts, which is to determine if a criminal act has been committed. Consequently, the evidentiary burden differs and the policy action decided upon has altering consequences, which can potentially affect their way of interpreting the standards.

Since the FI, the ESMA, the RI and Nasdaq share similar motives and backgrounds and belong to the same epistemic community, one could assume that the interpretations of the two district courts should also be in accordance with each other. However, this is not the case, as the two district courts' decisions are remarkably different. We argue that the district court in community B interprets IFRS from another angle than both community A and C, that this decision takes a more strict "legal perspective". By this we refer to the court's statement: "it does not exist any statement that historic volatility in the underlying asset is not considered observable market data in neither IAS 39 nor in its preparatory work. The court thus concludes that historic volatility for a stock market index [...] is included in the term "historic market inputs" [...]", i.e. if not explicitly mentioned in the law, it cannot be ruled out, in line with the legality principle¹⁴. In contrast, we argue that the interpretations made by community A and C takes a more "fundamental view", meaning that since the underlying logic of IAS 39 is to estimate fair value using market data to the maximum, and HQ Bank AB has used their theoretical model with own subjective assumptions even though market data was available, the bank has consequently not complied with the standard. We argue that the more strict legal perspective becomes problematic when using principles-based regulations, as these do not entail detailed guidelines and rules. The reasons for the district courts' altering interpretations could be due to differently defined criteria for validating knowledge, which is further elaborated on in the following section.

5.2 Reliance on experts

Jermakowicz and Gornik-Tomaszewski (2006) and Weaver and Woods (2015) found in their organisational studies that lack of education and uniform interpretation of IFRS were perceived as compliance issues for companies. This is supported by Hoogendorn (2006), who concluded that companies are forced to rely heavily on their auditors due to the complexity of IFRS and lack of expertise in-house. Furthermore, Carmona and Trombetta (2008) problematised the requirement for preparers to gain extensive knowledge of the operations of the business they work within in order to make adequate judgements according to IFRS. As mentioned in the theoretical framework in section 2.3, we argue that these findings from an organisational context can also be applied to the enforcement process of HQ Bank AB and the identified epistemic communities.

¹⁴ The legality principle is one of the ground pillars of the Swedish legal system, which states that no one can be convicted of a crime if the action is not explicitly prohibited by the law.

One empirical observation is how the authorities in community A referred to each other in their decisions. Consequently, it is noted that the authorities relied on the previous authority's published decision as a source of expertise. In contrast, the two district courts consulted external experts during the trials, indicating reliance on another type of expertise. It could be that the internally defined criteria for validating knowledge is different within community A than in community B and C. In the criminal case, the prosecutor shared the opinion of community A and referred to the decisions of the FI, the RI and Nasdaq in the prosecution, and deliberately had no help from an external expert. The district court did however choose to listen to, and ruled in accordance with, the opinions of the experts provided by the defendants' side. We find it peculiar that the district court valued the insights from one external expert from the defendants' side more than the knowledge from the prosecutor at the EBM as well as the expertise of the RI, the FI, Nasdaq and KPMG UK, which the prosecutor referred to in the trial. Contrastingly, the district court in the civil case listened to experts from both sides, and came to another conclusion than the district court of the criminal case. We conclude that it seems as if referring to other experts' statements are not enough, rather the experts need to be physically present in the trial, claiming their viewpoint, to impact the opinion of the lay judges.

Empirically, it is thus evident that authorities' reliance on experts, whether it is other authorities' decisions or statements from external professionals, has significant impact on the interpretation of IFRS. We argue that since the panel of lay judges in the district courts are not IFRS experts and since they are only allowed to form their judgement based on the facts presented in the trials¹⁵, it is natural that their opinions are heavily impacted by the facts presented by practitioners claiming to be experts, in line with Hoogendorn's findings (2006). Considering that companies found IAS 39 to be one of the most complex standards to comply with (Jermakowicz & Gornik-Tomaszewski, 2006), we argue that it is not surprising that the court relies heavily on the expertise presented in the trials. The authorities in community A, that form their judgement based on previous authorities' decisions, can partly be due to lack of in-house expertise and education (Hoogendorn, 2006; Jermakowicz & Gornik-Tomaszewski, 2005) or be a matter of resources as they avoid the extensive process of gathering information on their own (Carmona & Trombetta, 2008). It could also assist the authorities to gain power to their decision, in line with Gillqvist's (2016)

¹⁵ According to the principle of immediateness, which is one of the ground pillars of the Swedish legal system, the judgement of courts can be based solely on what has occurred during the main hearing.

findings that an enforcement body can increase its own influence by cooperating with other relevant actors.

Drawing from the interview data, we argue that the reliance on experts is subjective and becomes problematic if the experts only represent one side of an issue, not having someone questioning their claim. The EBM believed in hindsight, and after reading the civil case verdict, that a different decision could have been made in the criminal case if the EBM also had hired experts. However, respondent B highlighted the difficulties for the EBM to use experts, as the prosecutor should be the one instituting a claim and taking in experts would result in a battle between experts. Further, it appeared difficult for the EBM to recruit inhouse expertise, as the area of IFRS is not within their main area of operations, and the expertise of newly hired employees quickly becomes out-dated. Connecting this to the findings of Gillqvist (2016), this becomes problematic, as it is essential for the enforcement authority to be properly staffed in order to be familiar with the accounting issues discussed. We conclude that this is an important issue to solve, as it will be utterly difficult for the EBM to enforce compliance with IFRS without external help validating their claim, since the courts seems to rely heavily on experts during trials. As Soderstrom and Sun (2007) argue that it is the legal system that in the end will ensure reporting quality, it is of outmost importance that those experts impacting the legal system have valid interpretations of IFRS. A similar conclusion can be made to the authorities in community A. If these rely heavily on each other's expertise, it is important that the authority that takes the first decision is correct.

Additionally, another empirical finding that we find surprising in this enforcement process is the negligence of mentioning the ESMA's publication of Nasdaq's decision in the district courts. As the IASB is frequently criticised for not having an enforcement body of their own (Ball, 2006; Holthausen, 2009; Nobes, 2013) a solution was in the EU to establish the ESMA to help promote harmonisation, and one way to do so is for the authority to publish extracts from its database (ESMA, 2018). As the aim with the ESMA's publication is to provide praxis of appropriate application of IFRS for the members of the EU, we find it paradoxical that the nation, where the original decision was taken, does not even use the ESMA's statement in their own legal process involving the exact same case. We argue that this is troublesome as the power of IFRS only exist when all nations interpret the standards coherently, which is in line with Gillqvist's (2016) research as she argues that equal interpretations of the standards are necessary for their enforceability. Connected to the argumentation of Ball (2006), that the IASB is a toothless watchdog that nations will most likely not obey if its practices do not suit their own economic and political agenda, maybe the same logic applies for the ESMA. Why the district courts did not consider the ESMA's publication is unknown, but we believe that this is either due to the fact that the district courts had no knowledge about the publication, or the power of the publication is negligible, as the authority does not belong to their epistemic community. This is in line with the observations of Gillqvist (2016) who noted the difficulties for an international enforcement body to gain attention from the local communities. However, we argue that the superior IFRS expert in the EU and within nations would naturally be the ESMA, regardless of which epistemic community the enforcement authority belongs to. The district courts would, in our view, benefit greatly by having guidance from the ESMA, as it could nuance the interpretations made from external experts in the trials. Especially when looking at the outcome of this enforcement process, as it now exists two contradicting verdicts, thus making it confusing of which interpretation companies and authorities should adhere to for praxis in the future.

5.3 Difficulties of valuation cases

Ball (2006) predicted that market illiquidity would be a problem area in terms of subjectivity when managers can influence the choice of valuation models and input variables. As illustrated in the empirical section, Ball's prediction was right. However, we argue that market illiquidity and subjectivity in using a theoretical valuation model is not only a managerial manipulation problem, it also imposes problems for the different authorities involved in the enforcement process, which have no incentives of manipulating the numbers. Making assumptions about which input variables to use, and determining if the market is active or not, have significant effects on the estimated fair value. This is evident in the empirics when looking at the valuations performed by the authorities, as the FI overvalued HQ Bank AB's trading portfolio in the end of 2009 with SEK 632 million and the district court in the civil case with SEK 492 million. In line with previous research (Donelson et al., 2012; Hoogendorn, 2006; Maines et al., 2003; Nobes, 2006; Schipper, 2003), this empirical example, where two authorities can value the same assets differently by SEK 140 million, and far differently from the company owning the assets, is an excellent example of a problem encountered due to the interpretation differences that can occur between epistemic communities using a principles-based framework. We argue that if the standards should allow such altering interpretations to be made, the requirement of extensive disclosure is essential

in order for investors and other stakeholders to have at least the opportunity to validate the numbers.

The valuation difference of SEK 140 million is interesting, as one of the core themes in the interviews with the professionals at the EBM centred around the resistance to pursue valuation cases. This resistance seemed to be due to several reasons, and in particular the fact that if the EBM would press charges based on an incorrect valuation, the authority considers it necessary to demonstrate what the true value should be. Thus, the EBM would need to develop their judgement-skills, to be able to pursue valuation cases (Ball, 2016; Carmona & Trombetta, 2008; Jermakowicz & Gornik-Tomaszewski, 2006; Schipper, 2003; Weaver & Woods, 2015), and gain extensive knowledge of the business operations in order to make adequate judgements about market volatility for instance, as in the case of HQ Bank AB (Carmona & Trombetta, 2008). Additionally, in order to get a conviction the valuation needs to be accurate, without reasonable doubt, and the prosecutor must provide evidence that the company has intentionally violated the standards.

The resistance towards pursuing valuation cases is problematic according to respondent B, since praxis is important to interpret legislation, which is supported by the enforcement strategy of the ESMA. Further, it is interesting to analyse the resistance of pursuing valuation cases considering the discussion in previous research on how rules-based standards is beneficial for all parties in an enforcement process (Donelson et al., 2012; Schipper, 2003). Schipper (2003) mention that rules-based regulations reduce the difficulties for enforcers in after-the-fact disagreements over a given accounting treatment, which seems to be supported by our empirical findings. However, their second conclusion, which they share with Donelson et al. (2012), that rules-based regulations protect companies from litigation, can be questioned. Donelson et al. (2012) conclude that companies can blame a violation of rulesbased standards due to the complexity, caused by "the volume of implementation guidelines, exceptions and high levels of details". The empirical findings of this thesis support the contradicting view, that companies are protected by principles-based standards. First, the vagueness of the standards can shield companies from being convicted of an intentional violation, as they can point at an innocent interpretation dissimilarity. Secondly, it is difficult for a prosecutor to achieve a conviction as there will always be some opposing expert inflicting uncertainty for the court, hindering them to convict the company's valuation as incorrect without reasonable doubt.

As a final note, we believe that the valuation issue identified in the enforcement context is a perfect example of an unintended consequence of implementing IFRS that has not gained enough exploration. Since the aim of IFRS is to provide mainly investors with more accurate information to generate transparency and possibilities to compare the financial performance of companies (Ball, 2006, 2016; Carmona & Trombetta, 2008; Gillis et al., 2014; Nobes & Alexander, 2016; Nobes & Zeff, 2008), but our empirical setting shows that the enforcement authorities cannot even agree on the appropriate application and consequently value the same trading portfolio differently by SEK 140 million, one can question how accurate this information really is for investors (Ball, 2006).

6. Conclusion

When the EC decided to implement the IAS regulation in 2002, the responsibility for the enforcement process, to ensure that companies comply with the new regulations, was allocated to the individual nations. In this study, we explore the identified research gap problematising this responsibility in the presence of potential interpretation differences. We make an empirical contribution to this discussion by analysing the enforcement process in Sweden, using the case of HQ Bank AB. The concept of epistemic communities has been used together with previous studies problematising the transition towards IFRS and its implementation, to analyse this enforcement process and enable us to answer our research question.

The enforcement process of HQ Bank AB involves six authorities, with different roles and objectives. However, all have formed their standpoint one the same issue, the valuation of the bank's trading portfolio. Through analysing the decisions made by the authorities, we have been able to map them in regards to their interpretation of IFRS and consequently identified three different epistemic communities, labelled community A, B and C. Community A consist of the FI, Nasdaq, the RI and the ESMA. Community B consists of the district court ruling in the criminal case, and community C consists of the district court ruling in the civil case. Previous research has stated that harmonisation of financial information will be compromised by pre-existing local forces, thus accounting differences will still occur both between and within countries even though IFRS has been implemented. The empirical findings in this thesis show evidence of differences within a country, as there exist such diverse interpretations among the enforcement authorities.

In the enforcement process, the influence from experts seems to be essential for the authorities in validating knowledge, hence impacting their decisions. Consequently, we argue that this can be a reason for the prevalent interpretation differences. The authorities in community A refer to the each other as a source of expertise in their decisions, and the district courts seem to rely heavily on external experts physically present in the trials. Connected to previous research, we argue that this reliance on experts may be due to the complexity of IFRS, a resource question, lack of in-house expertise or that it serves the purpose of assisting the authorities in gaining power to their decisions (Carmona & Trombetta, 2008; Gillqvist, 2016; Hoogendorn, 2006; Jermakowicz & Gornik-Tomaszewski,

2006; Weaver & Woods, 2015). Furthermore, the empirical evidence that the ESMA's publication has not been taken into consideration during the two trials, either due to lack of knowledge of its existence or negligence of its power, we find paradoxical as it aims to demonstrate the appropriate application of IFRS (ESMA, 2018). The negligence could be explained by the fact that the ESMA belongs to another epistemic community than the district courts. However, we suggest that guidance from the ESMA would have been beneficial as Gillqvist (2016) contends that shared agreements in interpretations are essential for their enforceability. Our empirical setting supports this, as the legal praxis involving IFRS in Sweden prevalent at the moment is confusing with two contradicting verdicts.

We advocate that market illiquidity, and the subjectivity interpretations entail, may not only be a managerial manipulation problem, it is also a problem for the different authorities involved in the enforcement process. As we have demonstrated, the authorities in this empirical setting valued the same assets with a difference of SEK 140 million. We argue that if the standards should allow such altering interpretations to be made, the importance of disclosures becomes essential. In connection to this, there is a clear resistance towards pursuing valuation cases at the EBM. It seems as if this resistance is partly rooted in the extensive knowledge it requires of the defendant's business to make an accurate valuation, in line with Carmona and Trombetta (2008) and the difficulties to prove criminal intent when violating the standards. Thus, our empirical findings suggest that principles-based standards protect companies from litigation, contradicting the findings from previous literature. However, we argue that the resistance to pursue valuation cases becomes problematic, as praxis is important to interpret legislation for future cases. As a last word, in light of the prevalent valuation difference of SEK 140 million among the enforcement authorities, one can question how well IFRS has served its underlying purpose, to provide investors with more accurate information (Ball, 2006).

7. Limitations and suggestions for future research

The adopted research methodology is one of the main limitations of this thesis. While the use of qualitative single case study approach has enabled us to investigate the case of HQ Bank AB from an enforcement perspective in significant detail, it limits the generalisability of our findings. It would have been preferable to perform a multiple case study of several legal cases to enable comparisons to be made, however this was not feasible given the time constraint of this thesis. Further, the case is analysed from the perspective of the Swedish enforcement system, and as both regulations and the set up of enforcement systems may differ between countries, the generalisability of our findings to other countries may be limited. Another limitation is the subjectivity entailed within the opinions of the interview candidates. The interviewees chosen for this study were particularly relevant to the case of HQ Bank AB and the legal enforcement authority EBM, and they provided interesting perspectives. However, their perception of the case could be affected by the two district courts' verdicts, the public's opinion or what has been discussed in media.

The nascent state of current research within the field of IFRS enforcement, combined with the exploratory nature of our study, opens up for several interesting areas of potential future research. First and foremost, more studies could be performed on the case of HQ Bank AB, as the case is interesting from many perspectives such as governance, auditor reliance and the interpretation of law. Secondly, additional studies could be made on other legal cases in Sweden or in other countries, in order to make comparisons to this study. Further, this study has focused on the perspective of the enforcers, and the implications different interpretations of IFRS have on the enforcement process. An interesting extension could be to analyse potential solutions to bridge the gap in interpretations. Alternatively, to analyse the issue from the perspectives of an extended part of the enforcement chain such as the auditor. In this thesis, the auditor was excluded from the analysis as focus was placed on the official enforcement authorities. However, the auditor plays an important role in the implementation of IFRS and this perspective could provide additional insights.

8. References

- Alexander, D., & Alon, A. (2017). Layering of IFRS and Dual Institutionality of Accounting Standards in Belarus, *Accounting in Europe*, 14(3), 261-278. doi:10.1080/17449480.2017.1374547
- André, P., Cazavan-Jeny, A., Dick, W., Richard, C., & Walton, P. (2009). Fair Value Accounting and the Banking Crisis in 2008: Shooting the Messenger, *Accounting in Europe*, 6(1), 3-24. doi:10.1080/17449480902896346
- André, P. (2017). The Role and Current Status of IFRS in the Completion of National Accounting Rules – Evidence from European Countries, *Accounting in Europe, 14*(1-2), 1-12. doi:10.1080/17449480.2017.1319965
- Ball, R. (2006). International Financial Reporting Standards (IFRS): Pros and Cons for Investors, *Accounting and Business Research*, 36(sup1), 5–27. doi:10.1080/00014788.2006.9730040
- Ball, R. (2016). IFRS 10 Years Later, *Accounting and Business Research*, 46(5), 545-571. doi:10.1080/00014788.2016.1182710
- Black, J. (2002). Regulatory conversations, Journal of Law and Society, 29(1), 163-196.
- Carmona, S., & Trombetta, M. (2008). On the Global Acceptance of IAS/IFRS Accounting Standards: The Logic and Implications of the Principles-based System, *Journal of Accounting and Public Policy*, 27, 455–461. doi:10.1016/j.jaccpubpol.2008.09.003
- Christensen, H., Lee, E., Walker, M., & Zeng, C. (2015). Incentives or Standards: What Determines Accounting Quality Changes around IFRS Adoption?, *European Accounting Review*, 24(1), 31-61, doi:10.1080/09638180.2015.1009144
- Christensen, M., Newberry, S., & Potter, B. (2010). The Role of Global Epistemic Communities in Enabling Accounting Change Creating a More Business Like Public Sector, Accounting and the state: proceedings of the 6th Accounting History International Conference, Wellington, New Zealand, 18-20 August, Victoria University of Wellington, New Zealand.
- Daske, H. (2006). Economic Benefits of Adopting IFRS or US-GAAP Have the Expected Cost of Equity Capital Really Decreased, *Journal of Business Finance and Accounting*, 33(3–4), 329–373. doi:10.1111/j.1468-5957.2006.00611.x
- Ding, Y., Hope, O., Jeanjean, T., & Stolowy, H. (2007). Differences Between Domestic Accounting Standards and IAS: Measurement, Determinants and Implications, *Journal of Accounting and Public Policy*, *26*(1), 1–38.
- Donelson, D., McInnis, J., & Mergenthaler, R. (2012). Rules-Based Standards and Litigation, *The Accounting Review*, 87(4), 1247-1279. doi:10.2308/accr-10274

- Dubois, A. & Gadde, L. (2002). Systematic Combining: An Abductive Approach to Case Research, *Journal of Business Research*, 55(7), 553-560.
- Durocher, S., & Gendron, Y. (2014). Epistemic Commitment and Cognitive Disunity Toward Fair-value Accounting, Accounting and Business Research, 44(5), 630–655. doi:10.1080/00014788.2014.938012
- Dyer, W., & Wilkins, A. (1991). Better Stories, Not Better Constructs, to Generate Better Theory: A Rejoinder to Eisenhardt, *The Academy of Management Review*, *16*(3), 613-619.
- Edmondson, A., & McManus, S. (2007). Methodological Fit in Management Field Research, *The Academy of Management Review*, *32*(4), 1155-1179.
- Eisenhardt, K., & Graebner M. (2007). Theory Building From Cases: Opportunities and Challenges, *Academy of Management Journal*, *50*(1), 25-32. doi:10.5465/amj.2007.24160888
- Ekobrottsmyndigheten. (2018). *About Us.* Retrieved March 14, 2018, from https://www.ekobrottsmyndigheten.se/en/about-us/
- Esaiasson, P., Gilljam, M., Oscarsson, H., Towns, A., & Wängnerud, L. (2017). *Metodpraktikan: Konsten att studera samhälle, individ och marknad* (5th ed.), Stockholm, Sweden: Wolters Kluwer.
- Etnyre, V., & Singhal, P. (2011). The Effect of New International Accounting Standards on Firms from India and the US, *Academy of Accounting & Financial Studies Journal*, 15(3), 147–154.
- European Commission. (2002). *Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards*. Official Journal of the European Communities, OJ L 243 of 11.9.2002, 1-4.
- European Commission. (2011). International Accounting Standard 39 Financial Instruments: Recognition and Measurement, Retrieved May 12, 2018, from http://ec.europa.eu/internal market/accounting/docs/consolidated/ias39 en.pdf
- European Commission. (2012). International Financial Reporting Standard 7 Financial Instruments: Disclosures, Retrieved May 12, 2018, from http://ec.europa.eu/internal market/accounting/docs/consolidated/ifrs7 en.pdf
- European Securities and Markets Authority. (2013). *Report 13th Extract from the EECS's Database of Enforcement*, ESMA/2013/444, Retrieved May 5, 2018, from https://www.esma.europa.eu/sites/default/files/library/2015/11/2013-444.pdf
- Financial Accounting Standards Board. (2018). *About the FASB*. Retrieved February 16, 2018, from http://www.fasb.org/facts/

- Finansinspektionen. (2010). *FI Dnr 10-7854 Beslut om återkallelse av tillstånd*. Retrieved April 5, 2018, from https://www.fi.se/contentassets/a0e7584191924e9b91b4c0b5bbd230fa/beslut_hq_10-7854ny.pdf
- Gillis, P., Petty, R., & Suddaby, R. (2014). The Transnational Regulation of Accounting: Insights, Gaps and an Agenda for Future Research, *Accounting, Auditing and Accountability Journal, 27*(6), 894-902. doi:10.1108/AAAJ-07-2014-1757
- Gillqvist, A. (2016). Conversations on Accounting Practices A Study of an Enforcement Body in a Time of Regulatory Change (Doctoral dissertation, Stockholm School of Economics). Retrieved April 20, 2018 from https://www.hhs.se/contentassets/574f17c1efcf48daa6c6974a4dad5740/disscover_gillqvi st-12-september-2016_rev.pdf
- Hail, L., Leuz, C., & Wysocki, P. (2010). Global Accounting Convergence and the Potential Adoption of IFRS by the U.S. (Part I): Conceptual underpinnings and economic analysis, *Accounting Horizons*, 24(3), 355–394. doi:10.2308/ acch.2010.24.3.355
- Himick, D., & Brivot, M. (2018). Carriers of Ideas in Accounting Standard-Setting and Financialization: The role of epistemic communities, *Accounting, Organizations and Society, 66*(C), 29-44. doi:10.106/j.aos.2017.12.003
- Hoholm, T., & Araujo, L. (2011). Studying Innovation Processes in Real-Time: The Promises and Challenges of Ethnography, *Industrial Marketing Management*, 40, 933–939. doi:10.1016/j.indmarman.2011.06.036
- Holthausen, R. (2009), Accounting Standards, Financial Reporting Outcomes, and Enforcement, *Journal of Accounting Research*, 47(2), 447–458. doi:10.1111/j.1475-679X.2009.00330.x
- Hoogendoorn, M. (2006). International Accounting Regulation and IFRS Implementation in Europe and Beyond Experiences with First-Time Adoption in Europe, *Accounting in Europe*, *3*(1), 23–26. doi:10.1080/09638180600920087
- Hronsky, J., & Houghton, K. (2001), The Meaning of a Defined Accounting Concept: Regulatory Changes and the Effect on Auditor Decision Making, *Accounting*, *Organizations and Society*, 26(2), 123-139. doi:10.1016/S0361-3682(00)00020-9
- HQ AB. (2009). 2009 HQ AB Annual report. Retrieved May 5, 2018 from http://www.hqab.se/~/media/Files/H/Hqab/financial/2009/hq-2009-a4-hr-hogupplost.pdf
- HQ AB. (2010). 2010 HQ AB Annual report. Retrieved May 5, 2018 from http://www.hqab.se/~/media/Files/H/Hqab/financial/2010/hq-arsredovisning-2010.pdf
- IFRS Foundation. (2018). *About IFRS*. Retrieved February 18, 2018, from http://www.ifrs.org/about-us/who-we-are/#history

- Jermakowicz, E., & Gornik-Tomaszewski, S. (2006). Implementing IFRS from the Perspective of EU Publicly Traded Companies, *Journal of International Accounting Auditing & Taxation*, 15(2), 170–196. doi:10.1016/j.intaccaudtax.2006.08.003
- Kim, J., Shi, H., & Zhou, J. (2014). International Financial Reporting Standards, Institutional Infrastructures, and Implied Cost of Equity Capital Around the World, *Review of Quantitative Finance and Accounting*, 42(3), 469–507. doi:10.1007/s11156-013-0350-3
- Kvaal, E., & Nobes, C. (2010). International Differences in IFRS Policy Choice, Accounting and Business Research, 40(2), 173–87. doi:10.1080/00014788.2010.9663390
- Lovell, H., & MacKenzie, D. (2011). Accounting for Carbon: The Role of Accounting Professional Organisations in Governing Climate Change, *Antipode*, *43*(3), 704–730. doi:10.1111/j.1467-8330.2011.00883.x
- Lukka, K., & Modell, S. (2010). Validation in Interpretive Management Accounting Research, Accounting, Organizations and Society, 35(4), 462-477. doi:10.1016/j.aos.2009.10.004
- Lukka, K. (2014). Exploring the Possibilities for Causal Explanation in Interpretive Research, *Accounting, Organizations and Society, 39*, 559–566. doi:10.1016/j.aos.2014.06.002
- Maines, L., Bartov, E., Fairfield, P., Hirst, D., Iannaconi, T., Mallet, R., Schrand, C., Skinner, D., & Vincent, L., (2003). Evaluating Concepts-Based vs. Rules-Based Approaches to Standard Setting, *Accounting Horizons*, 17(1), 73-89. doi:10.2308/acch.2003.17.1.73
- Nasdaq Stockholm. (2011). *Beslut 2011:1 Fråga om överträdelse av Regelverket*. Retrieved April 2, 2018, from http://business.nasdaq.com/media/besluthq2_tcm5044-51373.pdf
- Nasdaq Stockholm. (2018). *Disciplinary Processes Nasdaq Stockholm*. Retrieved May 7, 2018, from http://business.nasdaq.com/list/Rules-and-Regulations/european-surveillance/disciplinary-processes/stockholm.html
- Nobes, C., & Zeff, S. (2008). Auditor Affirmations of Compliance with IFRS Around the World: an Exploratory Study, *Accounting Perspectives*, 7(4), 279–292. doi:10.1506/ap.7.4.1
- Nobes, C. (2012). The Survival of International Differences under IFRS: Towards a Research Agenda, *Accounting and Business Research*, *36*(3), 233-245. doi:10.1080/00014788.2006.9730023
- Nobes, C. (2013). The Continued Survival of International Differences under IFRS, *Accounting and Business Research*, 43(2), 83-111. doi:10.1080/00014788.2013.770644
- Nobes, C., & Alexander, D. (2016) *Financial Accounting: An International Introduction* (6th ed.), Harlow, England: Pearson Higher Education.
- Nordic Growth Market. (2018). *Regelbunden finansiell information*. Retrieved May 7, 2018, from http://www.ngm.se/overvakning/regelbunden-finansiell-information/

- Schipper, K. (2003). Principles-Based Accounting Standards, *Accounting Horizons*, 17, 61–72. doi: https://doi.org/10.2308/acch.2003.17.1.61
- SFS 2007:528. *Lag (2007:528) om värdepappersmarknaden*. Stockholm: Finansdepartementet.
- Soderstrom, N., & Sun, K. (2007). IFRS Adoption and Accounting Quality: A Review, *European Accounting Review*, *16*(4), 675–702. doi:10.1080/09638180701706732
- Revisorsinspektionen. (2011). *Disciplinärende Dnr 2010-1391 auktoriserade revisorn Johan Dyrefors*, Retrieved May 10, 2018, from http://www.hqgatestory.com/wpcontent/uploads/2016/09/Protokollbilaga-B.pdf
- Walton, P. (2009). *An Executive's Guide for Moving from US GAAP to IFRS*. New York, NY: Business Expert Press.
- Weaver, L., & Woods, M. (2015). The Challenges Faced by Reporting Entities on Their Transition to International Financial Reporting Standards: A Qualitative Study, *Accounting in Europe, 12*(2), 197-221. doi:10.1080/17449480.2015.1103376

9. Appendix

International Accounting Standard 39 Financial Instruments: Recognition and Measurement

Fair value measurement considerations

48 In determining the fair value of a financial asset or a financial liability for the purpose of applying this Standard, IAS 32 or IFRS 7, an entity shall apply paragraphs AG69–AG82 of Appendix A.

48 A. The best evidence of fair value is quoted prices in an active market. If the market for a financial instrument is not active, an entity establishes fair value by using a valuation technique. The objective of using a valuation technique is to establish what the transaction price would have been on the measurement date in an arm's length exchange motivated by normal business considerations. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models. If there is a valuation technique commonly used by market participants to price the instrument and that technique has been demonstrated to provide reliable estimates of prices obtained in actual market transactions, the entity uses that technique. The chosen valuation technique makes maximum use of market inputs and relies as little as possible on entity-specific inputs. It incorporates all factors that market participants would consider in setting a price and is consistent with accepted economic methodologies for pricing financial instruments. Periodically, an entity calibrates the valuation technique and tests it for validity using prices from any observable current market transactions in the same instrument (ie without modification or repackaging) or based on any available observable market data.

No active market: valuation technique

AG76 Therefore, a valuation technique (a) incorporates all factors that market participants would consider in setting a price and (b) is consistent with accepted economic methodologies for pricing financial instruments. Periodically, an entity calibrates the valuation technique and tests it for validity using prices from any observable current market transactions in the same instrument (ie without modification or repackaging) or based on any available observable market data. An entity obtains market data consistently in the same market where the instrument was originated or purchased. The best evidence of the fair value of a financial instrument at initial recognition is the transaction price (ie the fair value of the consideration given or received) unless the fair value of that instrument is evidenced by comparison with other observable current market transactions in the same instrument (ie

without modification or repackaging) or based on a valuation technique whose variables include only data from observable markets.

AG76A The subsequent measurement of the financial asset or financial liability and the subsequent recognition of gains and losses shall be consistent with the requirements of this Standard. The application of paragraph AG76 may result in no gain or loss being recognised on the initial recognition of a financial asset or financial liability. In such a case, IAS 39 requires that a gain or loss shall be recognised after initial recognition only to the extent that it arises from a change in a factor (including time) that market participants would consider in setting a price.

Inputs to valuation techniques

AG82 An appropriate technique for estimating the fair value of a particular financial instrument would incorporate observable market data about the market conditions and other factors that are likely to affect the instrument's fair value. The fair value of a financial instrument will be based on one or more of the following factors (and perhaps others).

(f) Volatility (ie magnitude of future changes in price of the financial instrument or other item). Measures of the volatility of actively traded items can normally be reasonably estimated on the basis of historical market data or by using volatilities implied in current market prices.