MASTER OF SCIENCE IN FINANCE

MASTERS FINAL WORK

PROJECT

EQUITY RESEARCH:
BANCO SANTANDER, S.A.

PEDRO DELGADO HENRIQUES

FEBRUARY 2024

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SUPERVISOR:

PROFESSOR PEDRO RINO VIEIRA

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Abstract

Santander, S.A. ("Santander") is a bank with a worldwide reach, which operates in four segments: Retail banking, Corporate and investment banking, Wealth management and insurance and payment solutions. Santander is a bank with a customer-centric approach, continuously working on trying to understand its customers' needs and preferences, with a great focus on innovation and digitalisation of its operations by investing in technology and providing innovative digital solutions to its customers. Sustainability is one of its major concerns, which is reflected by the variety of environmentally friendly banking products it offers and the continuous improvement of its sustainable practices in its operations.

Santander's Net Loans and Total Deposits have been increasing since 2018, reaching €996,504 million and €1,162,407 million in 2022, respectively. Furthermore, earnings per share rose 23% from 2021 to 2022, from €43.8 cents to €53.9 cents and the total cash dividend per share for 2022 was €11.78 cents, which grew by 18% compared to 2021.

Santander has a **strong buy** recommendation, with a 2024YE PT of €4.74. Based on the closing price of 30th June 2023 €3.39, this reflects a potential upside of 39.82%, considering a medium risk. This risk assessment considers the impact of the rise of interest rates, as it might lead to record years of net interest income, even in the event of changes in regulation and weaker economic conditions (decreasing disposable income and slower economic growth).

The current undervaluation of the stock can be explained by the risk and uncertainty related to monetary policy and the possibility of an economic crisis due to high levels of interest and inflation rates. Nonetheless, in 2022 Santander reached a record attributable profit of €9.6 billion and increased its pay-out ratio from 40% to 50%. The results disclosed in June 2023 and the forecasted financial statements show that 2023 might be even better than 2022, which reinforces the recommendation given.

JEL Classification: G10, G11, G17, G30

Keywords: Santander, Equity Research, Interest rates, Banking, Valuation, Excess return model

Resumo

O Santander, S.A. ("Santander") é um banco com alcance global e opera em quatro segmentos: banca de retalho, banca de investimento, gestão de ativos e seguros e PagoNxt. É um banco com uma abordagem centrada no cliente, que trabalha continuamente para compreender as necessidades e preferências dos seus clientes, com um grande foco na inovação e digitalização das suas operações, fazendo avultados investimentos em tecnologia e na disponibilização de produtos digitais inovadores aos seus clientes. Também apresenta uma grande preocupação com a sustentabilidade das suas operações, pelo que toda a sua atividade operacional é neutra em carbono e tem aumentado a oferta de produtos bancários que permitam aos seus clientes investir na sustentabilidade das suas operações.

O valor dos empréstimos a clientes e dos depósitos tem vindo a aumentar desde 2018, atingindo €996,504 milhões e €1,162,407 milhões em 2022, respetivamente. Além disso, o resultado líquido por ação aumentou 23% de 2021 para 2022, de €43,8 cêntimos para €53,9 cêntimos, e o dividendo distribuído em 2022 foi de €11,78 cêntimos, o que representou um aumento de 18% em comparação com 2021.

É apresentada a recomendação de "compra recomendada" para o Santander, com um preço alvo de €4.74 para o final de 2024. Considerando um risco moderado, relativamente ao preço de 30 de junho de 2023 de €3.39, existe um potencial de valorização de 39.82%. Esta avaliação de risco considera o impacto do aumento das taxas de juros, na sequência do qual o Santander poderá registar valores recorde de margem financeira, mesmo perante possíveis mudanças de regulamentação e um panorama económico desfavorável (diminuição do rendimento disponível e diminuição do crescimento económico).

A subvalorização das ações pode ser explicada pelo risco e incerteza relacionados com a política monetária levada a cabo pelos bancos centrais e a possibilidade de uma crise económica devido às taxas de juros e de inflação elevadas. No entanto, em 2022, o Santander alcançou um lucro recorde de €9.6 mil milhões e aumentou a sua taxa de distribuição de lucros de 40% para 50%. Os resultados divulgados em junho de 2023 e as demonstrações financeiras previstas demonstram que 2023 pode vir a superar 2022, o que reforça a recomendação dada.

Classificação JEL: G10, G11, G17, G30

Palavras-chave: Santander, Relatório de avaliação, Taxas de juro, Banca, Modelo de excesso de retorno

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Todo este trabalho não teria sido possível sem o apoio das pessoas da minha vida:

À minha namorada, por me ensinar que é na partilha constante que crescemos, que tudo é alcançável desde que o coração esteja do lado certo.

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À minha irmã emprestada pela cor e novidade que vão entrando na minha vida.

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Em termos académicos, expressar o meu agradecimento ao Professor Pedro Rino Vieira pelo apoio e compreensão.

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Abbreviations

AR – Annual Report
ATM – Automated Teller Machine
BGEI - Bloomberg Gender-Equality Index
BPS – Basis Points
CAGR – Compound Annual Growth Rate
CEO – Chief Executive Officer
CET1 – Common Equity Tier 1
DCB - Digital Consumer Bank
DD – Dividend discount
EBF – European Banking Federation
EC – European Commission
ECB – European Central Bank
EPS – Earnings Per Share
ER – Excess Return
ERP – Equity Risk Premium
ESG – Environment, Social and Governance
EU – European Union
FCFE – Free Cash Flow to Equity
FRB – First Republic Bank
FSLI – Financial Statement Line Item
FVOCI – Fair Value through Other Comprehensive Income
GDP – Gross Domestic Product
GEC – Group Executive Chair
GSGM - Group Subsidiary Governance Model
IMF – International Monetary Fund
ISS – Institutional Shareholder Services, Inc
LCR – Liquidity Coverage Ratio
LSE – London Stock Exchange
NPL – Non-Performing Loans
NPS – Net Promoter Score
NSFR – Net Stable Funding Ratio
NYSE – New York Stock Exchange
OECD – Organisation for Economic Co-operation and Development
P/E – Price to Earnings
P/B - Price to Book
PT – Price Target
RWA – Risk-Weighted Assets
SCIB - Santander Corporate Investment Banking
ST – Banco Santander
SVB – Silicon Valley Bank
UK – United Kingdom
UN – United Nations
VAT – Value Added Tax
WHO - World Health Organization
WM&I - Wealth Management and Insurance
YE – Year End
YOY – Year Over Year

1. Research snapshot

A **strong buy** recommendation is issued for Santander (ST), with a 2024YE PT of € 4.74. This represents a potential upside of 39.82% and an annualised return of 25.04%, considering a medium risk (Figure 1).

ST has evolved into a prominent global bank, as indicated by the substantial value of its total assets. As of 2022, it ranked as the fourth-largest bank in Europe and the seventeenth-largest worldwide (Khan et al., 2023).

ST's global footprint contributes to a strong brand reputation, which is rooted in its historical performance and the consistent success of its day-to-day operations in recent years.

1.1. Rise of net interest income

In 2022, the Federal Reserve, the ECB and other banking regulators started a cycle of rising reference interest rates to bring the inflation rate back to its long-term target of 2%. This rise had a major positive impact on ST's profitability since it drove up interest-related income in 2022, as the Group achieved a net interest income of €38,619 million, leading to a significant growth of 15.73% compared to the previous year (Figure 2).

1.2. Record profitability

In 2022, the global banking sector experienced a $345 billion increase in revenue, primarily driven by the surge in interest rates. This increase resulted in the highest level of bank profitability seen in 14 years (McKinsey & Company, 2022).

In 2022, ST's net income growth from 2021 was 9%, and the bank was able to reach its record attributable profit of €9,605 million (Figure 3). This record value is linked to the evolution of interest rates around the world and as interest rates continue to rise in 2023, ST's net income in 2023 will probably reach a new record high.

1.3. Dividend policy

The bank has a consistent policy regarding shareholder remuneration (through both distribution of dividends and share buybacks) and recently, the only years in which it did not remunerate shareholders was due to the COVID-19 pandemic, since regulators advised banks to not distribute dividends in 2020 and 2021 (Figure 4).

In 2023, ST defined its new dividend policy to be an annual payout ratio of 50% of net income until 2025. Moreover, the Bank received regulatory approval for a new share buyback programme of €921 million.

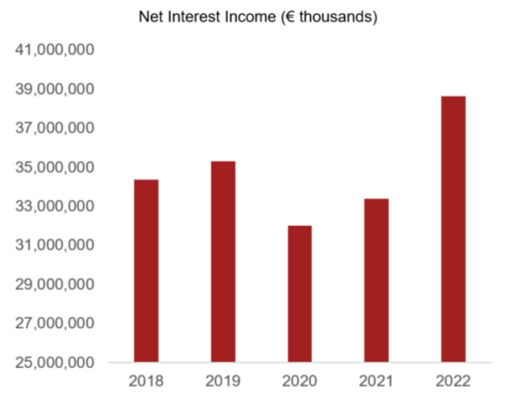
Figure 1: Recommendation summary

2024YE PT	**€ 4.74**
Closing price on 30th June 2023	€ 3.39
Annualised return	25.04%
Upside potential	**39.82%**
Risk level	Medium
Market capitalisation[(1)]	€ 58.42 billion
Free float[(1)]	16.12 billion shares
One year change[(1)]	41.55%
52-week range[(1)]	€ 2.40 - € 3.87

[(1)]As of 6 October 2023

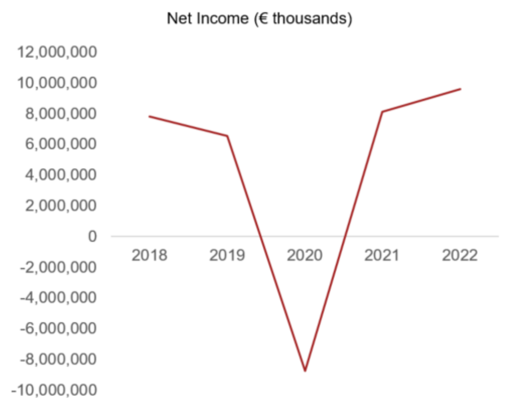
Source: Bloomberg and author analysis

Figure 2: Santander's yearly net interest income (2018-2022)



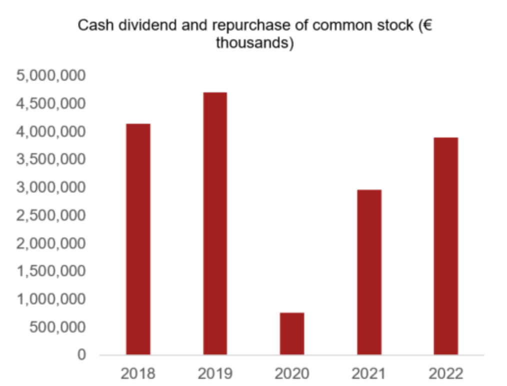
Source: Author analysis

Figure 3: Santander's yearly net income (2018-2022)



Source: Author analysis

Figure 4: Cash dividend and repurchase of common stock



Source: Author analysis

2. Business description

2.1. History

ST was founded in 1857 after the signing of a Royal Decree by Queen Isabella II of Spain.

During its first 100 years, ST was able to grow internally through the foundation of Banco de Torrelavega and the development of a modest network of branches in the province of Cantabria as well as by acquiring its main rival Banco Mercantil in 1946 (AR, 2022). In this period, ST took its first steps to become an international bank, opening offices in the Americas, first in Havana, Cuba, and later in Argentina, Mexico and Venezuela, as well as an office in London.

From 1960 to 2000 Banco Santander expanded its national and international operations even further, through acquisitions of banks in Argentina, Brazil, Colombia, Mexico, Peru, Venezuela, Chile, Puerto Rico, Uruguay and Portugal and the first large bank merger in Europe since the adoption of the euro with Banco Central Hispano, which allowed Banco de Santander to be a pioneer in retail and commercial banking in Latin America and marked an important milestone in its history by making it the leading bank in the Spanish market (Figure 5).

In November 2006, ST acquired Abbey, the United Kingdom's sixth-largest bank and in 2008 it acquired Alliance & Leicester and Bradford & Bingley, becoming the United Kingdom's third-largest bank by deposits.

In 2010 it entered the retail and commercial banking business in the United States with the acquisition of Sovereign.

Finally, in January 2015 Banco Santander concluded a €7.5 billion capital increase targeting institutional investors. The purpose of this increase was to *strengthen capital and take advantage of opportunities for organic growth, increasing lending and market share in its key markets while comfortably meeting each of the new international regulatory requirements* (https://www.santander.com/en/about-us/our-history).

2.2. Shareholder structure

ST's shares are listed in five different countries since they are listed on Spanish stock exchanges (Madrid, Barcelona, Bilbao and Valencia), the NYSE, the LSE, the Mexican Stock Exchange and Warsaw Stock Exchange.

All its shares are ordinary shares, and they all grant the same dividend and voting rights. As of 31st December 2022, the Bank's share capital was €8,397,200,792 and its total number of shares was 16,794,401,584.

Santander's capital is dispersed through many retail and institutional investors (Figure 6), since as of 31st December 2022 only one institutional investor was considered a

Figure 5: Santander logos through time

Source: Author analysis

Figure 6: Shareholder structure

Type of investor	% of share capital
Board	1.10%
Institutional	56.66%
Retail	42.24%
Total	**100.00%**
Geographic region	**% of share capital**
Europe	74.71%
The Americas	24.19%
Other	1.10%
Total	**100.00%**
Number of shares	**% of share capital**
1 - 200	1.20%
201 - 1,000	2.71%
1001 - 3,000	4.82%
3,001 - 30,000	17.50%
30,001 - 400,000	12.32%
Over 400,000	61.45%
Total	**100.00%**

Source: AR 2022 and author analysis

significant shareholder (3% is the lower threshold generally provided under Spanish law to disclose a significant holding in a listed company), which was Norges Bank.

2.3. Dividend policy

Since 2019, ST determined an annual pay-out policy (proportion of profits distributed to shareholders) of 40% up to 50% through both cash dividends and share buybacks.

In 2022, total shareholder remuneration against 2021 earnings was €3.4 billion (approximately 10 euro cents per share), representing a payout ratio of 40% and a dividend yield of 7%.

In 2023, total shareholder remuneration against 2022 earnings was €3.84 billion, which means a dividend of 11.78 euro cents per share (Figure 7). This represents an increase of 18% in shareholder remuneration compared to 2021, leading to an increase of the pay-out ratio to 50% and of the dividend yield to 8%.

This information was made public in ST's 28th February 2023 press release, which states that the pay-out policy will increase to 50% of profits for the next three years (2023-2025) and that the Bank received regulatory approval for a new share buyback programme of €921 million.

2.4. Business segments

2.4.1. Retail Banking (Retail and Digital consumer banking)

This segment is ST's main business segment, representing 81,8% of its net revenue (Figure 8). The share of this business segment has been decreasing since 2018, mainly due to the growth of the SCIB and WM&I segments and the creation of a new line of business of digital payment solutions, PagoNxt (Figure 9).

This segment includes all customer banking businesses and consumer finance, except those of corporate banking which are managed through SCIB and Asset Management, Private Banking and Insurance, which are managed by WM&I.

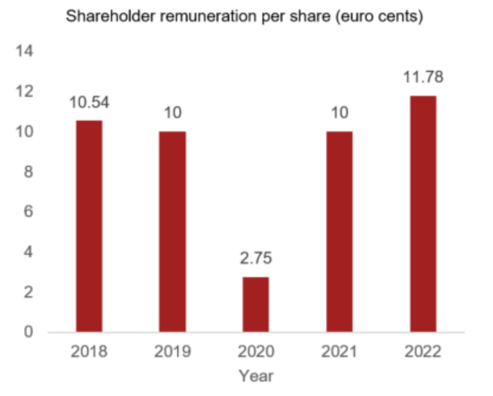
The consumer banking franchise is present in two continents, Europe and America (both North and South America), in which Spain, the UK, the United States, Mexico and Brazil are the main contributors to this business segment (Figure 10).

2.4.2. Corporate and investment banking

This line of business represents 14,2% of Santander's net revenue in 2022 (Figure 8), which means an increase of almost 2 p.p. from 2021 to 2022.

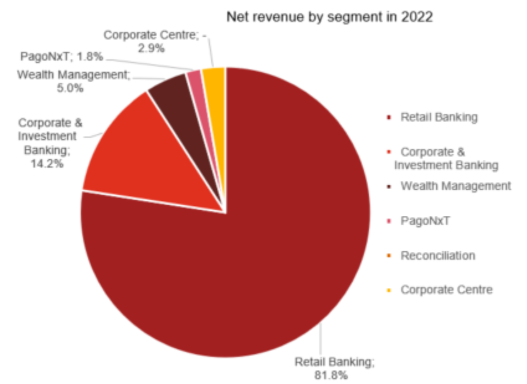
This business has different subsections, such as Global Markets, Global Transactional Banking, Global Debt Financing and Corporate Finance.

Figure 7: Shareholder remuneration per share



Source: Santander's website and author analysis

Figure 8: Net revenue by business segment



Source: Bloomberg and author analysis

Figure 9: Major segments net revenue

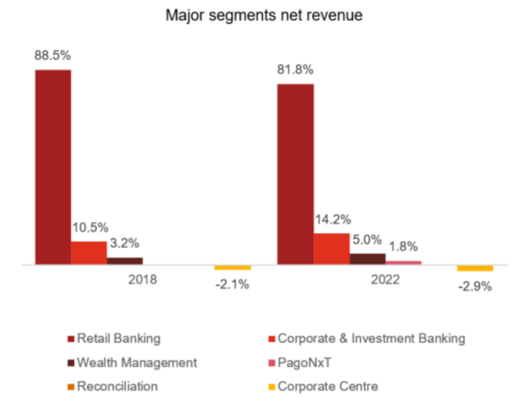
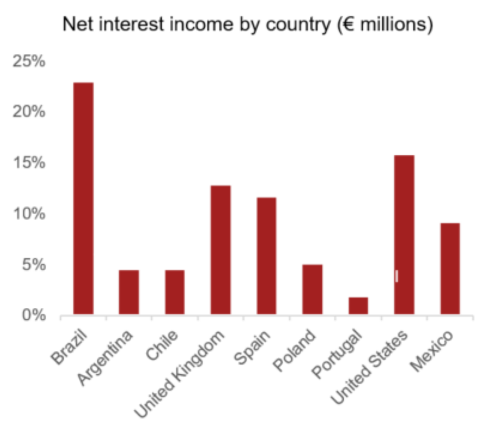


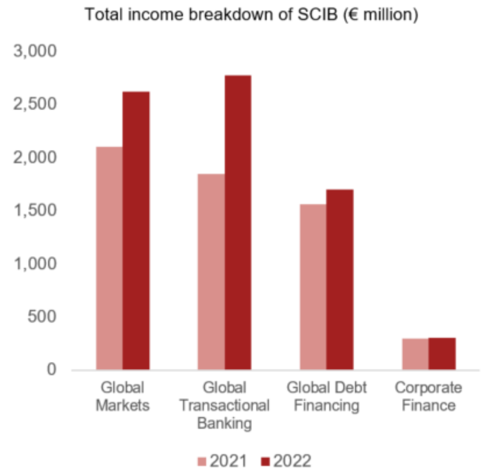
Figure 10: Net interest income by country



Source: Bloomberg and author analysis

The first reflects revenue from investment banking and markets worldwide including treasuries managed globally (fixed income, currency and commodities, rates and security finance). The second section's total income grew by 50% from 2021 and it refers to mostly cash management solutions, such as Trade and Working Capital Solutions and Export Finance. The third reflects the issuance of new debt and the structuring of debt solutions for certain capital-intensive sectors, such as the renewable energy sector (Figure 11).

Figure 11: Total income breakdown of SCIB



Source: AR 2022 and author analysis

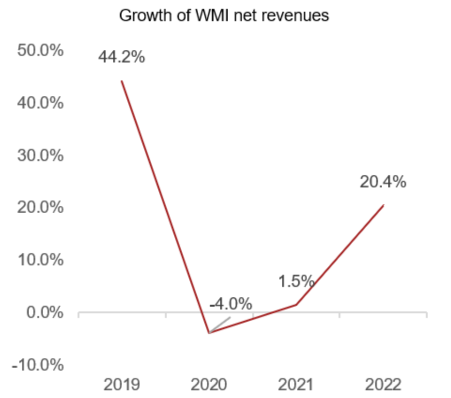
Even though inflation, interest rates, liquidity shortages and a possible recession put pressure on primary issuances this business line grew by 9% from 2021, mainly due to its recent business lines, such as Securitizations (increased by 37% from 2021 to 2022) and Leveraged Finance (increased 49% from 2021 to 2022) (AR 2022, 2023).

2.4.3. Wealth management and insurance

This segment includes three main components: i. Asset management business (Santander Asset Management); ii. Corporate unit of Private Banking and International Private Banking in Miami and Switzerland; iii. Insurance business (Santander Insurance).

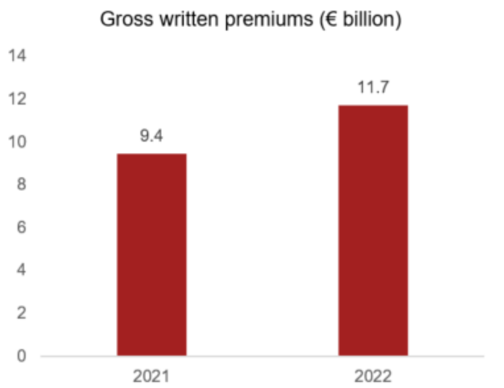
This segment's net revenue grew 20% from 2021 to 2022 and increased its share in the ST's net revenue streams from 4,7% to 5,0% (Figure 12). This is mainly explained by the increase in gross written premiums from the Insurance business (Figure 13) even though the Asset Management business suffered a decrease in revenue due to market volatility, which affected asset valuations and investment flows in general.

Figure 12: Growth of WMI net revenues



Source: Bloomberg and author analysis

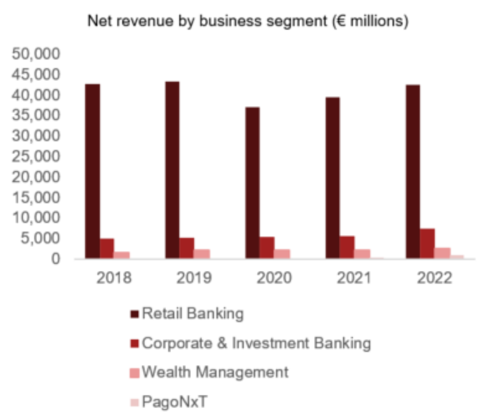
Figure 13: Gross written premiums



2.4.4. PagoNxt (Payment solutions)

This segment was originally a subsection of the Retail Banking segment, however after 2021 ST created this new line of business to take advantage of the expertise and customer base already acquired throughout the years (Figure 14).

Figure 14: Major segments net revenue



Source: Bloomberg and author analysis

The net revenue provided by this segment grew almost 100% from 2021 to 2022, which means it might be a chance for sustained growth within the Bank.

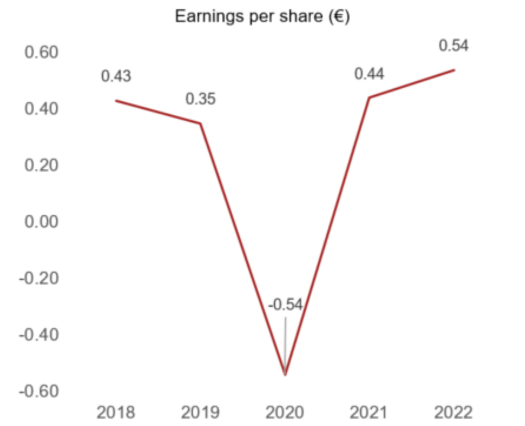
This segment aims to provide digital payment solutions and global technology solutions for its banks and new customers in the open market. Moreover, it is structured into four different businesses: Merchant Acquiring, International Trade, Payments and Consumer.

2.5. Financial highlights

In 2022, Santander achieved a record attributable profit of €9,605 million, which can be explained by an increase of 16% in Net Interest income from €33,370 million to €38,619 million from 2021 to 2022. Moreover, both Net Loans and Total Deposits have been increasing from 2018 until 2022, reaching €996,504 million and €1,162,407 million in 2022, respectively.

Lastly, EPS rose 23% from 2021 to 2022, from €43.8 cents to €53.9 cents and the total cash dividend per share for 2022 was €11.78 cents, which grew by 18% compared to 2021 (Figure 15).

Figure 15: Santander's EPS



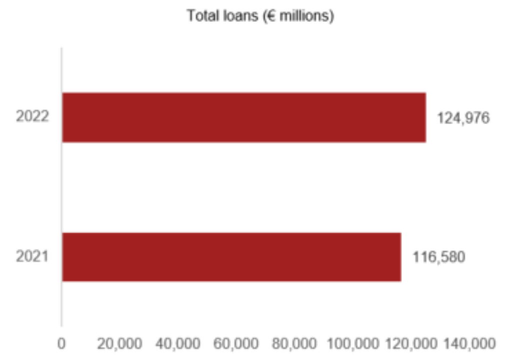
Source: Bloomberg and author analysis

2.6. Strategy

In 2021 ST underwent a major restructuring process to accelerate its digital transformation and to optimize its operational costs to improve efficiency and profitability. Since then, Santander has been focusing on several key strategic areas to improve growth and stay relevant in a highly competitive market:

1. Digital Transformation - ST is placing a strong emphasis on digital transformation even though it already provides access to financial services for its customers through several digital channels. This process focuses on improving its operational efficiency by investing in technology, providing innovative digital solutions to its customers and enhancing its competitive position by further developing its online and mobile banking platforms (Figure 16).

Figure 16: DCB's total loans

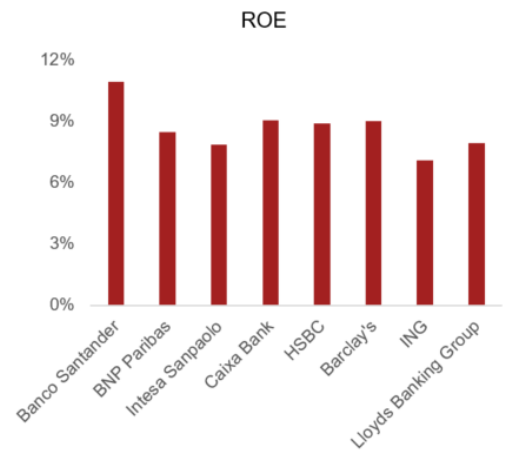


Source: Bloomberg and author analysis

2. Customer-centric approach - ST is continuously working on trying to understand its customer's needs and preferences to better tailor services and experiences to them. This can be proved by the growth in customers and NPS improvement from 2021 to 2022 (AR 2022, 2023). Moreover, it is focusing on transforming its business and operational model through global technology initiatives to build a Digital bank with branches (AR 2022, 2023).

3. Global scale and diversification - ST always aims to be one of the key players in its core markets and leverage its global scale to support greater profitability and provide a competitive advantage over their local peers (Figure 17). Its geographical footprint is balanced between developing and mature markets and its business diversification is appropriate between customer segments, which enables Santander to have recurrent pre-provision profit with low volatility (AR 2022, 2023).

Figure 17: Santander and peers' ROE



4. Sustainability and responsible banking - ST places increased emphasis on environmental and social responsibilities by offering a variety of environmentally friendly banking products and improving its sustainable practices on its operations. The bank has the goal to be net zero in carbon emissions by 2050, which applies to its operations (these are carbon neutral since 2020) and emissions from lending, advisory and investment services.

3. Management and Corporate Governance

3.1. Governance structure

Grupo Santander operates through legally independent subsidiaries, in which ST is the parent company. Therefore, the Group follows a GSGM (Figure 18) and imposes strong governance practices for its key subsidiaries.

This governance model regulates the Group's relationships with its subsidiaries in three key points:

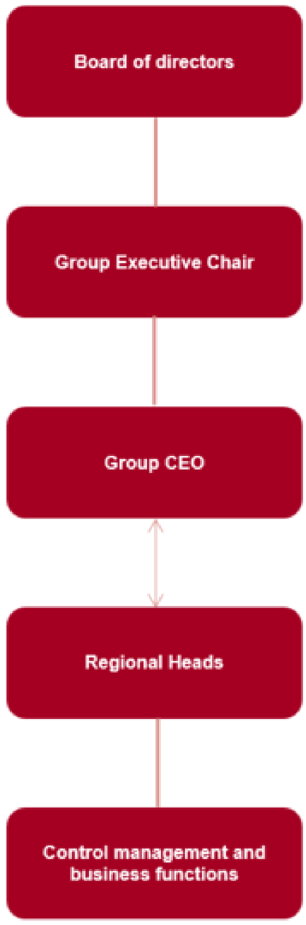
i. Subsidiaries' governing bodies adhere to Group rules and procedures to structure boards of directors, audit, remuneration, and risk committees, in line with international standards and good governance practices.
ii. Regional and country heads' relationship with the Group's CEO.
iii. Interaction between local and global heads of crucial control positions, which represents three lines of defence model.

The Board of Directors of ST approves the GSGM and these frameworks, adapting them annually to align with new laws and best practices.

The Group's CEO is always in direct contact with the Group's three regional heads which are responsible for managing core subsidiaries in Europe, South America, and North America. They consolidate and coordinate operations within their regions while adhering to local laws and regulations. These regional heads report directly to the Group's CEO and Executive committee.

Moreover, in order to ensure a benchmark for all subsidiaries in Group Santander, other subsidiaries which are not banks have been integrated into its governance structure, including PagoNxt, SCIB, WM&I, and DCB.

Figure 18: Governance model



Source: AR 2022 and author analysis

3.2. Board of directors

The Board of Directors as of 1 January 2023 is composed of 15 members, 13 of which are non-executive directors and 2 are executive. Of these 15 directors, 10 of them are independent (Figure 19). Santander's directors are elected or re-elected at the annual general meeting and are granted a three-year term. Moreover, 5 members of the board are renewed each year according to the director's tenure.

The policy of the board involves appointing executive bodies and managers to oversee daily operations and execute the strategy. The board concentrates on general oversight and responsibilities it cannot delegate due to legal mandates, the laws and regulations of the board. These responsibilities include:

- Setting general policies and strategies;

Figure 19: Board members

Board members	Independent
Ana Botín	
Héctor Grisi	
Bruce Carnegie-Brown	x
José Antonio Álvarez	
Homaira Akbari	x
Javier Botín	
Sol Daurella	x
Henrique de Castro	x
Germán de la Fuente	x
Gina Díez Barroso	x
Glenn Hutchins	x
Luis Isasi	x
Ramiro Mato	x
Belén Romana	x
Pamela Walkden	x
Jaime Pérez Renovales	

Source: AR 2022 and author analysis

- Overseeing financial and non-financial reporting and information provided to shareholders, investors, and the public;
- Formulating policies for communication and reporting to shareholders, markets, and public sentiment;
- Managing the selection, succession, and compensation of directors, senior management, and other key roles.
- Ensuring the effectiveness of Grupo Santander's corporate and internal governance structure, which includes the GSGM, corporate frameworks, and internal regulations.
- Approving major corporate transactions and investments.
- Convening the general shareholders' meeting.
- Overseeing transactions involving related parties.

3.3. Annual general meetings

The Annual General Meeting holds the highest authority within ST, and they are led by Ana Botín, which is the GEC (Figure 20). During this meeting, shareholders have the responsibility of electing all Board members and auditors, as well as granting approval for the annual report, dividends and remuneration policy. Additionally, shareholders or the Board can submit proposals that are subject to voting by the attendees.

3.4. Remuneration policy

The individual remuneration of directors (including executive directors) is stipulated by the Board of Directors within the amount dictated by the shareholders and according to its performance of oversight and collaborative decision-making responsibilities.

Additionally, the remuneration policy outlines components that incorporate essential measures to guarantee that compensation aligns with the ST's strategic and long-term sustainability goals (Figure 21).

Therefore, it establishes that the variable pay for executive directors and senior managers is linked to predetermined, precise, and measurable financial, sustainability-related, and value-generating objectives (Figure 22) (Appendix 1). These objectives are in line with ST's priorities, including environmental, social, and governance considerations.

As it is defined by ST's remuneration policy, directors' remuneration is comprised of an annual fixed sum, which is established during the general shareholder's meeting. In the general meeting of 2022, this compensation was confirmed at €6 million.

Figure 20: GEC and CEO

Group Executive Chair

Ana Botín

CEO

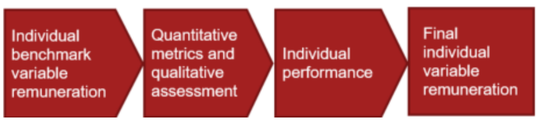
Héctor Grisi

Source: Author analysis

Figure 21: Ratio of executive directors' total remuneration to underlying attributable profit

Source: AR 2022

Figure 22: Assessment to determine variable remuneration



Also, directors are eligible to receive shares, share options, or alternative forms of share-based compensation, pending prior endorsement at the general meeting. Furthermore, directors may be eligible for additional compensation upon remuneration committee proposal and subsequent board resolution.

During this year's meeting, the remuneration policy for 2023, 2024 and 2025 was maintained as it was in the previous years.

3.5. ESG

ST is one of the founding members of the UN Principles for Responsible Banking set in 2019 (Figure 23). Since then, ST set targets for the areas included in the principles stated above and due to its commitment and progress it was able to already achieve some of them therefore it is revising their goals in this matter.

To improve and keep track of its progress on ESG matters, ST engages with a range of ESG ratings (Figure 24). During 2022, out of 9 ratings ST maintained its position in five of them and improved it in 4, highlighting the following ratings:

- Sustainalytics – Santander improved its score from 23.9 to 22.4, improving on business ethics, ESG integration, data privacy and human capital;
- ESG Corporate rating by ISS – Santander increased its score to 55.6 points, keeping its ESG performance on "C", which is above the sector-specific threshold;
- BGEI – Santander reached the highest ranking in this rating (92.87 points) among banks, almost 19 points above the financial sector average.

ST's ESG strategy follows a materiality matrix, in which it identified its 15 ESG topics with the most relevance for the Group.

3.5.1. Environmental

In this topic, ST aims to support the transition to a low carbon economy and therefore defined 2050 as the year to achieve net zero carbon emissions (the Group's operations have already been carbon neutral since 2020). Santander will be able to do this and support the green transition in 4 ways:

1. By aligning its portfolio with the Paris Agreement goals;
2. By supporting its customers' transition to a low-carbon economy (in 2022, Santander reached a total of €94.5 billion in green finance raised and facilitated [Figure 25]);

Figure 23: UN Principles for Responsible Banking

Alignment
Impact & target setting
Clients & customers
Stakeholders
Governance & culture
Transparency and accountability

Source: UN and author analysis

Figure 24: ST's positioning in ESG ratings

	2022	2021	evol.
MSCI	MSCI Index AA	MSCI Index AA	=
Sustainalytics	22.4	23.9	▲
CDP	A	A-	▲
S&P DJSI	World & Europe Index 83	World & Europe Index 86	=
ISS-ESG	C (55.6)	C (51.8)	=
Moodys	61 (Advanced)	61 (Advanced)	=
FTSE4Good	FTSE4Good Index 4.2	FTSE4Good Index 4.5	=
BGEI	92.87	90.26	▲
Shareaction	92	89	▲

Source: AR 2022

Figure 25: ST's green finance raised and facilitated

2019	19 € billion
2020	33.8 € billion
2021	65.7 € billion
2022	94.5 € billion
2025 target	120 € billion
2030 target	220 € billion

Source: AR 2022 and author analysis

3. By reducing its environmental impact, continuing to be carbon-neutral in its operations and using 100% electricity from renewable sources by 2025 (Figure 26);

4. By managing climate and environmental risk according to regulatory and supervisory expectations.

Figure 26: Electricity from renewable sources

2018	43%
2019	50%
2020	57%
2021	75%
2022	88%
2025 target	100%

Source: AR 2022 and author analysis

3.5.2. Social

In this matter, ST intends to support inclusive growth across its main stakeholders: employees, customers and communities.

For its customers and communities, its main objective is *financial health and inclusion*, since making its services available to underserved communities (financial inclusion) boosts economic and social progress and there is a greater risk of default as customers decrease their purchasing power.

Concerning financial health and inclusion, ST has an initiative called Santander Finance for All, through which ST financially empowers people in three ways:

1. It helps people access and use basic financial services through simple payment platforms and cash-in/cash-out services in remote and small communities;

2. It enables SMEs (Small and Medium Entities) with difficulty accessing credit or that are in financial distress to access tailored financial products (Figure 27);

3. It provides financial education to people, in order to make economic concepts more understandable and better prepare them to make their own financial decisions.

Figure 27: Santander's micro-finance programmes in Latin America

Source: AR 2022

For its employees, ST's driver is Quality Employment, which is based on 3 pillars:

1. *Putting the employee at the centre of all we do* – guaranteeing a top-tier culture and an exceptional employee experience – achieved through diversity, equity & inclusion, culture, as well as health & wellbeing initiatives (Figure 28).

2. *Ensuring we have the right talent and skills in place to ensure the Bank's transformation* - attracting and engaging the best talent while motivating its workforce to grow through exceptional leadership and a convincing employee value proposition.

3. *Aligning with the business to ensure we add value proactively and help deliver the strategic objectives* - establishing an optimal organizational structure, basing decisions on data insights, and using new work approaches to generate value for all stakeholders

Figure 28: % of women in top management and other senior positions

Women members on our board	Our target: 40-60%	Our progress: 40%
Women in senior positions[D]	Our target: 30%	Our progress: 29.3%

D. Senior positions are 1% of total headcount.

Bloomberg Gender-Equality Index 2023 Member

Grupo Santander features in the Bloomberg Gender-Equality Index and is its highest-scoring bank

Source: AR 2022

3.5.3 Governance

Lastly, ST is focused on incorporating all ESG behaviours, policies and processes throughout the Group. This can be translated into an opportunity since promoting effective governance and adequately adjusting to a dynamic environment fosters business continuity and stakeholder loyalty.

In 2022, Santander launched its approach to corporate behaviours called TEAMS: **T**hink Customer, **E**mbrace Change, **A**ct Now, **M**ove Together and **S**peak up (Figure 29). This reflects the Group's values and its strategy involving all stakeholders and even though it was launched in 2022 (Figure 30), by the end of the year 9 out of 10 employees were fully aware of these corporate behaviours, which shows the importance ST places in employees following the tone set by its governance.

Lastly, Santander focuses on *Acting responsibly towards customers*. This relates to ST's customer-centric culture (Figure 31), which aims to provide the best experience to customers by:

1. Introducing consumer protection principles into its practices;
2. Meeting its clients' needs and supporting sustainable transition by designing new and tailored products;
3. Putting cyber security as a driver to protect private and personal data and use it properly.

Figure 29: Santander way

Source: AR 2022

Figure 30: Santander's *ways of working* principles

Source: AR 2022

Figure 31: Santander's Net Promoter Score

Source: AR 2022

4. Industry overview and competitive positioning

4.1. Macroeconomic outlook

The global recovery (Figure 32) after COVID-19 (which is no longer categorised as a global health emergency by the WHO) and Russia's invasion of Ukraine is slowing down due to increasing disparities among various economic sectors and geographical areas (IMF, 2023).

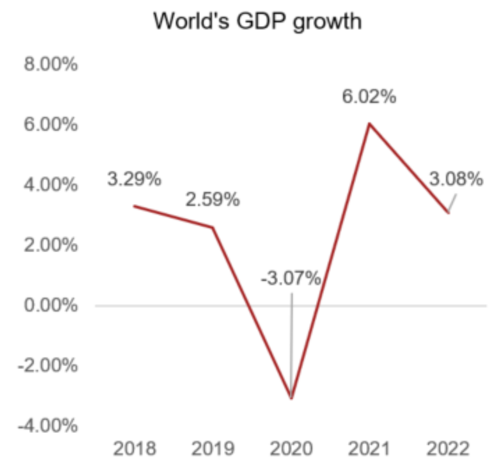
In the first quarter of 2023, the main driver for the resilience of the global economy was the services sector. However, factors that halted economic growth in 2022 persist in 2023.

Inflation continues to present elevated levels and consequently, the purchasing power of households has been decreasing since 2022 (Figures 33 and 34). As a measure to decrease inflation rates, Central Banks implemented tight monetary policy measures, which led to a rise in borrowing costs and constrained economic activity. Public finances are directly influenced by the increase of interest rates as well since countries with elevated debt costs have fewer available resources to make essential priority investments. Therefore, in particular for the world's poorest nations, the gap between actual economic outcomes and pre-pandemic projections continues to be significant (IMF, 2023).

The acute stress observed in the banking sector has diminished, but credit availability remains constrained. Thanks to swift responses from authorities, the banking scare in March 2023 was contained and limited to problematic regional banks in the United States (SVB and FRB) and Credit Suisse in Switzerland. Consequently, since April 2023, global financial conditions have improved, suggesting that financial markets may have grown less concerned about risks to financial stability stemming from the banking sector. However, the stringent monetary policy continues to apply pressure on certain banks, both directly through increased funding costs and indirectly by intensifying credit risk. Surveys related to bank lending (consumer, corporate and commercial real estate) in the United States and Europe indicate that banks significantly restricted access to credit in the first quarter of 2023, and this trend is expected to persist in the coming months (IMF, 2023).

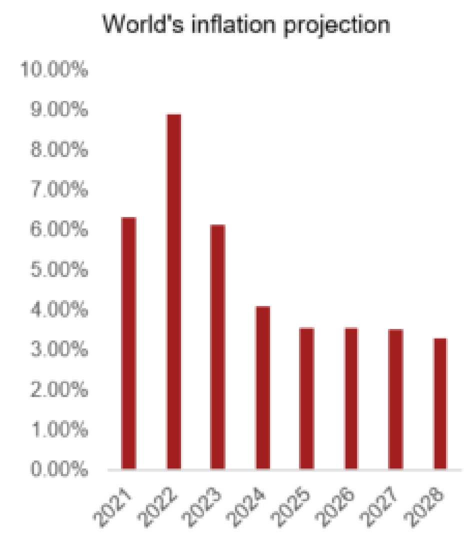
Lastly, **China's recovery is losing momentum** after experiencing sharp growth following the reopening of its economy due to COVID-19. Even though, at the beginning of the year, manufacturing activity was resurgent and in services consumption and net exports grew substantially in February and March as supply chains normalised, there are several factors which may disturb the Chinese economy: i. *continued weakness in the real estate sector is weighing on investment;* ii. *foreign demand remains weak and;* iii. *rising and elevated youth unemployment (at 20.8 per cent in May 2023) indicates labour market weakness* (IMF, 2023).

Figure 32: World's GDP growth (2018-2022)



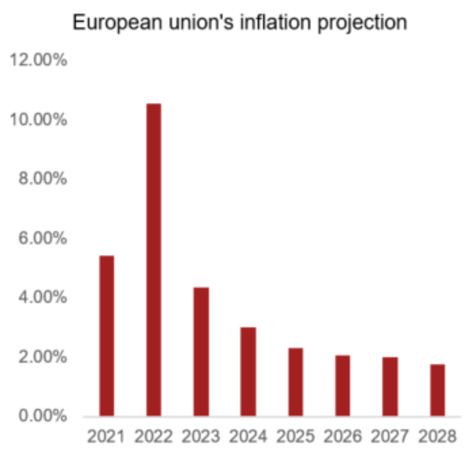
Source: World Bank and author analysis

Figure 33: World's inflation projection



Source: IMF and author analysis

Figure 34: European union's inflation projection



Source: IMF and author analysis

4.1.1. Spain

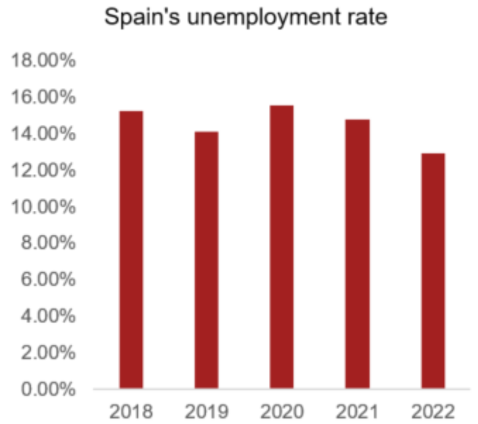
In the first quarter of 2023, real GDP recorded a quarterly growth of 0.5%, due to the tourism sector's remarkable performance, which reflects the contribution from external demand. The expectation of growth for this year's economic activity is 1.9% (Figure 35). After the declines in consumption in the last quarter of 2022 and the first quarter of 2023, it is expected that in the remainder of 2023 consumption will recover, supported by the labour market's resilience and real income gains for pensioners and workers on minimum wage (EC, 2023).

Figure 35: Spain's GDP growth (2018-2023)

Source: World Bank, EC and author analysis

The external sector's performance will improve during 2023, backed by the recovery of international tourism to pre-pandemic levels and the expected lower energy prices which will lead to a positive effect on competitiveness. The gap between the pre-pandemic output level of 0.9% in the last quarter of 2019 compared to the last quarter of 2022, is now set to be closed in the second or the third quarter of 2023 (EC, 2023). In 2022, the labour market proved to be more resilient backed by a sustained job creation and the unemployment rate reached 12.9% (Figure 36). It is projected to decrease slightly in the following years, to 12.7% in 2023 and 12.4% in 2024.

Figure 36: Spain's unemployment rate (2018-2022)



Source: World Bank and author analysis

Headline inflation reached 8.3% on average in 2022 but declined to 5.7% YOY in the last quarter of 2022 and is expected to decrease even more in 2023 mainly due to the restraint of energy prices. Furthermore, the prolongation of most of the government support measures adopted last year and the introduction of additional ones until the end of 2023, including the VAT reduction on several food products are also projected to contribute to the decline of headline inflation. Overall, it is forecast to reach 4.0% in 2023 and further decrease to 2.7% in 2024 (EC, 2023).

4.1.2. Brazil

Brazil's GDP increased by 2% in the first quarter of 2023, supported mainly by a large expansion of agricultural production. Retail sales grew by 3.8% in January 2023, including in some sectors that had been in decline for months, such as clothing and footwear, or food and beverages. 2023 will be a record year for agricultural production driven by favourable weather conditions. Nevertheless, industrial production continues to stagnate and is still 2.2% below pre-pandemic levels, because of weak demand and supply constraints for raw materials, electronic components, and other inputs. Private investment decreased 3.4% in the first quarter of 2023 essentially due to rising financing costs (OECD, 2023).

Figure 37: Brazil's GDP growth (2018-2024)

Source: World Bank, OECD and author analysis

Even though Brazil is implementing an expansionary fiscal policy, GDP growth projections are not optimistic because of low domestic demand growth as tighter monetary conditions gradually raise lending rates, leading to lower GDP growth rates of 1.7% in 2023 and 1.2% in 2024 (Figure 37). On the supply side, a record agricultural harvest will provide a considerable improvement to GDP growth, while the services sector continues to fall short since it did not reach its pre-pandemic levels. Tighter credit conditions to the economy and a slight increase in unemployment will lead to a reduction of household disposable income and contribute to lower inflation, which is expected to decrease to 5.6% in 2023 and 4.7% in 2024, down from an annual average of 9.3% in 2022 (Figure 38) (OECD, 2023).

Even though inflation has recently decreased, it is expected to continue above the 1.75-3.75% target band in 2023, and therefore Brazil's central bank will maintain the policy rate at 13.75% until the third quarter of 2023. Regarding the exchange rate, since advanced countries continue to have high inflation rates this factor continues to pressure the exchange rate. However, by the end of 2023, policy rates are expected to be gradually reduced, reaching 10% by the end of 2024 (OECD, 2023).

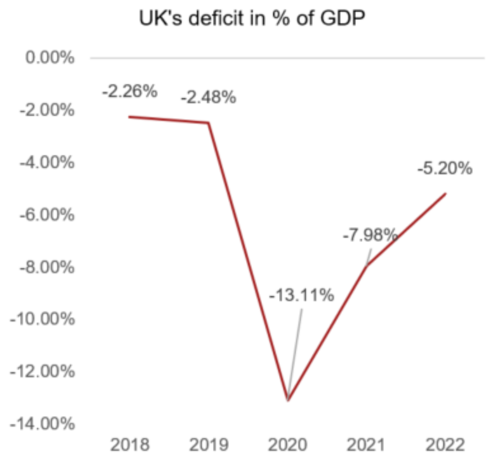
Figure 38: Brazil's inflation rate (2018-2022)

Source: World Bank and author analysis

4.1.3. United Kingdom

UK's GDP is expected to grow 0.3% in 2023 and 1.0% in 2024. In the first quarters of 2023, the government's support measures related to energy implemented in 2022 will continue to contribute to GDP growth. It is forecasted that there will be a moderate improvement in private expenditure as energy prices decrease, benefits such as pensions and universal credit are improved, labour participation increases and global economic conditions improve. Nonetheless, despite the decrease in inflation lower household income growth will lead to a more modest increase in consumption and monetary tightening will slow both housing and business investment. Real wages will stagnate in 2023 since labour market conditions will limit nominal wage growth, however, they will eventually increase in 2024 thanks to lower inflation. The government deficit will improve from 5.2% of GDP in 2022 (Figure 39) to 3.5% of GDP in 2024, owing to both consolidation and higher growth (OECD, 2023).

Figure 39: UK's deficit in % of GDP (2018-2022)



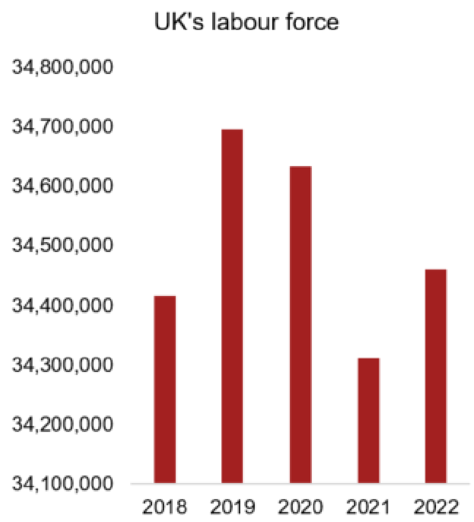
Source: OECD and author analysis

In March, net mortgage borrowing continued its decline, and the average cost of bank loans to businesses remains notably high, standing at approximately 5.8%. This figure is significantly higher than the rate of around 2.0% at the beginning of the monetary tightening cycle in December 2021.

Imported food materials inflation continues to push up both producer prices and overall consumer prices. In April, the annual inflation rate for food and non-alcoholic beverages reached 19.0%, marking the second-highest level observed in over 45 years, following the March 2023 figure. In contrast, a drop in wholesale energy prices has eased the cost of living, and the consistent strengthening of the sterling pound against the US dollar has mitigated overall imported inflation (OECD, 2023).

Labour market participation continues to be below pre-pandemic levels (Figure 40). The proposed childcare measure, providing 30 hours a week of free childcare for working parents of nine-to-24-month-olds, should be implemented swiftly, as it has the potential to boost labour market participation, enhance overall economic output, and diminish gender disparities in income. Even with the application of these measures, since economic growth will remain low, unemployment will increase steadily to about 4.5% (OECD, 2023).

Figure 40: UK's labour force (2018-2022)



Source: OECD and author analysis

4.1.4. United States

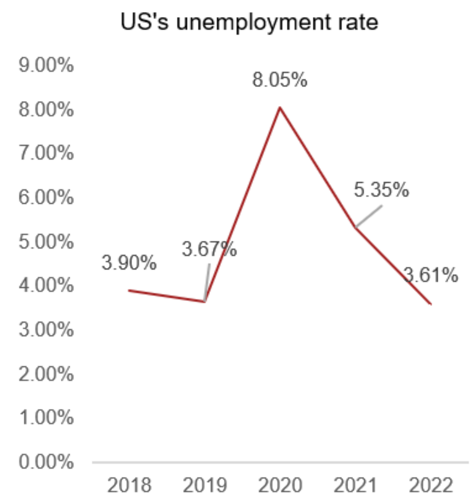
In the first quarter of 2023, there was a slowdown in real GDP growth, which expanded at an annual rate of 1.3%, down from the 2.6% growth seen in the fourth quarter of 2022 (Figure 41). The decline in housing investment persisted, influenced in part by the tightening of financial conditions. Employment figures continued to show strength on an aggregate level, although this trend was less pronounced in sectors sensitive to interest rates, such as construction and manufacturing. Although there was a decline in the growth rate of the private consumption expenditures price index in April 2023, falling to 4.4%, inflationary pressures in the services sector remain elevated (OECD, 2023).

Figure 41: US's GDP growth (2018-2022)

Source: World Bank and author analysis

United States' real GDP is forecast to increase by 1.6% in 2023 and 1.0% in 2024. After a period of strong nominal growth, private consumption and investment are expected to stagnate in response to the tightening of monetary policies and as excess savings are further used. As labour market conditions continue to worsen, it is anticipated a slight rise in the unemployment rate to 4.5% in 2024 (Figure 42) and wage growth is expected to moderate, which will lead to a decline in services inflation. However, only after 2024, core inflation is projected to return to the Federal Reserve's 2% target. (OECD, 2023).

Figure 42: US's unemployment rate (2018-2022)



Source: World Bank and author analysis

Domestically, fuel prices have declined to levels prior to the onset of Russia's war of aggression against Ukraine, after a sharp rise in the first half of 2022.
The stabilisation of global energy prices has already been reflected in the country's inflation and as China lowers its pandemic-related restrictions, bilateral exports have increased significantly in recent months (OECD, 2023).

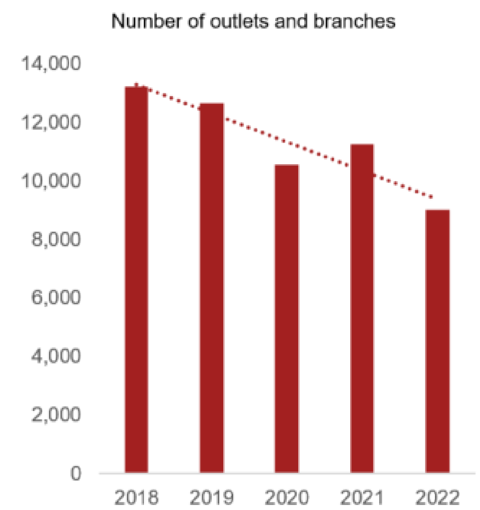
In terms of monetary policy, due to the recent abnormally high inflation levels, the Federal Open Market Committee has continued to increase its regulatory rates. The federal funds rate has been raised to 5.25% and to restrict excess liquidity central bank holdings of Treasury securities, agency debt and agency mortgage-backed securities continue to be reduced. Although there was some turbulence in March, with the collapse of SVB and FRB, the Federal Reserve responded well by introducing a new facility to provide short-term liquidity support to financial institutions and prevent more situations like these (OECD, 2023).

4.2. Market analysis

After the 2008 financial crisis, the euro-area banking sector began a trend of consolidation to form larger banks. There are two major reasons for this:

(i) increasing efficiency by cutting costs, since bigger banks would require fewer branches and employees compared to a large number of small banks. This is confirmed by the downward trend in the number of credit institutions and the number of employees of credit institutions in the EU, from 8,162 and 2,789,622 in 2008 to 5,263 and 2,149,178 in 2021 (Saravia, 2022), respectively. This is the case for ST as well (Figure 43);

Figure 43: ST's number of outlets and branches



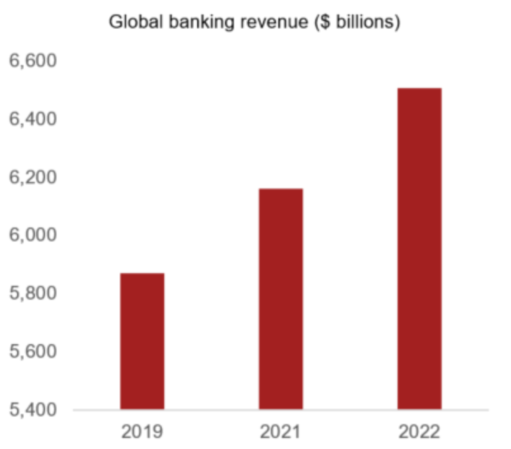
Source: Bloomberg and author analysis

(ii) as bigger banks emerged from mergers and acquisitions, they would be able to diversify their revenue streams in terms of sector and geography enabling them to diversify and account for the risks associated with banking activity.

In banking, digitalization and dematerialisation are and will continue to be a concern as digital transformation processes and efficiency enhancements continue to require very substantial investments (McKinsey & Company, 2022). Furthermore, this will increase competition by players which were not considered before, such as Fintechs and BigTech companies as they already developed their services (Mckinsey & Company, 2022). However, there is the possibility to overcome this threat by establishing new partnerships with these companies.

Finally, in 2022, revenue in the banking sector grew globally by $345 billion (Figure 44) due to the rise in interest rates which led to a 14-year high in bank profitability (Mckinsey & Company, 2022) and following the upward trend of reference interest rates and the financials disclosed in June 2023, the banking sector's profitability in 2023 will surpass the one reached in 2022.

Figure 44: Global banking revenue (2019, 2021 and 2022)

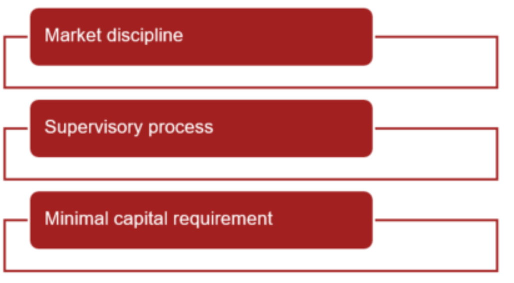


Source: McKinsey & Company and author analysis

4.3. Regulation

In 1988, the Basel Committee on Banking Supervision disclosed a set of international supervisory regulations known as the Basel Capital Accords. These accords aimed to bolster global banking sector stability, as a way to strengthen the relationship between financial institutions and economies and prevent the repetition of past banking crises. The most recent implementation, Basel III, was introduced in 2010 in response to the 2007-2008 financial flaws, with a focus on enhancing micro-prudential regulation and fostering market liquidity risk management.

Figure 45: Basel II framework's main elements

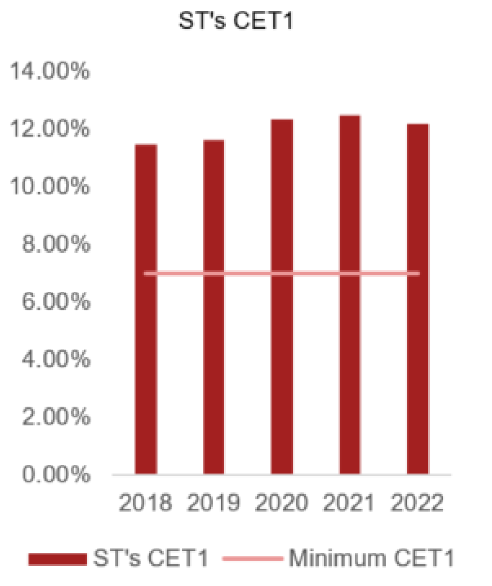


Source: BIS and author analysis

The Basel III framework comprises three main elements – market discipline, supervisory process, and minimum capital requirement (Figure 45) – and it tackles challenges such as heightened liquidity risk, stress testing, and ensuring sufficient bank capital (BIS, 2023). Through this, the Basel III regulations aim to elevate bank liquidity levels while concurrently mitigating leverage.

Concerning capital requirements, the core principle of capital ratios stipulates that banks must maintain specific levels of regulatory capital according to the assets they own and their adjusted risk weight. Despite the 4.5% requirement for CET1 capital against RWAs, the overall regulatory capital threshold for banks stands at a minimum of 10.5% of RWAs. Within this, a minimum of 7% must be CET1 capital (Figure 46), encompassing 4.5% for CET1 and an additional 2.5% as the Conservation Buffer. Furthermore, Basel III has introduced capital buffers to proactively address distinct risks that banks might encounter. These buffers can be invoked based on individual bank attributes, prevailing economic conditions, or assessments by regulatory bodies (BIS, 2023).

Figure 46: ST's CET1 (2018-2022)



Source: ARs 2019 to 2022 and author analysis

Regarding liquidity considerations, the aftermath of the 2008 financial crisis laid bare the vulnerabilities stemming from banks relying on short-term funds for financing long-term investments, notably interbank lending. This practice led to acute liquidity challenges when short-term markets seized up. As a response, Basel III introduced the LCR and the NSFR. These metrics oversee short-term and medium-to-long-term funding, and they must both be above 100% (BIS, 2023).

Lastly, the Sovereign Debt Crisis in the EU spotlighted the overexposure of certain banks to sovereign bonds of nations which, after all, were not risk-free. To avoid a similar problem, Basel III introduced the leverage ratio, assessing the ratio between regulatory capital and the recorded asset value. This should be approximately 3%. (BIS, 2023).

4.4. Demand and supply drivers

Credit demand is directly affected by monetary policy, which influences the level of interest rates and by macroeconomic stability, which is reflected by macroeconomic indicators such as GDP growth and the inflation rate (Che et. al, 2015).

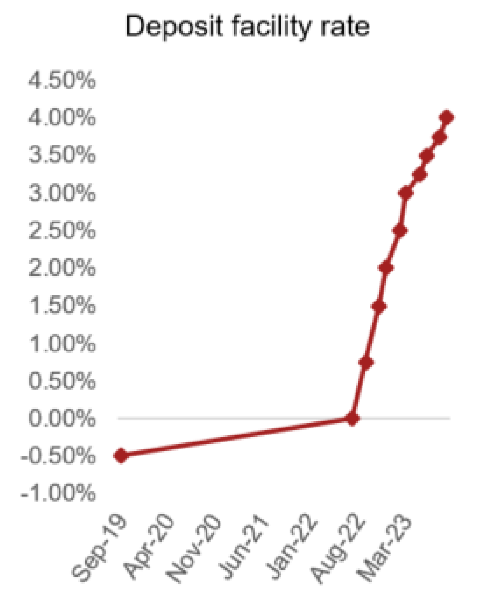
Credit supply is also influenced by monetary policy, especially by negative deposit facility rates (Altavilla et. Al, 2018), as well as by the regulatory framework.

The rise of reference interest rates from central banks (Figures 47, 48 and 49) all over the world led to an increase in interest rates on loans for both retail and corporate customers. Consequently, this growth in interest rates is increasing the financing costs for customers, which eventually causes a decrease in the demand for loans. According, to the ECB's second quarter Euro Area Bank Lending Survey (ECB, 2023), this has been the case as interest rates continue to rise.

GDP growth and high inflation rates have opposite effects on credit demand (Che et. Al, 2015), since GDP growth is a sign of how the overall economy is working and higher growth fosters economic activity, which may result in a higher demand for credit, while high inflation rates are associated with lack of price stability and lead to a decrease in purchasing power which consequently reduces demand for loans.

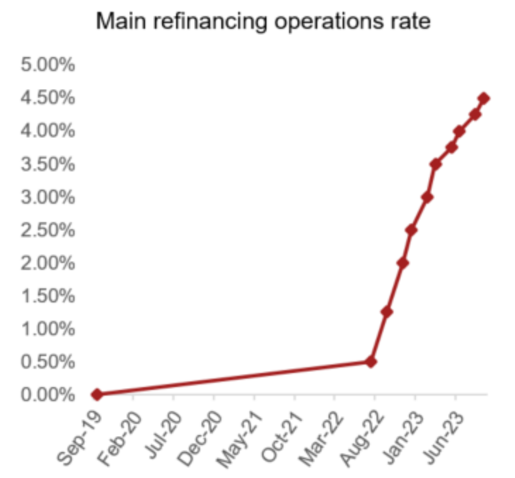
Regarding the supply side, with the rise of reference interest rates, specifically the deposit facility rate by the ECB, banks have now the opportunity to generate interest income by keeping their money deposited in central banks which will most likely decrease the supply of credit. Moreover, as interest rates continue to rise the probability of default by customers tends to increase, which might lead central banks to increase capital requirements by banks and consequently decrease the value of RWAs. This may influence banks to be more cautious and increase their requirements to supply new credit to customers.

Figure 47: ECB's deposit facility rate



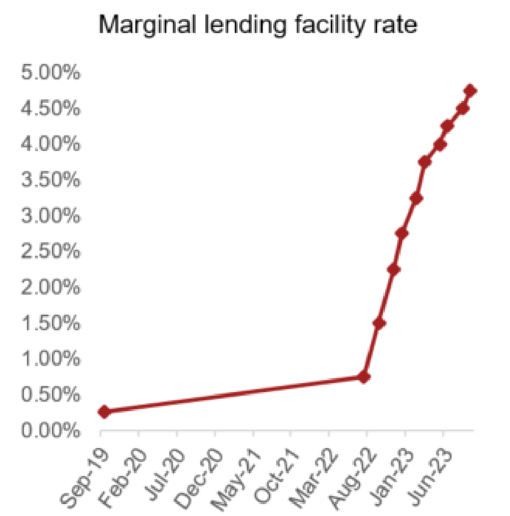
Source: ECB and author analysis

Figure 48: ECB's main refinancing operations rate



Source: ECB and author analysis

Figure 49: ECB's marginal lending facility rate



Source: ECB and author analysis

4.5. Key profitability drivers

In 2022, ST recorded an attributable profit of €9,605 million, an 18% increase from the €8,124 million reached in 2021. Group Santander's core income is obtained through the following key profitability drivers:

4.5.1. Interest & Fees on Loans

This item includes revenue exclusively generated from loans to customers, which are classified at amortised cost. In 2022, this source of revenue reached €54,110 million (Figure 50), a growth of 40% compared to 2021 (€38,649 million), driven by the increase of interest rates on credit loans, since a substantial part of these loans has a variable interest rate, and the substantial increase in Total Gross Loans (from €962,382 million in 2021 to €1,019,188 million in 2022). Lastly, this item increased in all the Group's geographies from 2021 to 2022.

4.5.2. Interest on Investment Securities

This item includes revenue generated from debt instruments, which are financial assets classified at amortised cost or classified at fair value through other comprehensive income. In 2022, this item accounted for €10,416 million (Figure 51), which meant an increase of 81.97% from 2021 (€5,724 million), mostly motivated by increasing interest rates (since most of the private debt portfolio has a variable interest rate), the interests generated by the sovereign debt portfolio as the Group decided to reinforce its purchase of public debt and the increase in private debt emissions.

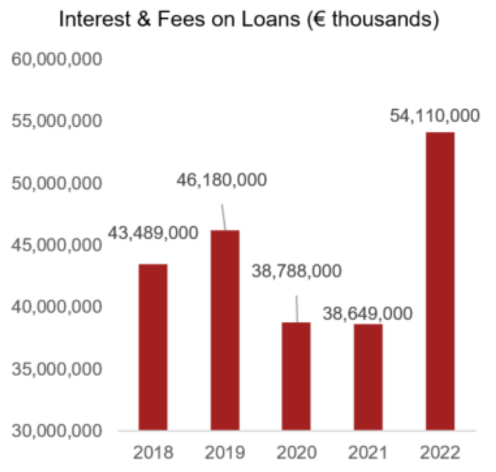
4.5.3. Interest on Deposits

This item includes revenue generated from deposits in other credit institutions and deposits in central banks. In 2022, this source of revenue reached €3,792 million, increasing 172.41% from 2021 (Figure 52), which can be explained by the rise of deposit facility rates in central banks through which overnight deposits are remunerated and the increase in remuneration of deposits in other banks.

4.5.4. Interest on Deposits and Marketable debt securities

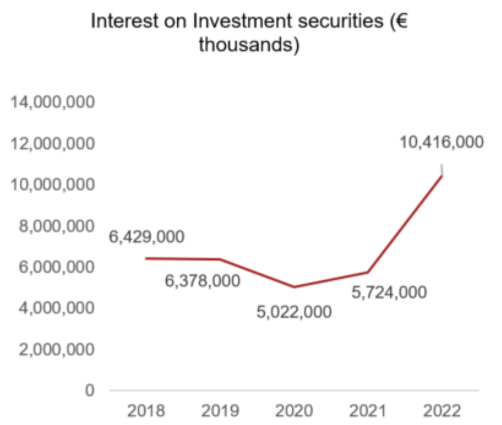
This item is the most significant source of expense for ST, and it includes the amount of interest paid for the deposits it collects from customers, central banks and other credit institutions and to holders of debt securities issued. In 2022, it accounted for €27,956 million (Figure 53), which means an increase of 151.4% from 2021. This increase is explained by the issuance of debt to finance ST's operations and the increasing interest rates that remunerate deposits.

Figure 50: Interest & Fees on Loans (2018-2022)



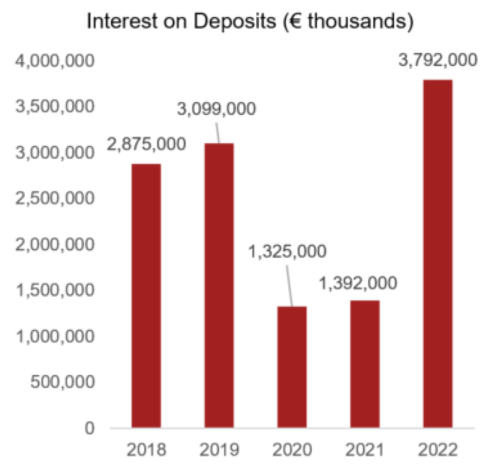
Source: Author analysis

Figure 51: Interest on Investment securities (2018-2022)



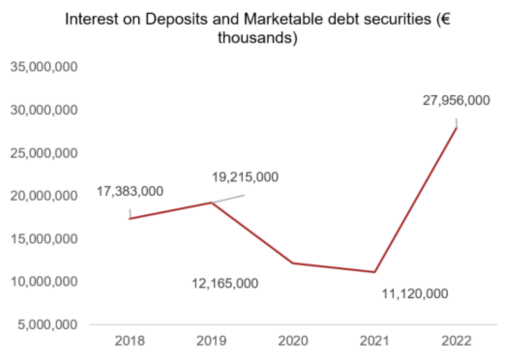
Source: Author analysis

Figure 52: Interest on Deposits (2018-2022)



Source: Author analysis

Figure 53: Interest on Deposits and Marketable debt securities (2018-2022)

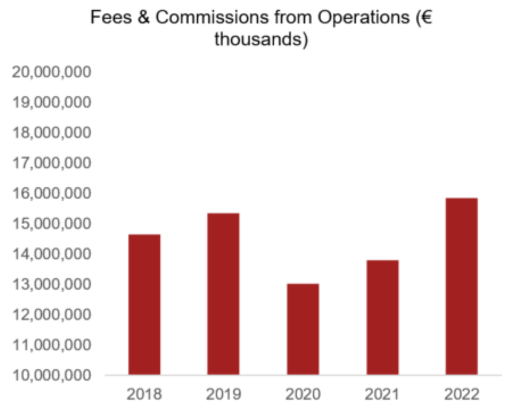


Source: Author analysis

4.5.5. Fees & Commissions from operations

This item includes commissions associated with collection and payment services (commissions generated by cards, transfer orders and accounts management and maintenance), non-banking financial products (commissions related to investment and pension funds) and related securities services (commissions related to trading, administration and custody, asset management and underwriting and placement of securities), Fees & Commissions from operations increased 14.88% from 2021 (€13,812 million) to 2022 (€15,867 million) (Figure 54), mostly due to favourable progression of the COVID-19 pandemic which allowed economic transactions to return to normal, emphasised by the significant growth on a consolidated basis of commissions related to collection and payment services.

Figure 54: Fees & Commissions from Operations (2018-2022)

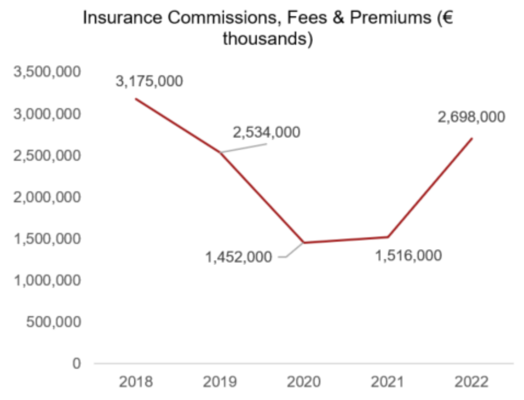


Source: Author analysis

4.5.6. Insurance Commissions, Fees & Premiums

This item includes all the revenue generated by ST's Insurance segment, comprising premiums from insurance contracts paid by customers and fees and commissions associated with these contracts. Even though this item has been showing a decreasing trend since 2018, from 2021 to 2022 it increased by 77.97%, reaching an amount of €2,698 million in 2022 (Figure 55). This increase is mainly explained by the successful launching of new insurance products (unit-linked, guaranteed interest and annuities products) which enabled ST to diversify its offering and provide its customers with innovative alternatives to traditional savings solutions.

Figure 55: Insurance Commissions, Fees & Premiums (2018-2022)



Source: Author analysis

4.6. Porter's 5 forces

4.6.1. Rivalry among existing competitors

Rivalry among existing competitors within the banking sector is medium-high (4) (Figure 56). ST faces direct competition in the countries in which it operates, both nationally (Spain) and internationally (Brazil, United Kingdom, United States, Mexico, Poland, Portugal and others). The existence of reduced switching costs has amplified competition among existing banks, even though most customers will not change their bank with a slight change in its mortgage loan spread or interest-earning deposit rate.

Moreover, in addition to the rivalry among traditional banking competitors, BigTech companies and Fintechs started offering financial services at lower costs, which made banks re-evaluate their business models to remain in step with technological advancements.

Figure 56: Porter's five forces

Source: Author analysis

4.6.2. Bargaining power of buyers

The bargaining power of retail customers is low (1), and it has been declining, since the banking sector has been under constant consolidation and mergers and acquisitions, leading to fewer banks operating in the market.

The bargaining power of corporate customers should be considered low-medium (2) since major companies (e.g., multinational companies and large domestic groups) might be able to exert their influence to have better conditions, as they represent a significant proportion of the bank's revenues.

4.6.3. Threat of substitute products or services

As the banking sector is extremely regulated, the threat of substitute products is low-medium in the banking sector (2). Nonetheless, BigTech companies and Fintechs already offer technologically sophisticated advanced products and services with no fees associated, which are considered a threat to more traditional banks.

Even though these companies and their products might represent a threat to banks in general, ST has already developed Openbank (Figure 57), which is Europe's largest fully digital consumer bank, and PagoNxt, focusing on providing financial and payment solutions to both individual clients and businesses.

4.6.4. Threat of new entrants

New competitors would face numerous entry barriers in the banking sector, such as (i) highly complex regulation, (ii) strict capital requirements, and (iii) the time needed to establish a relevant brand.

However, the threat of competition should be considered low-medium (2), considering the possibility of mergers among existing banks and the increasing relevance of Fintechs and BigTech companies in providing financial services. Furthermore, the entry of non-banking companies into the financial sector, although increasing, has taken the form of partnerships in developed markets because generally, these companies do not offer all the services provided by banks.

4.6.5. Bargaining power of suppliers

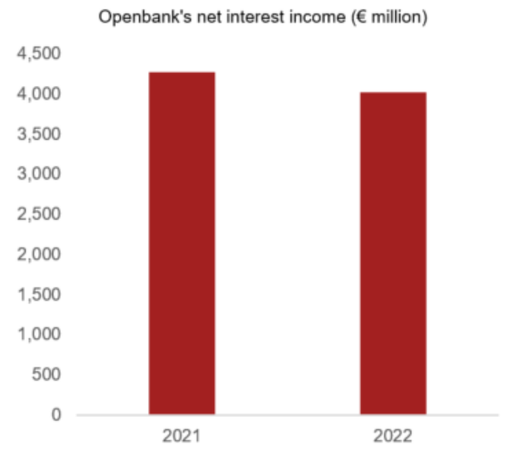
Since banks depend on their customers' deposits to operate, they can be considered a supplier. Moreover, some essential services related to ATMs and their network as well as payment solutions are usually subcontracted.

The bargaining power of depositors (Figure 58) should be considered low (1) because most banks offer similar products and if depositors search for products with a higher return, they are usually linked to a higher risk.

In ST's case, the other essential services' bargaining power should be considered low as well (1), as ST developed a separate line of business related to payment solutions (PagoNxt – Figure 59).

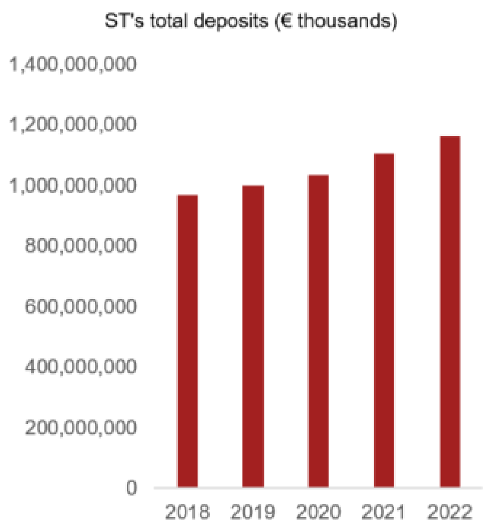
Additionally, the ECB is also a significant supplier considering its control of monetary policy and influence over the interbank money market. Therefore, it should be considered a medium-low (2) bargaining power.

Figure 57: Openbank's net interest income (2021 and 2022)



Source: Bloomberg and author analysis

Figure 58: ST's total deposits



Source: Reuters and author analysis

Figure 59: ST's payment solutions brands

PagoNxt

Getnet

Ebury OneTrade

PaymentsHub

Source: ST's website and author analysis

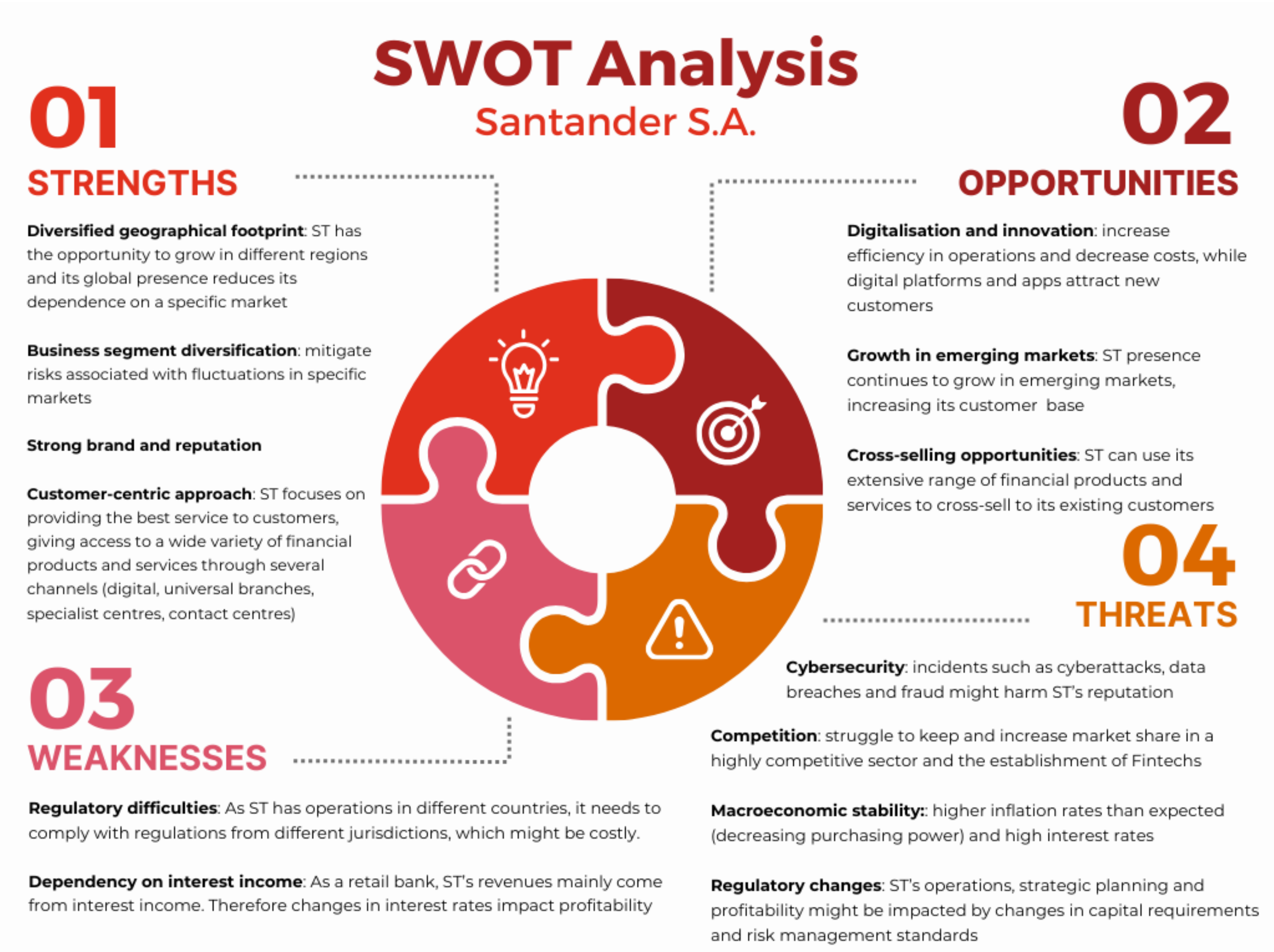
4.7. SWOT analysis

ST has grown into one of the major banks in the world according to their total assets value. By the end of 2022, it was the fourth-largest bank in Europe and the seventeenth in the world (Khan et. al, 2023) and this reflects a strong competitive positioning relative to its peers.

Its presence worldwide reduces its country's risk by operating in a wide variety of markets and it contributes to a strong brand reputation, which comes from its history and its results and day-to-day operations in recent years (Figure 60).

Even though ST has the strengths mentioned above, being a retail bank means it is highly dependent on net interest income (as it represents 74% of its total income in 2022 – Figure 60) and its performance might suffer due to poorer economic conditions, since they are usually associated with a higher probability of loan defaults and a lower demand for loans.

Figure 60 – SWOT analysis



Source: Author analysis

5. Investment summary

ST has a **strong buy** recommendation, with a 2024YE PT of €4.74. Based on the closing price of 30th June 2023 of €3.39 (Figure 61), this reflects a potential upside of 39.82%, considering the investment's medium risk (Figure 62).

Based on the recommendation presented above, it is considered that ST stock is being traded at a discount due to the following factors:

i. Interest rate risk, due to uncertainty in monetary policy and the possibility of other increases of reference interest rates by central banks;

ii. Credit risk, since the high levels of interest and inflation rates worldwide might lead to an economic crisis;

iii. Market expectations, which might consider that banks are reaching their peak of profitability;

However, the recommendation stated above considers ST's:

i. Record attributable profits, despite conservative provisioning for NPLs;

ii. Ability to increase its customer base in all its geographies, especially in developing economies, such as Brazil (Figure 63);

iii. Its dimension and reputation as the fourth-largest European bank;

iv. Solid capital (CET1, AT1 and total capital) and liquidity (NSFR and LCR) ratios;

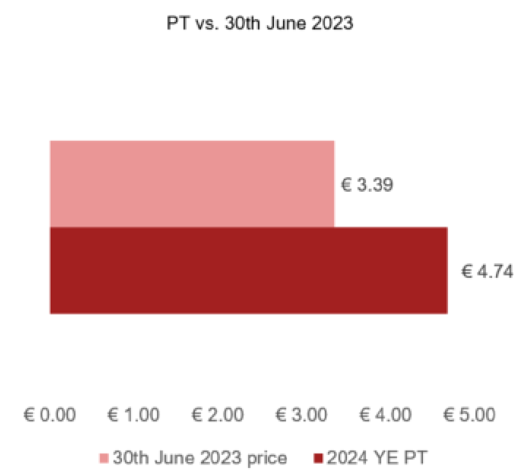
v. Focus on digitalisation of its operations and innovation regarding its market approach, mainly through the creation of a new business segment (PagoNxt).

As of the date of issuance of this recommendation, the valuation of Santander S.A. shares for one year stood at €4.95, in line with the aforementioned result.

Figure 61: ST's historical price

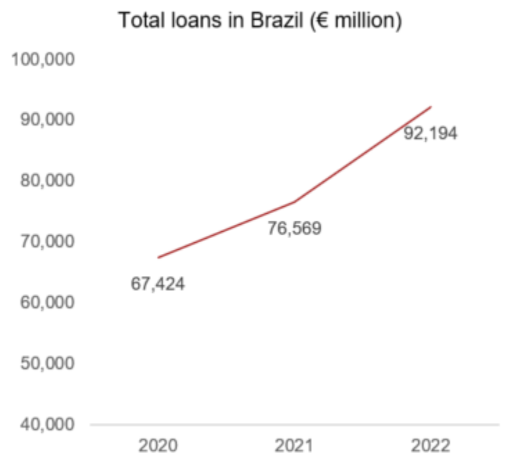
Source: Yahoo finance and author analysis

Figure 62: ER model PT vs. Price on 30th June 2023



Source: Yahoo finance and author analysis

Figure 63: Evolution of Total loans in Brazil (2020-2022)



Source: Bloomberg and author analysis

5.1. Valuation methods

Since the 2008 financial crisis, valuing financial institutions has become a top concern (Damodaran, 2009). The valuation of financial services firms (both retail and investment banks and insurance companies) is considerably different from the generic approach to valuing companies and is therefore quite challenging (Damodaran, 2009).

The unique characteristics of a bank's balance sheet make it very hard to determine which part of the liabilities is structural financing and which part is related to operational activities and consequently, it makes it harder to understand which liabilities are long-term debt and which ones are related to working capital (Velasco & Wong, 2013). This problem is intensified because financial services firms have a higher level of leverage compared to other types of businesses since non-equity funding (mostly deposits) carries a much higher weight on a bank's balance sheet than equity funding. Furthermore, finding out the cost of capital for non-interest-bearing deposits is quite difficult (Velasco & Wong, 2013).

Moreover, the nature of the banking business is another obstacle to valuation. Cash flows cannot be as accurately estimated when defining what constitutes debt and reinvestment in a business is so complex (Damodaran, 2009). Financial institutions mainly invest in intangible assets such as human capital and brand, unlike industrial companies that invest in tangible assets like equipment, factories, and other physical assets. These bank investments are considered operating expenses in financial statements, and the impact on capital expenditure in the cash flow statement is close to zero (Damodaran, 2009). Working capital is defined as the difference between current assets and current liabilities (Damodaran, 2009), and a significant portion of a bank's balance sheet falls into this definition, which means variations in current assets and liabilities can be highly volatile and are not necessarily associated with reinvestment for future growth. These difficulties lead to a dead end since it is not possible to estimate cash flows without estimating reinvestment and estimating expected future growth becomes nearly impossible if the reinvestment rate cannot be calculated (Damodaran, 2009).

The best method for valuing a bank is based on Equity Cash Flow models (Damodaran, 2009). There are three approaches for evaluating financial institutions using the Equity Cash Flow model:

i. Dividend Discount model – in this model the stock's value is the present value of expected dividends. Analysts consider this model outdated, but many of them still use it due to the difficulty of estimating cash flows (Damodaran, 2009),
ii. Free Cash Flow to Equity model – in this model, the remaining cash flow after debt payments and reinvestments is used. As mentioned earlier, estimating the debt and reinvestment of financial services companies is very complex. Therefore, it is argued that this is not the most suitable approach for estimating a bank's value (Damodaran, 2009);
iii. Excess Return model – the final approach, in which the company's value can be defined as the sum of the current capital value and the discounted value of future excess returns (Damodaran, 2009).

The PT of €4.74 was obtained using an ER model with discounted excess equity returns from 2025 to 2029. The other methods used to value the Bank were the DD model, the FCFE model and the price multiples valuation (Figure 64). The multiples valuation yielded the higher values for the valuation, with a valuation of €5.60 using a P/E multiple and a €4.43 valuation using a P/B multiple, and the Dividend Discount model presented the lowest valuation with a PT of €4.33 (Figure 65). **All four methods resulted in a buy** (DD model) or **strong buy recommendation** (all three remaining methods). These results will be further explained in section **6. Valuation**.

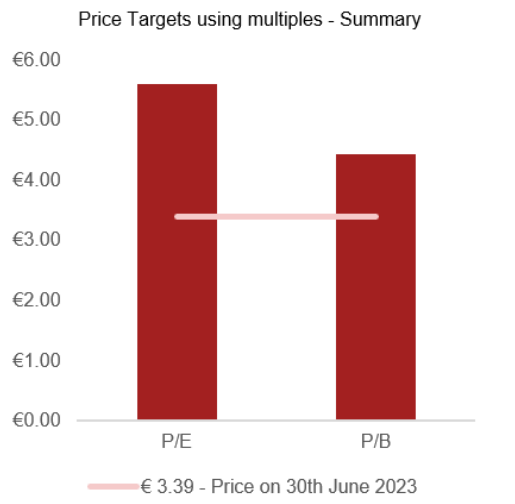
5.2. Investment risks

Regarding the overall risks ST faces (Figure 66), it was considered a medium risk for its stock. This assessment is based on the rise of interest rates which is favourable to ST since it might lead to record years of net interest income, while changes in regulation and weaker economic conditions (decreasing disposable income and slower economic growth) can lead to difficulties to increase profitability. These risks will also be further explained in section **8. Investments risks**.

Figure 64: PTs vs. Price on 30th June 2023

Source: Author analysis

Figure 65: PTs vs. Price on 30th June 2023 - multiples



Source: Author analysis

Figure 66: ST's regulatory, market and operational risks

Regulatory risk
Compliance risk
Interest rate risk
Credit risk
Reputational risk
Liquidity risk
Operational risk

Source: Author analysis

6. Valuation

All valuation methods described above result from net income forecasting (Appendices 2-11) and cost of equity estimation (Appendices 12-15). Consequently, the main assumptions are related to the most significant source of revenue – interest income, and most significant sources of expense – interest expense, loan loss provision and labour expenses.

Given the Group's worldwide presence and dimension, it was considered that using CAGRs for forecasting interest income and interest expense was most adequate to capture the following factors:

i. the global increase in interest rates;
ii. increase in credit supplied by the banks of Group Santander in all its geographies;
iii. the increase in deposits from customers in all the Group's geographies;
iv. the need for Santander to increase and diversify its financing sources.

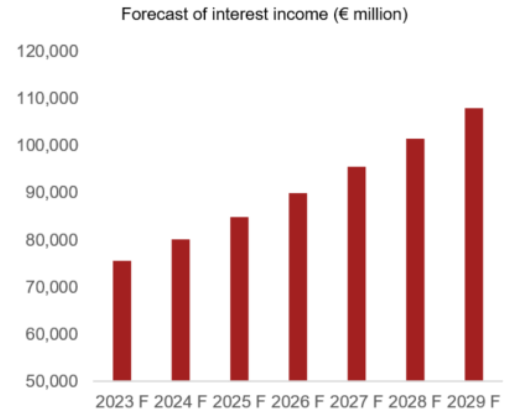
Regarding **Interest income**, the CAGR from 2018 to 2022 (Figure 67) was computed. Since this period already reflects the rise in reference interest rates up until 2022 and a spike in inflation rates as well, it was determined that it reflected the current and future economic conditions. In line with this assumption, ST's interest income grew by 53.74% to €71,430 million compared to the previous year's figure of €46,463 million, and this spike in interest income was seen across all the Group's geographies. Moreover, the ECB continued to raise reference interest rates throughout 2023 and it did not mention when they would start to decrease, which supports the rise in interest income in the following years.

Loan loss provision was obtained by computing the historical average percentage of loan loss provision over Total gross loans from 2018 to 2022 (Figure 68). This was considered the most adequate assumption since ST has a global reach and this period includes the COVID-19 pandemic, which resulted in higher loan loss provisions in 2020. Although this fact could be considered an outlier, it reflects a risk of increasing NPL as a result of high interest rates. This assumption is in line with ST's increasing credit portfolio and customer base, as depicted in the forecasted financial statements.

For **labour expenses,** it was considered that it would grow at the Euro area's projected inflation rate (Figure 69) since this spike in inflation rates in 2022 will probably continue in 2023 (but with a slight decrease) and this will pressure companies to raise salaries and because most of ST's headquarters are in Spain.

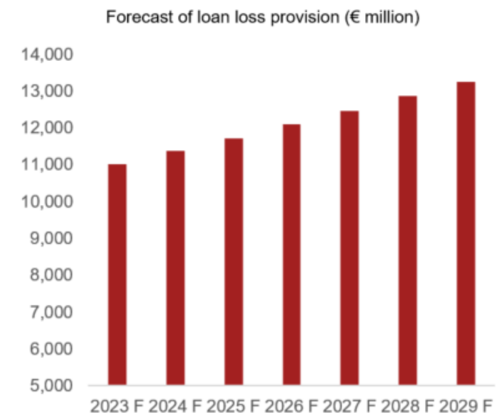
Regarding **interest expense**, the assumption used was the CAGR from 2018 to 2022 (Figure 70). As stated above this period reflects the rise in reference interest rates which will affect deposits' remuneration, increasing the cost related to interest on deposits and it will lead ST to diversify its financing sources, mainly through debt issuance. The issuance of debt to diversify and decrease the cost of its financing sources is depicted in both the forecasted balance sheet and cash flow statement. In

Figure 67: ST's forecasted interest income (2023-2029)



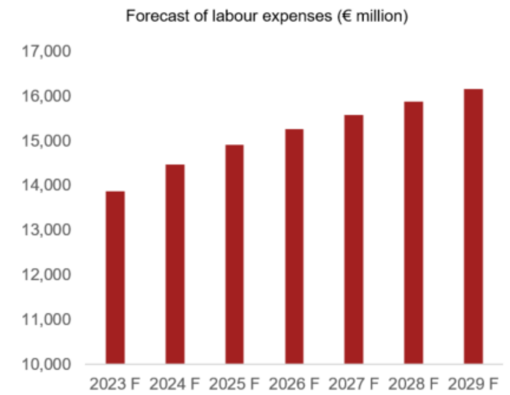
Source: Author analysis

Figure 68: ST's forecasted loan loss provision (2023-2029)



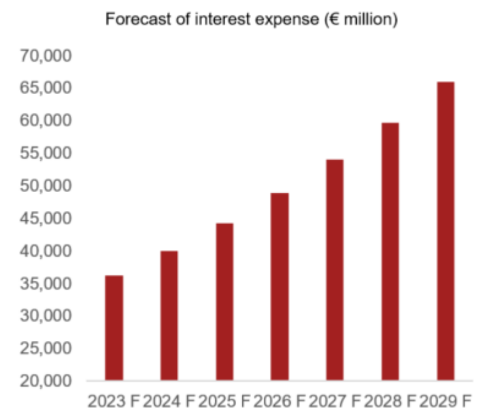
Source: Author analysis

Figure 69: ST's forecasted labour expenses (2023-2029)



Source: Author analysis

Figure 70: ST's forecasted interest expense (2023-2029)



Source: Author analysis

line with this assumption, it is the fact that ST's interest expense grew by 150.60% to €32,811 million compared to the previous year's figure of €13,093 million and this spike in interest expense was seen across all the Group's geographies.

Furthermore, the other most significant assumption used is the **cost of equity** (Appendices 12-15) and how it is determined since it is common to all absolute valuation models. Regarding the risk-free rate, it was used the 10-year German government bond yield, the beta used was taken from Damodaran's database for 2023 and the equity risk premium used results from the weighted average of the equity risk premiums of Brazil, Spain, United Kingdom and United States (which are ST's main markets), taken from Damodaran's database for 2023 (Figure 71).

Figure 71: Cost of equity

Risk free rate	2.39%
ERP	7.43%
Beta	1.15
Cost of equity	10.93%

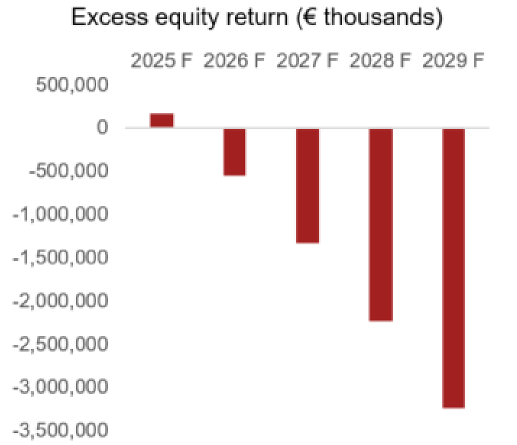
Source: Damodaran and author analysis

6.1. ER model

As explained before, while valuing financial service firms the most accurate model to determine the equity value of the firm is the ER model.

In this model, the equity value is equal to the sum of equity capital invested currently and the present value of expected excess returns to equity investors (Damodaran, 2009). These excess returns are determined by comparing the firm's actual returns (ROE) to its investors' expected return (cost of equity), which means negative excess returns translate into a higher return expectation than the firm is achieving (Figure 72).

Figure 72: ST's excess equity return (2023-2029)



Source: Author analysis

Using this model, ST's PT is €4.74 per share, reflecting a strong buy recommendation and a potential upside of 39.82% (Appendix 16).

6.2. FCFE

To determine the FCFE of a financial service firm the following formula is used: FCFE = Net income – Reinvestment in regulatory capital (Damodaran, 2009).

The reinvestment in regulatory capital was determined by forecasting the value of RWA according to their average percentage on Other earning assets and Gross loans, which are the assets that bear the most risk. Since the future capital ratios were always above the capital requirements for 2022 (Figure 73) (even if they increase by 25 bps each year after 2022), this supports the assumption that there will be no need to invest in regulatory capital (Appendix 17).

Figure 73: ST's forecasted total capital ratio (2023-2029)

Source: Author analysis

However, to fully incorporate this variable in the model it would be necessary to have ST's rating models and the risk weights provided by the regulator, which means this is not the most suitable approach for estimating ST's PT.

Using this model, ST's PT would be €5.44 per share, reflecting a strong buy recommendation and a potential upside of 60.47% (Appendix 17).

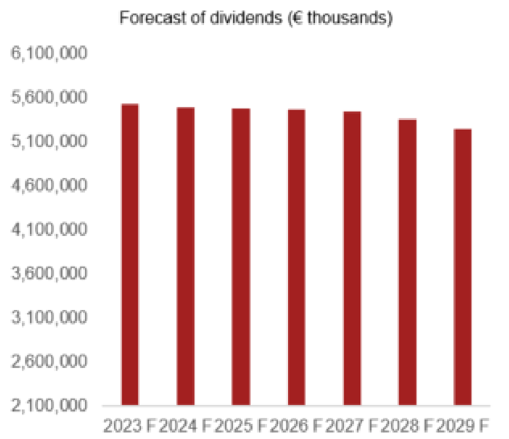
6.3. Dividend discount model

This approach for assessing a company's stock value operates under the assumption that the current value of a stock is the total of all expected dividend payments, which must be discounted by ST's cost of equity.

Since 2019, ST determined an annual payout policy of 40% up to 50% through both cash dividends and share buybacks. Even though in 2020 and 2021 it was not possible to distribute dividends due to the COVID-19 pandemic, in 2023, ST defined a payout ratio of 50% (Figure 74). Since ST received regulatory approval for its share buyback programme and assuming its regulatory capital ratios will be met, it was assumed that ST's payout ratio will remain constant throughout the years (Appendix 1).

Using this model, ST's PT would be €4.33 per share, reflecting a buy recommendation (Appendix 18).

Figure 74: ST's forecasted dividends (2023-2029)



Source: Author analysis

6.4. Market valuation

The valuation of financial services firms using multiples is limited to equity multiples since value multiples (Value to EBITDA or Value to EBIT) are not easily adapted to these firms (Damodaran, 2009). Moreover, since sales cannot be measured accurately for financial services firms (Damodaran, 2009), only the P/E and P/B ratios were used.

To choose ST's peers (Figure 75) it was used a range of variables was (Appendix 19) and the variable Total loans/Total assets must be highlighted as depicted if the banks were mostly retail banks or investment banks.

The PTs using the P/E and the P/B ratios were €5.60 and €4.43, respectively. The valuation arising from both multiples reaches a strong buy recommendation (Appendix 19).

Figure 75: Selected peers
Caixa Bank
BBVA
ING
Lloyds Banking Group
Unicredit
Danske Bank

Source: Author analysis

7. Financial analysis

7.1. Capital ratios

Capital ratios are extremely important in a bank's decision-making as it needs to comply with regulatory requirements and guarantee the entity's solvency.

In 2022, the ECB imposed to Santander on a consolidated basis a minimum CET1 ratio of 9.07%, a minimum AT1 ratio of 10.87% and a minimum total capital ratio of 13.26% (Figure 76) (AR 2022, 2023).

In the forecasted years, 2023 to 2029, the value of RWAs increases at a slower rate than the increase in equity, which demonstrates ST's ability to use these assets to generate above-average results (Appendix 11). Furthermore, this means that capital ratios will always be above the capital requirements imposed by the ECB, which supports the assumption that it will not be necessary to raise more capital to meet capital requirements (see 6.2. FCFE).

Even though the model shows a decrease in capital ratios in 2023, from this year on these ratios show an increasing trend, surpassing in 2026 the level exhibited in 2022.

7.2. Liquidity ratios

Regarding liquidity, ST decreased its NSFR and LCR from 2021 to 2022, from 126% to 121% and from 163% to 152%, respectively (AR 2022, 2023). However, these ratios on a consolidated basis are way above the legal requirements of 100% as well as for all Banks in each geography (Figure 77).

ST's loan-to-deposit ratio is always above 80% since 2018 which is relatively high (Figure 78), but since it is a retail bank and its main activity is lending money to customers it is considered standard (Appendix 11).

Lastly, concerning ST's loan-to-asset ratio is mostly constant from 2018 to 2029, with a minimum value of 54% and a maximum value of 59% (Figure 79). This might be a concern in terms of liquidity since having such a high percentage of assets which are loans means an elevated outflow of cash. Nonetheless, all other ST's liquidity ratios do not show any short or long-term liquidity constraints (Appendix 11).

7.3. Profitability and return ratios

Since 2018, ST's ROE has been increasing and it reached a 5-year high of 12% in 2022. This is mostly due to an increase in interest rates, which led to substantial increases in interest-related income and consequently to a record attributable profit (Appendix 11). For the forecasted years (2023 to 2029), an increase in ST's ROE in

Figure 76: ST's capital ratios in 2022

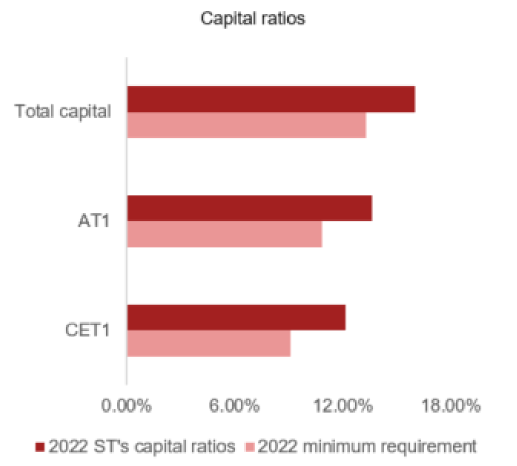
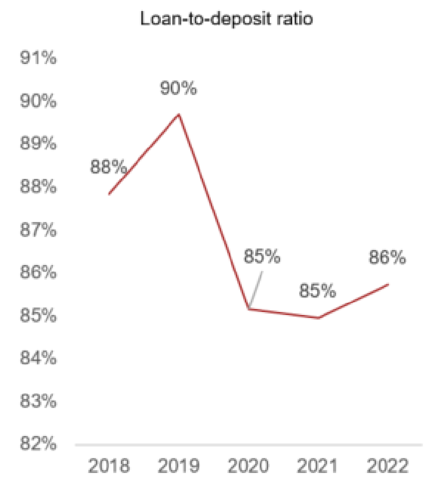


Figure 77: ST's NSFR and LCR ratios (2021 and 2022)

Ratio/country	NSFR		LCR	
Year	2022	2021	2022	2021
UK	137%	138%	157%	168%
Portugal	116%	124%	132%	138%
Poland	146%	156%	178%	197%
US	109%	128%	125%	150%
Mexico	120%	134%	197%	184%
Brazil	112%	116%	127%	141%
Chile	117%	124%	189%	148%
Argentina	195%	180%	235%	258%
Group	121%	126%	152%	163%

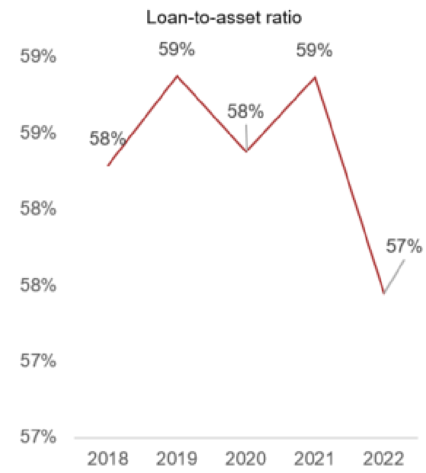
Source: AR 2022 and author analysis

Figure 78: Loan-to-deposit ratio (2018-2022)



Source: Author analysis

Figure 79: Loan-to-asset ratio (2018-2022)



Source: Author analysis

the following years is projected, which is consistent with the results already disclosed for the first semester of this year.

Net interest margin is consistently near 4%, which is quite high and demonstrates the quality of ST's assets and ability to generate interest even when reference interest rates were almost zero (Figure 80).

Santander's EPS has exhibited an increasing trend since 2018, from €0.55 to €0.65 in 2022 (Appendix 11), which demonstrates the robustness of the Group's growth and its intentions of achieving the best results possible. Moreover, for the following years, it is forecasted an increase in EPS which is in line with the expected increases in interest income for banks and a subsequent increase in net income as well.

Lastly, ST's net profit margin exhibits the same increasing trend as its ROE and EPS, reaching its highest value in the forecasted year of 2023 (Appendix 11). From 2018 to 2029, its lowest positive value was 23% in 2019 and its highest value was 33.98% in 2023 (Figure 81), which once again demonstrates ST's ability to obtain high returns from its interest-earnings assets and increase efficiency in its operations.

7.4. Efficiency ratios

Concerning efficiency, the Cost-to-income ratio has been constant from 2018 to 2022 which does not reflect a higher efficiency in operations (Appendix 11) (Figure 82).

However, the operating expense ratio decreased from 35% in 2018 to 32% in 2022, which exhibits that the cost-to-income being constant reflects a higher level of loan loss provision, which might already reflect a higher level of caution regarding NPLs (Appendix 11).

Lastly, ST's asset utilisation ratio shows an increasing trend from 2018 to 2029 from 6% to 9% (Appendix 11), which means that it can expand and increase the return from its interest-bearing assets. This demonstrates an increase in efficiency and how ST can leverage its market position and global presence to effectively achieve its results.

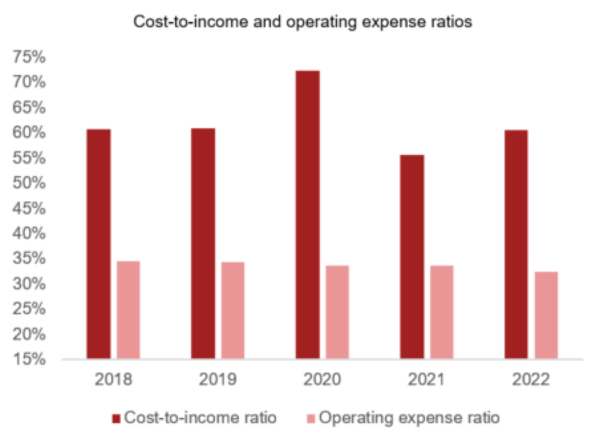
Figure 80: ST's net interest margin (2018-2022)

Source: Author analysis

Figure 81: Net profit margin (2018-2023F)

Source: Author analysis

Figure 82: ST's cost-to-income and operating expense ratios (2018-2022)



Source: Author analysis

8. Investment risks

A wide variety of factors should be considered risks to ST as they might negatively impact its operations and profitability in a significant way (Figure 83). These risks are both external (regulatory and market risks) and internal (operational risks).

8.1. Regulatory risks

Compliance risk (R1) is associated with the possibility that a business might be violating certain laws and regulations. This risk is monitored by banks through an extensive and rigorous system of internal control that helps to prevent human and system-generated errors. This risk is considered medium-low in both impact and likelihood.

Regulatory risk (R2) is related to the impact that changes in laws and regulations might have on a bank's business, with the probability of affecting its profitability. Since banking is a highly regulated market, banks have a tremendous cost to fulfil all their obligations in terms of regulatory requirements, having ultimately a negative impact on profitability. Both the impact and likelihood of this risk should be low.

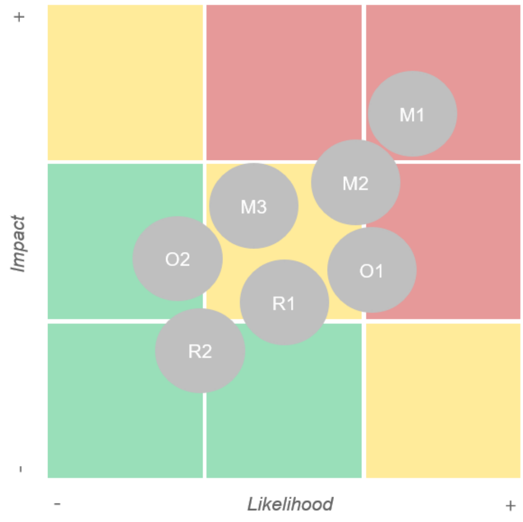
8.2. Market risks

Credit risk (M1) – refers to the potential financial loss resulting from a customer or counterparty's inability to meet their payment obligations or experiencing credit impairment (Appendix 20). This considers various aspects, such as counterparty risk, country risk, and sovereign risk (Figure 84). It is considered by ST its most substantial risk (AR 2022, 2023). For this risk both its likelihood and impact are considered high.

Interest rate risk (M2) – after credit risk, historically this is the most significant source of risk for banks (Greenbaum, Boot & Thakor, 2019). It is a significant risk considering that ST's most significant source of revenue is interest income. Therefore, fluctuations in interest rates can have a large impact on its profitability. This risk is mostly associated with fixed-rate coupon bonds because as interest rates increase these bonds' prices decrease. This risk's likelihood and impact are considered medium-high.

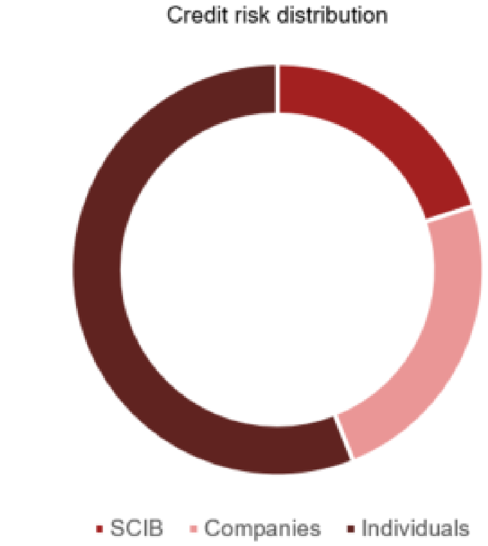
Reputational risk (M3) – this risk is related to potential negative economic consequences stemming from harm to the bank's image in the eyes of its employees, customers, shareholders, investors, and the broader community. This risk can originate from diverse sources, including other types of risks, the bank's business and support functions, the socio-political landscape, and events involving its competitors. This risk's likelihood is considered medium-low and its impact is medium-high.

Figure 83: Risk matrix



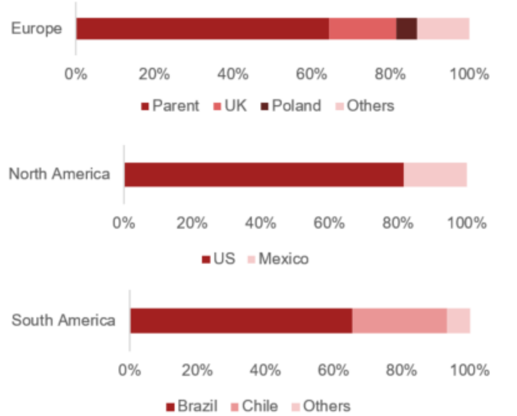
Source: Author analysis

Figure 84: ST's credit risk distribution



Source: AR 2022 and author analysis

Figure 85: Net interest income sensitivity

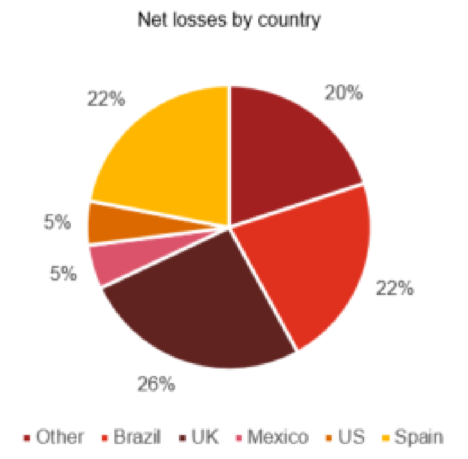


Source: AR 2022 and author analysis

8.3. Operational risks

Operational risk (O1) – according to the Basel framework, operational risk is defined as the risk of loss due to inadequate or failed internal processes, people, and systems or to external events (Figure 86). Fraud, technological, cybersecurity, legal and conduct risks are all considered part of this risk. Furthermore, it is a risk inherent to all products, activities, processes, and systems, and it is generated in all business and support areas (AR 2022, 2023). This risk likelihood is considered high and its impact is medium-low.

Figure 86: Net losses due to practices with customers, products and business



Source: AR 2022 and author analysis

Liquidity risk (O2) – liquidity refers to a bank's capacity to finance increases in assets and fulfil its financial obligations without incurring excessive losses. Banks play a fundamental role in transforming short-term deposits into long-term loans, which inherently exposes them to liquidity risk. This risk can arise from factors specific to the institution or from broader market conditions. Almost every financial transaction or commitment impacts a bank's liquidity. Proper management of liquidity risk (Figure 87) is essential to ensure that a bank can meet its cash flow obligations, especially given their uncertainty due to external events and the actions of other entities (BIS, 2008). The likelihood of this risk is considered low and its impact is medium-low.

Figure 87: Metrics used by ST to measure liquidity risk
Liquidity buffer
Liquidity coverage ratio (LCR)
Wholesale liquidity metric
Net stable funding ratio
Asset encumbrance metrics
Liquidity scenario analysis
Early-warning indicators (EWI)
Intraday liquidity metrics

Source: AR 2022 and author analysis

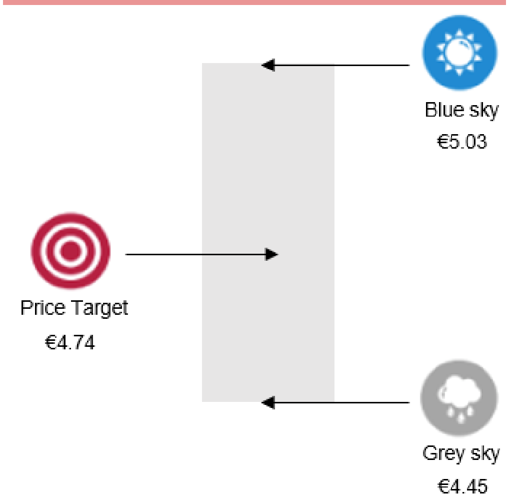
8.4. Scenario analysis

To conduct a scenario analysis, it was performed a blue-sky scenario and a grey-sky scenario. The standard deviation of earnings between 2025 and 2029 was computed, to assess the variability of ST's earnings in the forecasted years used to value its stock (Appendix 21).

On the one hand, for the grey sky scenario, to the yearly earnings (2025 to 2029) of the basis scenario, it was subtracted two times the computed standard deviation, which leads to a price of €4.45 (strong buy recommendation), 19 cents below the PT of €4.74 (Figure 88).

On the other hand, for the blue-sky scenario, to the yearly earnings (2025 to 2029) of the basis scenario, it was added two times the computed standard deviation, which yields a price of €5.03 (strong buy recommendation), 29 cents above the PT (Figure 88).

Figure 88: Blue and grey-sky scenarios

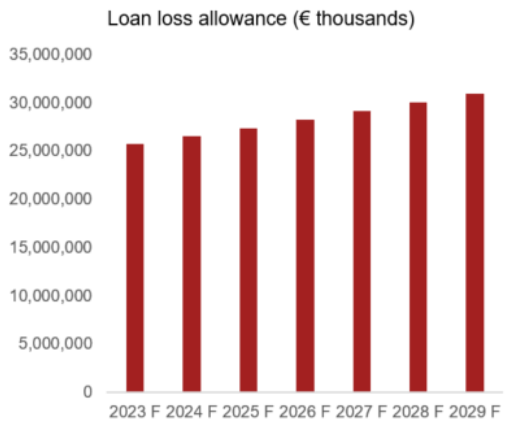


Source: Author analysis

8.5. Price sensitivity

Considering the possible risks ST faces, a sensitivity analysis on various factors related to its PT was conducted, to evaluate the robustness of the recommendation. Even though other factors could be emphasised, the growth rate of Interest and Fees on Loans was chosen since it represents a key profitability driver. In addition, the Loan Loss provision was chosen as it shows how ST might have to adjust its NPLs according to the macroeconomic outlook and future monetary policy (Figure 89). The beta and

Figure 89: ST's loan loss allowance (2023F-2029F)



Source: Author analysis

equity risk premium were also chosen as they are key factors in reaching the PT and their potential variations must be considered in the valuation.

Regarding the first base scenario, a growth rate of 4.47% for Interest and Fees on Loans and a Loan Loss provision (income statement item) of 1.05% of Total Gross loans are assumed. In the worst scenario, it is assumed a growth rate of 4.02% for Interest and Fees on Loans and a Loan Loss provision of 1.20% of Total Gross loans, which yields a PT of €3.25 (Figure 90). On the other hand, considering the best scenario, it is assumed a growth rate of 4.92% for Interest and Fees on Loans and a Loan Loss provision of 0.90% for Total Gross loans, which yields a PT of €6.25 (Figure 90).

Figure 90: Sensitivity analysis - Growth rate of interest and percentage of loan loss provision

Average of Loan loss provision over Total gross loans (%)	Growth rate of interest and fees on loans						
	4.02%	4.17%	4.32%	4.47%	4.62%	4.77%	4.92%
0.90%	4.37	4.68	4.98	5.58	5.61	5.93	6.25
0.95%	4.19	4.49	4.80	5.30	5.42	5.74	6.06
1.00%	4.00	4.30	4.61	5.02	5.24	5.55	5.87
1.05%	3.81	4.12	4.43	4.74	5.05	5.37	5.69
1.10%	3.63	3.93	4.24	4.46	4.86	5.18	5.50
1.15%	3.44	3.75	4.05	4.18	4.68	4.99	5.31
1.20%	3.25	3.56	3.87	3.90	4.49	4.81	5.13

Source: Author analysis

For the second base scenario, a beta of 1.15 and an ERP of 7.43% were assumed. In this case, the worst scenario has a beta of 1.30 and an ERP of 8.93%, yielding a PT of €3.55 (Figure 91). Whereas in the best scenario, it is assumed a beta of 1.00 and an ERP of 7.43%, which results in a PT of €6.47 (Figure 91).

Figure 91: Sensitivity analysis – Beta and ERP

Equity risk premium	Beta						
	1.000	1.050	1.100	1.150	1.200	1.250	1.300
5.93%	6.47	6.22	5.98	5.77	5.56	5.37	5.19
6.43%	6.06	5.81	5.59	5.38	5.19	5.00	4.83
6.93%	5.69	5.46	5.24	5.04	4.85	4.68	4.51
7.43%	5.36	5.14	4.93	4.74	4.56	4.39	4.23
7.93%	5.06	4.85	4.65	4.46	4.29	4.13	3.98
8.43%	4.79	4.59	4.40	4.22	4.05	3.90	3.76
8.93%	4.55	4.35	4.17	4.00	3.84	3.69	3.55

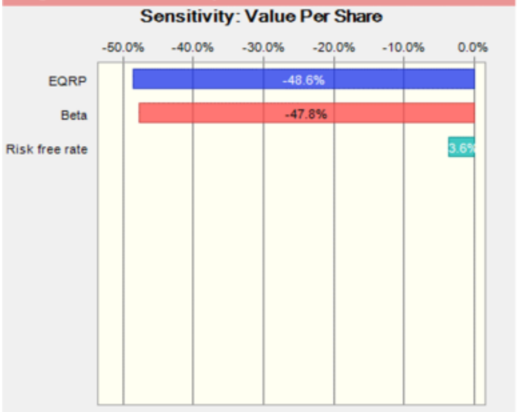
Source: Author analysis

8.6. Monte Carlo simulation

Firstly, using Oracle's Crystal Ball a sensitivity analysis was performed on the PT regarding the risk-free rate, the beta and the ERP as independent variables. This showed that among the three variables, the ERP and the beta were the ones that had more influence on ST's PT (Figure 92). Consequently, it was performed a Monte Carlo simulation with 100,000 simulations for the beta and the ERP.

This simulation shows that ST's PT will have a strong buy recommendation with 72.04% certainty (Figure 93) and its mean and median values will stand at €4.81 and €4.76 (Figure 94). Moreover, using this simulation ST's PT will have a buy recommendation with 94.05% certainty (Figure 95).

Figure 92: PT sensitivity



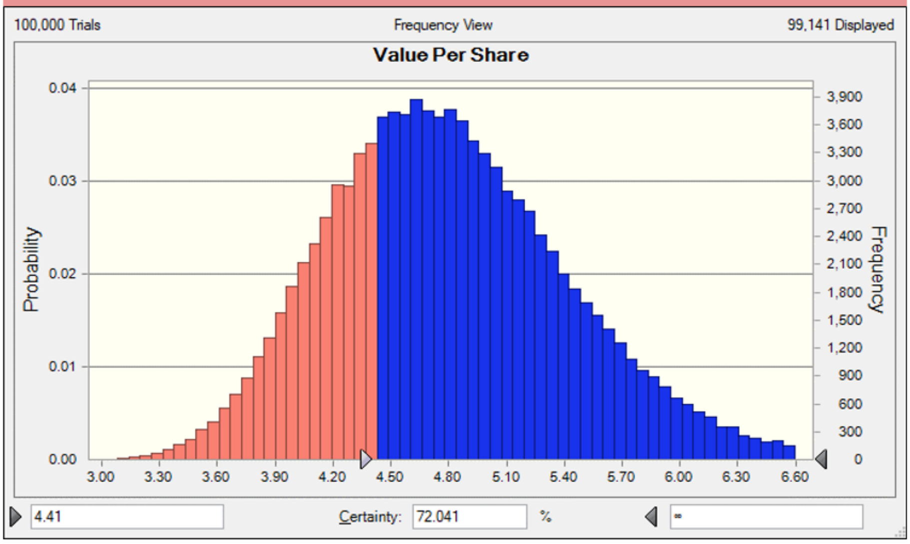
Source: Crystal ball software and author analysis

Figure 94: Monte Carlo PT's statistics

Trials	100,000
Base Case	4.74
Mean	4.81
Median	4.76
Standard Deviation	0.64
Variance	0.41
Skewness	0.523
Kurtosis	3.52
Coeff. of Variation	0.1327
Minimum	2.67
Maximum	9.07

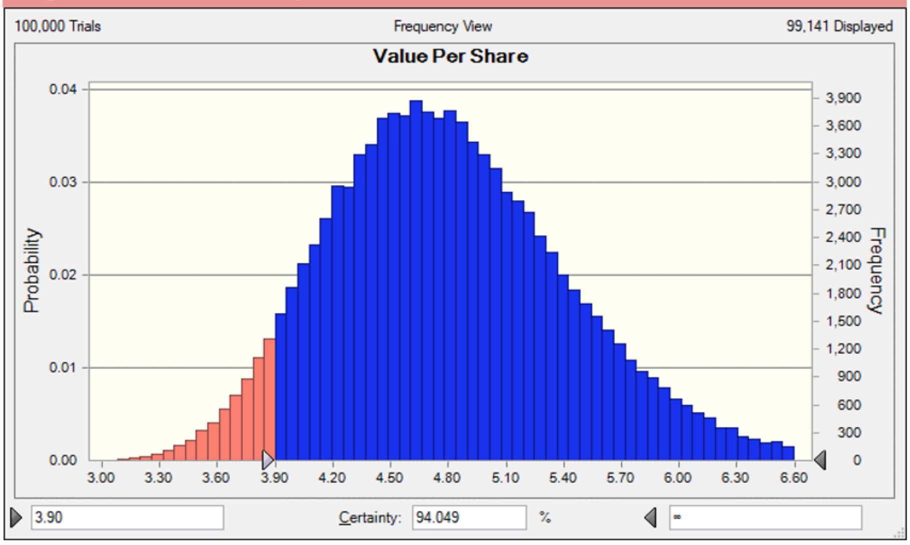
Source: Crystal ball software and author analysis

Figure 93: Monte Carlo - strong buy recommendation



Source: Crystal ball software and author analysis

Figure 95: Monte Carlo - buy recommendation



Source: Crystal ball software and author analysis

Appendices

Appendix 1 – Remuneration of directors for executive duties

Component	Type	Policy	Effective in 2022
Gross annual salary	Fixed	• Paid in cash on a monthly basis.	• Ana Botin: EUR 3,176 thousand. • José Antonio Álvarez: EUR 2,541 thousand.
Variable remuneration	Variable	• Individual benchmark reference. • Calculated against annual quantitative metrics and a qualitative assessment on account of individual performance. • 50% of each payment is instruments, consisting of Banco Santander, S.A shares, Banco Santander, S.A. share options and restricted stock units (RSUs) of PagoNxt, S.A., split as: ◦ the amount of PagoNxt RSUs set for each year; and ◦ the rest, shares and share options in equal parts, unless the director chooses to receive options only. • The number of instruments is set at the time of the award. • 40% paid in 2023; • 60% deferred in five years. ◦ 24% paid in equal parts in 2024 and 2025. ◦ 36% paid in equal parts in 2026, 2027 and 2028, provided certain long-term objectives are met (2022-2024).	• See section 6.3 B ii for details on annual metrics and assessment. • See section 6.3 B iv for details on long-term metrics. • See section 6.3 B iii for details on individual variable pay.
Pension scheme	Fixed	• Annual contribution of 22% of base salary.	• No change since 2018
	Variable	• Annual contribution of 22% of 30% of the average of variable remuneration in the last three years	• See section 6.3 C for details on annual contributions and pension balance.
Other remuneration	Fixed	• Includes life, accident and medical insurance, and other in-kind compensation. • Includes a fixed remuneration supplement in cash (not considered salary or pensionable) since supplementary death and disability benefits were eliminated.	• No change for Ana Botín or José Antonio Álvarez since 2018.
		• Payment for non-compete commitment	• No change.
Shareholding policy	N/A	• Executive directors also have the obligation to hold them for three years from their award date, unless the director already holds shares for an amount equivalent to 200% of their net annual salary (calculated on the basis of their gross annual salary). In such case, the regulatory obligation to hold shares is for one year from their grant date. And share options shall not be exercisable until one year after their delivery.	• Policy updated during 2020 to assure compliance with recommendation 62 to the Good Governance Code for Listed Companies of the CNMV. Ana Botín and José Antonio Álvarez both maintain an amount in shares higher than 200% of their fixed pay.

Source: AR 2022

Appendix 2 – Real and forecasted Income Statement 2018-2029

(€ Thousands)

FSLI	2018	2019	2020	2021	2022	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal
Interest Income, Bank	54,325,000	56,785,000	45,741,000	46,463,000	71,430,000	75,433,624	79,696,376	84,237,848	89,079,312	94,243,878	99,756,665	105,644,985	111,938,558
Interest & Fees on Loans	43,489,000	46,180,000	38,788,000	38,649,000	54,110,000	56,527,159	59,052,295	61,690,232	64,446,008	67,324,889	70,332,373	73,474,204	76,756,385
Interest on Investment Secs.	6,429,000	6,378,000	5,022,000	5,724,000	10,416,000	11,471,296	12,633,509	13,913,471	15,323,113	16,875,573	18,585,319	20,468,289	22,542,031
Interest on Deposits	2,875,000	3,099,000	1,325,000	1,392,000	3,792,000	4,007,877	4,236,045	4,477,201	4,732,087	5,001,483	5,286,216	5,587,159	5,905,234
Other Interest Income	1,532,000	1,128,000	606,000	698,000	3,112,000	3,427,292	3,774,528	4,156,943	4,578,104	5,041,934	5,552,757	6,115,334	6,734,908
Total Interest Expense	19,984,000	21,502,000	13,747,000	13,093,000	32,811,000	36,081,911	39,678,897	43,634,464	47,984,360	52,767,895	58,028,297	63,813,107	70,174,601
Interest on Deposits and Marketable debt securities	17,383,000	19,215,000	12,165,000	11,120,000	27,956,000	30,742,918	33,807,663	37,177,931	40,884,178	44,959,900	49,441,928	54,370,766	59,790,958
Interest on Other Borrowings	2,601,000	2,287,000	1,582,000	1,973,000	4,855,000	5,338,992	5,871,234	6,456,534	7,100,182	7,807,995	8,586,370	9,442,340	10,383,642
Net Interest Income	34,341,000	35,283,000	31,994,000	33,370,000	38,619,000	39,351,713	40,017,479	40,603,384	41,094,952	41,475,984	41,728,367	41,831,878	41,763,957
Loan Loss Provision	8,985,000	9,340,000	12,363,000	7,388,000	10,856,000	11,025,220	11,369,568	11,724,672	12,090,866	12,468,498	12,857,924	13,259,514	13,673,646
Net Interest Inc. After Loan Loss Prov.	25,356,000	25,943,000	19,631,000	25,982,000	27,763,000	28,326,493	28,647,911	28,878,712	29,004,086	29,007,485	28,870,443	28,572,365	28,090,312
Non-Interest Income, Bank	22,957,000	24,254,000	21,010,000	20,752,000	23,479,000	25,359,305	25,554,450	25,718,831	25,846,300	25,929,991	25,962,237	25,934,493	25,837,234
Fees & Commissions from Operations	14,664,000	15,349,000	13,024,000	13,812,000	15,867,000	16,479,536	16,758,342	17,003,705	17,209,561	17,369,128	17,474,820	17,518,168	17,489,724
Insurance Commissions, Fees & Premiums	3,175,000	2,534,000	1,452,000	1,516,000	2,698,000	2,611,570	2,527,908	2,446,926	2,368,539	2,292,663	2,219,217	2,148,124	2,079,309
Fees for Other Customer Services	97,000	28,000	12,000	--	--	--	--	--	--	--	--	--	--
Dealer Trading Account Profit	1,515,000	1,349,000	3,211,000	1,141,000	842,000	1,611,600	1,611,600	1,611,600	1,611,600	1,611,600	1,611,600	1,611,600	1,611,600
Investment Securities Gains	1,305,000	1,961,000	1,580,000	1,273,000	799,000	1,383,600	1,383,600	1,383,600	1,383,600	1,383,600	1,383,600	1,383,600	1,383,600
Foreign Currency Gains	--	--	--	--	--	--	--	--	--	--	--	--	--
Unrealized Gains	--	--	--	270,000	968,000	968,000	968,000	968,000	968,000	968,000	968,000	968,000	968,000
Other Unusual Income	105,000	1,291,000	122,000	53,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000
Other Revenue	2,096,000	1,742,000	1,609,000	2,687,000	2,286,000	2,286,000	2,286,000	2,286,000	2,286,000	2,286,000	2,286,000	2,286,000	2,286,000
Non-Interest Expense, Bank	-34,112,000	-37,654,000	-42,717,000	-32,187,000	-35,992,000	-35,856,639	-36,458,687	-36,893,490	-37,238,931	-37,552,866	-37,863,454	-38,140,858	-38,423,109
Labour & Related Expenses	-11,865,000	-12,141,000	-10,783,000	-11,216,000	-12,547,000	-13,872,089	-14,474,137	-14,908,940	-15,254,381	-15,568,316	-15,878,904	-16,156,308	-16,438,559
Depreciation Expense	-1,159,000	-2,021,000	-1,906,000	-1,733,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000
Amortization of Intangibles	-1,253,000	-966,000	-896,000	-1,013,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000
Amortization of Acquisition Costs	--	--	--	--	--	--	--	--	--	--	--	--	--
Dealer Trading Account Loss	--	--	--	--	--	--	--	--	--	--	--	--	--
Foreign Currency Losses	-679,000	-932,000	-2,093,000	-562,000	-542,000	-961,600	-961,600	-961,600	-961,600	-961,600	-961,600	-961,600	-961,600
Unrealized Losses	-57,000	-286,000	-171,000	--	--	--	--	--	--	--	--	--	--
Other Unusual Expense	-341,000	-1,867,000	-10,606,000	-293,000	-246,000	-686,750	-686,750	-686,750	-686,750	-686,750	-686,750	-686,750	-686,750
Restructuring Charge	--	--	--	-2,814,000	-1,881,000								
Other Expense	-18,758,000	-19,441,000	-16,262,000	-14,556,000	-17,804,000	-17,364,200	-17,364,200	-17,364,200	-17,364,200	-17,364,200	-17,364,200	-17,364,200	-17,364,200
Net Income Before Taxes	14,201,000	12,543,000	-2,076,000	14,547,000	15,250,000	17,829,160	17,743,673	17,704,052	17,611,455	17,384,611	16,969,226	16,365,999	15,504,437
Provision for Income Taxes	4,886,000	4,427,000	5,632,000	4,894,000	4,486,000	4,457,290	4,435,918	4,426,013	4,402,864	4,346,153	4,242,307	4,091,500	3,876,109
Net Income After Taxes	9,315,000	8,116,000	-7,708,000	9,653,000	10,764,000	13,371,870	13,307,755	13,278,039	13,208,591	13,038,458	12,726,920	12,274,500	11,628,328
Minority Interest	-1,505,000	-1,601,000	-1,063,000	-1,529,000	-1,159,000	-1,439,799	-1,432,896	-1,429,696	-1,422,218	-1,403,899	-1,370,355	-1,321,641	-1,252,065
Net Income Before Extra. Items	7,810,000	6,515,000	-8,771,000	8,124,000	9,605,000	11,932,071	11,874,859	11,848,343	11,786,373	11,634,559	11,356,565	10,952,858	10,376,262

Source: Author analysis and Thomson Reuters (2018-2022)

Appendix 3 – Real and forecasted Balance Sheet 2018-2029

(€ Thousands)

FSLI	2018	2019	2020	2021	2022	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal
Cash & Due from Banks	129,264,000	119,541,000	166,338,000	226,346,000	238,448,000	239,909,913	272,761,281	305,917,416	339,322,110	372,816,249	406,172,103	439,163,197	471,473,879
Cash					223,073,000	224,534,913	257,386,281	290,542,416	323,947,110	357,441,249	390,797,103	423,788,197	456,098,879
Due from central banks					15,375,000	15,375,000	15,375,000	15,375,000	15,375,000	15,375,000	15,375,000	15,375,000	15,375,000
Other Earning Assets, Total	316,812,000	326,687,000	297,069,000	281,187,000	333,732,000	339,935,226	347,862,612	357,585,908	369,193,048	382,789,159	398,497,734	416,461,999	436,846,473
Interest-earning Deposits	35,480,000	40,943,000	37,838,000	39,169,000	46,518,000	49,107,578	51,841,314	54,727,233	57,773,805	60,989,975	64,385,184	67,969,399	71,753,140
Trading Account Assets	36,738,000	44,478,000	47,512,000	55,832,000	79,566,000	88,342,451	98,086,980	108,906,370	120,919,182	134,257,056	149,066,151	165,508,750	183,765,033
Other Short Term Investments	92,260,000	73,811,000	63,896,000	52,115,000	90,712,000	90,405,531	90,100,097	89,795,695	89,492,322	89,189,973	88,888,646	88,588,337	88,289,043
Securities for Sale	119,490,000	121,268,000	111,686,000	100,375,000	77,024,000	70,548,043	64,616,566	59,183,790	54,207,787	49,650,151	45,475,709	41,652,242	38,150,241
Loans Held for Sale	32,310,000	45,703,000	35,702,000	33,264,000	39,500,000	41,119,623	42,805,655	44,560,820	46,387,953	48,290,003	50,270,043	52,331,272	54,477,017
Other Earning Assets	534,000	484,000	435,000	432,000	412,000	412,000	412,000	412,000	412,000	412,000	412,000	412,000	412,000
Net Loans	850,611,000	896,515,000	880,497,000	939,418,000	996,504,000	1,025,231,307	1,057,252,165	1,090,273,124	1,124,325,420	1,159,441,266	1,195,653,878	1,232,997,512	1,271,507,492
Total Gross Loans	873,918,000	918,757,000	904,092,000	962,382,000	1,019,188,000	1,051,020,108	1,083,846,422	1,117,697,995	1,152,606,847	1,188,606,001	1,225,729,510	1,264,012,490	1,303,491,156
Loan Loss Allowances	-23,307,000	-22,242,000	-23,595,000	-22,964,000	-22,684,000	-25,788,801	-26,594,257	-27,424,871	-28,281,427	-29,164,735	-30,075,632	-31,014,979	-31,983,664
Property/Plant/Equipment, Total - Net	24,594,000	34,262,000	31,772,000	32,342,000	33,044,000	33,044,000	33,044,000	33,044,000	33,044,000	33,044,000	33,044,000	33,044,000	33,044,000
Goodwill, Net	25,466,000	24,246,000	12,471,000	12,713,000	13,741,000	13,741,000	13,741,000	13,741,000	13,741,000	13,741,000	13,741,000	13,741,000	13,741,000
Intangibles, Net	3,094,000	3,441,000	3,437,000	3,871,000	4,904,000	4,904,000	4,904,000	4,904,000	4,904,000	4,904,000	4,904,000	4,904,000	4,904,000
Intangibles - Gross	8,680,000	9,263,000	9,376,000	10,712,000	12,502,000	13,653,000	13,653,000	13,653,000	13,653,000	13,653,000	13,653,000	13,653,000	13,653,000
Accumulated Intangible Amortization	-5,586,000	-5,822,000	-5,939,000	-6,841,000	-7,598,000	-8,749,000	-8,749,000	-8,749,000	-8,749,000	-8,749,000	-8,749,000	-8,749,000	-8,749,000
Long Term Investments - Affiliate Companies	7,588,000	8,772,000	7,622,000	7,525,000	7,615,000	7,615,000	7,615,000	7,615,000	7,615,000	7,615,000	7,615,000	7,615,000	7,615,000
Other Long Term Assets, Total	29,699,000	28,262,000	24,326,000	25,519,000	25,585,000	25,585,000	25,585,000	25,585,000	25,585,000	25,585,000	25,585,000	25,585,000	25,585,000
Pension Benefits - Overfunded	1,015,000	903,000	635,000	1,990,000	1,345,000	1,345,000	1,345,000	1,345,000	1,345,000	1,345,000	1,345,000	1,345,000	1,345,000
Defered Income Tax - Long Term Asset	23,258,000	22,758,000	19,246,000	19,440,000	20,787,000	20,787,000	20,787,000	20,787,000	20,787,000	20,787,000	20,787,000	20,787,000	20,787,000
Discontinued Operations - LT Asset	5,426,000	4,601,000	4,445,000	4,089,000	3,453,000	3,453,000	3,453,000	3,453,000	3,453,000	3,453,000	3,453,000	3,453,000	3,453,000
Other Assets	72,143,000	80,969,000	84,718,000	66,914,000	81,086,000	75,187,207	79,279,836	82,902,170	86,069,668	88,796,716	91,098,852	92,999,555	94,498,379
Total Assets	1,459,271,000	1,522,695,000	1,508,250,000	1,595,835,000	1,734,659,000	1,765,152,653	1,842,044,895	1,921,567,619	2,003,799,247	2,088,732,389	2,176,311,567	2,266,511,263	2,359,215,224
Total Deposits	968,405,000	999,528,000	1,033,989,000	1,105,866,000	1,162,407,000	1,183,985,018	1,220,964,201	1,259,098,347	1,298,423,530	1,338,976,949	1,380,796,966	1,423,923,139	1,468,396,264
Other Current liabilities - Income Taxes Payable	2,567,000	2,800,000	2,349,000	2,187,000	3,040,000	4,457,290	4,435,918	4,426,013	4,402,864	4,346,153	4,242,307	4,091,500	3,876,109
Long Term Debt	246,619,000	261,977,000	235,269,000	246,163,000	280,339,000	266,193,258	283,121,228	300,012,120	316,816,361	333,408,322	349,611,569	365,250,320	380,082,826
Deferred Income Tax - Long-term liability	5,568,000	6,522,000	5,933,000	6,462,000	6,428,000	6,428,000	6,428,000	6,428,000	6,428,000	6,428,000	6,428,000	6,428,000	6,428,000
Minority Interest	10,889,000	10,588,000	9,846,000	10,123,000	8,481,000	8,481,000	8,481,000	8,481,000	8,481,000	8,481,000	8,481,000	8,481,000	8,481,000
Other Liabilities, Total	128,751,000	141,209,000	139,388,000	138,104,000	184,860,000	200,538,052	217,607,083	236,190,502	256,422,669	278,449,863	302,431,341	328,540,490	356,966,079
Reserves	7,667,000	7,629,000	6,876,000	6,398,000	5,757,000	5,757,000	5,757,000	5,757,000	5,757,000	5,757,000	5,757,000	5,757,000	5,757,000
Pension Benefits - Underfunded	5,558,000	6,358,000	3,976,000	3,185,000	2,392,000	2,392,000	2,392,000	2,392,000	2,392,000	2,392,000	2,392,000	2,392,000	2,392,000
Other Liabilities	115,526,000	127,222,000	128,536,000	128,521,000	176,711,000	192,389,052	209,458,083	228,041,502	248,273,669	270,300,863	294,282,341	320,391,490	348,817,079
Total Liabilities	1,362,799,000	1,422,624,000	1,426,774,000	1,508,905,000	1,645,555,000	1,670,082,618	1,741,037,429	1,814,635,982	1,890,974,424	1,970,090,287	2,051,991,182	2,136,714,448	2,224,230,278
Common Stock	8,118,000	8,309,000	8,670,000	8,670,000	8,397,000	8,397,000	8,397,000	8,397,000	8,397,000	8,397,000	8,397,000	8,397,000	8,397,000
Additional Paid-In Capital	50,993,000	52,446,000	52,013,000	47,979,000	46,273,000	46,273,000	46,273,000	46,273,000	46,273,000	46,273,000	46,273,000	46,273,000	46,273,000
Retained Earnings (Accumulated Deficit)	64,566,000	67,543,000	56,812,000	68,397,000	76,307,000	82,273,035	88,210,465	94,134,637	100,027,823	105,845,103	111,523,385	116,999,814	122,187,945
Treasury Stock - Common	-59,000	-31,000	-69,000	-894,000	-675,000	-675,000	-675,000	-675,000	-675,000	-675,000	-675,000	-675,000	-675,000
Unrealized Gain (Loss)	-22,141,000	-22,032,000	-33,144,000	-32,719,000	-35,628,000	-35,628,000	-35,628,000	-35,628,000	-35,628,000	-35,628,000	-35,628,000	-35,628,000	-35,628,000
Other Equity	-5,005,000	-6,164,000	-2,806,000	-4,503,000	-5,570,000	-5,570,000	-5,570,000	-5,570,000	-5,570,000	-5,570,000	-5,570,000	-5,570,000	-5,570,000
Total Equity	96,472,000	100,071,000	81,476,000	86,930,000	89,104,000	95,070,035	101,007,465	106,931,637	112,824,823	118,642,103	124,320,385	129,796,814	134,984,945
Total Liabilities & Shareholders' Equity	1,459,271,000	1,522,695,000	1,508,250,000	1,595,835,000	1,734,659,000	1,765,152,653	1,842,044,895	1,921,567,619	2,003,799,247	2,088,732,389	2,176,311,567	2,266,511,263	2,359,215,224

Source: Author analysis and Thomson Reuters (2018-2022)

Appendix 4 – Real and forecasted Cash Flow Statement 2018-2029

(€ Thousands)

	2018	2019	2020	2021	2022	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal
Net Income/Starting Line	9,315,000	8,116,000	-7,708,000	9,653,000	10,764,000	11,932,071	11,874,859	11,848,343	11,786,373	11,634,559	11,356,565	10,952,858	10,376,262
Depreciation/Depletion	2,425,000	3,001,000	2,810,000	2,756,000	2,985,000	2,972,000	2,972,000	2,972,000	2,972,000	2,972,000	2,972,000	2,972,000	2,972,000
Non-Cash Items	19,289,000	20,989,000	35,026,000	18,607,000	20,985,000	0	0	0	0	0	0	0	0
Other Non-Cash Items	19,289,000	20,989,000	35,026,000	18,607,000	20,985,000								
Changes in Working Capital	-27,613,000	-28,717,000	36,025,000	25,675,000	-7,028,000	9,641,620	9,985,968	10,341,072	10,707,266	11,084,898	11,474,324	11,875,914	12,290,046
Loan Loss Provision	--	--	--	--	--	11,025,220	11,369,568	11,724,672	12,090,866	12,468,498	12,857,924	13,259,514	13,673,646
Other Assets	-21,861,000	398,000	4,546,000	47,987,000	27,681,000								
Taxes Payable	--	--	--	--	--								
Other Liabilities	27,279,000	38,469,000	90,356,000	56,945,000	107,244,000								
Other Operating Cash Flow	-3,342,000	-2,593,000	-2,946,000	-4,012,000	-5,498,000								
Investment Securities, Gains/Losses	-29,689,000	-64,991,000	-55,931,000	-75,245,000	-136,455,000	-1,383,600	-1,383,600	-1,383,600	-1,383,600	-1,383,600	-1,383,600	-1,383,600	-1,383,600
Loans, Gains/Losses	--	--	--	--	--								
Cash from Operating Activities	3,416,000	3,389,000	66,153,000	56,691,000	27,706,000	24,545,691	24,832,828	25,161,415	25,465,640	25,691,457	25,802,889	25,800,772	25,638,308
Capital Expenditures	-12,195,000	-14,143,000	-8,520,000	-11,403,000	-10,840,000	-2,972,000	-2,972,000	-2,972,000	-2,972,000	-2,972,000	-2,972,000	-2,972,000	-2,972,000
Purchase of Fixed Assets	-10,726,000	-12,766,000	-7,386,000	-10,015,000	-9,066,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000
Purchase/Acquisition of Intangibles	-1,469,000	-1,377,000	-1,134,000	-1,388,000	-1,774,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000
Other Investing Cash Flow Items, Total	15,343,000	6,914,000	1,300,000	7,688,000	6,942,000	0	0	0	0	0	0	0	0
Acquisition of Business	-730,000	-83,000	-2,931,000	-140,000	-784,000								
Sale of Business	431,000	218,000	1,775,000	6,000	734,000								
Sale of Fixed Assets	3,670,000	4,091,000	2,014,000	6,382,000	5,558,000								
Sale/Maturity of Investment	2,327,000	686,000	182,000	672,000	533,000								
Purchase of Investments	-11,000	-63,000	-525,000	-126,000	-152,000								
Other Investing Cash Flow	9,656,000	2,065,000	785,000	894,000	1,053,000								
Cash from Investing Activities	3,148,000	-7,229,000	-7,220,000	-3,715,000	-3,898,000	-2,972,000	-2,972,000	-2,972,000	-2,972,000	-2,972,000	-2,972,000	-2,972,000	-2,972,000
Financing Cash Flow Items	-925,000	-2,335,000	-2,187,000	-1,874,000	-4,467,000								
Other Financing Cash Flow	-925,000	-2,335,000	-2,187,000	-1,874,000	-4,467,000								
Total Cash Dividends Paid	-3,118,000	-3,773,000	0	-1,313,000	-1,848,000	-5,966,035	-5,937,430	-5,924,172	-5,893,187	-5,817,279	-5,678,282	-5,476,429	-5,188,131
Cash Dividends Paid - Common	-3,118,000	-3,773,000	0	-1,313,000	-1,848,000	-5,966,035	-5,937,430	-5,924,172	-5,893,187	-5,817,279	-5,678,282	-5,476,429	-5,188,131
Issuance (Retirement) of Stock, Net	-37,000	19,000	-37,000	-791,000	-1,477,000								
Sale/Issuance of Common	989,000	947,000	721,000	854,000	573,000								
Repurchase/Retirement of Common	-1,026,000	-928,000	-758,000	-1,645,000	-2,050,000								
Common Stock, Net	-37,000	19,000	-37,000	-791,000	-1,477,000								
Issuance (Retirement) of Debt, Net	779,000	-4,033,000	315,000	2,656,000	-2,172,000	-14,145,742	16,927,970	16,890,892	16,804,241	16,591,961	16,203,247	15,638,751	14,832,506
Long Term Debt Issued	--	--	--	--	--								
Long Term Debt Reduction	--	--	--	--	--								
Long Term Debt, Net	--	--	--	--	--								
Total Debt Issued	3,283,000	1,090,000	4,095,000	5,340,000	119,000		16,927,970	16,890,892	16,804,241	16,591,961	16,203,247	15,638,751	14,832,506
Total Debt Reduction	-2,504,000	-5,123,000	-3,780,000	-2,684,000	-2,291,000	-14,145,742							
Cash from Financing Activities	-3,301,000	-10,122,000	-1,909,000	-1,322,000	-9,964,000	-20,111,777	10,990,540	10,966,721	10,911,054	10,774,682	10,524,965	10,162,322	9,644,375
Foreign Exchange Effects	-595,000	1,366,000	-4,252,000	5,196,000	-1,460,000								
Net Change in Cash	2,668,000	-12,596,000	52,772,000	56,850,000	12,384,000	1,461,913	32,851,368	33,156,136	33,404,694	33,494,138	33,355,854	32,991,094	32,310,683

Source: Author analysis and Thomson Reuters (2018-2022)

Appendix 5 – Income Statement forecast assumptions

Statement/FSLI	2018	2019	2020	2021	2022	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal	Note	Unit	Assumptiom
Income statement																
Interest & Fees on Loans	43,489,000	46,180,000	38,788,000	38,649,000	54,110,000	4.47%	4.47%	4.47%	4.47%	4.47%	4.47%	4.47%	4.47%	Growth rate	%	Historical CAGR (2018-2022)
Interest & Dividends on Investment Secs.	6,429,000	6,378,000	5,022,000	5,724,000	10,416,000	10.13%	10.13%	10.13%	10.13%	10.13%	10.13%	10.13%	10.13%	Growth rate	%	Historical CAGR (2018-2022)
Interest on Deposits	2,875,000	3,099,000	1,325,000	1,392,000	3,792,000	5.69%	5.69%	5.69%	5.69%	5.69%	5.69%	5.69%	5.69%	Growth rate	%	Historical CAGR (2018-2022)
Other Interest Income	1,532,000	1,128,000	606,000	698,000	3,112,000	10.13%	10.13%	10.13%	10.13%	10.13%	10.13%	10.13%	10.13%	Growth rate	%	Maximum between historical CAGR (2018-2022) of Interest & Fees on Loans, historical CAGR (2018-2022) of Interest & Dividends on Investment Secs. Or historical CAGR (2018-2022) of Interest on Deposits
Interest on Deposits from customers	17,383,000	19,215,000	12,165,000	11,120,000	27,956,000	9.97%	9.97%	9.97%	9.97%	9.97%	9.97%	9.97%	9.97%	Growth rate	%	Historical CAGR (2018-2022)
Interest on Other Borrowings	2,601,000	2,287,000	1,582,000	1,973,000	4,855,000	9.97%	9.97%	9.97%	9.97%	9.97%	9.97%	9.97%	9.97%	Growth rate	%	Equal to CAGR (2018-2022) of Interest on Deposits
Loan Loss Provision	1.03%	1.02%	1.37%	0.77%	1.07%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	Percentage	%	Historical average percentage of Total Gross loans, Bank
Fees & Commissions from Operations	14,664,000	15,349,000	13,024,000	13,812,000	15,867,000	41.88%	41.88%	41.88%	41.88%	41.88%	41.88%	41.88%	41.88%	Rate	%	Historical average percentage of net interest income
Insurance Commissions, Fees & Premiums	3,175,000	2,534,000	1,452,000	1,516,000	2,698,000	-3.20%	-3.20%	-3.20%	-3.20%	-3.20%	-3.20%	-3.20%	-3.20%	Growth rate	%	Historical CAGR (2018-2022)
Fees for Other Customer Services	97,000	28,000	12,000	0	0	0	0	0	0	0	0	0	0	Value	€	Zero
Dealer Trading Account Profit	1,515,000	1,349,000	3,211,000	1,141,000	842,000	1,611,600	1,611,600	1,611,600	1,611,600	1,611,600	1,611,600	1,611,600	1,611,600	Value	€	Historical average
Investment Securities Gains	1,305,000	1,961,000	1,580,000	1,273,000	799,000	1,383,600	1,383,600	1,383,600	1,383,600	1,383,600	1,383,600	1,383,600	1,383,600	Value	€	Historical average
Foreign Currency Gains	0	0	0	0	0	0	0	0	0	0	0	0	0	Value	€	Zero
Unrealized Gains	0	0	0	0	0	0	0	0	0	0	0	0	0	Value	€	Zero
Other Unusual Income	105,000	1,291,000	122,000	53,000	19,000	318,000	318,000	318,000	318,000	318,000	318,000	318,000	318,000	Value	€	Historical average
Other Revenue	2,096,000	1,742,000	1,609,000	2,687,000	2,286,000	2,084,000	2,084,000	2,084,000	2,084,000	2,084,000	2,084,000	2,084,000	2,084,000	Value	€	Historical average
Labor & Related Expenses					10.56%	4.34%	3.00%	2.32%	2.06%	2.00%	1.75%	1.75%	1.75%	Rate	%	European union's expected inflation rate from 2023 to 2028 (IMF). It was assumed a constant inflation rate beyond year 2028.
Depreciation Expense	-1,159,000	-2,021,000	-1,906,000	-1,733,000	-1,821,000	-1,821,000.00	-1,821,000.00	-1,821,000.00	-1,821,000.00	-1,821,000.00	-1,821,000.00	-1,821,000.00	-1,821,000.00	Value	€	Constant
Amortization of Intangibles	-1,253,000	-966,000	-896,000	-1,013,000	-1,151,000	-1,151,000.00	-1,151,000.00	-1,151,000.00	-1,151,000.00	-1,151,000.00	-1,151,000.00	-1,151,000.00	-1,151,000.00	Value	€	Constant
Amortization of Acquisition Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	Value	€	Zero
Dealer Trading Account Loss	0	0	0	0	0	0	0	0	0	0	0	0	0	Value	€	Zero
Foreign Currency Losses	-679,000	-932,000	-2,093,000	-562,000	-542,000	-961,600	-961,600	-961,600	-961,600	-961,600	-961,600	-961,600	-961,600	Value	€	Historical average
Unrealized Losses	-57,000	-286,000	-171,000	0	0	0	0	0	0	0	0	0	0	Value	€	Zero
Other Unusual Expense	-341,000	-1,867,000	-10,606,000	-293,000	-246,000	-686,750	-686,750	-686,750	-686,750	-686,750	-686,750	-686,750	-686,750	Value	€	Average of historical values (2018, 2019, 2021 and 2022)
Restructuring Charge	--	--	--	-2,814,000	-1,881,000	0	0	0	0	0	0	0	0	Value	€	Zero, since Banco Santander concluded its reestructuring process
Other Expense	-18,758,000	-19,441,000	-16,262,000	-14,556,000	-17,804,000	-17,364,200	-17,364,200	-17,364,200	-17,364,200	-17,364,200	-17,364,200	-17,364,200	-17,364,200	Value	€	Historical average
Provision for Income Taxes						25%	25%	25%	25%	25%	25%	25%	25%	Rate	%	Spain's corporate tax rate of 25%
Minority Interest	-1,505,000	-1,601,000	-1,063,000	-1,529,000	-1,159,000	-10.77%	-10.77%	-10.77%	-10.77%	-10.77%	-10.77%	-10.77%	-10.77%	Rate	%	Assuming that minority interest keeps constant in the balance sheet as of 31st December 2022, it was used the percentage of Minority interest in Net income after taxes in the same period

Source: Author analysis

Appendix 6 – Income Statement forecast rationale

Statement/FSLI	Rationale
Income statement	
Interest & Fees on Loans	
Interest & Dividends on Investment Secs.	The Group's operations are conducted on a worldwide basis. Therefore the CAGR encompasses both the effects of increase in demand for loans and increase in interest rates on a consolidated basis.
Interest on Deposits	The rational explained above was considered for: Interest & Fees on Loans; Interest & Dividends on Investment Secs.; Interest on Deposits and Interest on Deposits from customers.
Other Interest Income	Regarding Other Interest Income and Interest on Other Borrowings it was decided to put a cap on its growth rate since this items depend on future internal decisions without any current public information on their evolution.
Interest on Deposits from customers	
Interest on Other Borrowings	
Loan Loss Provision	
Fees & Commissions from Operations	
Insurance Commissions, Fees & Premiums	
Fees for Other Customer Services	This item has no value since 2021
Dealer Trading Account Profit	
Investment Securities Gains	This FSLI balance depends on sales of investment securities and increases/decreases in securities' fair value. Therefore it is related with future decisions without any current public information.
Foreign Currency Gains	This item has no value since 2018
Unrealized Gains	This item has no value since 2018
Other Unusual Income	Internal future decisions without any current public information
Other Revenue	Internal future decisions without any current public information
Labor & Related Expenses	Since Santander's major offices are in Europe it was considered the European Union's inflation rate.
Depreciation Expense	Constant since it is being assumed that Property/Plant/Equipment, Total - Net is being held constant. Therefore the purchase of Fixed Assets is assumed to equal the value of depreciation in order to keep the stock of Property/Plant/Equipment, Total - Net constant.
Amortization of Intangibles	Constant since it is being assumed that Intangibles, Net is being held constant.
Amortization of Acquisition Costs	This item has no value since 2018
Dealer Trading Account Loss	This item has no value since 2018
Foreign Currency Losses	
Unrealized Losses	This item has no value since 2021
Other Unusual Expense	Since 2020 was considered a outlier it was excluded
Restructuring Charge	Santander already concluded its restructuring process
Other Expense	Internal future decisions without any current public information
Provision for Income Taxes	Banco Santander, S.A. which is located in Spain is the parent company of the group
Minority Interest	

Source: Author analysis

Appendix 7 – Balance Sheet forecast assumptions

Statement/FSLI	2018	2019	2020	2021	2022	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal	Note	Unit	Assumptiom
Balance sheet																
Cash														n/a		Directly through the CF statement
Due from central banks														n/a		Directly through the CF statement
Interest-earning Deposits	35,480,000	40,943,000	37,838,000	39,169,000	46,518,000	5.57%	5.57%	5.57%	5.57%	5.57%	5.57%	5.57%	5.57%	Growth rate	%	Historical CAGR (2018-2022)
Trading Account Assets	36,738,000	44,478,000	47,512,000	55,832,000	79,566,000	11.03%	11.03%	11.03%	11.03%	11.03%	11.03%	11.03%	11.03%	Growth rate	%	Historical CAGR (2018-2021)
Other Short Term Investments	92,260,000	73,811,000	63,896,000	52,115,000	90,712,000	-0.34%	-0.34%	-0.34%	-0.34%	-0.34%	-0.34%	-0.34%	-0.34%	Growth rate	%	Historical CAGR (2018-2022)
Securities for Sale	119,490,000	121,268,000	111,686,000	100,375,000	77,024,000	-8.41%	-8.41%	-8.41%	-8.41%	-8.41%	-8.41%	-8.41%	-8.41%	Growth rate	%	Historical CAGR (2018-2022)
Loans Held for Sale	32,310,000	45,703,000	35,702,000	33,264,000	39,500,000	4.10%	4.10%	4.10%	4.10%	4.10%	4.10%	4.10%	4.10%	Growth rate	%	Historical CAGR (2018-2022)
Other Earning Assets	534,000	484,000	435,000	432,000	412,000	412,000	412,000	412,000	412,000	412,000	412,000	412,000	412,000	Value	€	Constant
Total Gross Loans	873,918,000	918,757,000	904,092,000	962,382,000	1,019,188,000	3.12%	3.12%	3.12%	3.12%	3.12%	3.12%	3.12%	3.12%	Growth rate	%	Historical CAGR (2018-2022)
Loan Loss Allowances	-23,307,000	-22,242,000	-23,595,000	-22,964,000	-22,684,000	-2.45%	-2.45%	-2.45%	-2.45%	-2.45%	-2.45%	-2.45%	-2.45%	Percentage	%	Historical average percentage of Total Gross loans, Bank
Other Long Term Assets, Total	29,699,000	28,262,000	24,326,000	25,519,000	25,585,000	25,585,000	25,585,000	25,585,000	25,585,000	25,585,000	25,585,000	25,585,000	25,585,000	Value	€	Constant
Long Term Investments - Affiliate Companies	7,588,000	8,772,000	7,622,000	7,525,000	7,615,000	7,615,000	7,615,000	7,615,000	7,615,000	7,615,000	7,615,000	7,615,000	7,615,000	Value	€	Constant, since it is not mentioned in Santander's strategic goals
Goodwill	25,466,000	24,246,000	12,471,000	12,713,000	13,741,000	13,741,000	13,741,000	13,741,000	13,741,000	13,741,000	13,741,000	13,741,000	13,741,000	Value	€	Constant, since in the near term Santander does not intend to acquire stakes in other companies.
Property/Plant/Equipment, Total - Net	24,594,000	34,262,000	31,772,000	32,342,000	33,044,000	33,044,000	33,044,000	33,044,000	33,044,000	33,044,000	33,044,000	33,044,000	33,044,000	Value	€	Constant
Intangibles, Net	3,094,000	3,441,000	3,437,000	3,871,000	4,904,000	4,904,000	4,904,000	4,904,000	4,904,000	4,904,000	4,904,000	4,904,000	4,904,000	Value	€	Constant
Other Assets	72,143,000	80,969,000	84,718,000	66,914,000	81,086,000	75,273,644	79,366,274	82,988,608	86,156,106	88,883,153	91,185,290	93,085,993	94,584,817	Value	€	Final reconciliation item for the Balance Sheet
Total deposits					112.65%	112.65%	112.65%	112.65%	112.65%	112.65%	112.65%	112.65%	112.65%	Percentage	%	Historical average percentage of Total Gross loans, Bank
Other Current liabilities - Income Taxes Payable	2,567,000	2,800,000	2,349,000	2,187,000	3,040,000	4,457,290	4,435,918	4,426,013	4,402,864	4,346,153	4,242,307	4,091,500	3,876,109	Value	€	Directly through the Income Statement
Long Term Debt	246,619,000	261,977,000	235,269,000	246,163,000	280,339,000	266,193,258	283,121,228	300,012,120	316,816,361	333,408,322	349,611,569	365,250,320	380,082,826	Value	€	Long Term Debt in N-1 (directly through Balance Sheet) + Issuance (Retirement) of Debt, Net (directly through Cash Flow Statement)
Deferred Income Tax - Long-term liability	5,568,000	6,522,000	5,933,000	6,462,000	6,428,000	6,428,000	6,428,000	6,428,000	6,428,000	6,428,000	6,428,000	6,428,000	6,428,000	Value	€	Constant
Minority Interest	10,889,000	10,588,000	9,846,000	10,123,000	8,481,000	8,481,000	8,481,000	8,481,000	8,481,000	8,481,000	8,481,000	8,481,000	8,481,000	Value	€	Constant
Reserves	7,667,000	7,629,000	6,876,000	6,398,000	5,757,000	5,757,000	5,757,000	5,757,000	5,757,000	5,757,000	5,757,000	5,757,000	5,757,000	Value	€	Constant
Pension Benefits - Underfunded	5,558,000	6,358,000	3,976,000	3,185,000	2,392,000	2,392,000	2,392,000	2,392,000	2,392,000	2,392,000	2,392,000	2,392,000	2,392,000	Value	€	Constant
Other Liabilities	115,526,000	127,222,000	128,536,000	128,521,000	176,711,000	8.87%	8.87%	8.87%	8.87%	8.87%	8.87%	8.87%	8.87%	Growth rate	%	Historical CAGR (2018-2022)
Common Stock	8,118,000	8,309,000	8,670,000	8,670,000	8,397,000	8,397,000	8,397,000	8,397,000	8,397,000	8,397,000	8,397,000	8,397,000	8,397,000	Value	€	Constant, according to the capital ratios forecasted it will not be necessary to raise more capital
Additional Paid-In Capital	50,993,000	52,446,000	52,013,000	47,979,000	46,273,000	46,273,000	46,273,000	46,273,000	46,273,000	46,273,000	46,273,000	46,273,000	46,273,000	Value	€	Constant, according to the capital ratios forecasted it will not be necessary to raise more capital
Retained Earnings (Accumulated Deficit)	64,566,000	67,543,000	56,812,000	68,397,000	76,307,000	82,273,035	88,210,465	94,134,637	100,027,823	105,845,103	111,523,385	116,999,814	122,187,945	Value	€	Considered adding net income of previous year without the distribution of dividends
Treasury Stock - Common	-59,000	-31,000	-69,000	-894,000	-675,000	-675,000	-675,000	-675,000	-675,000	-675,000	-675,000	-675,000	-675,000	Value	€	Constant, as it is related with internal future decisions without current public information
Unrealized Gain (Loss)	-22,141,000	-22,032,000	-33,144,000	-32,719,000	-35,628,000	-35,628,000	-35,628,000	-35,628,000	-35,628,000	-35,628,000	-35,628,000	-35,628,000	-35,628,000	Value	€	Constant
Other Equity	-5,005,000	-6,164,000	-2,806,000	-4,503,000	-5,570,000	-5,570,000	-5,570,000	-5,570,000	-5,570,000	-5,570,000	-5,570,000	-5,570,000	-5,570,000	Value	€	Constant

Source: Author analysis

Appendix 8 – Balance Sheet forecast rationale

Statement/FSLI	Rationale
Balance sheet	
Cash	Directly through the CF statement
Due from central banks	Directly through the CF statement
Interest-earning Deposits	
Trading Account Assets	
Other Short Term Investments	
Securities for Sale	
Loans Held for Sale	
Other Earning Assets	Held constant, since this item does not have a defined category of assets.
Total Gross Loans	
Loan Loss Allowances	
Other Long Term Assets, Total	
Long Term Investments - Affiliate Companies	As it is not mentioned in Santander's strategic goals, it is assumed that Santander does not intend to acquire stakes in other companies in the short term.
Goodwill	Goodwill could only suffer impairment (which can only be computed with several information from the companies in which Santander owns shares) or increasing through the acquisition of other companies. However, in the near term Santander does not intend to acquire stakes in other companies.
Property/Plant/Equipment, Total - Net	Internal future decisions without any current public information. Additionally, since banking is not a capital intensive sector, it is assumed that the stock of Property, Plant and Equipment will be held constant..
Intangibles, Net	Even though Santander has been increasing its digital solutions and even develped a new segment, the value of Intangibles is highly volatile. Therefore it was assumed the value of 2022 since this item's value has been increasing since 2018.
Other Assets	Final reconciliation item for the Balance Sheet
Total deposits	
Other Current liabilities - Income Taxes Payable	Directly through the Income Statement
Long Term Debt	Long Term Debt in N-1 (directly through Balance Sheet) + Issuance (Retirement) of Debt, Net (directly through Cash Flow Statement)
Deferred Income Tax - Long-term liability	This item was held constant for since it would be imprecise to forecast deferred taxes due to high volatility according to year's operations
Minority Interest	This item was held constant since it would be imprecise to forecast minority interests.
Reserves	This item does not have any substantial public information to be able to have na underlying assumption.
Pension Benefits - Underfunded	This item represents the responsabilities Santander's Pension Fund has with its employees (current and former). Since there would be needed internal information to forecast this value, it was assumed that it should be held since it has been declining but with interest rates rising the fund's assets might suffer as well.
Other Liabilities	
Common Stock	According to the capital ratios forecasted it will not be necessary to raise more capital
Additional Paid-In Capital	According to the capital ratios forecasted it will not be necessary to raise more capital
Retained Earnings (Accumulated Deficit)	Retained earnings are obtained by suming the net income of the previous year minus the dividends distributed.
Treasury Stock - Common	Related with internal future decisions without current public information
Unrealized Gain (Loss)	
Other Equity	

Source: Author analysis

Appendix 9 –Cash Flow Statement forecast assumptions

Statement/FSLI	2018	2019	2020	2021	2022	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal	Note	Unit	Assumptiom
Cash flow statement																
The cash from operating, financing and investing activities in forecasted periods for this financial statement were obtained using an indirect method																
Depreciation/Depletion						2,972,000	2,972,000	2,972,000	2,972,000	2,972,000	2,972,000	2,972,000	2,972,000	Value	€	
Purchase of Fixed Assets						-1,821,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000	-1,821,000	Value	€	Depreciation/Depletion, Purchase of Fixed Assets and Purchase/Acquisition of Intangibles are considered the values in the Income Statement, since it was assumed that both Intangibles and Property, Plant and Equipment will be constant in net value
Purchase/Acquisition of Intangibles						-1,151,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000	-1,151,000	Value	€	
Taxes Payable	4,886,000	4,427,000	5,632,000	4,894,000	4,486,000	4,457,290	4,435,918	4,426,013	4,402,864	4,346,153	4,242,307	4,091,500	3,876,109	Value	€	Equal to Provision for income taxes in the Income Statement
Cash Dividends Paid - Common	-3,118,000.00	-3,773,000.00	0.00	-1,313,000.00	-1,848,000.00	-5,966,035.40	-5,937,429.72	-5,924,171.50	-5,893,186.60	-5,817,279.28	-5,678,282.47	-5,476,429.22	-5,188,131.15	Value	€	Equal to 50% of Net income, since Santander has a dividend payout policy of 50%
Total Debt Issued						-14,469,293	16,604,419	16,567,342	16,480,690	16,268,410	15,879,696	15,315,200	14,508,955	Value	€	Amount of debt issued or paid in order to keep the capital structure constant

Source: Author analysis

Appendix 10 – Capital structure, Equity and Capital ratios forecast assumptions

Statement/FSLI	2018	2019	2020	2021	2022	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal	Note	Unit	Assumptiom
Capital structure																
D/(D+E)	72%	72%	74%	74%	76%	74%	74%	74%	74%	74%	74%	74%	74%	Percentage	%	Historical average (2018-2022)
E/(D+E)	28%	28%	26%	26%	24%	26%	26%	26%	26%	26%	26%	26%	26%	Percentage	%	Historical average (2018-2022)
						74%	74%	74%	74%	74%	74%	74%	74%			Check
Equity	96,472,000	100,071,000	81,476,000	86,930,000	89,104,000.00	95,070,035.40	101,007,465.13	106,931,636.63	112,824,823.23	118,642,102.51	124,320,384.98	129,796,814.20	134,984,945.35			
Debt	246,619,000	261,977,000	235,269,000	246,163,000	280,339,000	265,869,707.24	282,474,126.25	299,041,467.76	315,522,157.91	331,790,568.16	347,670,264.55	362,985,464.83	377,494,420.30			
Equity																
Payout ratio						50%	50%	50%	50%	50%	50%	50%	50%	Percentage	%	Santander's shareholder payout policy (Press release on 28th February 2023)
Capital ratios																
RWA	592,319	605,255	562,580	578,930	609,266	658,660	677,958	698,592	720,619	744,104	769,122	795,756	824,103	Value	€	Computed by multiplying the Average percentage of Santander's RWAs on Other Earnings assets and Gross loans (2018-2022) with the sum of Other Earnings assets and Gross loans from 2023 to 2029
Other Earnings assets and Gross loans	1,190,730	1,245,444	1,201,161	1,243,569	1,352,920	1,390,955	1,431,709	1,475,284	1,521,800	1,571,395	1,624,227	1,680,474	1,740,338			
Percentage of RWA on Other earnings assets and Gross loans	49.74%	48.60%	46.84%	46.55%	45.03%	47.35%	47.35%	47.35%	47.35%	47.35%	47.35%	47.35%	47.35%	Percentage	%	Average percentage of Santander's RWAs on Other Earnings assets and Gross loans (2018-2022)
Equity	96,472	100,071	81,476	86,930	89,104	95,070	101,007	106,932	112,825	118,642	124,320	129,797	134,985			
CET1	67,962	70,497	69,399	72,402	74,402	74,698	79,363	84,018	88,649	93,219	97,681	101,984	106,060			Computed by multiplying the Average percentage of Santander's CET1 on Total Equity (2018-2022) with Equity from 2023 to 2029
AT1	77,716	79,536	78,501	82,452	83,033	84,502	89,780	95,045	100,284	105,454	110,501	115,369	119,980			Computed by multiplying the Average percentage of Santander's AT1 on Total Equity (2018-2022) with Equity from 2023 to 2029
AT2	11,009	11,531	12,514	14,865	14,359	13,597	14,446	15,293	16,136	16,968	17,780	18,563	19,305			Computed by multiplying the Average percentage of Santander's AT2 on Total Equity (2018-2022) with Equity from 2023 to 2029
Percentage of CET 1 on Total Equity	70.45%	70.45%	85.18%	83.29%	83.50%	78.57%	78.57%	78.57%	78.57%	78.57%	78.57%	78.57%	78.57%			Average percentage of Santander's CET1 on Total Equity (2018-2022)
Percentage of AT1 on Total Equity	80.56%	79.48%	96.35%	94.85%	93.19%	88.88%	88.88%	88.88%	88.88%	88.88%	88.88%	88.88%	88.88%			Average percentage of Santander's AT1 on Total Equity (2018-2022)
Percentage of AT2 on Total Equity	11.41%	11.52%	15.36%	17.10%	16.11%	14.30%	14.30%	14.30%	14.30%	14.30%	14.30%	14.30%	14.30%			Average percentage of Santander's AT2 on Total Equity (2018-2022)

Source: Author analysis

Appendix 11 – Ratios

	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F	2028F	2029F	Terminal	Notes
Liquidity ratios														
Cash ratio	50.36	42.69	70.81	103.50	78.44	53.82	61.49	69.12	77.07	85.78	95.74	107.34	121.64	Not suitable to a Financial Service Firm
Current ratio	173.77	159.37	197.28	232.07	188.22	130.09	139.91	149.91	160.92	173.86	189.68	209.12	234.34	Not suitable to a Financial Service Firm
Loan-to-deposit ratio	0.88	0.90	0.85	0.85	0.86	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	Relevant
Loan-to-asset ratio	58%	59%	58%	59%	57%	58%	57%	57%	56%	56%	55%	54%	54%	Relevant
Efficiency ratios														
Cost-to-income ratio	0.61	0.61	0.72	0.56	0.61	0.63	0.65	0.66	0.67	0.68	0.69	0.70	0.72	
Asset utilization ratio	6%	6%	5%	5%	7%	7%	8%	8%	8%	8%	8%	9%	9%	
Cash turnover ratio	0.60	0.68	0.40	0.30	0.40	0.42	0.39	0.36	0.34	0.32	0.31	0.30	0.29	
Loan loss provision ratio	1.03%	1.02%	1.37%	0.77%	1.07%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	
Non-interest income ratio	0.30	0.30	0.31	0.31	0.25	0.25	0.24	0.23	0.22	0.22	0.21	0.20	0.19	
Operating expense ratio	0.35	0.34	0.34	0.34	0.32	0.35	0.36	0.37	0.37	0.38	0.38	0.39	0.39	
Profitability ratios														
Return on Risk-Weighted assets	1.57%	1.34%	-1.37%	1.67%	1.77%	2.03%	1.96%	1.90%	1.83%	1.75%	1.65%	1.54%	1.41%	
Net interest margin	4.04%	3.94%	3.63%	3.55%	3.88%	3.84%	3.79%	3.72%	3.66%	3.58%	3.49%	3.39%	3.28%	
Net profit margin	27.13%	23.00%	-24.09%	28.93%	27.87%	33.98%	33.25%	32.70%	32.14%	31.44%	30.50%	29.34%	27.84%	
ROA	0.64%	0.53%	-0.51%	0.60%	0.62%	0.76%	0.72%	0.69%	0.66%	0.62%	0.58%	0.54%	0.49%	
ROE	9.66%	8.11%	-9.46%	11.10%	12.08%	14.07%	13.18%	12.42%	11.71%	10.99%	10.24%	9.46%	8.61%	
EPS	0.55	0.47	-0.45	0.57	0.65	0.81	0.80	0.80	0.80	0.79	0.77	0.74	0.70	
Capital ratios														
RWA	592,319	605,255	562,580	578,930	609,266	658,660	677,958	698,592	720,619	744,104	769,122	795,756	824,103	Values (€ million) from 2018 and 2022 taken from Santander's R&C 2022, 2020 and 2019
Common Equity Tier 1 (CET1)	67,962	70,497	69,399	72,402	74,402	74,698	79,363	84,018	88,649	93,219	97,681	101,984	106,060	Values (€ million) from 2018 and 2022 taken from Santander's R&C 2022, 2020 and 2019
Common Equity Tier 1 ratio	11.47%	11.65%	12.34%	12.51%	12.21%	11.34%	11.71%	12.03%	12.30%	12.53%	12.70%	12.82%	12.87%	
Tier 1 capital (CET1 + AT1)	77,716	79,536	78,501	82,452	83,033	84,502	89,780	95,045	100,284	105,454	110,501	115,369	119,980	Values (€ million) from 2018 and 2022 taken from Santander's R&C 2022, 2020 and 2019
Tier 1 capital ratio	13.12%	13.14%	13.95%	14.24%	13.63%	12.83%	13.24%	13.61%	13.92%	14.17%	14.37%	14.50%	14.56%	
Tier 2 capital	11,009	11,531	12,514	14,865	14,359	13,597	14,446	15,293	16,136	16,968	17,780	18,563	19,305	Values (€ million) from 2018 and 2022 taken from Santander's R&C 2022, 2020 and 2019
Tier 2 capital ratio	1.86%	1.91%	2.22%	2.57%	2.36%	2.06%	2.13%	2.19%	2.24%	2.28%	2.31%	2.33%	2.34%	
Total capital ratio	14.98%	15.05%	16.18%	16.81%	15.99%	14.89%	15.37%	15.79%	16.16%	16.45%	16.68%	16.83%	16.90%	

Source: Author analysis

Appendix 12 – Risk-free estimate

Risk free rate estimate			
Bond	Yield	Source	Comments/rationale
German government 5y bond yield	2.542%	Bloomberg (2nd july 2023)	
German government 10y bond yield	2.388%	Bloomberg (2nd july 2023)	
German government 30y bond yield	2.379%	Bloomberg (2nd july 2023)	

Appendix 13 – Equity risk premium estimate

Equity risk premium estimate		
2023	Source	Comments/rationale
7.430%	Damodaran, 2023	

Appendix 14 – Beta estimate

Beta estimate			
	2023	Source	Comments/rationale
Pure play method			
Unlevered beta corrected for cash	0.37	Damodaran, 2023	Industry name: Bank (Money center)
Tax rate	0.25		Spain's corporate tax rate of 25%
D/(D+E)	0.74	Author analysis	Historical average
E/(D+E)	0.26	Author analysis	Historical average
D/E	2.80	Author analysis	
Levered beta	**1.15**	Author analysis	

Appendix 15 – Cost of equity estimate

Cost of equity estimate			
	2023	Source	Comments/rationale
CAPM			
Risk free rate	2.388%	Bloomberg (2nd july 2023)	
Beta	1.15	Damodaran, 2023 and author analysis	
EQRP	7.430%	Damodaran, 2023	
Cost of equity	10.933%		

Appendix 16 – Excess return model

	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal
Beginning BV of Equity	95,070,035	101,007,465	106,931,637	112,824,823	118,642,103	124,320,385	129,796,814	134,984,945
Cost of Equity	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%
Equity Cost	10,393,531.62	11,042,641.12	11,690,301.17	12,334,573.80	12,970,547.86	13,591,326.09	14,190,036.71	14,757,229.15

			1	2	3	4	5	Terminal
Net income			11,848,343	11,786,373	11,634,559	11,356,565	10,952,858	
Equity Cost			11,690,301	12,334,574	12,970,548	13,591,326	14,190,037	
Excess equity return			158,042	-548,201	-1,335,989	-2,234,761	-3,237,178	-4,380,967
Cummulated cost of equity			1.11	1.23	1.37	1.51	1.68	
Present value			142,467	-445,474	-978,648	-1,475,693	-1,926,960	-23,853,740

Equity Invested	106,931,637
PV of Equity Excess Return	-28,538,047
Value of Equity	78,393,589
Number of shares	16,551,000
Value Per Share	**4.74**

Source: Author analysis

Appendix 17 – Free Cash Flow to Equity model

	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal
Net income	11,932,071	11,874,859	11,848,343	11,786,373	11,634,559	11,356,565	10,952,858	10,376,262
Cost of Equity	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%

			1	2	3	4	5	Terminal
Net income			11,848,343	11,786,373	11,634,559	11,356,565	10,952,858	10,376,262
Investment in regulatory capital			0	0	0	0	0	0
FCFE			11,848,343	11,786,373	11,634,559	11,356,565	10,952,858	10,376,262
Cummulated cost of equity			1.11	1.23	1.37	1.51	1.68	
Present value			10,680,678	9,577,730	8,522,628	7,499,146	6,519,788	47,239,121

Value of Equity	90,039,090
Number of shares	16,551,000
Value Per Share	**5.44**

Source: Author analysis

Appendix 18 – Dividend Discount model

	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal
Dividends paid	5,966,035	5,937,430	5,924,172	5,893,187	5,817,279	5,678,282	5,476,429	5,188,131
Cost of Equity	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%

			1	2	3	4	5	Terminal
Dividends paid			5,924,172	5,893,187	5,817,279	5,678,282	5,476,429	5,188,131
Cummulated cost of equity			1.11	1.23	1.37	1.51	1.68	
Present value			5,340,339	4,788,865	4,261,314	3,749,573	3,259,894	50,345,344

Dividends present value	71,745,328
Number of shares	16,551,000
Value Per Share	**4.33**

Source: Author analysis

Appendix 19 – Market valuation

(€ Millions)

Bank	Market Cap (31-12-2022)	EPS growth	ROE	Total deposits	Total loans	Total assets	Total loans/Total assets	Selected	Price multiples P/E	Price multiples P/B
Banco Santander	46,384.20	32.8%	10.91%	1,025,401	1,019,188	1,734,659	58.75%			
BNP Paribas	65,689.70	8.2%	8.48%	1,007,831	890,183	2,666,376	33.39%		7.65	0.6
Intesa Sanpaolo	39,409.10	2.6%	7.85%	454,595	439,252	974,587	45.07%		9.03	0.73
Caixa Bank	27,519.60	310.8%	9.06%	391,003	360,242	598,850	60.16%	Y	8.8	0.82
BBVA	33,973.70	40.6%	14.13%	391,598	369,157	713,140	51.77%	Y	5.69	0.72
HSBC	116,311.50	71.5%	8.88%	1,475,848	872,942	2,753,511	31.70%		8.32	0.79
Credit Agricole	29,724.70	-9.3%	8.24%	825,928	493,370	2,167,621	22.76%		5.99	0.51
Barclay's	28,416.60	-6.5%	8.99%	616,457	456,734	1,709,713	26.71%		5.15	0.46
Société Générale	18,779.30	-11.1%	2.16%	523,867	507,320	1,486,818	34.12%		13.57	0.28
Deutsche Bank	22,054.80	62.0%	8.38%	621,456	506,206	1,306,777	38.74%		4.39	0.36
UBS	54,148.10	5.0%	12.98%	490,198	378,944	1,031,056	36.75%		7.98	1.02
ING	41,214.80	-17.8%	7.08%	640,769	649,184	967,818	67.08%	Y	11.16	0.83
Lloyds Banking Group	34,512.10	-30.6%	7.94%	536,883	518,908	986,492	52.60%	Y	9.22	0.8
Unicredit	25,684.90	77.1%	11.32%	491,818	442,192	857,773	51.55%	Y	4.3	0.45
Danske Bank	15,849.10	-41.7%	-2.82%	151,202	240,363	509,742	47.15%	Y	7.69	0.74
Average									7.81	0.73

P/E	
Peers' average	7.81
Net income (€ thousands)	11,874,859
Equity value (€ thousands)	92,742,652
Number of shares (thousands)	16,551,000
Value per share	**5.60**

P/B	
Peers' average	0.73
Book value of equity (€ thousands)	101,007,465
Equity value (€ thousands)	73,398,758
Number of shares (thousands)	16,551,000
Value per share	**4.43**

Source: Author analysis and Bloomberg

Appendix 20 – IFRS 9 influence on credit risk

Financial asset impairment

The IFRS 9 impairment model applies to financial assets valued at amortized cost; debt instruments valued at fair value with changes in other comprehensive income; leasing receivables; and commitments and guarantees not valued at fair value. The portfolio of financial instruments subject to IFRS 9 has three credit risk categories (or stages), according to the level of credit risk of each instrument:

Observed credit risk deterioration since the initial recognition of the financial instrument

Risk category	Stage 1	Stage 2	Stage 3
Classification criteria	Financial instruments with no significant increase in risk since initial recognition.	Financial instruments with a significant credit risk increase since initial recognition but with no materialized impairment event.	Financial instruments with true signs of impairment as a result of one or more events resulting in a loss.
Provisions recognised	The impairment provision reflects expected credit losses from defaults over twelve months from the reporting date.	The impairment provision reflects expected losses from defaults over the financial instrument's residual life.	The impairment provision reflects expected losses for credit risk over the instrument's expected residual life. In this stage, the calculation takes into account that loss events have already occurred and therefore the single scenario is the certainty that they will materialize in losses.

Source: AR 2022

Appendix 21 – Scenario analysis

Grey-sky	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal
Beginning BV of Equity	94,741,354	100,350,102	105,945,592	111,510,098	116,998,696	122,348,297	127,496,044	132,355,494
Cost of Equity	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%
Equity Cost	10,357,599	10,970,775	11,582,502	12,190,841	12,790,882	13,375,728	13,938,505	14,469,764

Grey-sky			1	2	3	4	5	Terminal
Net income			11,190,980	11,129,010	10,977,196	10,699,202	10,295,496	
Equity Cost			11,582,502	12,190,841	12,790,882	13,375,728	13,938,505	
Excess equity return			-391,522	-1,061,831	-1,813,687	-2,676,525	-3,643,009	-4,750,865
Cummulated cost of equity			1.11	1.23	1.37	1.51	1.68	
Present value			-352,937	-862,855	-1,328,574	-1,767,405	-2,168,534	-25,867,782

Equity Invested	105,945,592
PV of Equity Excess Return	-32,348,088
Value of Equity	73,597,505
Number of shares	16,551,000
Value Per Share	**4.45**

Blue-sky	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal
Beginning BV of Equity	95,398,717	101,664,828	107,917,681	114,139,549	120,285,509	126,292,473	132,097,584	137,614,396
Cost of Equity	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%	10.933%
Equity Cost	10,429,465	11,114,507	11,798,100	12,478,306	13,150,213	13,806,925	14,441,568	15,044,694

Blue-sky			1	2	3	4	5	Terminal
Net income			12,505,706	12,443,736	12,291,921	12,013,928	11,610,221	
Equity Cost			11,798,100	12,478,306	13,150,213	13,806,925	14,441,568	
Excess equity return			707,605	-34,570	-858,292	-1,792,997	-2,831,347	-4,011,069
Cummulated cost of equity			1.11	1.23	1.37	1.51	1.68	
Present value			637,870	-28,092	-628,722	-1,183,980	-1,685,385	-21,839,698

Equity Invested	107,917,681
PV of Equity Excess Return	-24,728,007
Value of Equity	83,189,674
Number of shares	16,551,000
Value Per Share	**5.03**

Source: Author analysis

Appendix 22 – Common size Income Statement

FSLI	2018	2019	2020	2021	2022	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal
Interest Income, Bank	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Interest & Fees on Loans	80.05%	81.32%	84.80%	83.18%	75.75%	74.94%	74.10%	73.23%	72.35%	71.44%	70.50%	69.55%	68.57%
Interest on Investment Secs.	11.83%	11.23%	10.98%	12.32%	14.58%	15.21%	15.85%	16.52%	17.20%	17.91%	18.63%	19.37%	20.14%
Interest on Deposits	5.29%	5.46%	2.90%	3.00%	5.31%	5.31%	5.32%	5.31%	5.31%	5.31%	5.30%	5.29%	5.28%
Other Interest Income	2.82%	1.99%	1.32%	1.50%	4.36%	4.54%	4.74%	4.93%	5.14%	5.35%	5.57%	5.79%	6.02%
Total Interest Expense	36.79%	37.87%	30.05%	28.18%	45.93%	47.83%	49.79%	51.80%	53.87%	55.99%	58.17%	60.40%	62.69%
Interest on Deposits and Marketable debt securities	32.00%	33.84%	26.60%	23.93%	39.14%	40.75%	42.42%	44.13%	45.90%	47.71%	49.56%	51.47%	53.41%
Interest on Other Borrowings	4.79%	4.03%	3.46%	4.25%	6.80%	7.08%	7.37%	7.66%	7.97%	8.28%	8.61%	8.94%	9.28%
Net Interest Income	63.21%	62.13%	69.95%	71.82%	54.07%	52.17%	50.21%	48.20%	46.13%	44.01%	41.83%	39.60%	37.31%
Loan Loss Provision	16.54%	16.45%	27.03%	15.90%	15.20%	14.62%	14.27%	13.92%	13.57%	13.23%	12.89%	12.55%	12.22%
Net Interest Inc. After Loan Loss Prov.	46.67%	45.69%	42.92%	55.92%	38.87%	37.55%	35.95%	34.28%	32.56%	30.78%	28.94%	27.05%	25.09%
Non-Interest Income, Bank	42.26%	42.71%	45.93%	44.66%	32.87%	33.62%	32.06%	30.53%	29.01%	27.51%	26.03%	24.55%	23.08%
Fees & Commissions from Operations	26.99%	27.03%	28.47%	29.73%	22.21%	21.85%	21.03%	20.19%	19.32%	18.43%	17.52%	16.58%	15.62%
Insurance Commissions, Fees & Premiums	5.84%	4.46%	3.17%	3.26%	3.78%	3.46%	3.17%	2.90%	2.66%	2.43%	2.22%	2.03%	1.86%
Fees for Other Customer Services	0.18%	0.05%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Dealer Trading Account Profit	2.79%	2.38%	7.02%	2.46%	1.18%	2.14%	2.02%	1.91%	1.81%	1.71%	1.62%	1.53%	1.44%
Investment Securities Gains	2.40%	3.45%	3.45%	2.74%	1.12%	1.83%	1.74%	1.64%	1.55%	1.47%	1.39%	1.31%	1.24%
Foreign Currency Gains	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Unrealized Gains	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Unusual Income	0.19%	2.27%	0.27%	0.11%	0.03%	0.03%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%
Other Revenue	3.86%	3.07%	3.52%	5.78%	3.20%	3.03%	2.87%	2.71%	2.57%	2.43%	2.29%	2.16%	2.04%
Non-Interest Expense, Bank	-62.79%	-66.31%	-93.39%	-69.27%	-50.39%	-47.53%	-45.75%	-43.80%	-41.80%	-39.85%	-37.96%	-36.10%	-34.33%
Labour & Related Expenses	-21.84%	-21.38%	-23.57%	-24.14%	-17.57%	-18.39%	-18.16%	-17.70%	-17.12%	-16.52%	-15.92%	-15.29%	-14.69%
Depreciation Expense	-2.13%	-3.56%	-4.17%	-3.73%	-2.55%	-2.41%	-2.28%	-2.16%	-2.04%	-1.93%	-1.83%	-1.72%	-1.63%
Amortization of Intangibles	-2.31%	-1.70%	-1.96%	-2.18%	-1.61%	-1.53%	-1.44%	-1.37%	-1.29%	-1.22%	-1.15%	-1.09%	-1.03%
Amortization of Acquisition Costs	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Dealer Trading Account Loss	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Foreign Currency Losses	-1.25%	-1.64%	-4.58%	-1.21%	-0.76%	-1.27%	-1.21%	-1.14%	-1.08%	-1.02%	-0.96%	-0.91%	-0.86%
Unrealized Losses	-0.10%	-0.50%	-0.37%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Unusual Expense	-0.63%	-3.29%	-23.19%	-0.63%	-0.34%	-0.91%	-0.86%	-0.82%	-0.77%	-0.73%	-0.69%	-0.65%	-0.61%
Restructuring Charge	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Expense	-34.53%	-34.24%	-35.55%	-31.33%	-24.93%	-23.02%	-21.79%	-20.61%	-19.49%	-18.42%	-17.41%	-16.44%	-15.51%
Net Income Before Taxes	26.14%	22.09%	-4.54%	31.31%	21.35%	23.64%	22.26%	21.02%	19.77%	18.45%	17.01%	15.49%	13.85%
Provision for Income Taxes	8.99%	7.80%	12.31%	10.53%	6.28%	5.91%	5.57%	5.25%	4.94%	4.61%	4.25%	3.87%	3.46%
Net Income After Taxes	17.15%	14.29%	-16.85%	20.78%	15.07%	17.73%	16.70%	15.76%	14.83%	13.83%	12.76%	11.62%	10.39%
Minority Interest	-2.77%	-2.82%	-2.32%	-3.29%	-1.62%	-1.91%	-1.80%	-1.70%	-1.60%	-1.49%	-1.37%	-1.25%	-1.12%
Net Income Before Extra. Items	14.38%	11.47%	-19.18%	17.48%	13.45%	15.82%	14.90%	14.07%	13.23%	12.35%	11.38%	10.37%	9.27%

Source: Author analysis

Appendix 23 – Common size Balance Sheet

FSLI	2018	2019	2020	2021	2022	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal
Cash & Due from Banks	8.86%	7.85%	11.03%	14.18%	13.75%	13.41%	13.07%	12.72%	12.38%	12.03%	11.69%	11.35%	11.01%
Cash	0.00%	0.00%	0.00%	0.00%	12.86%	13.41%	13.07%	12.72%	12.38%	12.03%	11.69%	11.35%	11.01%
Due from central banks	0.00%	0.00%	0.00%	0.00%	0.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Earning Assets, Total	21.71%	21.45%	19.70%	17.62%	19.24%	20.42%	20.35%	20.37%	20.46%	20.63%	20.87%	21.17%	21.55%
Interest-earning Deposits	2.43%	2.69%	2.51%	2.45%	2.68%	2.95%	3.04%	3.12%	3.21%	3.29%	3.37%	3.46%	3.54%
Trading Account Assets	2.52%	2.92%	3.15%	3.50%	4.59%	5.31%	5.75%	6.21%	6.71%	7.24%	7.81%	8.42%	9.07%
Other Short Term Investments	6.32%	4.85%	4.24%	3.27%	5.23%	5.44%	5.28%	5.12%	4.97%	4.81%	4.66%	4.51%	4.36%
Securities for Sale	8.19%	7.96%	7.41%	6.29%	4.44%	4.24%	3.79%	3.38%	3.01%	2.68%	2.38%	2.12%	1.88%
Loans Held for Sale	2.21%	3.00%	2.37%	2.08%	2.28%	2.47%	2.51%	2.54%	2.57%	2.61%	2.63%	2.66%	2.69%
Other Earning Assets	0.04%	0.03%	0.03%	0.03%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Net Loans	58.29%	58.88%	58.38%	58.87%	57.45%	61.65%	61.93%	62.18%	62.38%	62.55%	62.67%	62.74%	62.77%
Total Gross Loans	59.89%	60.34%	59.94%	60.31%	58.75%	63.20%	63.49%	63.74%	63.95%	64.12%	64.24%	64.32%	64.35%
Loan Loss Allowances	-1.60%	-1.46%	-1.56%	-1.44%	-1.31%	-1.55%	-1.56%	-1.56%	-1.57%	-1.57%	-1.58%	-1.58%	-1.58%
Property/Plant/Equipment, Total - Net	1.69%	2.25%	2.11%	2.03%	1.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Goodwill, Net	1.75%	1.59%	0.83%	0.80%	0.79%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Intangibles, Net	0.21%	0.23%	0.23%	0.24%	0.28%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Intangibles - Gross	0.59%	0.61%	0.62%	0.67%	0.72%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accumulated Intangible Amortization	-0.38%	-0.38%	-0.39%	-0.43%	-0.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Long Term Investments - Affiliate Companies	0.52%	0.58%	0.51%	0.47%	0.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Long Term Assets, Total	2.04%	1.86%	1.61%	1.60%	1.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Pension Benefits - Overfunded	0.07%	0.06%	0.04%	0.12%	0.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Defered Income Tax - Long Term Asset	1.59%	1.49%	1.28%	1.22%	1.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Discontinued Operations - LT Asset	0.37%	0.30%	0.29%	0.26%	0.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Assets	4.94%	5.32%	5.62%	4.19%	4.67%	4.52%	4.64%	4.73%	4.78%	4.79%	4.77%	4.73%	4.67%
Total Assets	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Total Deposits	66.36%	65.64%	68.56%	69.30%	67.01%	71.20%	71.52%	71.81%	72.04%	72.23%	72.37%	72.46%	72.50%
Other Current liabilities - Income Taxes Payable	0.18%	0.18%	0.16%	0.14%	0.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Long Term Debt	16.90%	17.20%	15.60%	15.43%	16.16%	16.86%	16.42%	15.99%	15.55%	15.12%	14.69%	14.27%	13.84%
Deferred Income Tax - Long-term liability	0.38%	0.43%	0.39%	0.40%	0.37%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Minority Interest	0.75%	0.70%	0.65%	0.63%	0.49%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Liabilities, Total	8.82%	9.27%	9.24%	8.65%	10.66%	11.57%	12.27%	13.01%	13.78%	14.58%	15.42%	16.30%	17.22%
Reserves	0.53%	0.50%	0.46%	0.40%	0.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Pension Benefits - Underfunded	0.38%	0.42%	0.26%	0.20%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Liabilities	7.92%	8.36%	8.52%	8.05%	10.19%	11.57%	12.27%	13.01%	13.78%	14.58%	15.42%	16.30%	17.22%
Total Liabilities	93.39%	93.43%	94.60%	94.55%	94.86%	99.62%	100.22%	100.80%	101.38%	101.94%	102.49%	103.03%	103.56%
Common Stock	0.56%	0.55%	0.57%	0.54%	0.48%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Additional Paid-In Capital	3.49%	3.44%	3.45%	3.01%	2.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Retained Earnings (Accumulated Deficit)	4.42%	4.44%	3.77%	4.29%	4.40%	4.59%	4.47%	4.35%	4.23%	4.12%	4.00%	3.88%	3.77%
Treasury Stock - Common	0.00%	0.00%	0.00%	-0.06%	-0.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Unrealized Gain (Loss)	-1.52%	-1.45%	-2.20%	-2.05%	-2.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Equity	-0.34%	-0.40%	-0.19%	-0.28%	-0.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Equity	6.61%	6.57%	5.40%	5.45%	5.14%	4.59%	4.47%	4.35%	4.23%	4.12%	4.00%	3.88%	3.77%
Total Liabilities & Shareholders' Equity	100.00%	100.00%	100.00%	100.00%	100.00%	104.21%	104.69%	105.15%	105.61%	106.05%	106.49%	106.91%	107.32%

Source: Author analysis

Appendix 24 – Common size Cash Flow Statement

FSLI	2018	2019	2020	2021	2022	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F	2029 F	Terminal
Net Income/Starting Line	272.69%	239.48%	-11.65%	17.03%	38.85%	48.61%	47.82%	47.09%	46.28%	45.29%	44.01%	42.45%	40.47%
Depreciation/Depletion	70.99%	88.55%	4.25%	4.86%	10.77%	12.11%	11.97%	11.81%	11.67%	11.57%	11.52%	11.52%	11.59%
Non-Cash Items	564.67%	619.33%	52.95%	32.82%	75.74%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Non-Cash Items	564.67%	619.33%	52.95%	32.82%	75.74%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Changes in Working Capital	-808.34%	-847.36%	54.46%	45.29%	-25.37%	39.28%	40.21%	41.10%	42.05%	43.15%	44.47%	46.03%	47.94%
Loan Loss Provision						44.92%	45.78%	46.60%	47.48%	48.53%	49.83%	51.39%	53.33%
Other Assets	-639.96%	11.74%	6.87%	84.65%	99.91%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Taxes Payable						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Liabilities	798.57%	1135.11%	136.59%	100.45%	387.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Operating Cash Flow	-97.83%	-76.51%	-4.45%	-7.08%	-19.84%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Investment Securities, Gains/Losses	-869.12%	-1917.70%	-84.55%	-132.73%	-492.51%	-5.64%	-5.57%	-5.50%	-5.43%	-5.39%	-5.36%	-5.36%	-5.40%
Loans, Gains/Losses						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cash from Operating Activities	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Capital Expenditures	-387.39%	195.64%	118.01%	306.94%	278.09%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Purchase of Fixed Assets	-340.72%	176.59%	102.30%	269.58%	232.58%	61.27%	61.27%	61.27%	61.27%	61.27%	61.27%	61.27%	61.27%
Purchase/Acquisition of Intangibles	-46.66%	19.05%	15.71%	37.36%	45.51%	38.73%	38.73%	38.73%	38.73%	38.73%	38.73%	38.73%	38.73%
Other Investing Cash Flow Items, Total	487.39%	-95.64%	-18.01%	-206.94%	-178.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Acquisition of Business	-23.19%	1.15%	40.60%	3.77%	20.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sale of Business	13.69%	-3.02%	-24.58%	-0.16%	-18.83%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sale of Fixed Assets	116.58%	-56.59%	-27.89%	-171.79%	-142.59%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sale/Maturity of Investment	73.92%	-9.49%	-2.52%	-18.09%	-13.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Purchase of Investments	-0.35%	0.87%	7.27%	3.39%	3.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Investing Cash Flow	306.73%	-28.57%	-10.87%	-24.06%	-27.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cash from Investing Activities	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Financing Cash Flow Items	28.02%	23.07%	114.56%	141.75%	44.83%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Financing Cash Flow	28.02%	23.07%	114.56%	141.75%	44.83%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Cash Dividends Paid	94.46%	37.28%	0.00%	99.32%	18.55%	29.66%	-54.02%	-54.02%	-54.01%	-53.99%	-53.95%	-53.89%	-53.79%
Cash Dividends Paid - Common	94.46%	37.28%	0.00%	99.32%	18.55%	29.66%	-54.02%	-54.02%	-54.01%	-53.99%	-53.95%	-53.89%	-53.79%
Issuance (Retirement) of Stock, Net	1.12%	-0.19%	1.94%	59.83%	14.82%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sale/Issuance of Common	-29.96%	-9.36%	-37.77%	-64.60%	-5.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Repurchase/Retirement of Common	31.08%	9.17%	39.71%	124.43%	20.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Common Stock, Net	1.12%	-0.19%	1.94%	59.83%	14.82%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Issuance (Retirement) of Debt, Net	-23.60%	39.84%	-16.50%	-200.91%	21.80%	70.34%	154.02%	154.02%	154.01%	153.99%	153.95%	153.89%	153.79%
Long Term Debt Issued	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Long Term Debt Reduction	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Long Term Debt, Net	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Debt Issued	-99.45%	-10.77%	-214.51%	-403.93%	-1.19%	0.00%	154.02%	154.02%	154.01%	153.99%	153.95%	153.89%	153.79%
Total Debt Reduction	75.86%	50.61%	198.01%	203.03%	22.99%	70.34%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cash from Financing Activities	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Author analysis

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Recommendation System

Level of Risk	SELL	REDUCE	HOLD	BUY	STRONG BUY
High Risk	0%≤	>0% & ≤10%	>10% & ≤20%	>20% & ≤ 45%	>45%
Medium Risk	-5%≤	>-5% & ≤5%	>5% & ≤15%	>15% & ≤ 30%	>30%
Low Risk	-10%≤	>-10% & ≤0%	>0% & ≤10%	>10% & ≤ 20%	>20%