Universitetet i Stavanger

ANDERS FUGLERUD ASK, KRISTIAN NORMANN FLØYSVIK
SUPERVISOR: KRISTOFFER WIGESTRAND ERIKSEN

The next Norwegian Savings Bank Merger in Line?

Is a merger between SpareBank 1 Helgeland (Target) and SpareBank 1 Nord-Norge (Acquirer) advisable, and what is the fair value of SpareBank 1 Helgeland

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AUTHORS:		SUPERVISOR:
Candidate number: 1584	Anders Fuglerud Ask	Kristoffer Wigestrand Eriksen
1504	Kristian Normann Fløysvik	

Preface

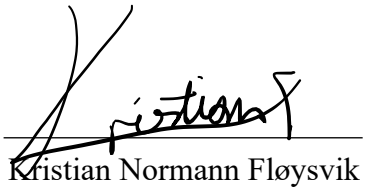
As students at the Business School of the University of Stavanger, this bachelor thesis represents the final and most significant step in our undergraduate education. This paper has provided us with the unique opportunity to apply the theories and principles we have learned throughout three years at the university.

This bachelor thesis demonstrates our ability to analyze and reflect upon a complex issue and marks an important milestone in our academic careers. It has also challenged our analytical skills, critical thinking, and ability to collaborate effectively.

We would like to express our deepest gratitude to our advisor, Kristoffer Wigestrand Eriksen, for all the support and guidance he has provided throughout the process of writing this thesis. His availability, engagement, and the useful and relevant feedback on our work have significantly contributed to our academic development and ensured the delivery of a high-quality bachelor's thesis.

This preface also serves as an acknowledgment of the journey we have undertaken, not just academically but personally, during our time at the university. It reflects the challenges we have faced, the knowledge we have gained, and the growth we have experienced. We extend our thanks to everyone who has supported us along this path, including our families, friends, and peers, whose encouragement has been invaluable.

Through this thesis, we have ventured deep into the nuances of mergers and acquisitions within the Norwegian savings bank sector, striving to provide insights that are not only academically robust but also practically relevant. This work encapsulates our academic pursuits and our ambition to contribute meaningfully to the field of finance.



Kristian Normann Fløysvik

Anders Fuglerud Ask

10.05.2024 Stavanger, Norway

Abstract

This thesis investigates the potential merger between SpareBank 1 Helgeland (SBH) and SpareBank 1 Nord-Norge (SNN), analyzing its feasibility and proposing a fair valuation for SBH. The study examines the ongoing consolidation trends in the Norwegian savings bank sector, focusing on both historical context and current developments.

The thesis employs a comprehensive valuation approach, integrating five different methods, including price history, analyst forecasts, Comparable Company Analysis (CCA), Precedent Transaction Analysis (PTA), and Dividend Discount Model (DDM), to derive a fair valuation for SBH. The CCA and PTA offer relative valuations, comparing SBH to similar publicly traded banks and assessing premiums paid in comparable transactions. The DDM calculates an intrinsic value based on SBH's dividend payouts, growth rates, and cost of equity, providing an in-depth look at its financial health and profit-generating capacity.

The findings of these valuation methods are fused to propose an acquisition price for SBH, reflecting both its current market value and potential synergies from a merger with SNN. The analysis also considers synergies resulting from the merger, including operational efficiencies, economies of scale, and increased market share.

The thesis concludes by proposing a potential acquisition price of NOK 146 per share, based on our valuation of SBH and the estimated cost synergies from the merger. This valuation offers insights into the financial health of SBH, its strategic positioning, and the broader trends driving consolidation within the Norwegian savings bank sector.

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1. Introduction

This thesis seeks to understand the dynamics driving mergers and acquisitions in the savings bank sector of Norway, and to assess the fair value of SpareBank 1 Helgeland, considering whether a merger with SpareBank 1 Nord-Norge is advisable.

Historically, the Norwegian savings bank market has evolved significantly, from over 600 banks in the 1960s to 86 today (Sparebankforeningen, 2023). This transformation, driven by regulatory changes and strategic consolidations, has strengthened the sector. The thesis will examine the historical context, the current market structure, and the strategic positioning of both banks to understand the implications of a potential merger.

Additionally, this research will delve into the motives behind Mergers and Acquisitions in the banking sector, including growth, synergy, diversification, and risk management. By analyzing financial performance, market position, and regulatory implications, the thesis aims to provide a detailed examination of the merger's potential benefits and drawbacks.

Furthermore, a broad valuation analysis will be conducted to establish a justified valuation of SpareBank 1 Helgeland. This valuation will integrate multiple methodologies, such as the Dividend Discount Model, Precedent Transaction Analysis, and Comparable Company Analysis, to ensure a broad assessment of the company. While each method will provide distinct valuations for the shares of SpareBank 1 Helgeland, a consolidated visual comparison using a Football field chart will allow for the evaluation of the various methods used and the assessment of their probable accuracy.

The final proposal will offer insights into the strategic rationale behind the potential merger, the valuation process of the banks, and finally a conclusion for a fair value of SpareBank 1 Helgeland, as well as the suitability of the merger. The intention is to provide meaningful insights to stakeholders and scholars alike regarding the changing dynamics of Norwegian savings banks, as well as the intricacies involved in the valuation of financial entities.

1.1 The use of AI in the Thesis

In the development of this thesis, we employed generative artificial intelligence (AI) as a supplementary tool to enhance the composition and readability of our text. OpenAI's language model, ChatGPT-4 (Open AI, 2022), was utilized carefully to assist in refining and rewording sentences throughout the document. This application was particularly pivotal in the theoretical sections, where the model helped us to rephrase paragraphs, thereby ensuring that the information accurately reflected the source material and maintained academic integrity.

Our use of ChatGPT-4 involved specific prompts aimed at improving clarity and conciseness without compromising the critical information or the scholarly value of the text. For example, we used prompts such as, "Rewrite the following paragraph for clarity and conciseness, while maintaining all critical information and academic integrity," followed by a paragraph from our thesis. This method ensured that the revised text remained faithful to the original academic sources cited in the thesis.

The integration of ChatGPT-4 in our thesis writing process served as a collaborative tool that extended our capabilities as authors. It enriched our academic discussions and allowed for a deeper engagement with the material. This approach not only contributed to a more polished and professional final document but also enhanced our learning experience by ensuring quality interaction with academic content.

While ChatGPT-4 provided initial drafts and suggestions, the final text was extensively reviewed, refined, and approved by us, reflecting our understanding and academic contributions to ensure it met the rigorous standards of scholarly writing and theoretical facts.

2 The Paper's Background

This thesis was inspired by the recent wave of Mergers and Acquisitions among Norwegian savings banks, drawing significant media attention, and impacting local regions. In the second half of 2023 and the beginning of 2024, there were a significant number of mergers in the banking sector. In close proximity to the University of Stavanger SpareBank 1 SR-Bank announced the intention to merge with SpareBank 1 Sør-Øst Norge to establish SpareBank 1 Sør-Norge. Additionally, Sandnes Sparebank announced their intent to acquire Hjelmeland Sparebank, resulting in the formation of Rogaland Sparebank. This trend was mirrored nationwide, with other noteworthy mergers such as SpareBank 1 Østlandet with Totens Sparebank, among others. As students with a keen interest in Norway's banking and finance sector, we were captivated by this flurry of activity. Initial perceptions suggested an unprecedented wave of consolidations, yet our investigations revealed that, historically, this was a rather small wave. This prompted us to explore the reasons behind this new upswing of mergers and acquisitions.

The examination of recent banking sector takeovers brought to light the situation between SpareBank 1 Nord-Norge and SpareBank 1 Helgeland. In this case, SpareBank 1 Nord-Norge acquired a 20% interest in SpareBank 1 Helgeland as they became part of the SpareBank 1 – Alliance. This event encouraged analysts to predict a forthcoming merger. Among them, Borea Asset Management's portfolio manager, Magnus Vie Sundal highlighted the importance of examining smaller banks, especially where significant cross-ownership of equity certificates exists. He specifically noted the potential for a merger between SpareBank 1 Nord-Norge and SpareBank 1 Helgeland, as well as the potential of a consolidation between SpareBank 1 SR-Bank and Sandnes Sparebank (Bjergaard, 2024). However, when SpareBank 1 SR-Bank and Sandnes Sparebank turned their heads towards other expansion opportunities. This shifted focus away from the local banks, turning our attention instead onto the relationship between SpareBank 1 Nord-Norge and SpareBank 1 Helgeland.

This report seeks to understand and analyze the development of consolidation of Norwegian Savings banks and suggest what might be the next acquisition to be made in the sector. Through a thorough analysis of SpareBank 1 Nord-Norge and SpareBank 1 Helgeland the report will

explain the motives behind the proposed merger, justify a fair value of the target company and argue why it may or may not be a wise investment.

2.1 History and Current State of the Norwegian Savings Bank Market

From the end of the 1960s until today, the number of Norwegian savings banks has been reduced from just over 600 to the current level of 86 savings banks and 36 savings bank foundations. Figure 1 shows the development in the number of Norwegian savings banks in the period 1922-2022:

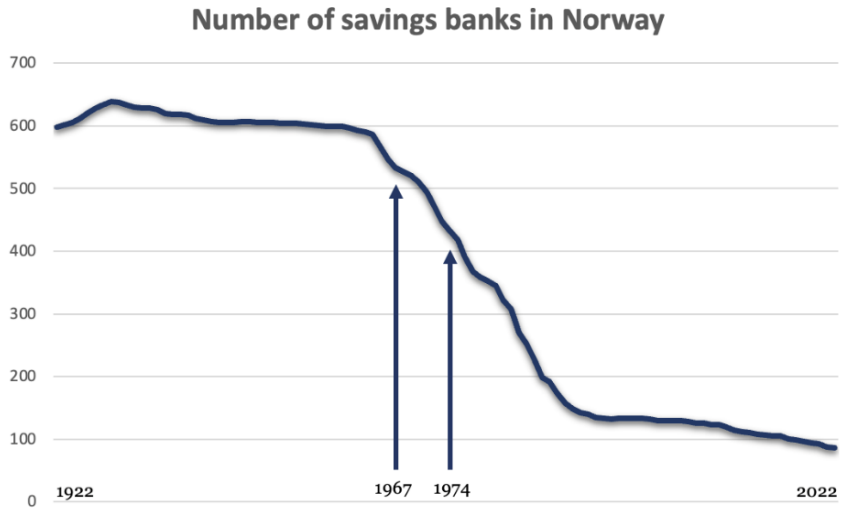

Figure 1 Number of savings banks in Norway (Sparebankforeningen, 2023).

There are particularly two events that can explain some of the developments in the Norwegian savings bank sector. The events are the establishment of the Area- and Planning Committee in 1967 and 1974 respectively, as the rapidly falling curve in Figure 1 displays (Sparebankforeningen, 2023).

The Area Committee was established in the 1960s to promote and change the savings bank structure at the time, and more specifically to draw the future savings bank map. The committee's proposal suggested that the 528 savings banks should be consolidated into 61 savings banks. The basis for the proposal was the counties, and implied that there should be one to seven savings banks in each county. The recommendation was addressed at the annual meeting in October 1967 where the following resolution came forward:

> *The annual meeting recommends to the board of the savings bank association in collaboration with the county associations to take the initiative to county-wise discussions of the Area Committee's regional plan for the amalgamation of savings banks (Sparebankforeningen, n.d.-b).*

The Area Committee's proposal did not bring immediate changes, but where one can see clear after-effects throughout the 70s and 80s. Today's savings bank structure has clear similarities with the committee's proposal to consolidate several smaller local savings banks into larger district savings banks (Sparebankforeningen, n.d.-b).

The Planning Committee in 1971 came as a response to the lack of development in the savings bank sector, after the proposal presented by the Area committee in October 1967. The number of savings banks was reduced by 60 from 1967 to 1971, but this decline was limited to only a few counties. The Planning Committee, in contrast to the Area Committee, was to include more than just structure. The committee aimed to promote proposals for the savings banks' tasks, cooperation, organizational structure, and equity problems. The Planning Committee believed that versatile county or district savings banks should cover all local and regional needs for banking functions. Contrary to the Area Committee, the committee believed that local conditions could justify more than one savings bank per county and further proposed that there should be no more than two to three savings banks in each county (Sparebankforeningen, n.d.-b).

Following several decades of consolidations within Norway's savings bank sector, there has been a substantial reduction in the number of banks, yet the sector itself has become more robust. These takeovers have led to the emergence of what is known as "ownerless capital". Such capital arises when a savings bank, traditionally owned by its depositors or operating under a mutual model, is taken over or merged. Unlike conventional corporate capital, which has identifiable owners or stockholders, this ownerless capital lacks a private claimant. Consequently, this capital is often allocated to a savings bank foundation, which operates independently of the actual savings bank. Although separated from the bank, the foundation is

often the largest shareholder of the bank's equity certificates. According to section 12-25 of the Financial Institutions Act, the foundation should also continue the savings bank traditions as part of its activities. The majority of the savings bank foundations have been created after 2009 following a regulatory change that made it easier for banks to choose various models for different kinds of takeovers. A large sum of the dividends received in the savings bank foundations are used for charitable donations to the local communities (Sparebankforeningen, n.d.-a).

To understand the operational mechanism of a foundation-owned financial institution, one can examine the case of Sandnes Sparebank, depicted in Figure 2. The bank's distribution of earnings begins with a division of earnings into equity and foundation capital streams. Shareholders benefit from dividends out of the equity portion, while a part of these funds is also kept in reserve for the company's operational needs or potential investment opportunities. Concurrently, a slice of the bank's profits is channeled into foundation capital. This can be conserved within the foundation or expended on community benefits, potentially contributing to local development or philanthropic endeavors. Additionally, a segment of retained earnings is earmarked for customer dividends, rewarding clients for their business with the bank, and for a gift fund designed for charitable contributions or financial aid for various projects. This financial flow underscores the bank's dedication to distributing its success among its shareholders, clientele, and community at large (Sandnes Sparebank, 2024, p. 34).

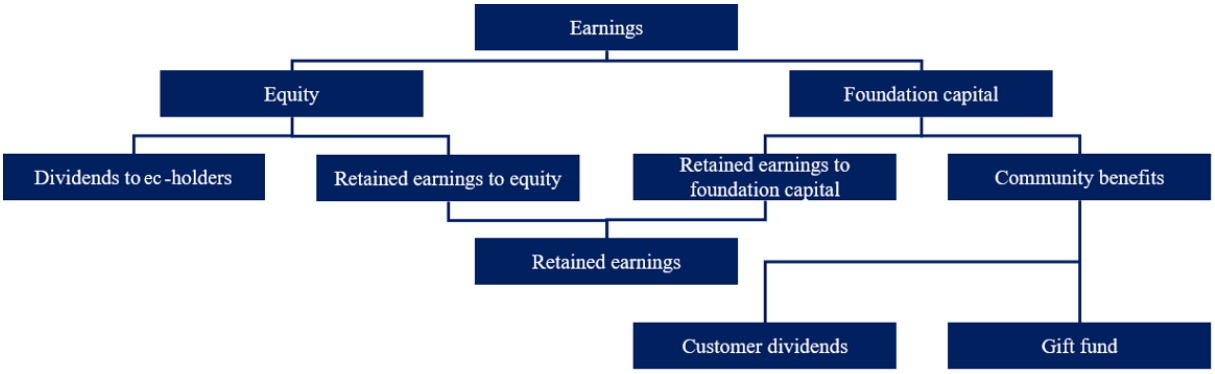

Figure 2 Example of profit distribution (Sandnes Sparebank, 2024, p. 34)

Today, the Norwegian savings bank market consists of 86 savings banks, with the majority of these banks relying on a few savings bank alliances. Figure 3 displays the gross loans to

customers at the end of 2021, distinguishing between savings bank alliances, individual savings banks, and commercial banks. The savings bank alliances represent a collaborative effort among various savings banks, often organized through a jointly owned company (the group) and subsidiaries (the product companies). A key aspect of these alliances is the cooperation in IT solutions, product offerings, reporting, and a shared culture (Krabberød, 2022).

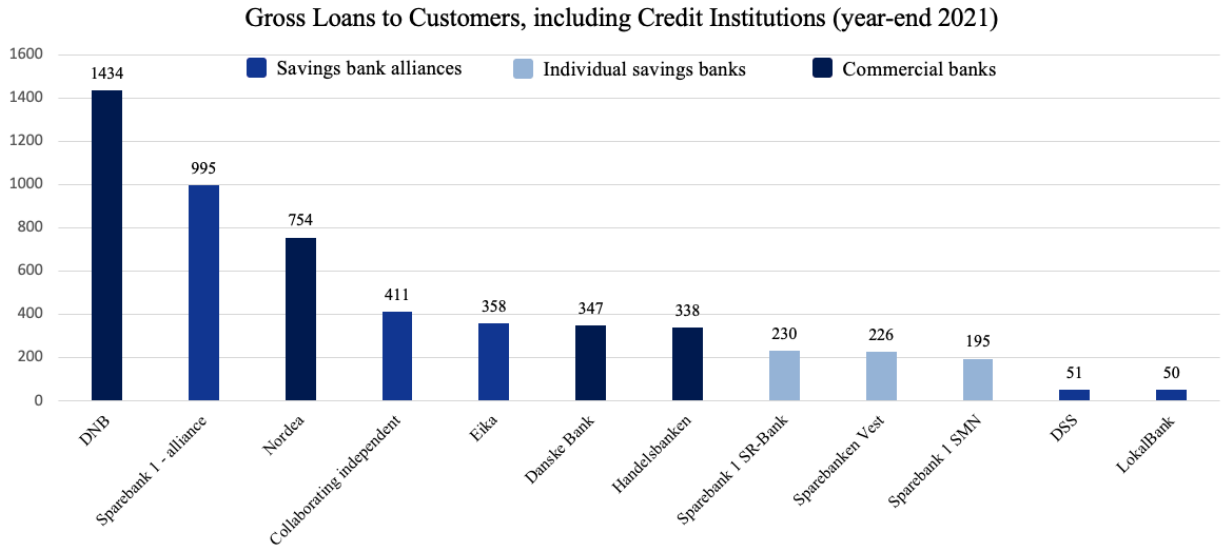

Figure 3 Gross loans to customers in Norwegian financial institutions (Krabberød, 2022)

2.2 SpareBank 1 Helgeland (Target Company)

SpareBank 1 Helgeland (SBH) is a local savings bank in the district of Helgeland, with headquarters in Mo i Rana. The bank was established 1st April 1977 after a merger between multiple smaller local savings banks. Some decades later, on the 1st of April 2005 Helgeland Sparebank expanded further by merging with local competitor Rana Sparebank, whom were also a result of a merger between numerous local banks (Wikipedia, 2023). Through all the mergers SBH now operates from 4 offices in the south of Nordland County, employing 165 employees (SpareBank 1 Helgeland, 2024b, p. 4). In 2020, Helgeland Sparebank declared its decision to enter the SpareBank 1 Alliance, Norway's foremost savings bank alliance. As part of the agreement, Helgeland acquired four branches from SpareBank 1 Nord-Norge in the Helgeland region, positioning it as the ninth biggest savings bank in Norway per 2020 (Anda, 2020). Furthermore, was the announcement of SpareBank 1 Nord-Norge's purchase of 19.99% of SBH's equity certificates, as a long-term plan with intention of a strategic alliance in the

north of Norway (SpareBank 1 Helgeland, 2021), with the largest shareholder being SBH's own savings bank foundation (LSEG Workspace, 2024). The rest of the ownership structure can be seen in Figure 4.

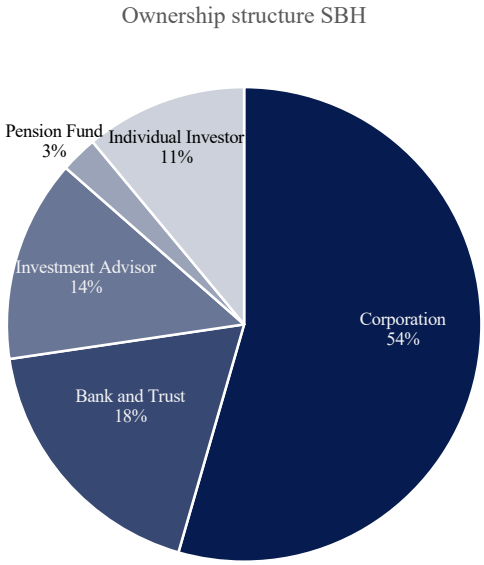

Figure 4 Ownership structure SBH (LSEG Workspace, 2024).

SpareBank 1 Helgeland's financial performance for the year 2023 has been substantial, characterized by strong net interest margins and substantial loan growth, despite increased loan losses and operating expenses. The bank recorded net interest income of NOK 985 million in 2023, up from NOK 783 million in 2022, indicating improved margins. The net loan to assets ratio showed robust growth, with total loans reaching NOK 37,982 billion, compared to NOK 35,419 billion the previous year. Return on assets (ROA) showed a positive trend with increased net income, underpinned by a spike in interest rates from the central bank to combat inflation (SpareBank 1 Helgeland, 2024b).

The capital structure remained strong with high capital adequacy ratios. The common equity Pilar 1 capital ratio stood at 18.4% at the end of 2023, down slightly from 19% in 2022 but still well above regulatory requirements at minimum 12%, signifying a robust capital buffer. The dividend ratio and payout have been maintained at a generous level, with a proposed dividend distribution NOK of 291 million for 2023, representing a significant portion of the year's earnings and underscoring the bank's commitment to returning value to its shareholders. As of 19th of April SpareBank 1 Helgeland trades at NOK 124.94 per equity certificate at the Oslo

Stock Exchange giving it a market capitalization of NOK 3,36 billion (SpareBank 1 Helgeland, 2024b).

2.3 SpareBank 1 Nord-Norge (Acquiring company)

SpareBank 1 Nord-Norge (SNN) is the leading savings bank in the northern regions of Norway and one of the biggest in Norway. They consist of 15 independent bank offices spread over Troms & Finnmark County and the northern parts of Nordland County, with 956 employees (SpareBank 1 Nord-Norge, 2024a, p. 4). The banks history dates all the way back to 1836 with Tromsø Sparebank. In likeness to SpareBank 1 Helgeland, Tromsø Sparebank has merged with tens of other savings banks in the region and ended up where they are today (SpareBank 1 Nord-Norge, 2021). In 1995 SpareBank 1 Nord-Norge was one of 13 banks to create the SpareBank 1 – Alliance (Gram, 2024). Today SpareBank 1 Nord-Norge is a publicly traded company with approximately 37.37% of the bank's assets are owned by private investors on the Oslo Stock Exchange (SpareBank 1 Nord-Norge, 2023), while the majority is still owned by the Northern-Norwegian society (SpareBank 1 Nord-Norge, 2021). The SpareBank 1 Nord-Norge Foundation is the largest North Norwegian owner in SpareBank 1 Nord-Norge with an ownership stake of 1.41% (Sparebankstiftelsen SpareBank 1 Nord-Norge, n.d.).

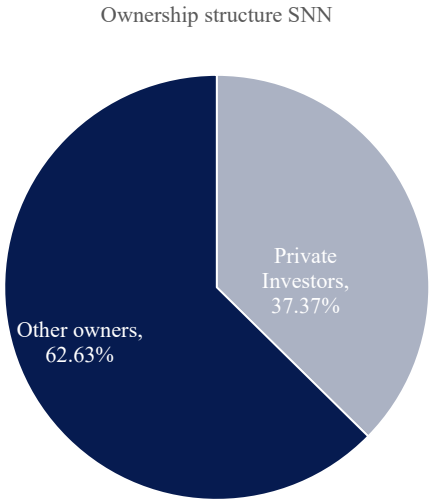

Figure 5 SNN Ownership structure (SpareBank 1 Nord-Norge, 2023).

SpareBank 1 Nord-Norge's financial performance for 2023 illustrates a strong operational period. The bank reported net interest income of NOK 3,627 billion for the year, marking a substantial 41.9% increase from NOK 2,556 million in 2022. Increases in the central bank's

interest rate has contributed significantly to this performance, with notable increases in both personal and business market revenues. Net profit surged to NOK 2,5 billion, a notable increase from the prior year, with a return on equity at an impressive 16.4%, showcasing the bank's profitability and shareholder value creation. The bank has a strong capital adequacy ratio, with a common equity Pilar 1 capital ratio steady at around 17.1%, reflecting its solid capital position and resilience (SpareBank 1 Nord-Norge, 2024a).

Given SNN's robust financial performance, strategic regional importance, and solid market positioning, it represents a compelling proposition for a potential merger with SpareBank 1 Helgeland. SNN trades at NOK 96.74 closing price as per 19th of April and a market capitalization of NOK 9,68 billion. Making SpareBank 1 Nord-Norge almost 3 times bigger than SpareBank 1 Helgeland.

3 Theoretical background

This chapter aims to dissect the complicated nature of bank mergers, examining the motives, methodologies, and outcomes associated with these complex transactions. By delving into the nuances of different merger types, the strategic rationale behind such corporate maneuvers, and the valuation techniques employed to determine the value of these takeovers, we seek to shed light on the potential synergies and challenges of a merger between these two banks. Furthermore, the chapter will evaluate the impact of such mergers on stakeholders, operational efficiencies, and market positioning, offering a detailed analysis that contributes to the broader discussion on consolidation trends within the Norwegian savings bank sector.

3.1 Mergers & Acquisitions

Mergers & Acquisitions (M&A) is a commonly used corporate strategy tool. Both terms refer to the combination of two or more companies or their business assets through financial transactions, also known as a takeover. A company may merge with another company to make a brand-new company, purchase the whole company outright and integrate it, acquire all its major assets, or stage a hostile takeover. The terms Mergers & Acquisitions are usually used interchangeably, but the terms do differ from another. A merger is a combination between two companies, which thereafter creates a new legal entity under one name. On the contrary an

acquisition is an outright purchase of the majority shares of a company or its assets whereas the legal name of the acquiring company does not necessarily change. There are three commonly used types of mergers and acquisitions depending on the business relation between the two companies: Horizontal mergers, Vertical mergers and Conglomerate (Gaughan, 2018, p. 13). As the field of mergers and acquisitions is large and comprehensive, this chapter will mainly focus on M&A theory related to the proposed deal and the banking industry.

3.1.1 Types of Mergers and Acquisitions

Horizontal mergers are the consolidation of two companies working in a similar industry or producers of similar products or services. The primary goals of these kinds of mergers are to increase operational efficiencies, streamline processes and reduce costs by integrating shared knowledge and complimentary qualities in production, sales, or distribution. Some other common synergies from a horizontal merger include broadening the geographic reach, expand customer reach and diversify their product offerings. Horizontal mergers are highly regulated due to the potential reduction of competition in the respective sector and monopolies (Gaughan, 2018, p. 13).

Vertical mergers are business combinations between two firms within the same industry but at different stages of production or distribution. Typically, the company being acquired is a supplier to or a customer of the acquiring entity. The primary objective of such mergers is to enhance cost efficiency and ensure a more seamless supply chain. Similar to horizontal mergers, vertical mergers are subject to antitrust laws designed to prevent market competition from being compromised by the control of both the supply side and the customer base by a single entity (Gaughan, 2018, pp. 13–14).

Conglomerate mergers occur when a company acquires one or multiple businesses with the intention of diversifying their business. The target and the acquiring company have little to no relation in industry or supply chain. Through a conglomerate merger the acquiring company may spread risk by entering new markets and expand their business portfolio. In many conglomerates the acquiring company acts as a holding company, while the target company would be joining as a subsidiary. The subsidiaries are often run independently from the

acquiring company, but strategically align and report to the parent company. By taking this approach the acquiring company reduces the reliability on the single or few business product or service categories they already operate in. Combining the expertise from two different business areas could open doors for new innovations and tap into new markets that were previously unexplored. By diversifying their business, the post-merger company will also be more resilient to market downturns, as a downturn in one of their segments could be leveled out by the other business segments (Chen, 2023).

In all types of M&As it is crucial to make the right integration decision. There are three main ways of integrating the target company. A statutory merger is when a corporation, usually the acquiring company, remains as the legal entity while all the assets and liabilities become part of the current legal entity (Nasdaq, n.d.-b). Moreover, a subsidiary merger occurs when the target company becomes an independently run part of a parenting company, as previously described (Nasdaq, n.d.-c). Lastly, a consolidation occurs when the merging companies cease to exist and become a new legal entity (Nasdaq, n.d.-a).

In the banking sector, the predominant form of M&A is horizontal mergers, as they typically involve two banks with similar operations joining forces. The singular focus of banks means conglomerate mergers are rare, as a bank combining with a non-bank entity could lead to customer confusion. Additionally, since banks don't have a traditional supply chain, vertical mergers are not common in this sector.

3.1.2 Motives behind M&A's in the banking sector

Growth is one of the fundamental motives for M&A deals, and the banking sector is no different. When seeking to expand, companies are left with two choices: organic growth or expansion through M&As. While organic growth is often slow and uncertain, M&As can offer a quicker access to growth opportunities (Gaughan, 2018, p. 127). Large banks have a lot of benefits that smaller or mid-sized banks doesn't have. Large savings banks usually have higher returns on equity and there are three reasons for this. Firstly, they often utilize an internal ratings-based approach for credit risk assessment, leading to reduced capital requirements compared to smaller banks. Secondly, their funding costs are generally lower as their credit rating may

improve with size. Lastly, they reap the benefits of more significant economies of scale (Kristiansen & Yssen, 2023, p. 5).

The benefits of M&A's can be compared to the term synergy. It is an effect of two objects that combine to make something that is greater together than they would be alone. The term refers to the phenomenon of 2 + 2 = 5. Translated to M&As, this can be exemplified by if two banks were to merge and become one, the benefits of the merger would be more valuable than just adding the value of both firms together. Examples of synergies could be elimination of inefficient management and operating synergies, like increased revenues and cost reductions. Financial synergies may arise from the already mentioned lower cost of funding from improved economies of scale. Synergies are difficult to measure as the effects of synergies will not necessarily be seen immediately, but rather over time. However, it's possible to get an idea of synergies created by calculating net acquisition value (Gaughan, 2018, p. 136). As this thesis only depicts a merger proposal, no real synergies can be calculated from net acquisition value. However, assumptions on foreseen synergies can be made.

Research on motives behind M&As in banks from early- to mid-1980s found that diversification of earnings was indeed a motive for many of the mergers in that time (Benston et al., 1995, p. 786). Diversifying the company's revenue stream is a well-known strategy for competitive advantage. The result of a diversified portfolio of revenue streams is a more stable and secure business (Houston, 2023).

Summarizing an interview of the executive director for the Norwegian Savings Bank Association (Sparebankforeningen) the wave of mergers among Norwegian savings banks are driven by a combination of strategic motives. Increasing regulatory complexities and the high competition for expertise motivates banks to consolidate to facilitate these needs. Mergers aim to create larger, more competitive entities capable of offering customers better products, while also achieving cost savings through economies of scale. These consolidations are part of a long-term trend geared towards strengthening banks' positions in their local markets and ensuring they have the necessary resources and competencies to navigate a rapidly evolving financial landscape (Kleppe, 2024). Figure 6 illustrates the inverse relationship between labor costs as a

percentage of bank's total capital, and their size. The horizontal axis indicates the total capital of banks, ordered from the highest at the origin to the lowest moving right. The vertical axis measures labor costs as a percentage of this total capital. The trend observed shows that labor costs, as a proportion of total capital, tend to rise as the bank's total capital diminishes. Represented by yellow triangles, SNN and SBH are plotted on this graph.

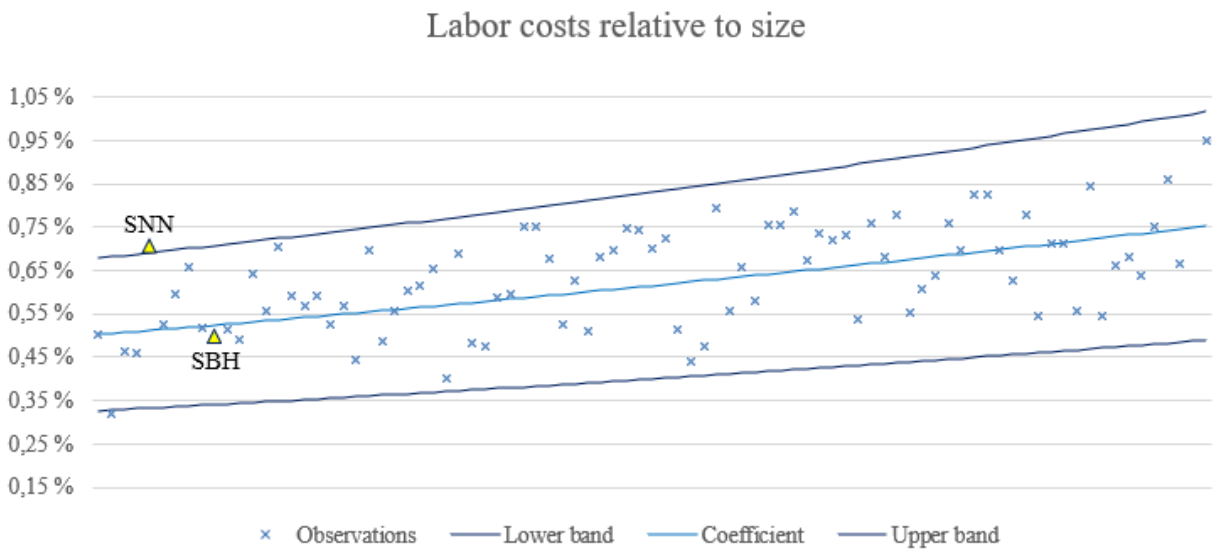

Figure 6 Labor cost as percentage of total capital (Bankens Sikringsfond, 2022)

3.1.3 Methods of Payment

The purchase of a company or part of its assets usually requires different types of transactions depending on the acquiring company. The choice among these methods differs from various factors, including the acquiring company's financial status, strategic goals, and the specific circumstances of the target company. There are three ways of payments that are used in M&As: Cash, Securities and Leverage Buyouts (LBO). Successful M&A transactions require careful consideration of these payment methods and their implications for both short-term execution and long-term strategic alignment (Palmer, 2021).

Cash payments are the most straightforward, involving a direct transaction where the acquiring company pays a specified sum to purchase assets or stocks from the target company with cash. This method is highly favored for its simplicity and rapid execution, allowing for an immediate transfer of ownership. However, it places a significant strain on the liquidity of the acquiring

firm, requiring substantial upfront capital. While cash payments avoid dilution of the acquiring company's equity, they can lead to financial pressure, particularly if the acquiring company must liquidate assets or take on debt to finance the acquisition. This can negatively impact the company's balance sheet and potentially limit its financial flexibility post-acquisition (Zhang & Zhang, 2011, pp. 204–207).

Security payments, which include stock and bond payments, offer an alternative that can alleviate immediate financial pressure. In stock payments, shares of the acquiring company are exchanged for the assets or shares of the target company, while bond payments involve the issuance of corporate bonds. These methods can dilute existing shareholders' equity but spare the company from the substantial cash outlays required by direct purchases. Security payments also have long-term implications for the company's capital structure and market perception, potentially affecting its stock price and shareholder composition (Zhang & Zhang, 2011, pp. 204–207). In the case of security payments in the savings bank sector, the payments are usually completed by acquiring the Equity Certificates (EC) of the target bank.

Leverage buyout exemplifies a method where acquisitions are financed predominantly through debt, using the assets of the target company as collateral. This approach allows acquiring companies to make large acquisitions without committing a large amount of their capital upfront. However, LBOs significantly increase the acquiring company's debt load, potentially affecting its credit rating and increasing its risk of financial distress. The high leverage can lead to higher returns on equity if the acquisition is successful, but it can also lead to failure if the new combined entity cannot service the debt (Zhang & Zhang, 2011, pp. 204–207).

In M&As, the selection of the payment method significantly affects the financial strategies, risk profiles, and control mechanisms of the acquiring company. In the banking sector, a distinct approach is often adopted, with a preference for security payments, particularly through the issuance of equity certificates. Equity certificates, while functioning similarly to stocks in terms of equity representation, are commonly used in banking institutions for M&A transactions to finance the acquisition of assets or ownership stakes from the target entity.

3.1.4 Takeover countermeasures

In some cases, a takeover can happen against the target company's will. A hostile takeover occurs when an entity gains control of a company against the desires and without the consent of the company's management. This acquisition strategy involves the entity obtaining more than 50% of the company's voting shares to assume control (Ganti, 2024). In this case a company may implement different kinds of countermeasures to either completely avoid or slow down the takeover. A hostile takeover is usually based on the acquiring company's terms, which are often less suitable for the target company. Among the most common countermeasures are poison pills and corporate charter amendments.

Poison pills is a type of countermeasure that gives the shareholders of the target company the option and/or right to buy shares at a discount if there was to be a potential takeover. The countermeasures can only be triggered at a certain shareholder level, typically around 10-20% ownership (Gaughan, 2018, pp. 187–188). Assuming the shareholders of the target company execute on this option, the shares of the acquiring company will be highly diluted, making their ownership stake less influential in the company.

Corporate charter amendments are fundamental documents that describes the company's purpose and the different share classes it may have. The amendments usually require shareholders vote majority, which makes the amendments different from the company's bylaws, which are usually implemented by the board of directors. Different kinds of countermeasures voted forward by the corporate charter includes staggering the board of directors, supermajority provisions and more (Gaughan, 2018, pp. 199–200).

A staggered board of directors involves selecting a proportion of the board to be newly elected each year and in turn keeping some of the directors for longer terms. This makes it more time consuming for hostile takeovers to take place as it will take longer to replace the board with a pro-takeover majority (Gaughan, 2018, p. 201).

Supermajority provisions require that a "larger than majority" percentage to approve a certain amendment or decision, such as M&As. A supermajority provision usually places a vote to approve requirement of around 80% majority vote (Gaughan, 2018, p. 205).

3.1.5 Peer Groups

A peer group in a M&A context is a collection of companies that display similar traits, such as geographical location, size, or sector, making them comparable on several fronts. These groups are influential by nature and can significantly impact the decisions and behaviors of their members, often featuring distinct hierarchies with defined leaders. For this thesis, peer group analysis involves comparing entities within the same industry or sector based on relevant financial metrics, aiding in identifying trends, efficiencies, and opportunities. This analytical approach enables a better understanding of where a company stands among its counterparts, offering insights into best practices, performance benchmarks, and strategic positioning (Hayes, 2021).

3.1.6 Exchange Ratio

The exchange ratio in the context of mergers and acquisitions is a critical metric that indicates the number of shares the acquiring company offers for each share of the target company. This ratio is pivotal as it reflects the value the acquiring company places on the target based on the valuations performed by both parties involved in the deal. The exchange ratio is calculated by dividing the per-share offer price by the acquirer's share price (Gaughan, 2018, p. 595).

$$Exchange\ ratio = \frac{Offer\ price}{Acquirer\ share\ price}$$

The significance of the exchange ratio extends beyond just the number of shares exchanged; it directly impacts the post-merger financial metrics such as earnings per share (EPS). The ratio determines the total number of shares the acquiring company needs to issue to complete the transaction. An increase in the total number of shares outstanding can affect the EPS, which is a key indicator of a company's profitability (Gaughan, 2018, p. 596).

If the acquisition is perceived positively, the resulting EPS can increase, signifying an accretive deal. Conversely, if the offer price for the target is set too high relative to the value it brings, the deal may turn out to be dilutive, reducing the EPS. The changes in EPS post-merger depend on several factors, including the relative sizes of the companies, their Price-Earnings ratios, and the specifics of the offer price (Gaughan, 2018, p. 597).

3.1.7 Herfindahl-Hirschman Index (HHI)

The Herfindahl-Hirschman Index (HHI) is a widely utilized metric for assessing market concentration and competitiveness, particularly relevant in the context of mergers and acquisitions. It is calculated by squaring the market shares of all firms within a market and summing these figures, with the total ranging from near 0 (indicating a highly competitive market) to 10,000 (signifying a monopoly). The U.S. Department of Justice and The Norwegian Competition Authority (NCA) employs the HHI to scrutinize potential antitrust issues in mergers, considering markets with an HHI below 1,500 as competitive, between 1,500 and 2,500 as moderately concentrated, and above 2,500 as highly concentrated. The formula is as follows:

$$HHI = s_1^2 + s_2^2 + s_3^2 + \cdots s_n^2$$

Where:

s_n = The market share percentage of firm n expressed as a whole number, not a decimal.

Despite its simplicity and minimal data requirements, the HHI's main drawback is its inability to capture the complexities of different markets accurately, which could lead to misleading assessments of market competitiveness (Michael Bromberg, 2023). This paper will discuss the HHI through an independent report on the concentration in the banking sector of various regions in Norway.

3.1.8 Measuring M&A success

The evaluation of M&A deals often focuses on financial synergies, such as revenue growth, cost reductions, and investment returns. However, this approach might not fully capture M&A success in a complex business environment. There's a shift towards a more holistic evaluation, considering various elements beyond financial metrics (Hofer, n.d.).

Financial metrics are crucial for assessing an organization's financial health, but they might not capture the full value of an M&A deal. For example, a merger may promise cost savings, but cultural mismatches or integration issues can hinder these benefits. These metrics also tend to overlook long-term goals, focusing on immediate gains that may not be sustainable. This introduces the concept of leading and lagging indicators in management reporting, where non-financial metrics (leading indicators) predict future trends and financial outcomes (lagging metrics) reflect past performances, highlighting the importance of balancing both for a holistic assessment. Metrics include examining cultural integration, leadership effectiveness, talent retention, innovation synergies, customer satisfaction, operational efficiency, and strategic alignment (Hofer, n.d.).

Deloitte promotes a strategic approach to M&A, using a four-step methodology for successful integration. First, rigorous due diligence and negotiation guide the deal strategy and integration design. Next, an Integration Management Office (IMO) oversees integration across business functions. Legal Day 1 focuses on strategic priorities and a smooth transition, with planning for operations and service agreements. The final phase involves detailed planning and executive oversight, with the IMO ensuring continuity while unlocking post-takeover synergies (Deloitte, n.d.).

While non-financial metrics gain importance, financial measures remain crucial for M&A success. Key financial indicators, such as revenue and EPS growth, cost savings, EBITDA margins, and ROI, gauge the financial health of the merged company, serving as lagging indicators of success. These metrics help stakeholders assess the deal's value generation and financial stability post-merger, quantifying benefits and assessing immediate goals (Gaughan, 2018, pp. 579–604).

3.2 Relative Company Valuation

Relative valuation relies on the premise that similar assets should command similar market prices, a concept that extends to valuing financial institutions with market-listed comparables. Identifying true comparables is challenging due to inherent differences between companies, however, some measures can be taken to find more accurate comparisons. Furthermore, the valuation process must navigate biases in comparable share prices, which may stem from market inefficiencies or liquidity issues. Selecting the appropriate multiples for standardization, whether earnings, book values, or operating income, is critical for ensuring valuation accuracy (Massari et al., 2014, pp. 123–124). It's worth highlighting that the primary emphasis of this thesis will center on the metrics pertaining to SpareBank 1 Helgeland, aligning with the common practice in M&A proposals that prioritize the evaluation of the target company. To support the fundamental company analysis a Precedent Transaction and Comparable Company Analysis will be used.

3.2.1 Comparable Company Analysis (CCA)

Comparable Company Analysis (CCA) is a relative valuation technique used to determine the value of a financial company by comparing it with other similar companies whose shares are traded publicly in an efficient market. The underlying principle of this method is that similar assets should command similar prices in the market. However, as mentioned, the simplicity of this principle masks the complex assumptions and analyses needed to conduct an accurate valuation (Massari et al., 2014, p. 123).

Identifying comparable companies is a subjective process that significantly influences the valuation outcome. No two companies are identical, so the selection involves setting a reasonable set of criteria to ensure the companies compared are as similar as possible to the one being valued. These criteria include the company's size, business model, and geographical location. Deeper analysis might consider the types of services or products offered, client demographics, and financing structure. The choice of comparables involves a trade-off: a larger pool of comparables reduces statistical bias, but stricter selection criteria increase the likelihood of an accurate valuation (Massari et al., 2014, pp. 123–124).

To standardize the observed prices for comparison, they must be converted into multiples, such as the most used multiples price-to-earnings (P/E) and price-to-book value (P/BV). The choice of which multiple to use is critical, as it significantly impacts the valuation's accuracy. This step requires understanding which value drivers are most relevant and reflective of the company's performance and industry standards (Massari et al., 2014, p. 124). The Price to Operating-Profit Before Non-Recurring Income/Expenses ratio is favored over the Price to Operating Income ratio because it more accurately represents the profitability of a company's main business activities by excluding earnings from operations outside of its primary business. Additionally, Price-to-Tangible Book Value (P/TBV) offers a viable alternative to P/BV for assessing a company's value by removing the intangible values in a company from the equation (Massari et al., 2014, pp. 128–129). The formulas are as follows:

$$\text{Price/Earnings (P/E)} = \frac{Price\ per\ share}{Earnings\ per\ share}$$

$$\text{Price/Book Value (P/BV)} = \frac{Price\ per\ share}{Book\ Value\ per\ share}$$

$$\text{Price/Tangible Book Value (P/TBV)} = \frac{Price\ per\ share}{TBV\ per\ share}$$

$$\text{Price/Operating Income BNRIE} = \frac{Price\ per\ share}{Operating\ Income\ before\ Non{-}recurring\ Income/Expenses}$$

The rationale behind the choice of these multiples will be further discussed in Chapter 4.3.

3.2.2 Precedent Transaction Analysis (PTA)

Precedent Transaction Analysis (PTA) is a relative valuation approach widely applied in M&As, focusing on the prices previously paid for comparable companies. This method typically involves analyzing the acquisition premiums or multiples for similar transactions (Kenton, 2022). There are applicable multiples for analyzing previous transactions in the banking sector, like P/E, P/BV and P/TBV, however due to lack of financial data on the comparable deals, this analysis will be based exclusively on the premiums paid for the target companies.

By examining the pre- and post-merger valuations of comparable entities, specifically savings banks in this context, an average transaction premium can be determined. Assuming the peer group being compared have similar characteristics, this average premium can provide a

reasonable estimate of the potential acquisition price for the bank being evaluated (Kenton, 2022). The following formula is a typically used formula to find the premium from a M&A transaction:

$$\left(\frac{Post-merger\ stock\ price}{Pre-merger\ stockprice} - 1\right)$$

Furthermore, a weighted premium can be measured to weigh the different comparable transactions based on the market capitalization size. Weighting can be done by dividing the market capitalization of the target company for the chosen transactions on the sum of all the target companies' market capitalization. By doing this the companies with the largest market value will weigh more in the weighted average premium.

While every M&A is different, which in turn makes comparisons more challenging, PTA provides a general assessment of the market price premium to expect from the specific sector and region. The analysis is affected by more variables than those taken in account for under the analysis, like business cycles, regulatory environment and the size of the acquiring company (Kenton, 2022). Because of this reason the PTA will be used as a supplement to the overall valuation from different methods of valuation like DDM and CCA.

3.3 Fundamental Company Valuation

This section describes the fundamental valuation methods used to value SpareBank 1 Helgeland and using the theoretical framework from "The Valuation of Financial Companies." This framework divides bank valuation into three methods: Discounted Return Models, Relative Valuation, and Asset/Claim Valuation. According to Massari, Gianfrate, and Zanetti (2014), bank valuation should reflect three perspectives: Intrinsic Valuations, Relative Valuation, and the Net Asset Value of a company (Massari et al., 2014, p. 107).

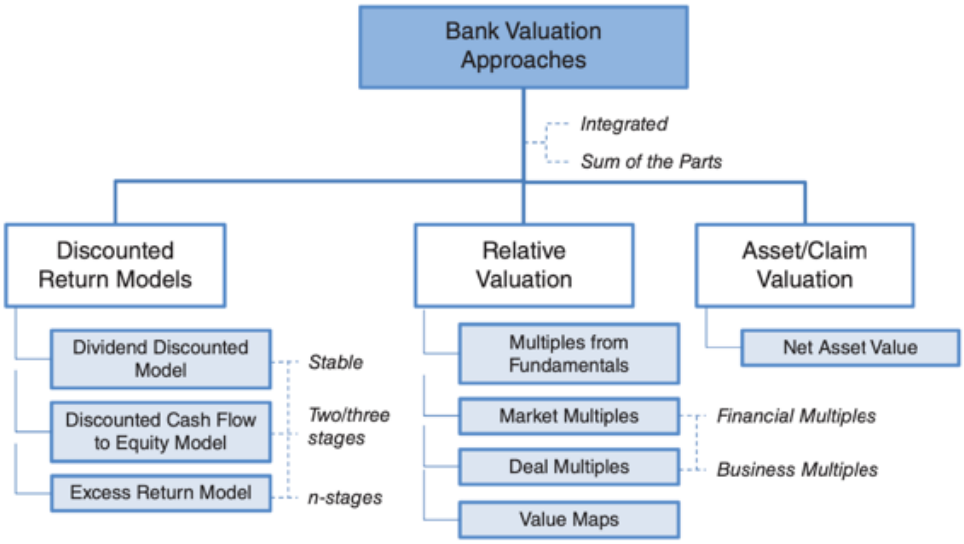

Figure 7 Approaches for bank valuation (Massari et al., 2014, p. 107)

Valuing banks poses unique challenges that distinguish them from regular companies due to their distinct business models, revenue streams, and regulatory environment. Unlike most companies where valuation may center around cash flows and growth prospects, banks act as financial arbitrators, making money primarily from the difference in interest earned on loans and paid on deposits, known as net interest income. This interest-based revenue is typically less volatile and more predictable than the operating cash flows of industrial companies. Furthermore, banks engage in maturity transformation, accepting short-term deposits to fund long-term loans, which can lead to interest rate and liquidity risks not typically present in other sectors (Massari et al., 2014, pp. 1–6).

Banks also operate under a heavy regulatory framework, which influences their capital structures and the way they can leverage their balance sheets. The nature of their risks, such as credit risk, market risk, and operational risk, differs significantly from the risks faced by non-financial firms. Due to these risks and the importance of banks in the financial system, they are subject to stringent capital requirements, which affect their valuation because the cost of regulatory capital can be high (Massari et al., 2014, pp. 1–6).

The Dividend Discount Model (DDM) is often preferred over the Discounted Cash Flow (DCF) model for valuing banks because of the difficulties in forecasting cash flows and the importance of dividends in the banks' investor return profiles. The DDM takes into account the bank's

ability to pay dividends, which is a more direct reflection of its profit-generating capacity and regulatory health. In contrast, the DCF model relies heavily on free cash flows, which can be difficult to predict for banks due to the nature of their income and regulatory constraints. Since banks are expected to distribute a significant portion of their earnings as dividends, the DDM becomes a more appropriate and simpler tool to reflect the present value of future returns to shareholders (Massari et al., 2014, pp. 1–6).

Moreover, the DDM focuses on the capital that can be distributed to shareholders without impairing the banks' liquidity or regulatory standing, making it particularly relevant in the context of a highly regulated industry. By using dividends as the basis for valuation, the model indirectly accounts for the bank's comprehensive income, cost structures, risk management, and the effect of regulatory requirements on capital distribution policies. This makes the DDM a preferred choice for investors and analysts who seek to measure the value of a bank's ongoing operations and its ability to sustain dividend payouts over time (Massari et al., 2014, pp. 1–6).

3.3.1 Dividend Discount Model (DDM)

The Dividend Discount Model (DDM) is a valuation technique used to estimate the intrinsic value of a company based on the present value of its expected future dividends. This model operates under the premise that the value of a company is essentially the sum of all its future dividend payments discounted back to their present value, making it particularly suitable for companies that regularly distribute dividends. DDM is flexible and can be structured in several forms to accommodate different dividend growth scenarios. These include the one-stage (Gordon Growth Model), two-stage, and three-stage DDM (Massari et al., 2014, p. 112). This chapter will explain each stage of the Dividend Discount Model and its advantages:

The one-stage DDM (Gordon Growth model):

$$\frac{EPS0 \times payout\,ratio \times (1 + Gs)}{Ke - Gs}$$

Where:

EPS0: Earnings Per Share for the current year

Payout ratio: Proportion of earnings per share distributed as dividends to shareholders

Gs: Expected growth rate in dividends

Ke: Cost of equity

The model calculates the value of a company's equity by taking the current year's earnings per share (EPS), the proportion of EPS paid out as dividends (payout ratio) and multiplying it by the expected growth rate in dividends (Gs). The next step is dividing it by the cost of equity (Ke) less the expected growth rate. This model is ideally applied to banks in a stable growth phase, assuming a growth rate that does not exceed the GDP growth of the country the company is operating in (Massari et al., 2014, p. 112).

For companies expected to experience extraordinary growth at first and then stabilize, the two-stage DDM is more appropriate. This model assumes that the company will grow faster than the economy for a certain number of years (t) before settling down to a long-term growth rate. It uses different growth rates for the initial growth period and the subsequent stable period.

The two-stage DDM:

$$P0 = \sum_{t=1}^{n} \frac{DPS0 \times (1+Gx)^t}{(1+Ke)^t} + \frac{DPS0 \times (1+Gx)^n \times (1+Gs)}{\frac{Ke-Gs}{(1+Ke)^n}}$$

Where:

N: Number of years of extraordinary growth.

Gx: Extraordinary growth rate.

The formula differs from the Gordon growth model by the extraordinary growth period (t) and its growth rate (Gx). There should be forecasts or evidence to why the company could experience a period of growth surpassing that of the economy (Massari et al., 2014, p. 112).

A three-stage DDM is best suited for companies with fluctuating yearly growth. aligning Dividends per Share (DPS) estimates with forward-looking financial statement projections. This model emphasizes year-by-year DPS adjustments, reflective of individual forecasts and analyst estimates, transitioning to a normalized dividend period based on analytical judgment and historical and industry payout ratios (Massari et al., 2014, p. 113).

The three-stage DDM:

$$P0 = \sum_{t=1}^{n} \frac{DPSt}{(1+Ke)^t} + \frac{DPSn \times (1+Gs)}{\frac{Ke - Gs}{(1+Ke)^n}}$$

Where:

DPSn: DPS for the forecasted year n

The three-stage Dividend Discount Model is ideal when combining analyst estimates with detailed forecasting and ongoing growth rates. This model is precise in forecasting dividends year by year, which provides a thorough valuation. Since company activities can change annually, predicting specific yearly dividends can lead to a more accurate estimate of the company's intrinsic value.

3.3.2 Cost of capital

The cost of capital is calculated by the Capital Asset Pricing Model (CAPM). CAPM is a way to measure the expected return of an asset given the underlying systematic risk for that asset. The risk of the investment reflects the uncertainty of its returns, hereby the fluctuations in the return on investment (Kenton, 2023). This framework includes the risk-free rate (Rf), Beta (B), and the market risk premium (Rm).

$$kei = E(ri) = Rf + B(i) \times [E(rm) - Rf]$$

Where:

E(ri): Expected return of company i

Rf: risk-free rate

B: Beta of company i

[E(rm)-Rf]: Market risk premium

In the capital asset pricing model, the market risk is captured in one beta measured relative to the market portfolio. The beta should in theory include all traded assets in the market portfolio (Damodaran, 2012, p. 91). CAPM assumes that every investor holds some combination of the riskless asset (Rf) and the market portfolio (rm). This leads to the conclusion that the expected return of an asset is linearly related to the beta of the asset (Damodaran, 2012, p. 90).

3.3.3 Risk free rate

The risk-free rate serves as the benchmark for assessing the expected returns on riskier investments. The risk-free rate is determined by the return on an asset considered to have zero risk, ideally government securities due to their lack of default risk. A risk-free asset must meet two conditions: there can be no default risk and no reinvestment risk. Default risk is minimized by the government's ability to print money. Reinvestment risk concerns the uncertainty of future rates affecting the actual returns compared to expected returns, particularly relevant for fixed-income securities over long periods. Despite these complexities, using government securities as a proxy for the risk-free rate is common (Damodaran, 2012, p. 90).

3.3.4 Beta

Beta is a measure that represents how closely one set of historical returns moves with another set of historical returns. A beta of one indicates that the two sets of historical returns correlate perfectly with each other (Pignataro, 2013, p. 349).

$$Beta\ of\ asset\ i = \frac{Covariance\ of\ asset\ i\ with\ market\ portfolio\ m}{Variance\ of\ the\ market\ portfolio\ m} = \frac{\sigma im}{\sigma^2 m}$$

Beta is calculated by dividing the covariance of the security's returns with the market returns by the variance of the market returns over a specific period. This coefficient reflects how much a security's returns change in response to market movements. High beta values signify that the security's price is sensitive to market changes, potentially offering higher returns (associated with higher risk), while low beta values suggest less sensitivity to market shifts, offering more

stability but typically lower returns. Negative beta values, which are less common, indicate an inverse relationship to the market. Understanding beta involves recognizing its limitations; it's based on historical data and might not reliably predict future movements or risk (Kenton, 2024).

3.3.5 Market risk premium

The market risk premium (MRP) is a financial metric that captures the additional return investors expect for choosing riskier market investments over risk-free assets. It's the difference between the expected return on a stock market index, like the S&P 500, and the return on risk-free assets, such as 10-year U.S. Treasury bonds. Essential in financial valuation models, including the Capital Asset Pricing Model (CAPM), MRP is used to calculate the required return on equity, reflecting the additional compensation investors seek for the increased risk taken by investing in the stock market rather than risk-free government bonds. This premium, pivotal in both modern portfolio theory and valuations, guides investors in their expectations for additional return as a trade-off for the higher risk of stock market investment (Chen, 2024).

To put the Market Risk Premium in the context of the Capital Asset Pricing Model, the market risk premium is crucial because it amplifies the impact of beta in the CAPM equation. It quantifies the additional return that investors demand to compensate for the risk of investing in the market over a risk-free asset. By multiplying the beta of an asset by the market risk premium, the CAPM reflects how much extra return above the risk-free rate should be required given the asset's susceptibility to market-wide risks. This calculated premium helps investors decide if an asset provides adequate potential return for its level of risk (Corporate Finance Institute, n.d.-b).

3.3.6 Perpetual growth rate and terminal value

The perpetual growth method, used in discounted return valuations, assumes that the cash flow or dividends of a company will continue to grow at a consistent rate indefinitely after the initial forecast period. This method is typically applied to calculate the terminal value at the end of the forecast period, which is a key component since terminal value often accounts for about 70% to 80% of the total net present value (NPV) of the company (The Investopedia Team, 2022).

Once a company reaches maturity, it is assumed to grow at the terminal growth rate. Growth during this stage is minimal as efforts focus more on maintaining market share against competitors rather than expanding. The terminal growth rate at this stage often aligns with broader economic indicators, typically ranging between the historical inflation rate (2%-3%) and average GDP growth rate (3%-4%) (Vipond, n.d.).

The calculation of terminal value employs the perpetuity growth model, which can be seen as a variation of the Gordon Growth Model. The formula for determining the terminal value is articulated as follows:

$$\text{Terminal value} = \frac{DPS \cdot (1+g)}{Ke - g}$$

Where:

DPS = Forecasted Dividends Per Share of the company at the end of the forecast period.

g = represents the expected terminal growth rate, which indicates the perpetual annual growth rate of the company's free cash flows.

Ke = Cost of capital, used here as the discount rate which reflects both the time value of money and the risks associated with future cash flows.

This formula assumes that the company's Dividends Per Share will grow at a constant rate (g) forever, starting from the last year projected in the DDM analysis. Once the terminal value is calculated, it must be discounted to its present value using the Cost of Capital (Ke). This step adjusts the future dividends to their current monetary value, considering both risk and the time value of money (Vipond, n.d.).

3.3.7 Analyst forecasts

Analyst forecasts of growth are often considered more accurate than predictions based solely on historical growth rates due to their access to a broader range of information. Beyond historical data, professional analysts utilize firm-specific updates, macroeconomic trends, competitor insights, private information, and other public financial indicators to predict future growth. This broad approach allows for more nuanced growth estimates, taking into account recent developments, economic conditions, competitive landscape, and financial performance metrics (Damodaran, 2012, p. 308).

The benefit of analyst forecasts becomes even more pronounced for companies that have recently experienced significant changes in management or business conditions. The consensus forecast from a group of analysts covering a stock tends to be more informative due to the diverse insights, however, the reliability of this consensus decreases with greater disagreement among the analysts, as indicated by the standard deviation of their forecasts. Lastly, the quality of an analyst's forecast can be gauged by the accuracy of their predictions. The larger the forecast error, the less weight should be given to their estimates (Damodaran, 2012, p. 311).

4 Methodology and Data Analysis

This part of the thesis methodically outlines the practical steps and analytical techniques used to assess the potential outcomes of this potential merger. The chapter covers the selection of peer groups for comparative analysis, the assumptions underpinning financial projections, and the specific models results utilized for the final valuation, including the Dividend Discount Model, Comparable Company Analysis and Precedent Transaction Analysis. This chapter aims to showcase the comprehensive process of gathering data, making informed assumptions, and applying rigorous financial models to estimate the fair value of SpareBank 1 Helgeland. For the analysis, the most recent annual and quarterly reports have been considered, and share prices are up to date as of the last trading day, April 19, 2024. By offering a clear roadmap of the methodology, Chapter 4 serves as a critical link between theoretical concepts and their practical application.

4.1 Assumptions

Assumptions play a crucial role in the valuation of a company because they form the basis for estimating the company's future payouts, which are then discounted back to their present value. This model operates under the premise that the intrinsic value of a company can be determined by the sum of all its future dividend payments, discounted back to their present value. To project these dividends, assumptions about the rate of growth of dividends, the cost of equity, and the duration of dividend payments are necessary. These assumptions are typically derived from historical data, industry trends, analyst forecasts, and the company's financial projections. However, the accuracy of the DDM heavily relies on the validity of these assumptions, which can be subject to significant uncertainty and variability. Thus, while DDM is a widely recognized method for valuation, it requires careful consideration and adjustment of the underlying assumptions to reflect the unique circumstances of each company being valued (McClure, 2023). This section explores the assumptions underpinning the DDM applied to SpareBank 1 Helgeland. It will demonstrate the forecasts concerning the risk-free rate, market premiums, earnings, and dividend distributions, among other factors.

4.1.1 Risk free rate.

PwC and the Association for Finance Professionals in Norway (FFN) conducted their 13th annual "Risk Premium in the Norwegian Market" survey with responses from 146 of FFN's roughly 1,000 members, aiming to capture insights on key financial metrics in Norway. The survey revealed preferences for the risk-free interest rate in equity return requirements for Norwegian companies. A majority, 54%, favor using the 10-year government bond as the risk-free rate (PwC, 2023). As of 19.04.2024 the 10-year government bond rate for Norway is 3.82% and will be used as the risk-free rate in the DDM for SpareBank 1 Helgeland (Norges Bank, 2024b).

4.1.2 Cost of capital

In this bank valuation, the beta coefficient is calculated using an industry-average approach, which is supported by both Rees (2018) and Massari et al. (2014). Rees highlights that estimating the beta of an asset, such as a bank's stock, typically involves leveraging larger

sample sizes from multiple companies within the same industry to create a more reliable industry beta, rather than relying solely on the asset's own historical data (Rees, 2018, p. 291). This methodology is preferred because, as Massari et al. explain, using the average beta from a homogeneous panel of banks, similar in size, geographic coverage, and business model, not only reflects the true risk of the industry or segment more accurately but also reduces the statistical standard error significantly compared to estimates based on a single bank's historical beta (Massari et al., 2014, p. 109).

Industry beta involves aggregating the betas of selected peers, the same peers that will be presented in the Comparable Company Analysis. The beta can be computed over various timeframes and intervals and benchmarked against different market indices. The industry beta is calculated through either a market capitalization-weighted or a simple average method. Once obtained, this beta can be applied directly in the Capital Asset Pricing Model (CAPM) or adjusted. The adjusted beta utilizes the Bloomberg formula: (raw beta * 0.67) + (1 * 0.33) (Corporate Finance Institute, n.d.-a).

The choice of timeframe for calculating beta is pivotal, aiming to reflect the bank's current and future exposure to market risk accurately. While the 5-year beta is derived from monthly returns, the 3-year beta utilizes weekly returns, offering more observations and reducing the standard error. This choice is reinforced by observing that post-2020, the industry peers, including SpareBank 1 Helgeland, showed a heightened correlation with the overall market, particularly after the COVID-19 pandemic, highlighting the relevance of incorporating this increased correlation into the beta calculation.

This nuanced approach to calculating beta has substantial implications for the bank's cost of equity, as illustrated in hypothetical scenarios: the cost of capital could range from 5.05% to 8.26%. Such variability significantly affects the valuation of future dividends. For instance, a future dividend of 10,000, projected five years ahead, could have a present value ranging between 6,724 and 7,817 depending on the chosen cost of capital, a notable difference of 1,092.

The base case for the model adopts a market capitalization-weighted industry beta which results in a cost of capital of 7.08%, adjusted using the Bloomberg formula. This approach reflects the expectation that SBH will grow, aligning its beta with larger entities within the industry. As SBH expands, diversifying its operations and income streams, its beta is anticipated to converge toward one, indicative of a larger company's risk profile (Corporate Finance Institute, n.d.-a). This adjustment not only captures SBH's growth trajectory but also acknowledges the bank's broadening economic engagement, ensuring the beta accurately reflects its systematic risk exposure.

Figure 8 displays the various outcomes by utilizing different averages, timeframes and adjusted- or non-adjusted betas. The Cost of capital is calculated by assuming a risk-free rate of 3.82% and market risk premium of 5%.

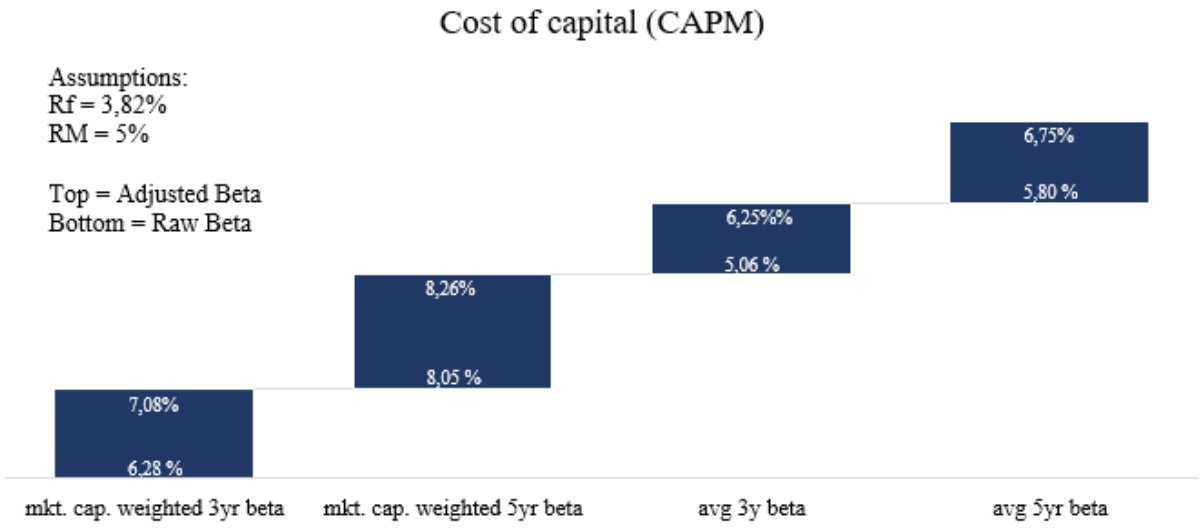

Figure 8 Cost of Capital (LSEG Workspace, 2024)

4.1.3 Market risk premium

The PwC report previously mentioned, "Risk Premium in the Norwegian Market," offers annual insights based on feedback 1,000 members professionals in the industry. Over the surveyed period from 2015 to 2023, findings reveal a consistent median market risk premium of 5.0%, with averages showing minimal variation. Particularly in 2023, the survey indicates sector-specific differences in market risk premium assessments, with professionals in banking, securities trading, and financial advising favoring slightly lower premiums than their

counterparts in other sectors. This sectoral analysis is encapsulated through a weighted average of market risk premiums across various professional domains. The market risk premium used in the valuation models of this report will correspond to the 5.0% collected for PWC's annual "Risk Premium in the Norwegian Market" survey (PwC, 2023).

4.1.4 Financial statement projections

Analyst forecasts are important for companies undergoing significant changes, such as Sparebank 1 Helgeland in the wake of Norway's sharp increase in interest rates and uncertain outlook. This deviation from the status quo presents challenges to forecasting future financials, as sharp increases in interest rates translate into increased net interest margins on loans in the short term. However, the uncertainty surrounding interest rate outlooks and market dynamics raises questions about the bank's margins in the coming quarters. Analyst forecasts offer valuable insights into navigating these fluctuations, especially in the short term, where their predictive abilities probably outweigh most calculated guesses. By utilizing the average analyst estimate for financials in FY24 and FY25, the thesis acknowledges the consensus estimates of analysts, recognizing their diverse perspectives and expertise in forecasting Sparebank 1 Helgeland's future financial performance amidst evolving market conditions (Tilley et al., 2024).

4.1.5 Loan trajectory

Loans are the most important product for banks, and thereby the bank's most significant source of income. Loans are forecasted by analyst estimates for FY24 and FY25 but are forecasted by a separate model from FY26 to FY30 (Tilley et al., 2024). This section will showcase the forecasting model for SBH's during this period.

First, let's provide some context for the bank's historic growth rate in loans to customers. This context is valuable for evaluating the reliability of the forecasting model. A model predicting a significant change in the growth rate from the historic trend should be a warning signal from a valuation standpoint because it suggests a drastic change in the company's operations.

Historically, the customer loan portfolio at SpareBank 1 Helgeland (SBH) has grown at a Compound Annual Growth Rate (CAGR) of approximately 5% between 2009 and 2023. However, this trajectory was somewhat distorted when SBH joined the SpareBank 1 alliance in 2021 (LSEG Workspace, 2024). The alliance led to the transfer of a substantial volume of loans from SBH to SpareBank 1 Boligkreditt instead of Helgeland Boligkreditt. Since Helgeland Boligkreditt is a fully owned subsidiary, its loans are recorded on SBH's balance sheet, while loans transferred to SpareBank 1 Boligkreditt, which SBH does not wholly own, are not (SpareBank 1 Helgeland, 2021a, p. 26). After adjusting for these loan transfers, SBH's actual CAGR is recalculated to be between 6-7%. This adjusted growth rate contrasts with the Norwegian loan market's consistent CAGR of 5% during the same period.

Moving on to the forecasting model and its underlying assumptions, the model uses Norwegian GDP as the basis for forecasting. This is because the banking sector is highly dependent on the country's financial state, including factors like unemployment and salaries. The model utilizes a survey conducted by the International Monetary Fund (IMF) to provide long-term outlooks on Norway's GDP (Statista, 2024). This survey includes growth rates for Norway's GDP each year and serves as the starting point for the model.

Second, the model links the size of the loan market relative to Norway's GDP. Typically, the size of the loan-market equates to between 35 and 40 percent of the GDP annually. This proportion has remained relatively stable, with the exception of 2022, when Norway's GDP saw double-digit growth due to significant fluctuations in gas prices. This surge disproportionately affected oil and gas companies rather than the broader population, which is why the growth in loans did not match the rise in GDP. The accompanying graph illustrates the trend of the total loan market as a percentage of nominal GDP.

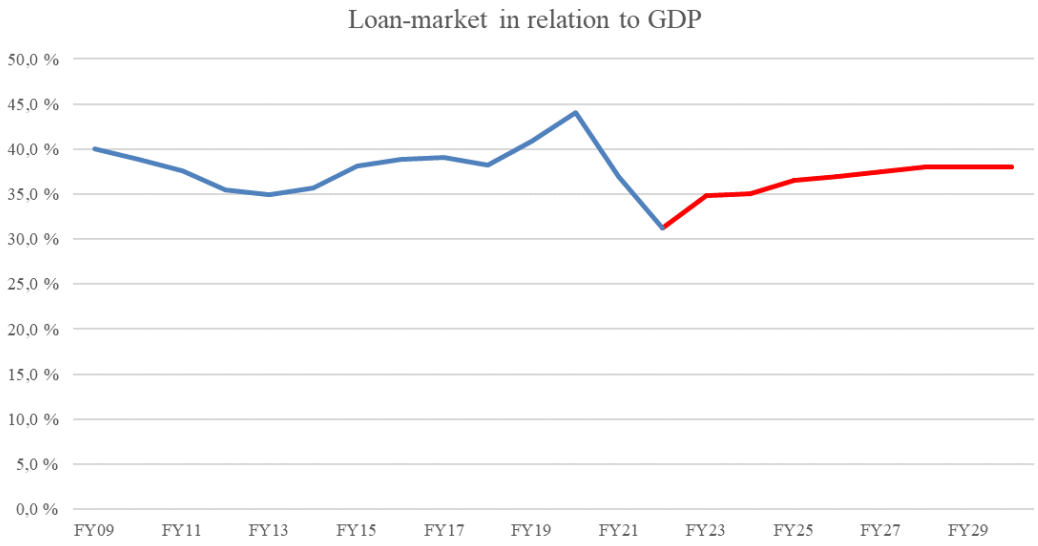

Figure 9 Loan market in relation to GDP growth (LSEG Workspace, 2024)

The graph depicts a stable trend in the loan market's proportion to GDP over the years, establishing a dependable pattern for the forecasting model. The section highlighted in red represents the projected part of the graph. The forecast assumes that the loan market's proportion to GDP will gradually return to its historical average. This conservative approach to reversion reflects the belief in the loan market's tendency to follow a path of steady adjustment.

Going into the last step of the model, one needs to forecast what share of the loan market SBH will hold over the coming years. this is also done by historic analysis, looking for strong relationships which will continue. The following graph shows the market share of SBH as a percentage of the total market size:

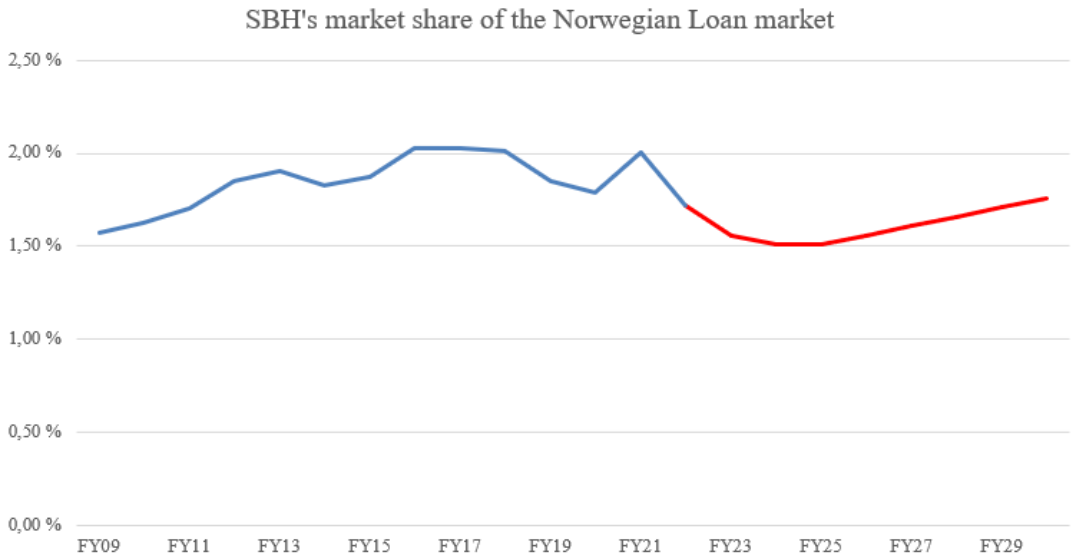

Figure 10 SBH's market share of the Norwegian Loan market (LSEG Workspace, 2024)

As the model shows, SBH have experienced a rise in market share historically, but this tapered off going into FY17. As mentioned, disruption occurred in 2021 with SBH's integration into the SpareBank 1 alliance and the subsequent loan transfers to Sparebank 1 Boligkreditt, prompting an adjustment to the data by reversing these transfers. The red portion of the line indicates the forecasted market share, expecting a reversion to SBH's historical norms. The forecast projects that SBH will regain some of its national market share and maintain a consistent market share of 1.76% from FY30 onwards.

To summarize the steps of the model, one can express it by the following formula:

$$SBH's\ loans\ _{t+1} = Size\ of\ economy_{t+1} * Loan\ market\ proportion_{t+1} * SBH's\ market\ share_{t+1}$$

Where:

Size of economy$_{t+1}$= IMF's forecast of Norway's GDP

Loan market proportion$_{t+1}$= Forecast of loan market size as percentage of GDP

SBH's market share$_{t+1}$= Forecast of SBH's share of the Norwegian loan market

The results of the forecast include yearly growth rates in loans to customers ranging from 1,3 to 7,1 percent. This range does not derive significantly from SBH's historic growth rates and are seen as reasonable given the assumption that SBH regains some of its lost market share, and that the market size keeps increasing in line with nominal GDP. The following table showcases the assumptions and the loans projected by the model:

		Projected:						
Asset Drivers	*Units:*	FY24	FY25	FY26	FY27	FY28	FY29	FY30+
Nominal GDP	*NOK*	kr 5,622,747,534,780	kr 5,657,046,294,743	kr 5,702,302,665,101	kr 5,841,438,850,129	kr 5,992,732,116,347	kr 6,142,550,419,256	kr 6,296,114,179,737
Growth	%	3.8 %	0.6 %	0.80%	2.44%	2.59%	2.50%	2.5 %
Total loans as percentage of GDP	%	35.0 %	36.5 %	37.0 %	37.5 %	38.0 %	38.0 %	38.0 %
Growth	%	0.6 %	0.6 %	0.3 %	0.1 %	-0.2 %	-0.4 %	-0.7 %
SBH Market share % of total loans	%	1.51%	1.51%	1.56%	1.61%	1.66%	1.71%	1.76%
Growth	%	-3.0 %	-0.2 %	3.3 %	3.2 %	3.1 %	3.0 %	2.9 %

		Projected:						
Assets and Capital Requirements	*Units:*	FY24	FY25	FY26	FY27	FY28	FY29	FY30+
Loans	*NOK*	kr 29,794,000,000	kr 31,204,000,000	kr 32,939,429,664	kr 35,294,410,070	kr 37,829,934,863	kr 39,942,767,814	kr 42,137,598,704
Growth	%	1.3 %	4.7 %	5.6 %	7.1 %	7.2 %	5.6 %	5.5 %

Figure 11 Loan trajectory forecast (LSEG Workspace, 2024)

4.1.6 Net interest income

Net interest income is calculated by subtracting interest expenses from interest income. Interest income is generated from the interest that customers pay on loans from the bank, whereas interest expenses represent the cost of funding these loans. Funding costs include both the expenses associated with issuing bonds and the interest paid on customer deposits, reflecting the dual components of bank loan financing (Kagan, 2023).

Figure 12 showcases the relationship between deposit and loan margins and their impact on the overall net interest margin. This margin data, derived from SSB, is obtained by deducting NIBOR from the bank's interest rates on loans and deposits at each month's end. This dynamic mirrors what is observed in SBH's financial statements, a relatively stable net interest margin over time, even when NIBOR is relatively volatile (SSB, n.d.).

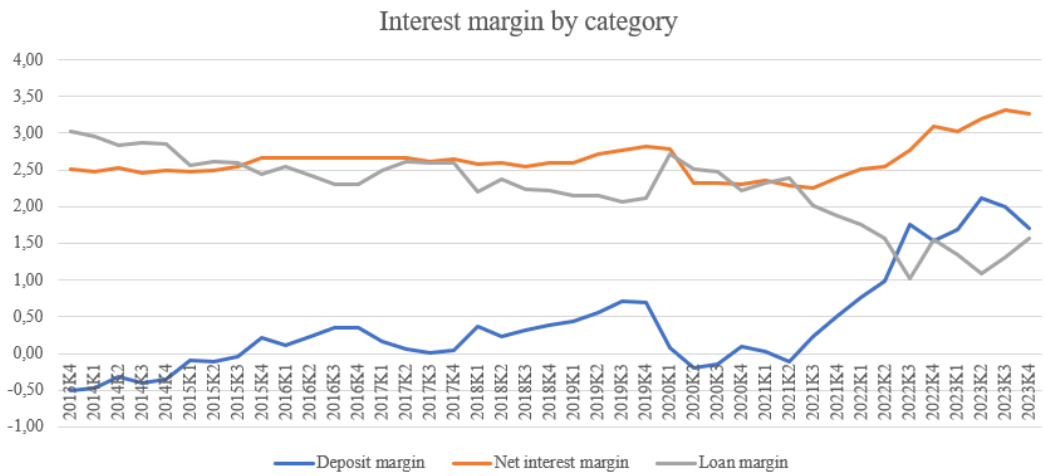

Figure 12 Interest margin by category (LSEG Workspace, 2024; SSB, n.d.)

Figure 13 illustrates that the net interest income as a percentage of total loans exhibits significant fluctuations during certain periods, while appearing stable during others. It's a recognized pattern among banks that the net interest margin tends to increase during periods of substantial interest rate changes, often because of banks increasing interest rates on loans faster than the interest to deposits, or the other way around (Blaker, 2023).

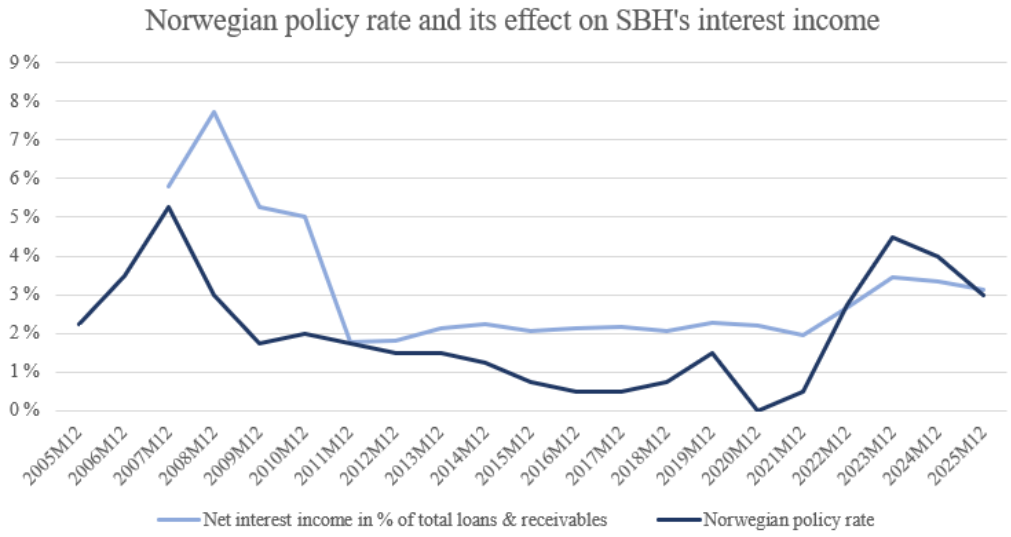

Figure 13 Interest rate policy effect on income (Norges Bank, 2024a)

Due to the recent sharp increase in the Norwegian policy rate, the current interest rate scenario stands out from the typical environment. This shift challenges accurately forecasting the

company's net interest income in the near future. As a result, analyst predictions are used for the company's net interest income over the next two years (Tilley et al., 2024). Moving into the medium term, the net interest margin is anticipated to slowly return to its normalized historical average of 2.53% gathered from the years 2011 to 2021. For the long term, the net interest margin is expected to maintain this normalized historical average in perpetuity.

				Projected:				
Profitability drivers	*Units:*	FY24	FY25	FY26	FY27	FY28	FY29	FY30+
Net int. income % of loans	%	3.36%	3.14%	2.90%	2.75%	2.65%	2.55%	2.53%
Growth	%	0%	-7%	-8%	-5%	-4%	-4%	-1%

Figure 14 Net income forecast (LSEG Workspace, 2024)

4.1.7 Provisional income

Provisional income, which fluctuates based on activities like guaranteed commissions, insurance product sales, real estate transactions, and payment processing, has historically ranged from 0.2% to 1% of customer loans, with a sample standard deviation of 0.19%. As a percentage of net interest income, it has varied between 9% and 44%, exhibiting a higher relative standard deviation (LSEG Workspace, 2024). Given its variability, it's impractical to forecast provisional income independently from loans. Thus, the valuation maintains the historical average ratio of provisional income to loans at 0.47%. After considering two years of analyst estimates, which predict provisional income as 0.568% and 0.566% of total estimated loans for 2024 and 2025, we align with these insights both due to analysts' potential information advantage and deeper sector understanding, but also because of its small deviation from the historical average (Tilley et al., 2024). Consequently, we will adjust provisional income to 0.47% of total loans in the medium and long term, ensuring this ratio remains constant into perpetuity.

4.1.8 Revenue

The revenue forecast combines net interest income and provisional income, with net interest income serving as the primary source of revenue. The forecast is based on stable growth in the medium to long-term and does not include possible fluctuations in interest income or provisional income, which could result from significant interest rate shifts, changes in customer loans, variations in deposit and loan margins, extreme provisions, or other factors. Future

analyses will incorporate sensitivity assessments to account for various scenarios, including changes in margins, significant variations in provisions, or other influencing factors.

Based on analyst predictions and our calculations, revenue is anticipated to increase at a compounded annual growth rate (CAGR) of 1.46% until the perpetuity year (Tilley et al., 2024). This CAGR differs from the projected growth rate in loans due to adjustments in net interest income and provisional income as interest rates and market dynamics stabilize. The resulting revenue forecast for the base-case assumptions are depicted in Figure 15.

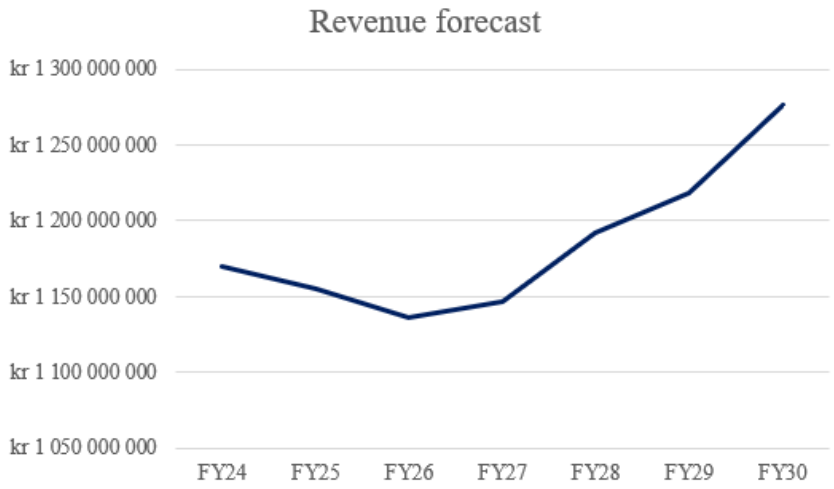

Figure 15 Revenue forecast (LSEG Workspace, 2024)

4.1.9 Operational expenditures

In the context of the Dividend Discount Model, operational expenses are delineated into five distinct categories: salaries and administration costs, provisions for loan losses, depreciation related to selling, advertising and rental expenses, and other operational expenses. The operational expenses are forecasted by their historic relationship to other items in the financial statements, identifying trends in these relationships or keeping them constant over time (Pignataro, 2013, p. 72). If historic trends are identified, the forecasts are made by extrapolating the trend of the coefficient from linear regressions of these relationships. In other words, continuing the trend of the ratio.

Salaries and Administration Costs primarily include employee compensation and are linked to revenue growth, which dictates staffing needs. Historically, SBH has aimed to keep costs below 40% of revenue (SpareBank 1 Helgeland, 2023, p. 58). With a trend of decreasing costs relative to revenue, the model anticipates a 0.25% annual reduction in these expenses as a percentage of revenue.

Provisions for Loan Losses cover both standard model-related provisions and specific or extraordinary provisions. Given the unpredictability of loan losses, which do not correlate directly with total loan amounts, this category uses a historical average for forecasting, incorporating years with significant loan losses to establish a reasonable basis.

Depreciation in selling expenses is projected based on a historical downtrend relative to revenue. The uncertainty in the assets linked to these costs necessitates cautious forecasting, with the model continuing the observed trend.

Rental costs have shown stability, while advertising expenses have fluctuated more, this could continue due to competitive pressures from larger banks. The model uses initial analyst estimates for the first two years before reverting to historical trends, stabilizing in the terminal year (Tilley et al., 2024).

Other Operational Expenses have been rising as a percentage of revenue, which could impact SBH's profitability. This category's costs are significant, with an annual increase of 1.36% projected based on historical data with a high correlation (R^2 of 86%).

Taxes are calculated based on a corporate tax rate of 22%, with historical effective rates around 23% considering variances. The corporate tax rate is held constant at 22% as this rate is decided by authorities (Fiken, n.d.).

Earnings are derived from total income minus all operational expenses and taxes, thus reflecting the net income for the company. The medium to long-term forecasts for earnings emerge from the outlined assumptions about revenue, operational expenses (OPEX), and taxes.

The following table shows the cost assumptions employed in the Dividend Discount Model. The costs are either as a percentage of revenue or loans, specified on the left side of the table:

Profitability drivers	Units:	Projected: FY24	FY25	FY26	FY27	FY28	FY29	FY30+
Other OPEX (Net) % revenue	%	18.9 %	18.9 %	20.3 %	21.6 %	23.0 %	24.3 %	25.7 %
Growth	%	-0.2 %	0.0 %	7.2 %	6.7 %	6.3 %	5.9 %	5.6 %
Depreciation in selling % revenue	%	2.9 %	2.8 %	2.6 %	2.5 %	2.4 %	2.2 %	2.1 %
Growth	%		-4.5 %	-4.7 %	-5.0 %	-5.2 %	-5.5 %	-5.8 %
Salaries & administration cost % revenue	%	15.8 %	15.6 %	15.3 %	15.1 %	14.8 %	14.6 %	14.5 %
Growth	%	-1.6 %	-1.6 %	-1.6 %	-1.6 %	-1.7 %	-1.7 %	-0.6 %
Provision for loan losses % loans	%	0.2 %	0.2 %	0.2 %	0.2 %	0.2 %	0.2 %	0.2 %
Growth	%	-35.3 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Advertising and rental expense % revenue	%	2.5 %	2.6 %	2.8 %	2.9 %	3.0 %	3.1 %	3.2 %
Growth	%		4.8 %	4.6 %	4.4 %	4.2 %	4.0 %	3.9 %
Tax provisions	%	22.7 %	22.2 %	22.0 %	22.0 %	22.0 %	22.0 %	22.0 %
Growth	%	3.0 %	-2.2 %	-0.8 %	0.0 %	0.0 %	0.0 %	0.0 %

Figure 16 Earnings assumptions (LSEG Workspace, 2024)

4.1.10 Capital Requirements and Risk Weighted Assets

Capital requirements play a pivotal role for savings banks because they limit the amount of loans the bank can lend out, and how much dividends the bank can pay at any given moment. These requirements are grounded in the concept of risk-weighted assets (RWA), which provide a metric for gauging a bank's exposure to various risks, including credit, counterparty, and operational risks. The essence of RWA is to quantify the proportion of a bank's capital that is exposed to risks, serving as a foundation for determining the capital requirements to safeguard against potential losses (Tuovila, 2023).

Risk-weighted assets are presumed to maintain a consistent proportion of the bank's total capital in the DDM model. This approach guarantees that the risk-weighted assets adjust in tandem with the bank's fluctuations in loans and deposits, maintaining a stable relationship relative to the bank's overall capital structure.

The Basel framework, comprising three pillars, sets the global standard for these capital requirements. The first pillar mandates a minimum capital adequacy ratio, stipulating that banks must maintain capital at least equal to 8% of their RWA to cover inherent credit, market, and operational risks (SpareBank 1 Helgeland, 2022b, p. 3). For instance, SBH's capital requirements for 2022, based on different risk categories, can be delineated as follows:

2022	RWA	Required min. capital (8%)
Credit risk	18 930 070 128	1 514 405 610
Counterparty credit risk	259 735 821	20 778 866
Operational risk	1 620 029 241	129 602 339
Total	20 809 835 190	1 664 786 815

Figure 17 SBH's capital requirements (SpareBank 1 Helgeland, 2022b, p. 3)

Pillar 2 accentuates the supervisory review of a bank's internal risk assessment and mitigation strategies. Finanstilsynet, Norway's financial supervisory authority, may impose additional capital charges on top of the Pillar 1 requirements based on its risk evaluation of the bank. For SBH, an additional Pillar 2 requirement of 2.2% of RWA was instituted as of April 30, 2022 (SpareBank 1 Helgeland, 2022b, p. 3).

Furthermore, banks must maintain buffer capital, segmented into the capital conservation buffer, systemic risk buffer, and countercyclical buffer. Each serves a distinct purpose: the capital conservation buffer is designed to accumulate capital during prosperous times to avert falling below minimum requirements during downturns; the systemic risk buffer addresses the structural vulnerabilities of the financial system; and the countercyclical buffer aims to bolster bank solvency during recessions, preventing exacerbation of economic downturns by restrictive lending practices (SpareBank 1 Helgeland, 2022b, p. 3). For 2022, the capital requirements of SBH can be broken down as follows:

SpareBank 1 Helgeland	**2022**
Common Tier 1 Equity	4.50 %
Hybrid Capital	1.50 %
Tier 2 capital	2 %
Pillar 1 min. requirements	**8.00 %**
Capital conservation buffer	2.50 %
Systemic risk buffer	3 %
Counter-cyclical buffer	2.00 %
Buffer capital	**7.50 %**
Pillar 2 extra requirement	2.20 %
Pillar 1 + Pillar 2 + buffer	**17.70 %**
Additional capital	5.84 %
Responsible capital + additional capital	**23.54 %**

Figure 18 SBH's capital requirements breakdown (SpareBank 1 Helgeland, 2022b).

The "additional capital" denotes the surplus equity beyond the sum of Pillar 1, Pillar 2, and buffer requirements, encapsulating the bank's residual equity reserve.

The assumption is that the total capital requirement of 17.7% will remain unchanged throughout the forecast period for SBH. This assumption is rooted in the regulatory nature of capital requirements, which are subject to annual reviews and potential adjustments. The model allows for flexibility in the additional capital above the capital requirements, which could vary in response to different financial metrics like return on equity and payout ratio. This adaptability ensures that the additional capital can be adjusted upward or downward to align with SBH's strategic goals, including its payout policy and adherence to industry trends.

The following table showcases the capital requirement assumptions used in the Dividend Discount Model:

		Projected:						
Assets and Capital Requirements	*Units:*	FY24	FY25	FY26	FY27	FY28	FY29	FY30+
Total assets	*NOK*	kr 37,794,000,000	kr 39,532,000,000	kr 41,730,596,510	kr 44,714,094,952	kr 47,926,323,068	kr 50,603,047,598	kr 53,383,654,402
Growth	%			5.6 %	7.1 %	7.2 %	5.6 %	5.5 %
Total capital requirement % total capital	%	17.7 %	17.7 %	17.7 %	17.7 %	17.7 %	17.7 %	17.7 %
Growth	%	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Required capital & additional capital	%	21.59%	22.07%	22.00%	21.00%	21.00%	21.00%	21.00%
Growth	%	-5.9 %	2.2 %	-0.3 %	-4.5 %	0.0 %	0.0 %	0.0 %
Additional capital above requirements	%	3.89%	4.37%	4.30%	3.30%	3.30%	3.30%	3.30%
Growth	%	-25.7 %	12.3 %	-1.5 %	-23.3 %	0.0 %	0.0 %	0.0 %
RWA % total assets	%	59.3 %	57.8 %	56.1 %	56.1 %	56.1 %	56.1 %	56.1 %
Growth	%	7.9 %	-2.6 %	-3.0 %	0.0 %	0.0 %	0.0 %	0.0 %

Figure 19 Capital requirement assumptions (LSEG Workspace, 2024)

4.1.11 Payout ratio

The payout ratio for savings banks encompasses various categories, including dividends to equity certificate (EC) holders, contributions to gift funds, and customer dividends. This report acknowledges the payout ratio only as the dividends paid to EC-holders divided by the net income.

For SBH, the dividend policy as stated in the 2022 annual report aims for a 50% payout to EC holders, a target that also informs the dividend forecasts (SpareBank 1 Helgeland, 2023, p. 63). This policy is contingent on achieving financial targets and obtaining annual approval from the board of representatives. Despite the historical increase in the payout ratio to EC holders since

2009, the model must prioritize meeting capital requirements as a bare minimum but also maintaining some additional capital before determining feasible dividend payouts. The DDM will thus adopt a conservative approach to the payout ratio, adjusting it to align as closely as possible with the 50% target while ensuring that SBH meets its total equity and additional capital requirements. Analyst predictions for the next two years will be incorporated, followed by an adjustment to a payout ratio that supports SBH's capital structure stability (Tilley et al., 2024). This adjusted payout ratio of 45% will be maintained into perpetuity, and is displayed in the assumption table below:

Assets and Capital Requirements	*Units:*	Projected:						
		FY24	FY25	FY26	FY27	FY28	FY29	FY30+
Payout ratio	%	60.4 %	56.9 %	50.0 %	45.0 %	45.0 %	45.0 %	45.0 %

Figure 20 Payout ratio assumptions (LSEG Workspace, 2024)

4.1.12 Dividends per share (DPS)

Dividends per share (DPS) will be calculated by dividing the product of net income and payout ratio by the number of outstanding equity certificates. Given the challenges in accurately predicting new issuances or buybacks of equity certificates in the future, due to these actions being highly dependent on company policy, the number of equity certificates will be assumed to remain constant into perpetuity. This approach applies to the short, medium, and long-term. The equity certificates will therefore be constant at 27'000'130 for the entire period.

By calculating the Dividends Per Share with the forecasted financials, one ends up with the following results:

		FY24	FY25	FY26	FY27	FY28	FY29	FY30+
Dividends to equity certificate holders	*NOK*	kr 288,973,874	kr 277,144,481	kr 233,335,141	kr 205,962,368	kr 208,466,211	kr 207,438,778	kr 211,542,250
Number of equity certificates	*NOK*	27,000,130	27,000,130	27,000,130	27,000,130	27,000,130	27,000,130	27,000,130
Dividends per certificate	*NOK*	10.70	10.26	8.64	7.63	7.72	7.68	7.83

Figure 21 DPS Assumptions (LSEG Workspace, 2024)

4.1.13 Perpetual growth rate

The perpetual growth rate is the rate at which a company is expected to grow indefinitely. For SBH, it is set to align with the long-term growth prospects of the overall economy and the Norwegian banking sector, underpinned by the assumption that SBH will not only recover but

also sustain its historical market share into the distant future. In the Dividend Discount Model, a cautious perpetual growth rate of 2% has been applied. This rate is on the lower end of the spectrum, considering historical inflation rates typically range from 2-3% and GDP growth rates hover around 4-5%. A more conservative rate tempers the potential for overly optimistic projections and provides a safeguard against potential long-term economic slowdowns.

4.1.14 Cost synergies

This section explores the cost synergy assumptions integrated into a specific Net Present Value (NPV) model. The assumptions will be aggregated and discounted over the forecast period using the previously determined cost of capital. Rather than attributing specific cost reductions to individual areas like customer service or anti-money laundering workforce reductions, the model will collectively assess the impact of cost synergies. The objective of this calculation is to quantitatively evaluate the potential synergies. By doing so, the model aims to illustrate the impact of cost synergy assumptions on the intrinsic value as computed by the DDM. Ultimately, this analysis will provide SpareBank 1 Nord-Norge with a framework of the expected cost synergy premium, offering a strategic view of the merger's financial implications.

In the analytical model depicted in Figure 22 synergies are categorized into two primary dimensions: cost synergies and revenue synergies. Since revenue synergies are difficult and too complex to predict with any certainty, these will not be evaluated in this thesis. Cost synergies are further evaluated based on their likelihood of successful integration and the time required to realize the anticipated benefits (Bousquet, 2017, p. 12).

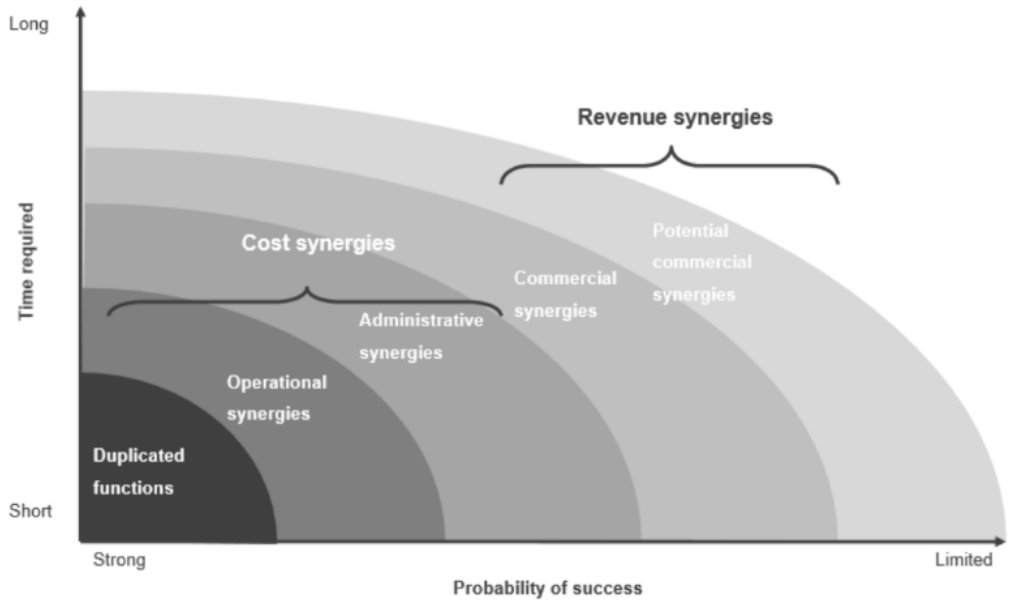

Figure 22 Synergy dimensions (Bousquet, 2017, p. 12)

The synergies that boast the highest probability of success and require the shortest time to implement are overlapping functions. These functions could potentially be centralized, streamlining processes into a singular, more efficient operation. The subsequent table enumerates potential duplicated functions and ranks them according to the feasibility of their consolidation.

Potentially duplicated functions	Probability of consolidating these functions
Customer Service	High
Anti-Money Laundering (AML)	High
Regulatory monitoring	Medium-High
Human Resources (HR)	Medium-High
Marketing and Communications	Medium-Low

Figure 23 Department consolidation.

The NPV model assumes a gradual reduction in salaries and administrative costs as a percentage of revenue from 2025 onward, that is, additional to the base cost assumptions, maintaining this reduced level through the remainder of the forecast period. The reduction in salary costs stems from the overlapping functions and natural departure of employee's post-merger. The workforce

reduction is driven by less need for a proportionate increase in employees as tasks of a duplicative nature increase. This assumption aligns with the sector's outlook, considering it typically takes time to realize the benefits of a merger. The following table showcases the results of the cost synergy assumptions and the net present value of these cost-savings as its own synergy-premium:

			Projected:						
Cost-synergy calculations	*Units:*	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30+
Salaries & administration cost	*NOK*		kr 0.0	kr 3,602,841.0	kr 5,225,662.0	kr 8,648,057.9	kr 8,835,476.9	kr 8,880,809.3	kr 9,250,165.3
Cost reduction from base assumptions	%		0.00%	2.00%	3.00%	5.00%	5.00%	5.00%	5.00%
Total OPEX Difference	*NOK*		kr 0	kr 3,602,841	kr 5,225,662	kr 8,648,058	kr 8,835,477	kr 8,880,809	kr 9,250,165
Present value of cost synergies per certificate	*NOK*	kr 4	kr 0	kr 3,142,161	kr 4,256,143	kr 6,577,868	kr 6,276,076	kr 5,891,181	kr 86,669,454
Cost synergy premium	%	3.3 %							

Figure 24 Cost saving assumptions (LSEG Workspace, 2024)

Reflecting on these assumptions with a specific example from the Norwegian banking sector, the 2020 annual report of Skue Sparebank, regarding its merger with Hønefoss Sparebank, provides relevant insights into the cost-synergy motives for Norwegian savings banks. It states:

> *In Norway, the conditions for banks are changing. Increased competition and squeezed margins, along with increasingly demanding regulatory requirements from authorities, mean that banks need to boost their revenues or cut costs (personnel and branch network) to survive (Skue Sparebank, 2021).*

This statement from the annual report emphasizes the necessity for banks to either increase their income or reduce costs, including personnel and office networks, to remain competitive. This aligns with the cost synergy assumptions of a 5% reduction in salaries in proportion to revenue.

4.2 DDM results

The Dividend Discount Model (DDM) employs three methodologies to anchor its assumptions and forecasts: the projection of asset drivers, the incorporation of analyst estimates, and the examination of historical financial trends and relationships. These methodologies serve as the foundation for the model's valuation, aiming to accurately represent the intrinsic value of SBH by analyzing its projected financial performance. In the process, the DDM considers capital

requirements before estimating the expected payout ratio, which aligns with the bank's existing dividend policy.

This section will reflect on the results from the DDM model and evaluate the numbers' reliability by keeping an eye on some important ratios. The ratios of SBH at the current time will be measured against the forecasted ratios in the future, where the results will be tested on its economic and intuitive foundation. The following table highlights some important ratios and changes based on the forecasted financials:

Year	Cost % revenue	Roe	Other Opex % revenue	Loan growth	Payout ratio	Excess capital
Current year	44 %	10,9 %	19 %	-5,0 %	62,2 %	5,2 %
2025	46 %	9,7 %	19 %	4,7 %	56,9 %	4,4 %
2027	49 %	8,3 %	22 %	7,1 %	45,0 %	4,3 %
2029	51 %	7,6 %	24 %	5,6 %	45,0 %	3,6 %
Perpetuity year	53 %	7,5 %	26 %	5,5 %	45,0 %	3,3 %

Figure 25 Ratio forecast (LSEG Workspace, 2024)

In analyzing the future expenses relative to revenue, which encapsulates all operational expenditures for each forecasted year, there is an escalation of costs across the period. This metric is crucial as it underpins two fundamental elements of profit: revenue and expenses, both central to the earnings equation. Revenue has assumption calibration earlier. Expenses, on the other hand, have been projected based on historical patterns and the explanatory strength indicated by the model's coefficient of determination (R^2). The importance of keeping costs down is highlighted by the earlier mentioned target of 40% costs in proportion to revenue. The uptrend in expenses as a percentage of revenue is predominantly attributed to a surge in the "other OPEX" category.

A closer examination of other operational expenditures reveals a consistent rise relative to revenue, historically accounting for 80% of the variability as reflected by the R^2 value. Concurrently, SBH has set a benchmark of maintaining operational costs below 40% in its annual reports (SpareBank 1 Helgeland, 2023, p. 58). This strategic financial goal raises a pivotal inquiry: what strategies will SBH implement to counteract the current trajectory of cost trends?

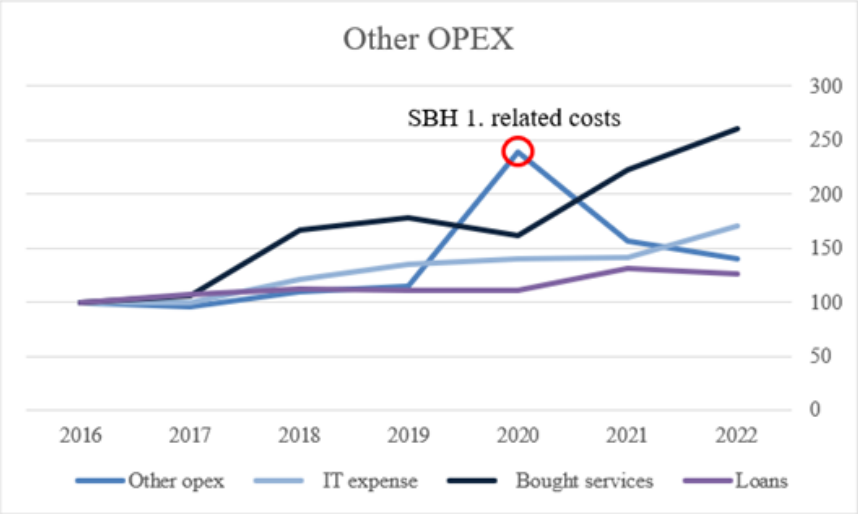

Figure 26 Other OPEX (SpareBank 1 Helgeland, 2022a, p. 81)

Figure 26 illustrates the two principal components of "Other OPEX": IT-expenses and purchased services, highlighting a spike in 'Other OPEX' due to non-recurring costs associated with the SBH 1 Project (SpareBank 1 Helgeland, 2022a, p. 81). SBH has encountered cost challenges previously, countering them by scaling down its workforce, initiating profitability projects, and reducing office count, and allowing natural turnover to decrease the number of employees without active replacement (SpareBank 1 Helgeland, 2017, p. 16).

The expenses detailed in Figure 26 largely pertain to the due diligence, preparations, and repercussions of the SBH 1 Project. With the downsizing of offices and personnel, the company incurs costs associated with overtime and hiring temporary replacements (SpareBank 1 Helgeland, 2022a, p. 23). Simultaneously, the bank employs consultants for sustainability reporting, which underscores the key drivers for upcoming mergers and acquisitions, including regulatory demands and the potential for task duplication reduction in the future. Inflation is also recognized as a contributing factor to cost dynamics, in line with broader economic trends (SpareBank 1 Helgeland, 2024a, p. 65).

SBH's history of cost-cutting reflects its ability to control future expenses. When the Dividend Discount Model's assumptions are applied to the cost regression from Figure 6, one can see a notable shift in the ratio of SBH's employee expenses to its projected size. Pointing to a future

where the bank maintains lower labor costs, which, however, are counterbalanced by higher costs in other operational expenses, like purchased services. This development questions SBH's abilities to keep up with its cost target going forward.

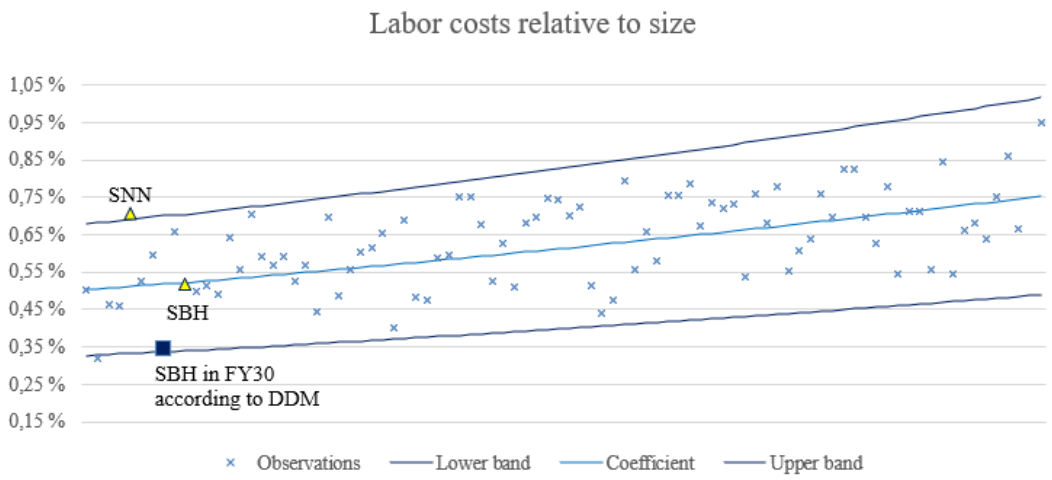

Figure 27 Labor cost as percentage of total capital with DDM Assumptions applied (Bankens Sikringsfond, 2022)

4.2.1 Choice of calculation method

The range of different valuation techniques applied brings to light the integral uncertainties in the assumptions and projections of SBH's financial prospects. To refine the valuation, a comprehensive set of scenario and sensitivity analyses will be undertaken. These exercises are designed to yield a target price corridor (the range) for SBH's equity certificates.

The impact of various cost of capital calculation methodologies, ranging from simple averages to weighted averages of beta, adjustments via Bloomberg, or the use of raw beta over different time frames, will be scrutinized, as detailed in the following table. The divergence in outcomes underscores the significance of selecting an appropriate beta calculation method, which reflects the relative risk of the bank in comparison to the market.

	Cost of capital by beta calculation-method			
	3yr adjusted	3yr raw	5yr adjusted	5yr raw
mkt. cap weighted	145	170	119	123
simple avg	172	235	154	191
% deviation from current price	15.8%	36.3%	-5.0%	-1.9%
% deviation from current price	37.2%	88.3%	23.4%	52.8%

Figure 28 Cost of Capital scenario (LSEG Workspace, 2024)

The anticipated range of share prices, as indicated by the calculations, varies markedly from an 88% increase above today's price to a potential 5% decrease below it. This variability highlights the critical importance of a thorough selection process for the beta calculation method, as it has a direct correlation with the perceived risk and, consequently, the estimated cost of capital.

An analysis of the extreme values within this range is necessary. For instance, the significantly higher share price estimate is a result of smaller banks' lower betas in comparison to SBH, impacting the average cost of capital calculation. Conversely, the involvement of larger banks with higher betas could inflate the average. This interplay between bank sizes illustrates the influence that the chosen beta calculation has on the cost of capital and, by extension, the valuation of SBH.

When presenting the projected price range for SBH, a key factor is the disparity between 3-year and 5-year beta calculations, as well as the impact of employing market capitalization-weighted averages compared to simple averages in determining the industry beta. Utilizing a market capitalization-weighted beta, larger banks constitute 83% of the average. In contrast, a simple average approach disproportionately amplifies the influence of smaller banks. Given the expectation that SBH will grow, it is presumed to align more closely with the risk profile of larger banks rather than smaller ones, as the latter do not mirror the systematic market risk as closely. Therefore, a market capitalization-weighted beta is preferable to gauge SBH's evolving risk profile accurately.

The perpetual growth rate holds pivotal importance in valuing the future dividend stream, similar to projecting free cash flow growth in a DCF analysis. This parameter is notably complex to predict for banks, given their sensitivity to broader economic forces, regulatory influences, and monetary policies enacted by central banks. As detailed in the accompanying table, different perpetual growth rates, when combined with the established cost of capital of 7.08%, lead to varied valuations.

Perpetural growthrates and CAPM-range			
	6.28%	7.08%	8.05%
2.5 %	50%	25%	4%
2.0 %	36%	16%	-2%
1.5 %	26%	8%	-7%

Figure 29 Perpetual growth and CAPM sensitivity (LSEG Workspace, 2024)

The sensitivity analysis highlights the widely differing outcomes by implementing different perpetual growth rates. The earlier mentioned base case assumption of 2% perpetual growth rate is made conservative to decrease the risks of positively skewed forecasts. This rate can be shown to be a good choice in scenarios where economic conditions are expected to be sluggish or uncertain. Lower growth expectations may be more stable and predictable, reducing the volatility in valuation outcomes.

The Dividend Discount Model yields a valuation range for SpareBank 1 Helgeland, setting the target price at 145, with a lower band at 113 and an upper band at 170. This spread is driven by differing assumptions about the cost of capital, while holding a perpetual growth rate of 2%. The lower price of 113 reflects a cost of capital at 8.6%, mirroring heightened perceived risks or opportunity costs linked to economic uncertainties, sector-specific challenges, or modest growth expectations within the bank's region. This scenario leads to heavily discounted future dividends, yielding a lower present value, appealing to conservative investors who favor a cautious strategy amid potential risks. In contrast, the upper target of 170 is based on a more optimistic scenario with a 7.08% cost of capital, indicative of a favorable outlook with lower risks and stable conditions likely to foster growth, attracting investors confident in the bank’s future performance.

4.3 CCA model results

Detailing the results of the Comparable Company Analysis (CCA), the focus is on a group of savings banks used as multiples comparatives. These institutions are geographically concentrated in or around the northern regions of Norway. Due to the scarcity of such banks on the Oslo Stock Exchange, traditional valuation parameters, including market capitalization, capital structure and other common measures, have been somewhat relaxed for peer selection.

The assessment of banking entities requires a distinct approach in applying multiples, attributed to their specialized operational model, the regulatory framework they operate under, and their unique financial structures. In contrast to non-financial entities that derive revenue from the sale of goods or services, banks earn their income primarily through interest margins and provisions. Consequently, banking valuation multiples lean towards figures that embody interest income and operational efficiency, rather than solely revenue or EBITDA. A substantial segment of a bank's balance sheet is composed of financial holdings and obligations, rendering standard valuation indicators like EBITDA less applicable. Such metrics fail to account for the risks tied to the lending activities of banks or the repercussions that fluctuations in interest rates may have on their financial performance.

As a result of this, the multiples that is used in this comparison is P/E, P/BV, P/TBV and P/Operating-Profit BNRIE. P/E reflects profitability relative to share price. P/BV and P/TBV provide perspectives on valuation relative to the bank's net asset value, with P/TBV offering a more conservative view by excluding intangible assets. P/Operating-Profit Before Non-Recurring Income/Expenses evaluates a bank's efficiency in generating profits from its core operations, essential for understanding operational performance. Together, these multiples allow for a comprehensive comparison by accounting for profitability, asset valuation, operational efficiency, and overall financial health, making them essential for analyzing banks in a comparative context.

A market capitalization-weighted average of ratios versus a simple average presents a choice of preferred methodology. Similarly to the DDM opting for a market capitalization-weighted average aligns with the presumption of SBH's growth trajectory, especially as it is already one of the larger entities in the peer group. By applying less weight to smaller banks, the financials of these institutions are magnified within the analysis.

Comparable Companies	Market cap 19.04.24	Stock price 19.04.24	P/E	P/BV	P/TBV	P/Operating-Profit BNRIE
SpareBank 1 Helgeland	3 373 396 000	125	9.20x	1.02x	0.76x	5.18x
SpareBank 1 Nord-Norge	9 712 504 000	97	8.54x	1.42x	0.66x	2.92x
Aasen Sparebank	211 688 500	116	9.59x	1.06x	0.31x	2.01x
Grong Sparebank	576 803 300	146	3.72x	0.46x	0.46x	3.79x
Melhus Sparebank	430 314 900	156	9.47x	1.00x	0.32x	2.45x
Nidaros Sparebank	118 499 900	106	15.89x	0.95x	0.22x	2.83x
Romsdal Sparebank	303 797 100	109	11.64x	0.91x	0.25x	3.64x
SpareBank 1 Nordmøre	1 078 359 000	119	9.76x	0.86x	0.31x	2.63x
SpareBank 1 SMN	20 233 450 000	140	8.70x	1.22x	0.79x	4.90x
Sparebank 68 Grader Nord	466 864 500	156	10.09x	0.96x	0.35x	2.69x
Sparebanken Møre	4 033 877 000	84	7.51x	1.22x	0.52x	3.00x
Simple average			9.49x	1.01x	0.42x	3.09x
Weighted average			9.40x	1.33x	0.76x	4.47x
Median			9.53x	0.98x	0.33x	2.87x
Minimum			3.72x	0.46x	0.22x	2.01x
Max			15.89x	1.42x	0.79x	4.90x

SBH Multiples		Comparable companies multiples	Weighted average	Estimated stockprice	Worst case	Best case
EPS	16.21	*P/E*	9.40x	152	60	258
BV per share	137.9	*P/BV*	1.33x	183	64	196
TBV Per share	95.0	*P/TBV*	0.76x	72	21	75
Operating profit per share	24.1	*P/Operating-Profit*	4.47x	108	48	118
			Stock price	**128.88**	**48.40**	**161.80**
			Upside/Downside	**3.16%**	**-61.26%**	**29.50%**

Figure 30 CCA Analysis (LSEG Workspace, 2024)

The table presented provides a comparison of the peer group, displaying market capitalization and current ratios for each bank, alongside simple and weighted averages for context. This visualization allows for a nuanced view of the market positioning of SBH relative to its industry peers.

This analysis offers two methods for comparing the target, SBH, with its peers. Initially, the model demonstrates how SBH's valuation multiples relate to those of its peers. If SBH's multiples exceed the average, median or the weighted average, it suggests that the company might be overvalued. Based on Figure 30 and the weighted average, it is evident that SBH is fairly valued when compared to its peers. The P/Operating profit BNRIE however is slightly higher than the weighted mean and significantly higher than the mean. This implies that the pricing of SBH is too high relative to the operating profit from the core operations, compared to its peers. Overall SBH, with the exemption of the P/Operating profit BNRIE multiple, is neither overvalued nor undervalued, also reflected by the next technique of evaluating this model.

The second method for assessing SBH's relative value involves using the peer group's average multiples to calculate stock price estimates based on SBH's metrics. By multiplying the weighted mean multiples, P/E, P/BV, P/TBV and P/Operating Profit BNRIE, to SBH's Earnings

Per Share (EPS), Book Value (BV) per share, Tangible Book Value (TBV) per share and Operating Profit per share, each calculation provides an individual estimated stock price. Averaging these estimates yields a proposed stock price for SBH. As illustrated in Figure 30, this approach results in an estimated stock price of NOK 128.88 per share for SBH, indicating a recommendation for the stock to be traded at a small 3.16% premium from its current price of NOK 125. It's essential to acknowledge that this method provides a relative valuation, contingent on peer group multiples, which can be influenced by numerous factors. In a perfect market this method would be highly sufficient, but as we know there will always be conditions that affect a company's value outside its multiples.

4.4 PTA model results

Similar to the Comparable Company Analysis (CCA), Precedent Transaction Analysis utilizes a peer group of companies sharing similar characteristics as previously described. However, the peer group for this analysis will vary from the other group. The industry segment and financial measures of the peer companies should be comparable to the target company being analyzed. Also, the characteristics of the acquiring companies in the peer group should also be similar in terms of the type of transaction and size. The more recent the transaction is the more useful the comparison is. This PTA seeks to limit the comparable transactions to takeovers from 2020 and onwards, only takeovers by and of savings banks, and only transactions in Norway. Lastly, the limited number of comparable mergers in the same size of SpareBank 1 Helgeland forced the peer group to be less focused on the dimension of transaction sum in the analysis. The final peer group for the PTA is the following transactions:

Takeover announced	Acquiring Company	Target Company	Target MKT CAP	Pre-merger price	Last traded price	Premium	Weighted premium
2024	*SpareBank 1 Østlandet*	*Totens Sparebank*	1 396 394 000	107	109	1.70%	1.3%
2023	*Haugesund Sparebank*	*Tysnes Sparebank*	207 619 300	206	228	10.68%	8.7%
2023	*SpareBank 1 SR-Bank*	*SpareBank 1 Sørøst-Norge*	9 156 842 000	51	65	27.66%	56.8%
2023	*SpareBank 1 SMN*	*SpareBank 1 Søre Sunnmøre*	1 486 000 000	103	137	32.64%	9.2%
2022	*SpareBank 1 Sørøst-Norge*	*SpareBank 1 Modum*	1 146 000 000	54	62	15.05%	7.1%
2021	*SpareBank 1 BV*	*SpareBank 1 Telemark*	2 155 299 761	39	48	21.60%	13.4%
2021	*SpareBank 1 Nordvest*	*Surnadal Sparebank*	425 025 000	108	125	15.74%	2.6%
2020	*Sparebank 68°*	*Ofoten Sparebank*	144 703 000	117	150	28.27%	0.9%
SUM			**16 117 883 061**		**Average Premium**	**19.17%**	**24.30%**
SpareBank 1 Helgeland	Current price 124.94		3 373 396 000		SBH Price + wPremium	155	NOK Per share
					Downside	127 1.70%	NOK Per share
					Upside	159 27.7%	NOK Per share

Figure 31 PTA Analysis (LSEG Workspace, 2024)

The analysis continues by finding the premiums paid in these transactions by using the PTA formula shown in Chapter 3.2.2. Calculating the simple average premiums from these

transactions, it appears that a reasonable premium for SpareBank 1 Helgeland stands at 19.17%, with a variation ranging from 1.7% to 32.64%. This proposed premium closely aligns with the financial services industry norm in Europe, which was around 23.5% during 2017-2018 (Statista, 2022). The weighted premium, which in this case will be the target price or target premium, is even closer to industry average at 24.3%. It is critical to note the three mergers listed at the top of the table, Totens Sparebank, Tysnes Sparebank and Sparebank 1 Sørøst-Norge, are announced but not yet finalized. Hence, the ultimate premium paid may be subject to change. In this case the premiums are calculated with the pre-announcement price of the stock and last traded price 19th of April 2024. The price stated at NOK 155 per share serves not as a definitive target price but rather as a component in the concluding valuation phase, which will influence the ultimate price target.

5 Discussion

This chapter delves into the proposed merger between SpareBank 1 Helgeland (SBH) and SpareBank 1 Nord-Norge (SNN), offering a diverse discussion on its financial and strategic implications. We begin by exploring the potential synergies arising from the merger, including financial and regulatory. These include amongst other things economies of scale and reduced administrative costs, contributing to the merger's potential to enhance profitability and competitiveness. The chapter also addresses possible threats to the merger, including regulatory hurdles, resistance from stakeholders, and potential cultural challenges. Before synthesizing these aspects to evaluate the overall feasibility of the merger, considering its financial implications, strategic positioning, and alignment with industry trends.

5.1 Potential Synergies

Several compelling motives exists for SpareBank 1 Nord-Norge (SNN) to consider a merge with SpareBank 1 Helgeland (SBH). Both banks operate in close proximity, with operations that even intersects in some regions, a merger presents the opportunity to consolidate their presence in the northern regions of Norway. In Norway’s savings bank sector, characterized by fierce competition and limited distinctiveness, the chances for gaining additional market share are diminishing. Merging with SBH represents a strategic move for SNN to remain competitive within the tightly integrated Norwegian savings bank sector. As other entities within their

SpareBank 1 – Alliance, such as SpareBank 1 SMN and SpareBank 1 SR-Bank, extend their influence in the southern half of Norway, it becomes imperative for SNN to expand and secure market positions before these opportunities are fully absorbed by larger banks.

Furthermore, SNN as a strategic partner and shareholder of SBH, as highlighted when SBH became a part of the SpareBank 1 – Alliance, underscores the logical next step towards a merger. With shared goals of regional growth and the utilization of identical routines and systems further rationalize the full unification of SNN and SBH, presenting a united strategy for mutual advancement.

5.1.1 Financial Synergies

To assess the feasibility of a merger, financial synergies often represent a critical motive for the acquiring party. However, predicting these synergies in terms of both magnitude and probability of success can be challenging. This section will explore the anticipated financial synergies, evaluate their potential for success, and analyze their likely impact on the overall transaction.

In the context of Norwegian savings bank consolidations, a fairly common policy is to avoid terminations solely on the grounds of mergers, see e.g. (Farstad, 2021; Skøien, n.d.; SMNREDAKSJONEN, 2022). This stance provides job security to employees from both organizations, often leading to a more favorable perception of the merger. Nevertheless, despite this policy, synergies may still naturally evolve over time, potentially reducing headcount in certain departments. For instance, in the case of customer service, a post-merger integration might initially result in an overlapped service delivery with an increased workforce. However, as employees naturally depart due to various reasons such as job changes or completion of studies, management might opt not to replace these roles.

The SpareBank 1 – Alliance operates a centralized customer service desk that handles inquiries from all alliance customers. Although this centralized unit addresses general questions, individual banks, including SBH, maintain their own offices and service desks. This structure reduces the potential cost savings for SBH in the event of a merger, as several duplicative tasks are already centralized by product companies inside the bank alliance. As such, the service

functions of SBH and SNN are likely to have duplicated tasks, yet it offers relatively limited cost synergies for SBH.

In the context of a merger, several functions present opportunities for task consolidation. Anti-money laundering (AML) functions, including transaction scrutiny and customer due diligence protocols such as KYC, are primary candidates. Regulatory monitoring, which spans a wide array of obligations from solvency to consumer protection. Specialized tasks, such as aligning compliance practices and conducting stress tests on loans, require deep expertise and are essential for harmonizing different operational methodologies from merging banks. Human Resources (HR) and marketing and communications roles also offer significant potential for consolidation. All these areas are subject to potential synergies through the merging of tasks and centralization of functions, aiming to enhance operational efficiency and effectiveness in the newly formed entity. However, it is important to recognize that the more specialized and bank-specific the tasks, the less likely they are to be candidates for merging.

Since forecasting synergies and dyssynergies presents challenges, revenue and regulatory synergies will not be estimated quantitatively. The assumption of a 5% reduction in salary costs as a percentage of revenue is seen as conservative, as it only covers a fraction of the possible synergies. It is anticipated that SBH will aim to decrease expenses by reducing unnecessary headcount. However, these reductions may initially lead to increased costs in hired services and other expenses, continuing the existing trend in other operational expenditures (OPEX). Over the long term, it is expected that merging the entities will lead to cost savings, but implementing cost reduction strategies may be necessary to temper the growth in expenses related to hired services and IT. This results in the estimated cost synergies of 4 NOK per share, highlighting the importance of future cost savings for the acquisition.

5.1.2 Regulatory Synergies

The Norwegian banking sector, like its European counterparts, is on the brink of a significant regulatory overhaul with the proposed implementation of Basel IV, set to commence from January 1, 2025 (Robberstad & Folvik, 2021).

An article from the Professional Association for Auditors in Norway called "Regelverksutviklingen i finanssektoren" ("Regulatory development in the financial sector") elaborates on how the financial sector has seen a robust evolution in regulatory frameworks aimed at enhancing financial stability and preventing crises similar to the 2008 financial crisis. This includes measures to strengthen risk management, improve financial industry solidity, reduce liquidity and financing risks, and implement effective strategies for the revitalization or winding down of troubled institutions, alongside the importance of enhanced and more effective supervision. Specifically, the Basel III/CRD IV proposals introduce new provisions related to derivative positions affecting capital requirements, which entail significant strategic and operational consequences for banks, indicating a need for adaptation to evolving standards. Furthermore, it emphasizes the necessity for banks to establish internal guidelines for the prudent handling of asset collateralization, underscoring the ongoing effort to bolster the financial sector's resilience against systemic risks (Jansrud, 2013).

According to PwC Norway the implementation of Basel IV is expected to lead to higher capital requirements for many Norwegian banks, particularly those with significant exposure to credit, market, and operational risks. Banks utilizing internal models may face increased capital charges due to the output floor provision, potentially narrowing the competitive gap between large and smaller banks. To navigate the changing regulatory landscape, Norwegian banks must start preparing for Basel IV compliance. This preparation involves reviewing and adjusting internal models, risk management practices, and capital planning strategies. Additionally, banks may need to consider strategic adjustments to their business models to mitigate the impact of higher capital requirements on profitability and growth prospects (Robberstad & Folvik, 2021).

In this context, merging as a larger bank, SNN and SBH are positioned to realize regulatory synergies, notably from lower compliance costs. Following the financial crisis, the EU, and the Norwegian Financial Services Authority (FSA) have imposed regulations on banks to avert future disasters, with these requirements expected to intensify further over time. The unified entity will be in a more advantageous position to manage and meet the growing regulatory demands, benefiting from economies of scale and easing the regulatory burden. The combination of insights from the articles and the challenges confronting SBH might face in the

future underscores the strategic benefit of integrating with SNN to adeptly maneuver through the evolving and intricate regulatory environment. Predicting the synergies from regulatory relief and implementing this into the valuation of SBH is a comprehensive task and is challenging without the knowledge of internal processes and organization structure. Hence it will not be added directly to the valuation model. Nevertheless, it is expected that a merger between the two banks would significantly decrease the need for compliance and jurisdictional workers and reduce labor related costs, strengthening the strategic motives to go forward with such a takeover. This further supports a conservative assessment of a 5% reduction in the cost synergies estimate.

5.2 Possible Threats

All types of Mergers & Acquisitions face scenario specific challenges. The potential merger between SpareBank 1 Nord-Norge and SpareBank 1 Helgeland raises several issues, with the Norwegian Competition Authority (NCA) keeping a close watch to ensure fair competition is maintained. This chapter will address the NCA's critical evaluation against anti-competitive practices, which could significantly influence the merger's feasibility. Furthermore, it will consider the internal dynamics within the banks' boards, where differing perspectives on the merger may lead to resistance, reflecting the broader debate on the need for diversity in banking services versus the efficiencies of consolidation. The discourse will be framed by recent regulatory decisions and market analyses, which underscore the complex relationship between maintaining competitive banking markets and embracing the digital transformation of the industry.

5.2.1 The Norwegian Competition Authority

The Norwegian Competition Authority (NCA) is tasked with enforcing the Competition Act. Their efforts are concentrated on three main areas defined by the legislation: preventing illegal cooperation (§10), curbing abuse of dominant positions (§11), and overseeing merger control (§16). The Authority's vigilant enforcement of these areas is crucial to preventing weakened competition, which could otherwise result in higher prices, inferior offerings, diminished quality, and reduced innovation for consumers and society at large (Konkurransetilsynet, 2020).

All companies are required to notify the NCA about any mergers or acquisitions, ensuring that such moves will be scrutinized by the regulatory body (Konkurransetilsynet, 2018). The historical trend of consolidation in Norway's banking sector hints that further diminishing the diversity of savings banks might have adverse impacts on consumers. Finance Norway, representing employers and the financial industry, recently asserted that the Norwegian banking market is in fact competitive. However, this claim is challenged by the consumer organization Huseierne, which published a report analyzing banking competition in Norway. The report contests the notion of a competitive market, pointing out that despite the presence of over 100 banks, the market is largely controlled by DNB and Nordea, following numerous mergers and acquisitions. Huseierne presents the concentration of savings banks in different Norwegian cities in Figure 32.

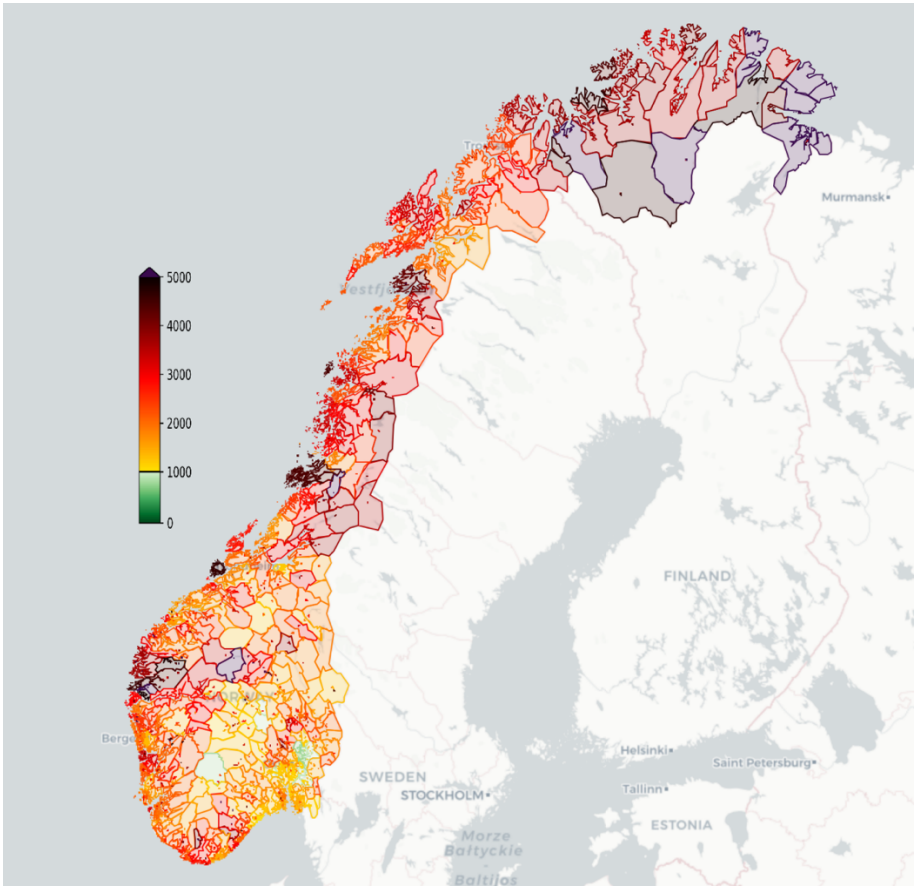

Figure 32 Concentration of Norwegian saving banks for different regions (Huseierne, 2024, p. 7)

The report ranks the regions according to their Herfindahl-Hirschman Index (HHI), which measures the level of competition. In the report a HHI below 1000 indicates strong competition, a HHI between 1000-2000 (lighter colors) indicates moderate competition, and a HHI above 2000 (darker colors) indicates weak competition. Figure 32 shows that most of the cities in the southern half of Norway have a moderate level of competition. It also shows that majority of the cities with a high concentration of over 2500 are in the northern half of Norway, suggesting less competition (Huseierne, 2024). This concentration reduces the choices for regional and local banking services, especially in the regions of SpareBank 1 Helgeland and SpareBank 1 Nord-Norge. Huseierne proposes measures to enhance competition in mortgage banking and calls on the government to facilitate lower mortgage rates through genuine market competition, underlining the importance of such competition in crucial services like housing loans for the welfare of Norwegian homeowners (Berset, 2024).

A recent report from the Norwegian FSA seems to support Huseiernes claim. In the retail banking market, the largest banks' share of total loans has increased over the last decade. By the end of September 2023, the three largest banks had a combined market share of 44% in the mortgage sector, while the share for the five largest banks was 54%. The largest banks' share of total deposits was somewhat lower than that of mortgages. The year-over-year increase in the combined market shares of the three/five largest banks was primarily due to structural changes, such as DNB's acquisition of Sbanken in 2022 (Finanstilsynet, 2024).

In November 2021 the NCA blocked the acquisition of Sbanken by DNB, due to concerns it would limit competition in the fund distribution market. DNB appealed this decision in December 2021. Contrary to the NCA, the Appeals Board found no substantial evidence that the acquisition would significantly harm competition, leading to the reversal of the initial prohibition. This decision is met with disappointment by the project leader from the Competition Authority, emphasizing the divergence in conclusions drawn by the Appeals Board and the Authority itself (Konkurransetilsynet, 2022).

The reversal of the prohibition against DNB's acquisition of Sbanken by the Competition Appeals Board, despite initial concerns from the NCA, suggests a nuanced approach to merger

control in Norway's banking sector. This outcome may signal to SpareBank 1 Nord-Norge and SpareBank 1 Helgeland that potential mergers could be viewed more favorably under certain conditions. However, given the NCA's mandate to prevent reduced competition, any merger proposal between SNN and SBH would likely undergo rigorous scrutiny.

The NCA would particularly assess the impact on market competition, considering the significant market presence in the regions served by SBH and SNN. Despite this, the rationale for approving the merger in a market with high concentration might rest on the digital evolution of the banking industry. With digitalization, customers nationally have access to a wide range of banking services without the need for proximity to physical branches, potentially diminishing the traditional concerns about local market concentration.

The FSA report, along with observations from the NCA regarding banking sector mergers, indicates a heightened regulatory examination of bank consolidations aimed at safeguarding market competition. Exemplified by DNB Bank's acquisition of Sbanken, and the NCA's initial intervention to prevent such mergers over concerns of limiting competition, reflect a regulatory commitment to monitoring market dominance that could impact consumer choices. This approach is part of efforts to sustain a varied banking sector, competitive mortgage rates, and a range of banking services throughout different regions, which could potentially be a massive challenge for this merger to be accomplished.

5.2.2 Resistance from the Board of Representatives

For a merger or acquisition to proceed harmoniously, there must be consensus among the boards of all companies involved in the transaction. Both SNN and SBH have diverse boards of representatives, including elected bank customers, equity certificate holders, and employees, forming the highest governing body equivalent to the traditional board of a standard stock company (SpareBank 1 Helgeland, 2024c; SpareBank 1 Nord-Norge, 2024b). A staggered board of directors, as previously discussed, can act as a deterrent to potential takeovers. While the board of representatives does not fit the conventional model of a staggered board, its purpose is clear. It ensures that the bank's stakeholders have a voice in the company's decision-making processes, acting as a form of countermeasure to takeovers. Although this governance structure

supports stakeholder participation effectively, it could create hurdles for the potential merger of the two banks. Employees may harbor concerns about job security or changes in their roles. Customers could miss out on the personalized service they associate with their local savings bank, and equity certificate holders might fear a reduction in their investment returns. Circumstances that could influence their decision to oppose a proposal, should one be presented.

SpareBank 1 Helgeland has expressed skepticism towards a merger with SpareBank 1 Nord-Norge, maintaining a stance of independence despite the banking industry's trend towards consolidation. Hanne Nordgaard, the CEO of SBH, has affirmed that the bank's recent record underline its robust standalone position. Despite owning a 20% stake in SBH, SNN, led by CEO Hanne Karoline Kræmer, has shown a more positive attitude towards a merger, indicating openness to discussions about banking partnerships in Northern Norway. However, Nordgaard has reiterated that even with a good relationship to SpareBank 1 Nord-Norge, merging is not on the agenda for her bank, emphasizing plans to remain an independent entity in Helgeland for the foreseeable future (Gerhardsen, 2024b). Similarly, Sverre Klausen, CEO of the SBH Savings Bank Foundation, has reiterated Nordgaard's views, asserting a lack of natural market demand for such a merger (Gerhardsen, 2024a).

The standpoint of the executives SBH and their foundation, in addition to the director of SNN, might mirror the employees' and customers' views on a potential merger involving the two banks. This suggests that stakeholders on the SBH board could possess a more unfavorable view of a merger compared to those associated with SNN. The recent merger between Totens Sparebank and SpareBank1 Østlandet, announced in early January 2024, highlights potential resistance to such mergers. An anonymous survey distributed to all employees revealed that one-third were against the merger, indicating that while the majority were either supportive or neutral, a significant portion of opposition could lead to tensions and increased resistance to future merger proposals in other savings banks (Gerhardsen, 2024c).

Similar to SpareBank 1 Helgeland the board of representatives at SpareBank 1 Nord-Norge may not see the merger as a good fit for their interests. Studies have consistently shown that while target shareholders generally experience positive returns from mergers, due to premiums

received on their shares, acquiring firm shareholders often see no positive returns or even negative impacts from these transactions in the short term. This average outcome suggests a market skepticism toward the acquiring firms' ability to realize synergistic benefits that justify the premiums paid for the target company (Gaughan, 2018, pp. 581–582). Given these considerations, SNN's board may conclude that the potential risks and the often lukewarm market reception to acquisition news could outweigh the anticipated benefits, leading to a decision against pursuing a merger.

5.3 Valuation of SpareBank 1 Helgeland

Evaluating the worth of SpareBank 1 Helgeland is a complex task, essential for informed decision-making in the context of a possible merger. The visual summary depicted in Figure 33 outlines the valuation range for different methods, each represented by horizontal bars. These ranges begin with the 52-week price range, indicative of market perception and price fluctuations, and extend to more detailed methods such as the Dividend Discount Model. The lighter blue line represents the mean of the 52-week range and the analyst forecasts, and the target price from each valuation technique. The top and bottom of the navy bars respectively represent the best- and worst-case valuation result for that specific method.

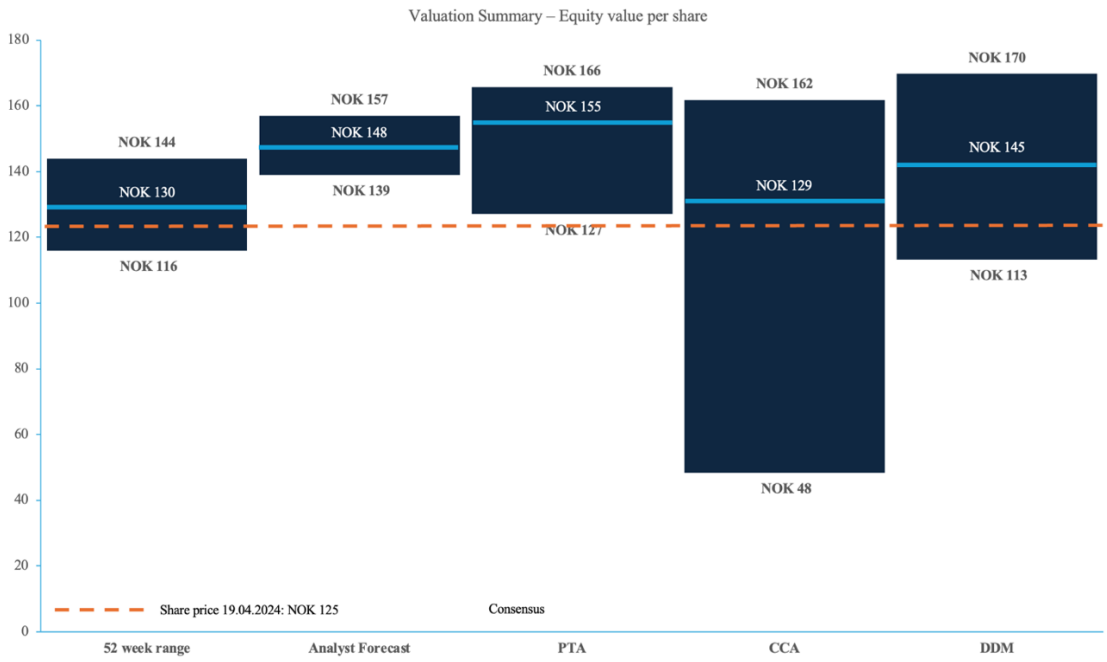

Figure 33 Football-field analysis (LSEG Workspace, 2024)

An immediate assessment of Figure 33 shows that the dotted orange line, representing the share price, is positioned beneath all five valuation benchmarks. This indicates that as of April 19th, 2024, SpareBank 1 Helgeland's shares, priced at NOK 125 per share, are valued lower than the benchmarks suggest, signifying SBH are potentially undervalued. Additionally, the mean prices and valuation targets presented can be differentially weighted according to their respective importance. Applying such weights will produce a composite price target, representing the fair value of SpareBank 1 Helgeland. Based on this computed fair value, a proposed merger premium could be calculated, reflecting the added value from anticipated synergies.

The 52-week price range is assigned a modest weight of 10% in the overall valuation model primarily due to its focus on historical market behavior rather than the fundamental strengths or future potential of a company. This method reflects past trading behavior influenced by market events and investor sentiment, offering less insight into the company's financial performance or growth prospects than other methods. Additionally, it does not account for how a company compares to its peers, crucial for acquisition valuations. While the 52-week range does provide a snapshot of market perception and price volatility, these factors alone are insufficient for a comprehensive evaluation. Therefore, it is weighted minimally to acknowledge its usefulness in assessing market risk and sentiment without allowing it to overshadow more predictive, fundamental analysis methods in the valuation process.

Analyst price targets are accorded a substantial weight of 25% in the overall valuation model, acknowledging their role in encapsulating expert opinions and forward-looking analysis. Unlike methods that rely solely on historical data, analyst targets synthesize various factors, including anticipated financial performance, strategic initiatives, and market conditions, which are critical for evaluating a company's future potential. Despite their comprehensive nature, analyst price targets are not without limitations, as they may carry the biases of the analysts and are based on forecasts that could be upset by unforeseen market changes. Furthermore, while informative, they may not always provide a comparative view of the company against its industry peers, a key factor in acquisition valuations. Hence, the 25% weight allows for a significant

consideration of these informed estimates while maintaining a balanced approach with other valuation methods that contribute to a more robust and diversified financial analysis.

The Precedent Transaction Analysis is attributed a 25% weighting in the valuation framework, leveraging its strength in reflecting actual market transactions. Because of the previous merger premiums being pulled from comparable companies both in geography and sector, it could inform the potential value of SpareBank 1 Helgeland. Notably, the market capitalization-weighted average premium for similar deals stands at 24%, yet this figure is notably skewed by a few large deals, specifically 57% influenced from the acquisition of SpareBank 1 Sørøst-Norge by SpareBank 1 SR Bank, suggesting potential outlier effects. The given weight to PTA of 25% in the model acknowledges the value of historical data in setting prices while also being careful not to overstate the importance of any unusual deals.

Comparable Company Analysis (CCA) is allocated a 25% weighting in the valuation model, recognizing its utility in comparing SpareBank 1 Helgeland (SBH) with its peers based on market valuations. While market multiples derived from book values and earnings offer valuable insights, they do not encapsulate the full picture of a bank's value. Factors such as geographic reach, product mix, and operational efficiencies, which can significantly impact a bank's performance, are rarely fully accounted for in these multiples. This limitation is particularly poignant in the banking sector, where such nuances can drastically affect its value. The importance of the analysis should not be undermined by these limitations however, assuming an efficient market is expected to value these multiples correctly. By assigning a 25% of the weight to CCA, the model balances the insights from market comparables with an awareness of their limitations.

The Dividend Discount Model (DDM) is assigned a 15% weight in the overall valuation framework. This moderate weighting reflects the model's dependency on numerous assumptions that can significantly influence the output. DDM calculates the present value of expected future dividends, which inherently requires projections about future growth rates, cost levels, and the choice of an appropriate discount rate. These elements are speculative and vary considerably based on the economic environment and the specific financial management

strategies of the bank. For instance, the forecasted loan expansion for SBH, which is fundamental to revenue growth in the DDM, is significantly dependent on both GDP growth and the corresponding increase in market share. Given these sensitivities, DDM can offer valuable insights into the value of SBH as a dividend-paying bank, but as mentioned throughout the report, its reliability is bounded by the accuracy of its assumptions. Therefore, by limiting DDM's weight to 15%, the valuation acknowledges its contributions in assessing shareholder returns through dividends while tempering its influence due to the potential variability in forecasting future financial conditions.

$$Price\ target = 130(10\%) + 148(25\%) + 155(25\%) + 129(25\%) + 145(15\%) = 142$$

This composite approach culminates in a target price of NOK 142 for SBH, which represents a 13.9% premium over the current market price. Additionally, this target price sits 6 NOK below the average analyst price target. Overall, the valuation of SBH has been weighted on multiple levels to mitigate the risk of flaws contributed by any single valuation technique.

5.3.1 Proposed premium for SpareBank 1 Helgeland

The five valuation methods used in Figure 33 reflect a target price for the stock in a regular valuation for SpareBank 1 Helgeland. The goal of this thesis, however, is not only to argue for a fair value for SBH but also to propose a potential acquisition price. Figure 34 shows the construction of the proposed acquisition price, consisting of the current share price, NOK 17 added from the valuation of the company, and another NOK 4 from estimated cost synergies resulting from the merged company.

The additional NOK 4 is attributed to cost synergies resulting from the potential merger with SpareBank 1 Nord-Norge. These synergies arise mainly from cost cutting and operational efficiencies. Merging departments and operational processes reduces redundancies and streamlines workflows, lowering administrative costs and improving efficiency. The combined operations also enable economies of scale, particularly in areas such as IT infrastructure, marketing, and product offerings. The addition of NOK 4 in cost synergies might seem modest, yet the conservative estimates stem from the two banks already being part of the same alliance

and having similar infrastructure, such as customer service, as described in the cost synergies subchapter.

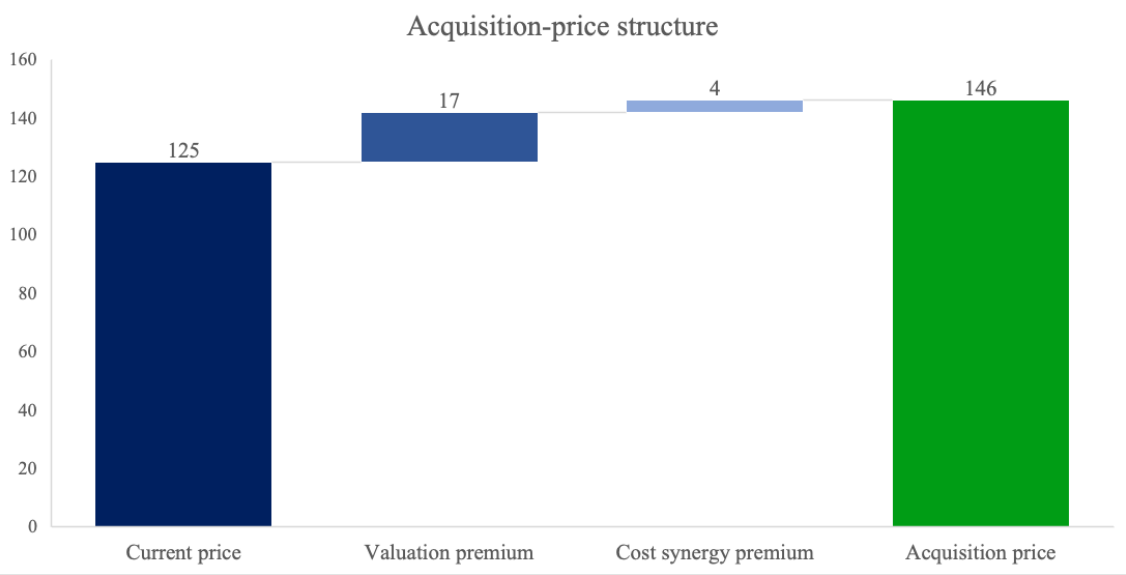

Figure 34 Acquisition price structure

Together, these premiums suggest that SpareBank 1 Nord-Norge could bid a starting offer of NOK 146 per share, proposing a full deal value of NOK 3,942 billion. Dividing this price on SNN's price at NOK 96.74 results in an exchange ratio of 1.51, which gives each SBH shareholder 1.51 shares of SNN shares from the transaction. A potential deal would be subject to rigorous negotiations, legal fees, and additional costs beyond this price. This highlights the importance of careful financial planning and strategic alignment for successful mergers and acquisitions within the banking sector, ensuring both immediate and long-term benefits for stakeholders.

6 Final proposal and conclusion

This thesis examines the dynamics driving mergers and acquisitions (M&A) in the Norwegian savings bank sector, with a focus on a potential merger between SpareBank 1 Helgeland (SBH) and SpareBank 1 Nord-Norge (SNN). The motivation behind the thesis stems from recent trends of consolidation in the banking sector, aiming to explore the strategic rationale for a potential merger, evaluate the fair value of SBH, and propose an acquisition price.

The analysis incorporates multiple valuation methods to assess the value of SpareBank 1 Helgeland. The Comparable Company Analysis (CCA) uses metrics such as Price-to-Earnings and Price-to-Book Value to compare SBH with similar publicly traded companies, while the Precedent Transaction Analysis examines historical M&A transactions to assess the premiums paid for similar deals. Additionally, the Dividend Discount Model is employed to reflect SBH's profit-generating capacity, incorporating future dividends and growth rates to estimate its intrinsic value. Together in a Football-Field analysis, these methods yield a comprehensive valuation with a price target of NOK 142 for SBH, suggesting that at the price of NOK 125 per equity certificate SBH is undervalued.

This thesis goes further to build on these valuations to propose an acquisition price for SpareBank 1 Helgeland by SNN. The current share price of SBH at NOK 125 serves as the foundation, with an additional NOK 17 added from the complete valuation and another NOK 4 attributed to cost synergies from the potential merger. These synergies stem from operational efficiencies, economies of scale, and increased market share. Culminating in a final acquisition price of NOK 146 per equity certificate, corresponding to a total deal value of NOK 3,942 billion.

We suggest that, based on our research, SpareBank 1 Nord-Norge should challenge the threats they might face and pursue a horizontal merger with its competitor SpareBank 1 Helgeland, offering a bid of NOK 146 per equity certificate, in a full securities payment. This proposal reflects the combined benefits of fair valuation, potential synergies, strategic positioning and also the potential challenges, making it a compelling but demanding opportunity for both parties and their stakeholders. The merger would not only enhance their operational efficiencies and financial performance but also strengthen their presence in the Norwegian savings bank sector, positioning them for sustained growth, regulatory resilience, and competitiveness.

In conclusion, this thesis highlights the strategic and financial factors contributing to the M&A trend in the Norwegian savings bank sector, providing a comprehensive evaluation of SBH's fair value and potential acquisition price. The combination of valuation methods, alongside the consideration of synergies, offers meaningful insights into the proposed merger's feasibility and

suitability, contributing to the broader discourse on Norwegian savings bank consolidation and financial valuations.

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8 Appendix

8.1 Dividend Discount Model

Asset Drivers	Units:	FY21	FY22	FY23	Projected: FY24	FY25	FY26	FY27	FY28	FY29	FY30+
Nominal GDP	NOK	kr 4,337,726,938,290	kr 5,737,860,023,544	kr 5,414,818,504,218	kr 5,622,747,534,780	kr 5,657,046,294,743	kr 5,702,302,665,101	kr 5,841,438,850,129	kr 5,992,732,116,347	kr 6,142,550,419,256	kr 6,296,114,179,737
Growth	%		32.3 %	-5.6 %	3.8 %	0.6 %	0.80%	2.44%	2.59%	2.50%	2.5 %
Total loans as percentage of GDP	%	37%	31%	34.8 %	35.0 %	36.5 %	37.0 %	37.5 %	38.0 %	38.0 %	38.0 %
Growth	%		-15.5 %	11.4 %	0.6 %	0.6 %	0.3 %	0.1 %	-0.2 %	-0.4 %	-0.7 %
SBH Market share % of total loans	%	2.01%	1.72%	1.56%	1.51%	1.51%	1.56%	1.61%	1.66%	1.71%	1.76%
Growth	%		-14.3 %	-9.3 %	-3.2 %	0.0 %	3.3 %	3.2 %	3.1 %	3.0 %	2.9 %

Profitability drivers	Units:	FY21	FY22	FY23	Projected: FY24	FY25	FY26	FY27	FY28	FY29	FY30+
Net int. income % of loans	%	1.86%	2.53%	3.35%	3.36%	3.14%	2.90%	2.75%	2.65%	2.55%	2.53%
Growth	%		36%	32%	0%	-7%	-8%	-5%	-4%	-4%	-1%
Provisional income % of loans	%	0.36%	0.58%	0.58%	0.57%	0.57%	0.6 %	0.5 %	0.5 %	0.5 %	0.5 %
Growth	%		58.8 %	0.6 %	-2.3 %	-0.3 %	-3%	-9%	0%	0%	0%
Other OPEX (Net) % revenue	%	22.9 %	15.5 %	18.9 %	18.9 %	18.9 %	20.3 %	21.6 %	23.0 %	24.3 %	25.7 %
Growth	%		-32.2 %	22.3 %	-0.2 %	0.0 %	7.2 %	6.7 %	6.3 %	5.9 %	5.6 %
Depreciation in selling % revenue	%	3.3 %	3.0 %	0.0 %	2.9 %	2.8 %	2.6 %	2.5 %	2.4 %	2.2 %	2.1 %
Growth	%		-9.3 %	-100.0 %		-4.5 %	-4.7 %	-5.0 %	-5.2 %	-5.5 %	-5.8 %
Salaries & administration cost % revenue	%	21.9 %	23.3 %	16.1 %	15.8 %	15.6 %	15.3 %	15.1 %	14.8 %	14.6 %	14.5 %
Growth	%		6.4 %	-30.9 %	-1.6 %	-1.6 %	-1.6 %	-1.6 %	-1.7 %	-1.7 %	-0.6 %
Provision for loan losses % loans	%	0.2 %	0.0 %	0.3 %	0.2 %	0.2 %	0.2 %	0.2 %	0.2 %	0.2 %	0.2 %
Growth	%		-82.0 %	857.0 %	-35.3 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Advertising and rental expense % revenue	%	3.6 %	2.4 %	0.0 %	2.5 %	2.6 %	2.8 %	2.9 %	3.0 %	3.1 %	3.2 %
Growth	%		-33.6 %			4.8 %	4.6 %	4.4 %	4.2 %	4.0 %	3.9 %
Tax provisions	%	22.3 %	21.0 %	22.0 %	22.7 %	22.2 %	22.0 %	22.0 %	22.0 %	22.0 %	22.0 %
Growth	%		-6.2 %	5.0 %	3.0 %	-2.2 %	-0.8 %	0.0 %	0.0 %	0.0 %	0.0 %

Assets and Capital Requirements	Units:	FY21	FY22	FY23	Projected: FY24	FY25	FY26	FY27	FY28	FY29	FY30+
Loans	NOK	kr 32,424,000,000	kr 30,975,000,000	kr 29,423,000,000	kr 29,794,000,000	kr 31,204,000,000	kr 32,913,690,983	kr 35,267,687,058	kr 37,802,154,190	kr 39,914,292,624	kr 42,108,411,634
Growth	%		-4.5 %	-5.0 %	1.3 %	4.7 %	5.5 %	7.2 %	7.2 %	5.6 %	5.5 %
Deposits	NOK	kr 23,552,000,000	kr 25,129,000,000	kr 24,683,000,000	kr 25,570,000,000	kr 26,462,000,000	kr 27,911,873,183	kr 29,908,137,896	kr 32,057,447,897	kr 33,848,609,519	kr 35,709,293,317
Growth	%		6.7 %	-1.8 %	3.6 %	3.5 %	5.5 %	7.2 %	7.2 %	5.6 %	5.5 %
Total assets	NOK	kr 39,433,000,000	kr 38,624,000,000	kr 36,890,000,000	kr 37,794,000,000	kr 39,532,000,000	kr 41,697,988,461	kr 44,680,239,866	kr 47,891,128,042	kr 50,566,972,697	kr 53,346,677,628
Growth	%						5.5 %	7.2 %	7.2 %	5.6 %	5.5 %
Total capital requirement % total capital	%	16.70%	17.7 %	17.7 %	17.7 %	17.7 %	17.7 %	17.7 %	17.7 %	17.7 %	17.7 %
Growth	%		6.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Required capital & additional capital	%	22.27%	23.54%	22.93%	21.59%	22.07%	22.00%	21.00%	21.00%	21.00%	21.00%
Growth	%		5.7 %	-2.6 %	-5.9 %	2.2 %	-0.3 %	-4.5 %	0.0 %	0.0 %	0.0 %
Additional capital above requirements	%	5.57%	5.84%	5.23%	3.89%	4.37%	4.30%	3.30%	3.30%	3.30%	3.30%
Growth	%		4.8 %	-10.5 %	-25.7 %	12.3 %	-1.5 %	-23.3 %	0.0 %	0.0 %	0.0 %
RWA % total assets	%	54.4 %	53.9 %	55.0 %	59.3 %	57.8 %	56.1 %	56.1 %	56.1 %	56.1 %	56.1 %
Growth	%		-1.0 %	2.1 %	7.9 %	-2.6 %	-3.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Payout ratio	%	44.6 %	64.1 %	62.2 %	60.4 %	56.9 %	50.0 %	45.0 %	45.0 %	45.0 %	45.0 %
Growth	%										

Projected financials	Units:	FY21	FY22	FY23	Projected: FY24	FY25	FY26	FY27	FY28	FY29	FY30+
Financials											
Loans	NOK	kr 32,424,000,000	kr 30,975,000,000	kr 29,423,000,000	kr 29,794,000,000	kr 31,204,000,000	kr 32,913,690,983	kr 35,267,687,058	kr 37,802,154,190	kr 39,914,292,624	kr 42,108,411,634
Deposits	NOK	kr 23,552,000,000	kr 25,129,000,000	kr 24,683,000,000	kr 25,570,000,000	kr 26,462,000,000	kr 27,911,873,183	kr 29,908,137,896	kr 32,057,447,897	kr 33,848,609,519	kr 35,709,293,317
Net interest income	NOK	kr 604,000,000	kr 783,000,000	kr 985,000,000	kr 1,001,000,000	kr 978,800,000	kr 954,497,039	kr 969,861,394	kr 1,001,757,086	kr 1,017,814,462	kr 1,065,342,814
Provisional income	NOK	kr 118,000,000	kr 179,000,000	kr 171,000,000	kr 169,150,000	kr 176,700,000	kr 181,025,300	kr 176,338,435	kr 189,010,771	kr 199,571,463	kr 210,542,058
Total income	NOK	kr 722,000,000	kr 962,000,000	kr 1,156,000,000	kr 1,170,150,000	kr 1,155,500,000	kr 1,135,522,339	kr 1,146,199,829	kr 1,190,767,857	kr 1,217,385,925	kr 1,275,884,873
Salaries & administration cost	NOK	kr 158,000,000	kr 224,000,000	kr 186,000,000	kr 185,351,355	kr 180,142,050	kr 174,188,734	kr 172,961,158	kr 176,709,538	kr 177,616,185	kr 185,003,307
Depreciation in selling	NOK	kr 24,000,000	kr 29,000,000	kr 0	kr 33,753,597	kr 31,828,860	kr 29,802,386	kr 28,592,562	kr 28,156,337	kr 27,203,134	kr 26,851,674
Provision for loan losses	NOK	kr 64,000,000	kr 11,000,000	kr 100,000,000	kr 65,546,800	kr 68,648,800	kr 72,410,120	kr 77,588,912	kr 83,164,739	kr 87,811,444	kr 92,638,506
Advertising and rental expense	NOK	kr 26,000,000	kr 23,000,000	kr 0	kr 29,380,739	kr 30,399,499	kr 31,236,543	kr 32,905,705	kr 35,614,109	kr 37,871,079	kr 41,221,957
Other OPEX	NOK	kr 165,000,000	kr 149,000,000	kr 219,000,000	kr 221,158,350	kr 218,389,500	kr 230,056,826	kr 247,808,403	kr 273,638,454	kr 296,311,734	kr 327,902,412
Total OPEX	NOK	kr 437,000,000	kr 436,000,000	kr 505,000,000	kr 535,190,841	kr 529,408,710	kr 537,694,609	kr 559,856,740	kr 597,283,177	kr 626,813,576	kr 673,617,855
Earnings before tax	NOK	kr 285,000,000	kr 526,000,000	kr 651,000,000	kr 634,959,159	kr 626,091,290	kr 597,827,730	kr 586,343,089	kr 593,484,680	kr 590,572,349	kr 602,267,018
Tax provisions	NOK	kr 63,693,182	kr 110,245,115	143220000	143845982.7	138783569.4	131522100.6	128995479.7	130566628.6	129925916.7	132498743.9
Earnings after tax	NOK	kr 221,306,818	kr 415,754,885	kr 507,780,000	kr 491,113,176	kr 487,307,721	kr 466,305,629	kr 457,347,610	kr 462,918,050	kr 460,646,432	kr 469,768,274
Total assets	NOK	kr 39,433,000,000	kr 38,624,000,000	kr 36,890,000,000	kr 37,794,000,000	kr 39,532,000,000	kr 41,697,988,461	kr 44,680,239,866	kr 47,891,128,042	kr 50,566,972,697	kr 53,346,677,628
RWA	NOK	kr 21,451,000,000	kr 20,810,000,000	kr 20,289,500,000	kr 22,428,000,000	kr 22,845,000,000	kr 23,384,932,245	kr 25,057,428,919	kr 26,858,148,935	kr 28,358,807,558	kr 29,917,712,769
Equity start of period	NOK		kr 4,778,000,000	kr 4,899,000,000	kr 4,652,000,000	kr 4,841,426,499	kr 5,040,866,472	kr 5,274,019,286	kr 5,525,560,472	kr 5,780,165,400	kr 6,033,520,937
Plus earnings	NOK		kr 415,754,885	kr 507,780,000	kr 491,113,176	kr 487,307,721	kr 466,305,629	kr 457,347,610	kr 462,918,050	kr 460,646,432	kr 469,768,274
Less dividends	NOK		-kr 266,583,572	-kr 315,735,000	-kr 288,973,874	-kr 277,144,481	-kr 233,152,815	-kr 205,806,424	-kr 208,313,123	-kr 207,290,894	-kr 211,395,723
		kr 4,778,000,000	kr 4,899,000,000	kr 4,652,000,000	kr 4,841,426,499	kr 5,040,866,472	kr 5,144,685,094	kr 5,262,060,073	kr 5,640,211,276	kr 5,955,349,587	kr 6,282,719,681
= Equity end of period	NOK	kr 4,778,000,000	kr 4,899,000,000	kr 4,652,000,000	kr 4,841,426,499	kr 5,040,866,472	kr 5,274,019,286	kr 5,525,560,472	kr 5,780,165,400	kr 6,033,520,937	kr 6,291,893,488
Total capital coverage (Equity/RWA)	%	22.27%	23.54%	22.93%	21.59%	22.07%	22.00%	21.00%	21.00%	21.00%	21.00%
Minimum total capital requirement	NOK	kr 3,582,317,000	kr 3,683,370,000	kr 3,591,241,500	kr 3,969,756,000	kr 4,043,565,000	kr 4,139,133,007	kr 4,435,164,919	kr 4,753,892,362	kr 5,019,508,938	kr 5,295,435,160
Additional capital above requirements	NOK	kr 1,195,683,000	kr 1,215,630,000	kr 1,060,758,500	kr 871,670,499	kr 997,301,472	kr 1,134,886,279	kr 1,090,395,553	kr 1,026,273,038	kr 1,014,012,000	kr 996,458,328
Of RWA	%	5.57%	5.84%	5.23%	3.89%	4.37%	4.85%	4.35%	3.82%	3.58%	3.33%
Dividends to equity certificate holders	NOK	kr 98,613,401	kr 266,583,572	kr 315,735,000	kr 288,973,874	kr 277,144,481	kr 233,152,815	kr 205,806,424	kr 208,313,123	kr 207,290,894	kr 211,395,723
Number of equity certificates	NOK	27,000,130	27,000,130	27,000,130	27,000,130	27,000,130	27,000,130	27,000,130	27,000,130	27,000,130	27,000,130
Dividends per certificate	NOK	3.65	9.87	11.69	10.70	10.26	8.64	7.62	7.72	7.68	7.83
Present value of dividends	NOK			144.6	10.0	9.0	7.0	5.8	5.5	5.1	102.2
Difference from current price	%			16%							
Current share price	NOK	125									
Cost of capital	%	7.08%									
Perpetual gowth rate	%	2.0 %									

Cost-synergy calculations	Units:	FY21	FY22	FY23	Projected: FY24	FY25	FY26	FY27	FY28	FY29	FY30+
Salaries & administration cost	NOK				kr 0.0	kr 3,602,841.0	kr 5,225,662.0	kr 8,648,057.9	kr 8,835,476.9	kr 8,880,809.3	kr 9,250,165.3
Cost reduction from base assumptions	%				0.00%	2.00%	3.00%	5.00%	5.00%	5.00%	5.00%
Other OPEX	NOK				kr 0.0	kr 2,183,895.0	kr 3,450,852.4	kr 4,956,168.1	kr 5,472,769.1	kr 5,926,234.7	kr 6,558,048.2
Cost reduction from base assumptions	%				0.00%	1.00%	1.50%	2.00%	2.00%	2.00%	2.00%
Total OPEX Difference	NOK				kr 0	kr 5,786,736	kr 5,225,662	kr 8,648,058	kr 8,835,477	kr 8,880,809	kr 9,250,165
Present value of cost synergies per certificate	NOK			kr 4	kr 0	kr 4,956,603	kr 4,142,543	kr 6,344,823	kr 5,999,377	kr 5,580,896	kr 72,211,271
Cost synergy premium	%			2.9 %							

Growth rate and expected return sensitivity

Perpetual growth rate / Cost of capital	XT Downside 10.1 %	Downside 8.6 %	Base 7.1 %	Upside 5.6 %	XT Upside 4.1 %
3.0 %	101.1	126.2	169.6	263.3	616.6
2.5 %	97.0	119.2	155.8	227.8	436.1
2.0 %	93.4	113.2	144.6	202.1	342.4
1.5 %	90.2	108.1	135.4	182.8	285.0
1.0 %	87.4	103.6	127.8	167.7	246.2

Year	Cost % revenue	Roe	Other Opex % revenue	Loan growth	Payout ratio	Excess capital
Current year	44%	10.9 %	19%	-5.0 %	62.2 %	5.2 %
2025	46%	9.7 %	19%	4.7 %	56.9 %	4.4 %
2027	49%	8.3 %	22%	7.2 %	45.0 %	4.4 %
2029	51%	7.6 %	24%	5.6 %	45.0 %	3.6 %
Perpetuity year	53%	7.5 %	26%	5.5 %	45.0 %	3.3 %

Perpetural growthrates and CAPM-range	6.28%	7.08%	8.05%
2.5 %	50%	25%	4%
2.0 %	36%	16%	-2%
1.5 %	26%	8%	-7%

Appendix 1 Full Dividend Discount Model (LSEG Workspace, 2024)