Lisbon School of Economics & Management
Universidade de Lisboa

MASTER´S IN
FINANCE

MASTER'S FINAL WORK
PROJECT

CASE STUDY ON NAVIGATOR'S DIVERSIFICATION STRATEGY: STRATEGIC TRADE-OFFS IN DECLINING MARKETS

TIGRAN ANDREASIAN

JUNE 2026

Lisbon School of Economics & Management
Universidade de Lisboa

MASTER´S IN
FINANCE

MASTER'S FINAL WORK
PROJECT

CASE STUDY ON NAVIGATOR'S DIVERSIFICATION STRATEGY: STRATEGIC TRADE-OFFS IN DECLINING MARKETS

TIGRAN ANDREASIAN

SUPERVISORS:

PEDRO ALMEIDA NEVES SAMPAYO RAMOS
VICTOR MAURÍLIO SILVA BARROS

JUNE 2026

Acknowledgments

This section is dedicated to acknowledging everyone who guided, inspired, worked alongside me, or in any other way contributed to this project.

To Professor Victor Maurílio Silva Barros and Professor Pedro Almeida Neves Sampayo Ramos. Thank you for your guidance, leadership, support, and invaluable insights throughout the development of this work, CFA Research Challenge and overall, the Master's in Finance program.

To all the professors of the master's in finance. Thank you for your knowledge, dedication, and commitment which contributed significantly to my academic, professional and personal development over the past two years.

To my CFA Research Challenge teammates: Jannik Schmid, Juliana Guerreiro, Ricardo Novikov, and Thiago Ferreira. Thank you for your support, teamwork, shared time and efforts during this rewarding experience.

To my Industry Mentor, Nuno Matias. Thank you for your time, valuable insights and willingness to share your professional experience throughout the CFA Research Challenge and beyond.

Finally, I would like to express my sincere gratitude one more time to everyone mentioned above for their encouragement and contribution to my learning journey. Their support played an important role in the completion of this thesis and master's in finance overall, making this experience both meaningful and enjoyable.

Disclosures and Disclaimers

AI Disclaimer

This project was prepared in accordance with the academic integrity policies and guidelines provided by ISEG University and University of Lisbon.

During the development of the work, artificial intelligence (AI) tools including AI agents were occasionally used to support the research process in order to improve my efficiency. It includes exploration of data, information gathering, idea generation, content structuring, and language refinement. AI tools were served solely as supporting resources and did not replace my own analysis, judgment, or critical thinking.

The results presented including research decisions, data analysis, valuation models, interpretations, conclusions, and final written content are products of my own work and conclusions. The use of AI tools and agents did not influence the originality.

I take full responsibility for the content, accuracy, and integrity of this case study.

Tigran Andreasian
30 June 2026

Recommendation Disclaimer

This report is published for educational purposes by Master's student and does not constitute an offer or a solicitation of an offer to buy or sell any security, nor is it an investment recommendation as defined by the Código do Mercado de Valores Mobiliários (Portuguese Securities Market Code). The student is not registered with Comissão de Mercado de Valores Mobiliários (CMVM) as financial analysts, financial intermediaries or entities/persons offering any service of financial intermediation, to which Regulamento (Regulation) 3º/2010 of CMVM would be applicable.

This report was prepared by a Master's student in Finance at ISEG – Lisbon School of Economics and Management, exclusively for the Master's Final Work. The opinions expressed and estimates contained herein reflect the personal views of the author about the subject company, for which he/she is solely responsible. Neither ISEG, nor its faculty accepts responsibility whatsoever for the content of this report or any consequences of its use. The valuation methodologies and the financial model contained in this report was revised by the supervisor. The information set forth herein has been obtained or derived from sources generally available to the public and believed by the author to be reliable, but the author does not make any representation or warranty, express or implied, as to its accuracy or completeness. The information is not intended to be used as the basis of any investment decisions by any person or entity.

Abstract

This project presents a teaching case study on The Navigator Company (NVG). The case examines the strategic challenges faced by the company in the structurally declining paper industry. In response to these challenges, the company has been pursuing a diversification strategy toward segments with more stable demand, creating a set of trade-offs between short-term performance and long-term positioning.

The case places students in the role of strategic business decisions analysts by presenting two alternative diversification strategies for the Navigator. The first strategy follows the company's currently announced guideline of its diversification strategy, while the second considers an accelerated organic diversification approach requiring additional investments and a faster transition away from traditional business. Students are asked to evaluate the strategic trade-offs associated with each strategy, identify their execution risks, and compare controlling and minority shareholder preferences.

To support the analysis, the case provides information on the company's current and forecasted financials as well as industry data. Teaching notes are included to guide instructors and facilitate classroom discussion. The case is designed to strengthen students' understanding of long-term and short-term corporate strategy assessment and strategic decision-making, while encouraging the application of qualitative reasoning, financial analysis, and industry analysis.

JEL Classification: G32; G34; L11; L25; M21
Keywords: The Navigator Company; Diversification; Strategic Trade-offs; Corporate Finance; Capital Allocation; Value Creation; Corporate Governance

Resumo

Este projeto apresenta um caso de estudo pedagógico sobre a The Navigator Company (NVG), analisando os desafios estratégicos enfrentados pela empresa num contexto de declínio estrutural da indústria do papel. Em resposta a estes desafios, a empresa tem vindo a implementar uma estratégia de diversificação para segmentos com procura mais estável, criando trade-offs entre o desempenho financeiro de curto prazo e o posicionamento estratégico de longo prazo.

O caso coloca os estudantes no papel de analistas de estratégia empresarial, apresentando duas alternativas de diversificação. A primeira segue as orientações estratégicas atualmente anunciadas pela empresa, enquanto a segunda propõe uma diversificação orgânica acelerada, exigindo investimentos adicionais e uma transição mais rápida para novos negócios. Os estudantes devem avaliar os trade-offs de cada estratégia, identificar os principais riscos de execução e comparar as preferências dos acionistas de controlo e dos acionistas minoritários.

Para apoiar a análise, o caso disponibiliza informação sobre a situação financeira atual da empresa, projeções financeiras e dados relevantes da indústria. Inclui ainda notas pedagógicas para orientar os docentes e facilitar a discussão em sala de aula. O objetivo é desenvolver competências de análise estratégica, tomada de decisão e aplicação integrada de raciocínio qualitativo, análise financeira e análise da indústria.

Classificação JEL: G32; G34; L25; L11; M21
Palavras-chave: The Navigator Company; Diversificação; Trade-offs Estratégicos; Finanças Empresariais; Alocação de Capital; Criação de Valor; Governo Societário

Table of Contents

List of Figures

List of Tables

List of Appendices

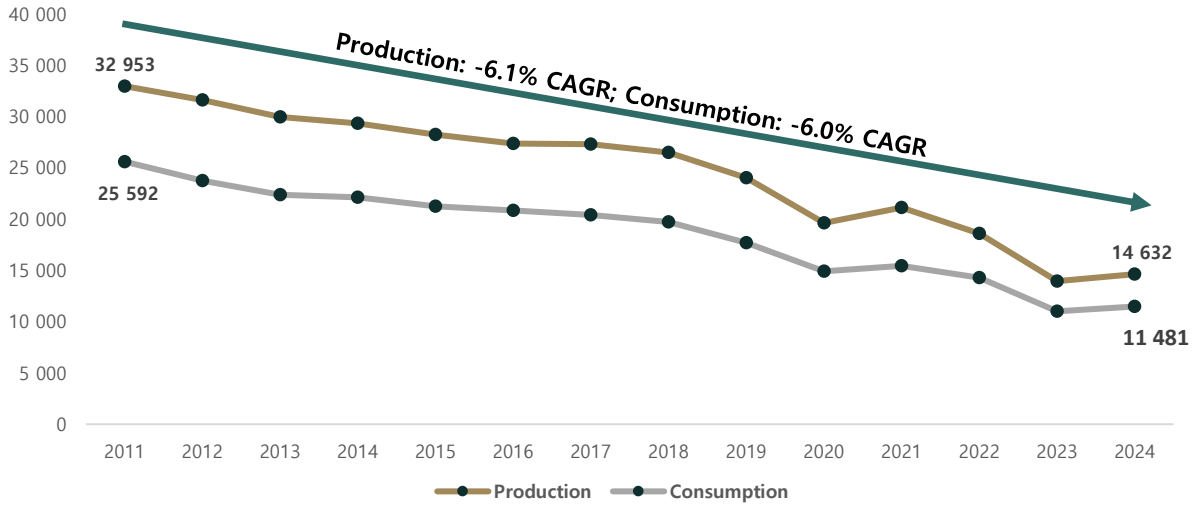
Glossary

A		
	AI	Artificial Intelligence
B		
	BHKP	Bleached Hardwood Kraft Pulp
C		
	CAE	Capital Allocation Efficiency
	CAGR	Compound Annual Growth Rate
	CAPM	Capital Asset Pricing Model
	CapEx	Capital Expenditures
	CEPI	Confederation of European Paper Industries
	CI	Capital Intensity
	COGS	Cost of Goods Sold
	CRP	Country Risk Premium
	CT	Capital Turnover
D		
	D&A	Depreciation and Amortization
	DCF	Discounted Cash Flow
	DPS	Dividends Per Share
E		
	EBIT	Earnings Before Interest and Taxes
	EVA	Economic Value Added
	EV	Enterprise Value
F		
	FCFF	Free Cash Flow to the Firm
	FiT	Feed-in Tariff Regime
G		
	G	Long-run Growth Rate
	GDP	Gross Domestic Product
	GPM	Gross Profit Margin
I		
	IC	Invested Capital
M		
	M&A	Merger and Acquisition
N		
	NVG	The Navigator Company
O		
	OOA	Other Operational Assets
	OROA	Operating Return on Assets
P		
	P&P	Pulp and Paper
	P&W	Printing and Writing Paper
R		
	Rf	Risk-free Rate
	ROE	Return on Equity
	ROIC	Return on Invested Capital
	ROU	Right of Use
	RR	Reinvestment Rate
S		
	SoP	Sum of the Parts
U		
	UWF	Uncoated Woodfree
W		
	WACC	Weighted Average Cost of Capital
	WC	Working Capital
Y		
	YoY	Year over Year

1. Case Study Setup: Navigating the Decline in Paper Demand

For thousands of years paper has played a crucial role in human civilization. Throughout history it has functioned as a source of preserving and transmitting information across time and space. However, the significance of the role of paper in managing information has started to diminish when humanity entered the Post-Industrial Era. Digital Age brought other sources of storing and transferring information and changed consumption behavior of the customers (Latta et al., 2016). The tendency of paper's demand decrease has been noticeable for several decades already. Thus, according to Confederation of European Paper Industries (CEPI) Key Statistics, the production and consumption of Printing & Writing paper (P&W) in Europe have declined by 56% and 55% respectively since 2011 (Figure 1) (CEPI, 2011–2024). Therefore, the major producers are forced to operate in the shrinking demand economic environment.

Figure 1: Production and Consumption of P&W paper, in '000 tonnes



Source: Confederation of European Paper Industries (CEPI) – *Key Statistics 2011–2024.*

As a result, reflecting the uncertain future of P&W paper demand and cyclical nature of the pulp prices (main raw material for paper production), The Navigator Company (NVG), a Portuguese integrated Pulp and Paper (P&P) manufacturer, has decided to diversify its business within the forest products industry by entering the packaging (2021) and tissue (2016) markets. By the end of 2025 company operates mainly in 5 different segments: P&W paper (mainly Uncoated Woodfree), Pulp, Tissue, Packaging and Energy production. But despite almost 10 years of ongoing diversification strategy the P&W paper and Pulp business segments remain the main source of Navigator's Revenue (~68.7%) and Operating Profit before support costs (~73%) by the end of 2024. This reflects the management's careful approach in company's Revenue mix shift from its core but structurally declining segment to the future oriented segments but with execution risk.

Although the diversification in this case seems reasonable in the long term, its pace represents the core dilemma of the management board's strategic planning. Key decision makers in the company understand that paper industry is an oligopoly with high market saturation and intense competition based mostly on cost efficiency, where strategic mistakes may have irreversible consequences. While postponing shift will most probably lead to structural revenue decline and competitive disadvantage in the new markets (competitors who diversified sooner will have bigger scale, more complete value chain and established relationships with clients), premature and accelerated shift may not only weaken the company's existing competitive advantages in the P&W paper industry, but also introduce uncertainty regarding capital allocation efficiency, profitability of new products, and capability of the company to compete in the new industries.

Thus, the controlling shareholder of **The Navigator Company** – **Semapa S.A.** in order to weigh pros and cons of different strategies, intends to determine the key drivers of the need of diversification, its risks and opportunities and company's current position with the possible strategies of the shift.

2. Key Drivers Behind the Need for Diversification

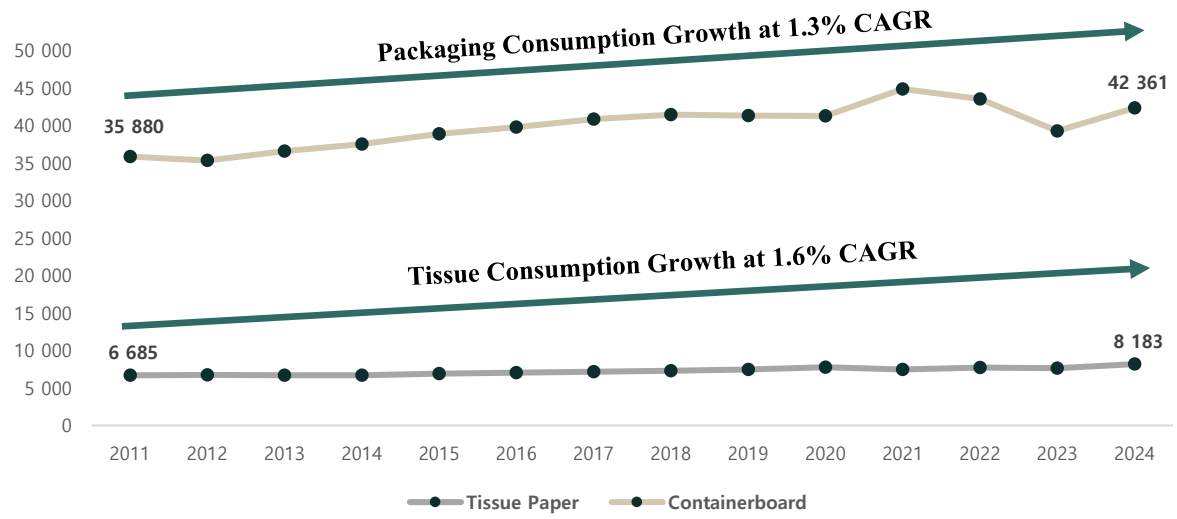
2.1 Demand Dynamics: Structural Transformation of the Paper Products Industry

The Navigator Company is mainly Uncoated Woodfree (UWF) producer, and unlike other types of P&W paper UWF showed a relative resistance against the sharp decline in demand by failing only at a -3.5% CAGR since 2011 in consumption in Europe. Nevertheless, Navigator is not an exception and also became a victim of the overall declining demand environment in the industry. Thus, its sales volume of paper decreased by 11% since 2019 (The Navigator Company, 2019–2024). Moreover, the projected worldwide CAGR of the P&W industry is around -0.51% until 2030 (Mordor Intelligence, 2025) (the estimate is based on the commercial market research provider and should be treated as indicative rather than definitive), which, despite the historically more resilient nature of UWF paper and eventually expected demand floor for P&W, still signals to act and shift away from slowly but constantly declining sector.

At the same time, the markets of other paper products produced by The Navigator Company have shown solid growth since 2011. Specifically, European tissue consumption has grown by 22%, while packaging segment has increased by 18% (Figure 2) (CEPI, 2011–2024). In addition, the market size CAGR until 2031 is expected at 5.29% for tissue and 4.62% for

packaging (Mordor Intelligence, 2026) (the estimates are based on the commercial market research provider and should be treated as indicative rather than definitive), mostly driven by population growth, e-commerce development, hygiene awareness and environmental regulations.

Figure 2: Consumption of Tissue Paper and Total Packaging Papers, in '000 tonnes



Source: Confederation of European Paper Industries (CEPI) – *Key Statistics 2011–2024*.

2.2 Navigator's Dependence on Commodity Price Volatility

Another key driver of Navigator's ongoing diversification strategy is its dependence on the pulp prices (and, consequently, UWF prices). Historically, NVG's revenues have exhibited a strong positive Pearson correlation (r = 0.94) with pulp (BHKP) price movements (see Appendix A1 for the regression outputs and scatter plot), and given the cyclical nature of the latter, this exposes the company to significant earnings volatility. Combined with Navigator's asset-heavy structure relative to the industry (five-year average Capital Intensity Ratio: 1.46 for NVG vs. 1.17 for the main UWF & Pulp competitors, ratios are disclosed in Appendix A3, competitors selection methodology is disclosed in Appendix A2), the commodity price volatility alongside structurally declining paper demand, may create a meaningful pressure on the company's operating performance and its ability to absorb the costs of its large fixed asset base.

Accordingly, in the fiscal year 2025, following the commodity price decline, company's consolidated EBIT fell by 45.2% while Revenues compressed by only 5.7%. Notably, the UWF and Pulp segments represented 107% of the total revenue decline, underscoring their structural exposure to the commodity price fluctuations and once again reinforcing concerns regarding the pace of diversification toward segments with more stable demand and price dynamics.

3. Navigator's Current Position

3.1 Corporate Governance Structure

Navigator's corporate governance structure is characterized by concentrated ownership. Semapa holds approximately 70% of the company's equity. Under Navigator's one share, one vote system, voting rights are proportional to ownership stakes. That system allows Semapa to effectively control the outcome of most shareholder decisions (including simple majority (>50%) as well as qualified majority (>2/3). Thus, although minority shareholders retain their voting rights, their ability to influence important corporate decisions remains limited.

3.2 Operational Segments

As was mentioned before, Navigator operates across five main business segments: UWF Paper, Pulp, Tissue, Packaging and Energy. Over the past decade, Navigator's operations have been evolving from a predominantly pulp and paper focus. Currently, the company is primarily focused on expanding its presence in tissue and packaging segments, while mature UWF and Pulp segments serve as the main cash providers for ongoing shift. Summary for each segment is available below and based on Navigator's annual reports, investor presentations and press realeses. It includes a short general overview, information about installed capacity and utilization rate as well as revenue dynamics and operating profitability.

Tissue Segment Summary

Overview

In the tissue segment, the company grows mostly through acquisitions including Gomà-Camps (Spain/France) acquisition in 2023 and Accrol (UK) in 2024. In addition, Navigator operates its own tissue production in Portugal where production is partially integrated with its pulp mills creating synergies with core business, consequently, reducing procurement and logistics costs for raw materials as well as production process inefficiencies.

Installed Capacity and Utilization rates

In total, company's tissue capacity reaches 165kt reels and 310kt converting into finished products. While tissue productions in Portugal are fully vertically integrated (reels production capacity even exceeds its converting capacity), Spain operation is integrated only by ~58%, whereas the operation in the United Kingdom is focused exclusively on converting into finished products (0kt reels and 130kt converting). That means that there is no profitability gain from the integrated value chain. Thus, margins from UK operations are structurally lower and, due

to their size, drop down the consolidated EBITDA margin of the company by around 1.2%. However, recently The Navigator Company has approved a €115 million CapEx in the installation of a new tissue paper production machine with an annual capacity of 70kt reels in order to support the vertical integration of the United Kingdom operations. The average utilization rates for reels and finished products stand at 84% and 69% since 2019 respectively. The low standard deviations of 3% and 5% indicate relatively stable utilization rate over time reflecting a well-established client base with consistent demand, while also suggesting that Navigator has been able to efficiently integrate and rapidly utilize a new capacity added through M&A activities.

Revenue Dynamic

Since 2019 the tissue segment has demonstrated a solid growth, with revenues increasing at 24.1% CAGR (Table 1) mostly driven by expansion into the UK and Spain markets through M&A activities (71% and 29% CAGR respectively) alongside moderate organic growth in Portuguese business division (14% CAGR). Overall, the segment has significantly outperformed observed European tissue market growth of 1.9% CAGR over the same period.

Operating Profitability Dynamics

Given that tissue is a relatively young and still developing segment for Navigator, its EBIT margin has been very volatile, reflecting both investment phases and acquisition activities. The negative EBIT recorded in 2019 (Table 1) indicates the early stage of the segment's development. At that time reels production was in ramp-up phase and increased 11 times YoY, which negatively impacted the average price for the period, as reels have structurally lower margins in comparison to finished branded products. At the same time, the finished products operations were not yet at optimal scale (74kt from 120kt) which consequently increased unit costs. Since 2019 the operating margin has grown gradually mainly driven by higher utilization rate in converting capacity as well as synergies from the integration of tissue mills with company's pulp facilities in Portugal. The margin dilution observed in 2024 - 2025 reflects both the acquisitions' operational inefficiencies during integration period and structurally lower margins in Spain and UK businesses due to incomplete integration of the value chain.

Table 1: Tissue's Historical Revenue and EBIT %

	2019	2020	2021	2022	2023	2024	2025
Revenue (in € millions)	132	142	146	198	294	456	484
EBIT Margin	*-5.7%*	*7.7%*	*13.0%*	*15.8%*	*21.3%*	*16.8%*	*13.1%*

Packaging Segment Summary

Overview

In the packaging segment, Navigator primarily grows organically. The main driver of capacity expansion is investment in the modification of existing UWF paper machines, which converts UWF capacity into packaging capacity while retain operational flexibility to revert to UWF (although switching involves additional costs and time). Therefore, while tissue is fundamentally new segment with some synergies with existing operations (primarily through raw materials supply), packaging represents a structural transformation segment, directly converting declining and cyclical UWF paper capacity into higher-growth, less cyclical, and still fiber-based packaging. Thereby, company develops a new segment with relatively modest investment requirements while preserving and effectively inheriting the vertical integration benefits of its UWF business.

Installed Capacity and Utilization rates

Thus, Navigator's total packaging capacity stands at around 100kt of paper-based packaging. In 2025 the company announced a €30 million CapEx to convert another paper machine into packaging production increasing its production capacity to 200kt of paper-based packaging. While the number of active clients has grown at approximately 36% CAGR since the segment's launch in 2021, the average utilization rate stands at 70%, which means that available capacity of the company is enough to satisfy current demand. Although, company's all production facilities are located in Portugal it does not constrain its ability to sell packaging products in more than 40 countries worldwide.

Revenue Dynamic

The segment's revenue has grown at a CAGR of 16.9% since 2021 representing a total increase of 90% (Table 2). This increase is entirely explained by the expansion in the number of clients.

Operating Profitability Dynamics

Regarding the Operating Profit of the segment, as packaging is a new and relatively small segment, Navigator reports it together with UWF operating profits, thus, it is not possible to determine it explicitly. The combined UWF and packaging EBIT margin is shown in Table 3.

Table 2: Packaging's Historical Revenue and Total Volume

	2021	2022	2023	2024	2025
Revenue (in € millions)	42	90	40	75	79
Total Volume Sold (kt)	45	99	40	80	89

UWF Segment Summary

Overview

UWF paper segment represents Navigator's traditional core business, centered on the production of high-quality office and printing paper. Currently, Navigator is not focused on expansion in its largest segment. Additionally, its CapEx-to-D&A ratio has averaged 0.93 over the past decade, indicating a slow gradual deterioration of its asset base. Instead, Navigator is concentrating on operational efficiency improvement, pursuing both cost leadership (benefiting from its high vertical integration level on the big scale) and differentiation (producing premium quality paper under its own brand) strategies.

Installed Capacity and Utilization rates

Total UWF capacity stands at 1,6 Mt and remains unchanged since 2017. Moreover, permanent available capacity of UWF is even lower (~1.5Mt), as 100kt is converged to packaging production. However, this conversion does not constrain Navigator in UWF production as the average utilization rate of the permanent available capacity is around 86% since 2019, which gives operational flexibility for the company to ramp up UWF production in case of raise in demand or convert even more capacity into packaging production without compromising its UWF operations.

Revenue Dynamic

Segment's revenues declined at a CAGR of 1.4% since 2019 (Table 3), with temporary spike in 2022 driven by peak of the pulp price cycle and customers restocking phase.[12] Sales volumes at the same time decreased at 1.9% CAGR and despite this negative trend, the rate of Navigator's UWF sales volume decline indicates relative resistance to the structurally deteriorating demand in the market overall, as European UWF consumption decreased at a faster CAGR of 5.2% over the same period.

Operating Profitability Dynamics

The operational profit margin of the segment is highly sensitive to commodity price fluctuations and sales volumes changes, which directly impacts revenues (Table 3). This reflects the company's capital-intensive asset base, which provides a high level of vertical integration and large-scale production but makes margins vulnerable to the revenue changes.

Table 3: UWF's Historical Revenue and EBIT %

	2019	2020	2021	2022	2023	2024	2025
Revenue (in € millions)	1 230	942	1 111	1 721	1 201	1 197	1 133
PIX A4 Copy-B (€/t)	903	836	843	1 216	1 206	1 107	1 003
Sales Volume UWF (kt)	1 447	1 276	1 429	1 401	1 091	1 145	1 208
EBIT Margin*	*21.7%*	*14.0%*	*17.9%*	*29.5%*	*23.5%*	*23.9%*	*15.9%*

*(Since 2021 EBIT margin figures include packaging as company does not report them separately on the operational level.)

Pulp Segment Summary

Overview

Company's pulp production is mainly used for internal consumption across its paper, packaging and tissue segments. This ensures cost control, supply reliability, and margin stability. However, surplus pulp is sold on the market. Thus, two out of three pulp mills are integrated into the production chain (Setúbal & Figueira da Foz) and primarily serve for internal needs, whereas Aveiro mill as a standalone facility is more market-oriented, while also supports other mills in case of disruptions.

Installed Capacity and Utilization rates

Overall, the installed capacity reached 1.63Mt by the end of 2025, representing an increase of approximately 5% since 2019. The average utilization rate stands at 93%, indicating that the company operates close to full capacity. On average around 24% of total production is sold on the market, slightly exceeding the output of the facility in Aveiro, which is dedicated to external sales and accounts for 22% out of total production on average.

Revenue and Operating Profitability Dynamics

Unlike other segments, Pulp revenues are not driven by any specific commercial strategy. The residuals after paper, packaging and tissue production determines the amount of pulp available for sale, while commodity prices follow its cyclical nature. As a result, the segment exhibits significant earnings volatility, with EBIT margins ranging from -9.7% to 26.4%. (Table 4)

Table 4: Pulp's Historical Revenue and EBIT %

	2019	2020	2021	2022	2023	2024	2025
Revenue (in € millions)	165	158	161	197	250	238	175
FOEX – BHKP (€/t)	762	596	867	1 232	959	1 143	979
Sales Volume (kt)	314	394	292	255	462	389	347
EBIT Margin	*26.4%*	*6.2%*	*25.3%*	*25.5%*	*4.5%*	*13.4%*	*-9.7%*

Energy Segment Summary

Overview

Energy segment as well as pulp segment was initially created for internal consumption. However, approximately 86% of Navigator's energy production is currently sold externally. This reflects the attractive pricing opportunities under Feed-in Tariff (FiT) regime, which allows the company to sell its renewable energy at above-market prices. Currently around 35% of Navigator's installed capacity operates under FiT contracts, which accounts for almost all of its energy production output. At the same time, the company purchases electricity from the market to fulfill its internal needs, benefiting from price differences. However, FiT-supported contracts will gradually expire starting from 2029 and reach zero by 2035, entirely shifting the energy segment from a revenue-generating to the internal consumption focus.

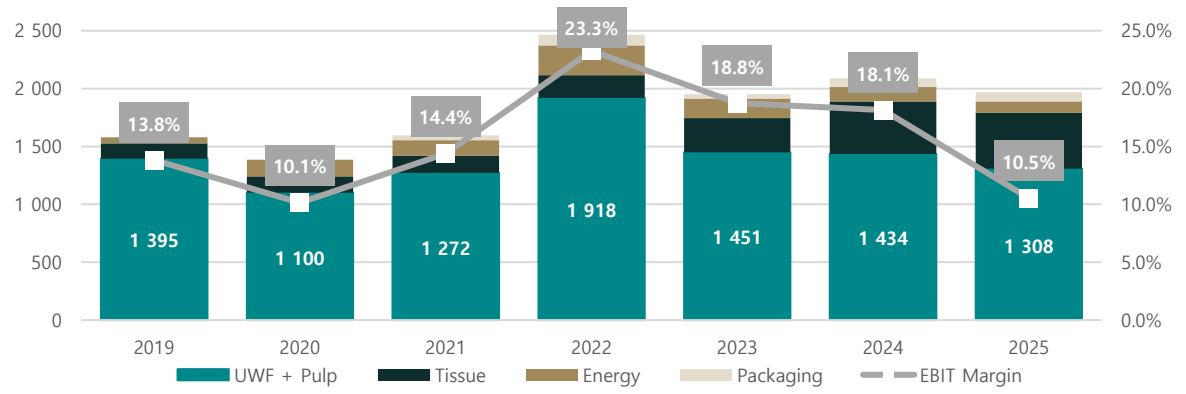
Table 5: Energy's Historical Revenue and EBIT %

	2019	2020	2021	2022	2023	2024	2025
Revenue (in € millions)	161	144	135	259	169	123	99
EBIT Margin	*13.4%*	*14.9%*	*6.1%*	*6.9%*	*33.0%*	*18.0%*	*11.1%*

3.3 Consolidated Revenue Mix and Profitability

Navigator's revenue mix already indicates a gradual structural shift in the company's operations focus. Reflecting the ongoing diversification strategy, the combined share of UWF and pulp declined from 83% of consolidated revenue in 2019 to 66% in 2025, while tissue share increased from 8% to 25% and packaging segment accounted for 4% of total sales in 2025. However, the shift away from structurally declining UWF towards growing tissue and packaging comes with a profitability trade-off. Historically, the company's consolidated EBIT margin has demonstrated a strong positive Pearson correlation (r = 0.89) with combined UWF and pulp revenues (see Appendix A4), implying that further diversification may increase pressure on overall operating profitability. (Figure 3)

Figure 3: NVG's Revenue Mix and Consolidated EBIT Margin



Source: The Navigator Company: *Annual Reports 2019 – 2025.*

The company's strong profitability dependence on the UWF and pulp is driven by historically higher margins of these segments. Despite their significant exposure to underlying commodity price volatility, on average they remained the most profitable segments for Navigator throughout the observed period. (Table 6)

Table 6: Segments' Operating Profitability

	2020	2021	2022	2023	2024	2025	Average
UWF + Pulp + Packaging	12.8%	18.8%	29.1%	20.2%	22.2%	12.7%	**19.3%**
Tissue	7.7%	13.0%	15.8%	21.3%	16.8%	13.1%	**14.6%**
Energy	14.9%	6.1%	6.9%	33.0%	18.0%	11.1%	**15.0%**

Source: The Navigator Company: *Annual Reports 2019 – 2025.*

Strong profitability in UWF and pulp segments is the result of long-time dedicated integration of each stage of the value chain into the company's production. Thus, Navigator performs wood harvesting, pulp production and bleaching, as well as paper reeling, cutting, and packaging, largely in-house. In contrast, tissue production remains only partially integrated and still requires additional investments to reach a comparable level of profitability.

Overall, Navigator's profitability stands out at the consolidated level. This superiority becomes especially apparent when compared with its main competitors (Appendix A2) and results in average gross profit margin (GPM) advantage of 33%. (Figure 4) While this outperformance moderates after accounting for operating costs (reflecting heavy asset base of the company), the advantage gained on the production level allows Navigator to record significantly higher operating margins than its competitors. (Figure 5)

Figure 4: Gross Profit Margin NVG vs Competitors

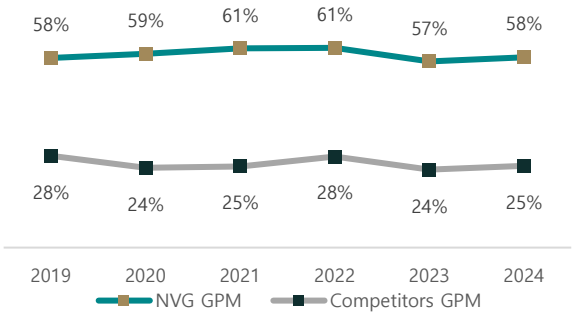
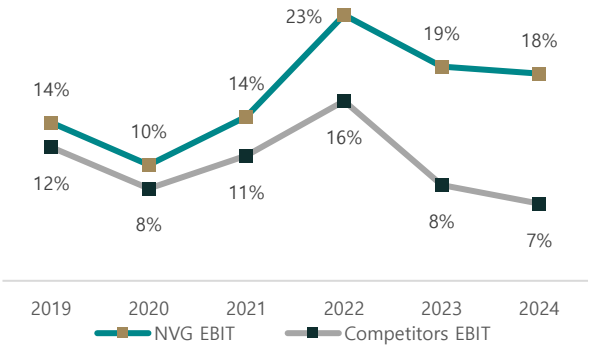


Figure 5: EBIT Margin NVG vs Competitors



Source: The Navigator Company: *Annual Reports 2019 – 2025 & Refinitiv Workspace for Competitors*

3.4 Value Creation Through Capital Efficiency

Capital Intensive Business Model

Due to its high level of vertical integration at big scale, Navigator operates with a structurally heavy asset base for the industry. As a result, Navigator has consistently recorded a higher capital intensity ratio ($CI = Average\ Total\ Assets\ /\ Revenue$) than its main competitors (Appendix A2) since 2021 (Figure 6), indicating that its operations require approximately 0.3x more assets per unit of revenue. This is further confirmed by its lower capital turnover ($Capital\ Turnover = Revenue\ /\ Average\ Invested\ Capital$, where $Invested\ Capital = Working\ Capital + PP\&E + Other\ Operational\ Assets$) relative to competitors, once again highlighting a lower level of Navigator's capital efficiency in revenue generation. (Figure 7) See Appendix A3.

Figure 6: Capital Intensity NVG vs Competitors

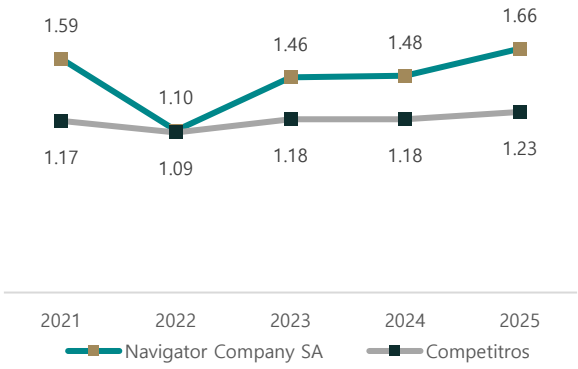
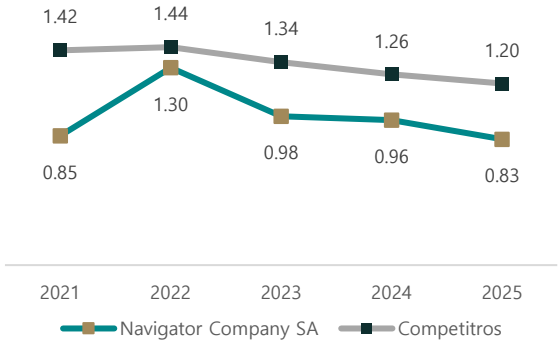


Figure 7: Capital Turnover NVG vs Competitors

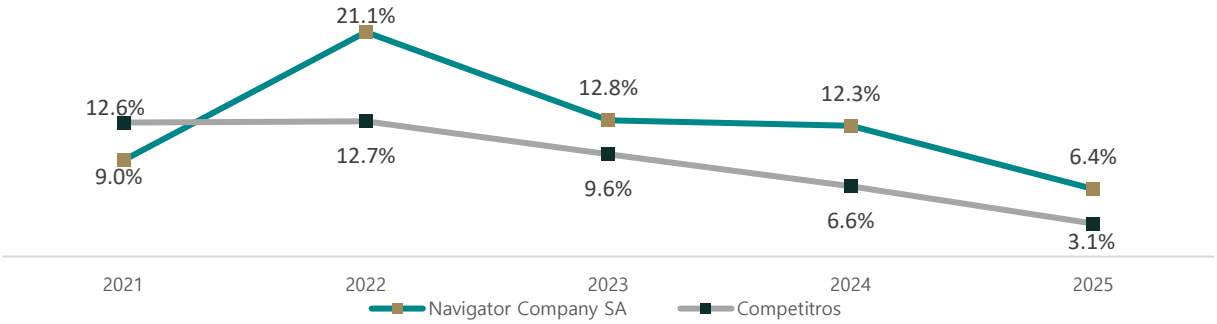


Source: The Navigator Company: *Annual Reports 2021 – 2025 & Refinitiv Workspace for Competitors*

Operational Superiority Through Capital Allocation Efficiency (CAE)

However, the heavier asset base structure pays off translating into stronger operating returns. The company has consistently delivered higher operating return on assets (OROA, EBIT / Avg Total Assets) than its competitors since 2022 (Figure 8), indicating that its large asset base is effectively utilized to support high level of vertical integration rather than merely expanding production capacity. See Appendix A3 for the ratios of each competitor.

Figure 8: Operating ROA NVG vs Competitors



Source: The Navigator Company: *Annual Reports 2019 – 2025 & Refinitiv Workspace for Competitors*

Segment-Level Capital Allocation Efficiency Analysis

A segment-level analysis provides further insight into how efficiently different business units allocate capital and contribute to Navigator's capital-intensive structure and operational performance. Despite Navigator's full vertical integration, the UWF + pulp segment has maintained higher average capital turnover (1.28 vs 0.93) and lower average capital intensity (1.29 vs 1.34) than the partially integrated Tissue segment since 2019 (Figure 9 and Figure 10), indicating more efficient asset deployment in revenue generation. This is primarily due to prematurity of the Tissue segment, which operates at structurally lower average utilization rates (84% for reels and 69% for finished products) compared with the UWF + pulp segment (83% and 93%, respectively). Nevertheless, the tissue segment has demonstrated a clear improvement in recent years, with increasing production output improving segment's capital allocation efficiency. At the same time, despite being mature segment UWF + pulp on average requires capital expenditures equal to 8.8% of revenues without production capacity extension, while developing and expanding tissue segment requires only 5.5%.

Figure 9: Capital Intensity UWF + Pulp vs Tissue

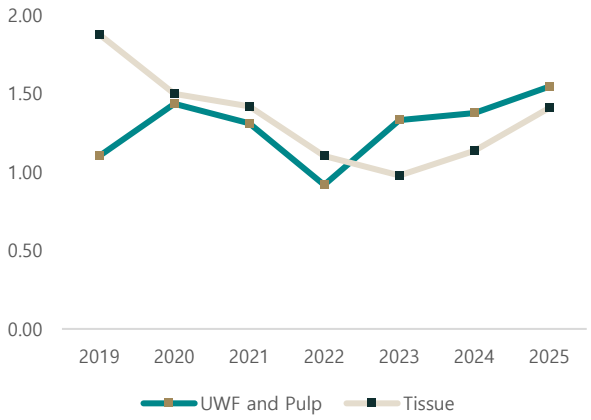
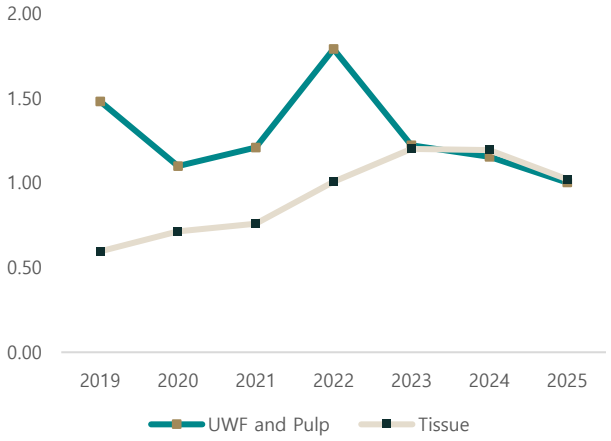


Figure 10: Capital Turnover UWF + Pulp vs Tissue

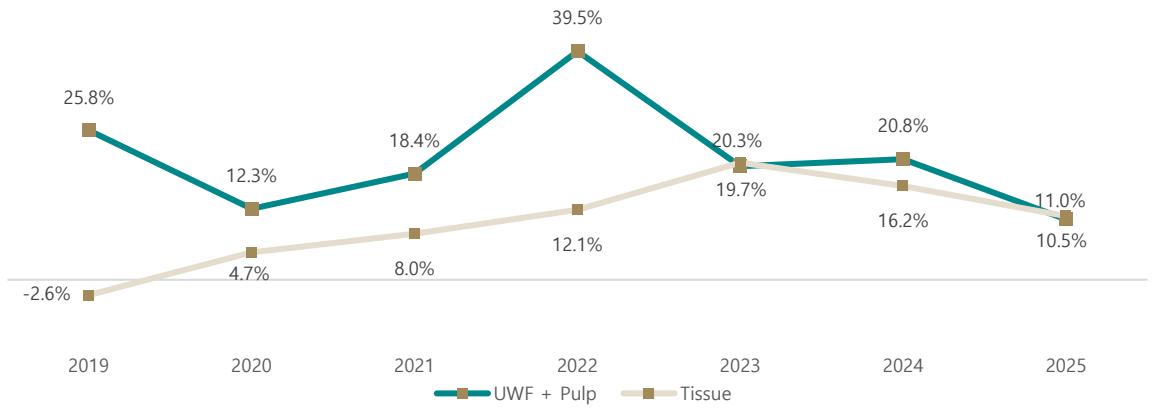


Source: The Navigator Company: *Annual Reports 2019 – 2025*

However, capital demanding operations of UWF + pulp segment still stay superior in terms of operational efficiency relative to tissue. Despite company's focus on tissue segment development, it still operates at a lower level of return on invested capital ($ROIC = NOPAT/Invested\ Capital^{*}$) with average gap of approximately 8.1% in spite of strong dependence on the commodity price volatility of UWF + pulp segment. (Figure 11)

*Note that, in the segment-level ROIC computation, Goodwill is excluded from Other Operational Assets, allowing the ratio to reflect only capital actively deployed in operations.

Figure 11: ROIC: UWF + Pulp vs Tissue



Source: The Navigator Company: *Annual Reports 2019 – 2025*

ompany's ability to consistently generate high returns on its capital but also negatively impact both equity holders and debt providers' returns. Since, as a result of its superior operational efficiency, UWF + pulp segment generate significantly stronger cash flow returns than tissue, delivering approximately 0.19 FCFF to invested capital, compared to only 0.11 in the tissue segment. See Appendix A5 for all calculations.

Value Creation

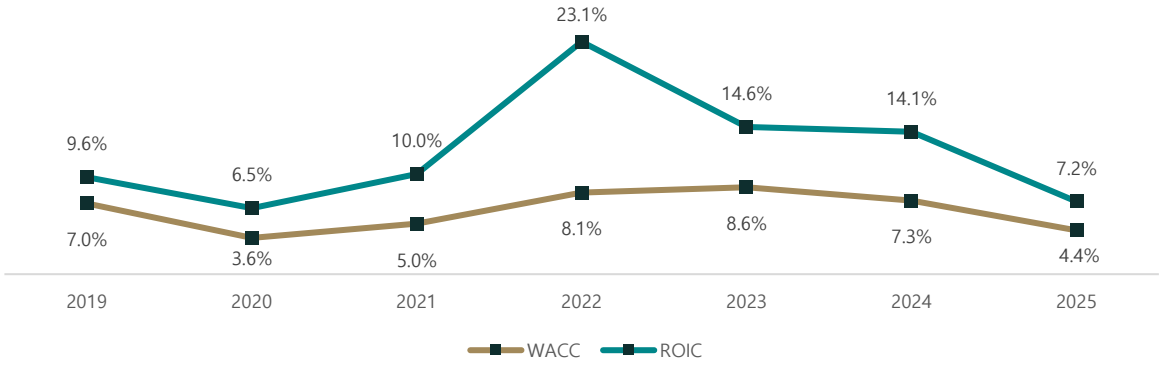
Navigator's performance extends beyond accounting profitability as company consistently generates economic value by exceeding its required return metrics. Navigator's ROIC exceeded weighted average cost of capital in every observed period with an average spread of 5.9 percentage points (4.4% excluding 2022). (Figure 12) As discussed previously, profitability has been the key differentiating factor in the company's performance, while its capital-intensive business model has constrained capital turnover. In this context, the ROIC decomposition (Table 7) represents that the main driver of value creation lies in superior NOPAT margin, while capital turnover lags behind the industry average.

Table 7: ROIC Decomposition NVG vs. Competitors

		2021	2022	2023	2024	2025
Navigator	Capital Turnover	0.85	1.30	0.98	0.96	0.83
	NOPAT Margin	11.6%	17.7%	14.9%	14.7%	8.7%
	ROIC	10.0%	23.1%	14.6%	14.1%	7.2%
Competitors	Capital Turnover	1.42	1.44	1.34	1.26	1.20
	NOPAT Margin	11.2%	9.1%	8.1%	6.0%	3.2%
	ROIC	**13.4%**	**11.5%**	**10.8%**	**8.7%**	**4.5%**

Source: The Navigator Company: *Annual Reports 2019 – 2025 & Refinitiv Workspace for Competitors*

Figure 12: ROIC vs WACC



Source: The Navigator Company: *Annual Reports 2019 – 2025 & Refinitiv Workspace for WACC*

Discount Rate

The following presents Navigator's WACC and cost of equity by segment for the beginning of 2026. (Table 8) The estimates reflect segment-specific country risk exposure, as well as different betas for each segment, further adjusted for cash holdings and leverage. The derivation of Cost of Capital in more detail is shown in Appendix A6.

Table 8: Cost of Equity and Cost of Capital

Cost of Equity			
Pulp and UWF	Tissue	Packaging	Energy
9.4%	8.3%	10.3%	7.8%
Weighted Average Cost of Capital			
Pulp and UWF	Tissue	Packaging	Energy
7.5%	6.7%	8.1%	6.4%

3.5 Diversification Strategies Under Consideration

Facing a structural decline in traditional paper demand, NVG must define a clear diversification strategy. While diversification is essential for long-term resilience, it involves short-term trade-offs described above. Although initial steps into new segments have already been taken, key decisions regarding the pace and scale of this transition remain unresolved. Case study provides two alternative strategic pathways that differ in investment intensity and risk exposure:

1. **Continuation of the Ongoing Strategy**

This strategy follows currently announced strategic plan of diversification, executing already announced investments in tissue and packaging while maintaining UWF + pulp without additional capital injections. Therefore, packaging capacity is expected to increase in 2027 reaching 200kt and tissue profitability is going to improve after commissioning reels machine for UK operations in 2028. This approach should allow the company to navigate smoother through profitability disruptions associated with diversification, at the cost of slower growth in future-oriented segments and remaining high dependence on commodity price volatility.

2. **Accelerated Organic Diversification**

This strategy includes additional investments in packaging capacity (up to 400kt) and full vertical integration of the recently acquired facilities in UK and Spain in tissue segment. Under this strategy Navigator is expected to accelerate its growth in packaging segment and improve operating performance in tissue segment alongside a small benefit in revenue, while giving up cash generation and profitability of UWF + pulp segment.

Sensitivity Analysis

As pulp and UWF prices exhibit cyclical behavior the timing and magnitude of future cycles remain highly uncertain. Therefore, to account for company's earnings exposure to commodity prices, each diversification strategy was stress tested under alternative commodity price scenarios. The analysis uses PIX A4 Copy-B and FOEX BHKP prices as benchmarks for UWF paper and pulp pricing, as they were explicitly identified as relevant market references by NVG. Each alternative scenario was modeled using the same framework: short-term prices (2026 – 2027) were forecasted to reflect the cyclical nature of pulp and UWF prices based on the observed signs of market recovery, while longer-term price development was assumed as convergence toward the normalized trend. The bull, bear and base scenarios differ in the pace of normalization in the long-term trend growing by different historically observed CAGRs.

The base scenario uses a normalized post-pandemic trend (CAGR of 1.3%) in the long term. CAGR is derived from the period between cycle's peak in 2022 and bottom in 2025.
The bull scenario assumes application of a stronger normalized long-term trend thereafter equal to the CAGR of 2.6% observed from 2015 until 2025.
The bear scenario applies a slightly negative long-term normalized CAGR equal to -0.2% which corresponds to the pre-pandemic commodity price growth dynamic in 2016-2019.

All scenarios imply a commodity cycle with an average historical magnitude in the short-term (2026-2027) and different normalized trend thereafter. No influence of commodity price on UWF and Pulp production quantity is expected as normalized figures are used. Slight changes in other segments appear due to different allocation of energy segment expiration benefits between segments as it is determined by revenue proportions.

Q&A Section:

A. What are the strategic trade-offs associated with each diversification strategy?
B. Which are the risks of execution of each diversification strategy?
C. Can controlling and minority shareholders prefer different strategies and why?

4. Teaching Notes

4.1 Objectives and Desired Outcomes

The case study challenges students to critically evaluate Navigator's potential strategic business decisions regarding diversification in a gradually declining demand environment of the P&W paper market. The main goal is to assess different diversification strategies from UWF paper production toward tissue and packaging. Therefore, students are required to analyze each strategy's profitability, capital allocation efficiency, value creation and shareholder returns and explain their reasoning. The analysis should include the identification of the trade-offs associated with pursuing each diversification strategy across all key evaluation criteria mentioned earlier, identification of possible risks and opportunities as well as accounting for the potential threats from unexpected commodity price fluctuations.

4.2 Case Facilitation Guide

1) Prerequisite Knowledge and Recommended Readings

a) Strategic Valuation and Value Creation Frameworks

Students are required to show a deep understanding of the DCF SoP valuation approach and its key inputs. This includes familiarity with the definition and interpretation of FCFF, value creation concepts (ROIC and EVA), terminal growth rate determination, as well as WACC estimation. In addition, students should be able to evaluate alternative business growth strategies accounting for market factors, potential operating synergies, execution risks, and long-term value creation opportunities along with short-term sacrifices. The case further requires students to interpret financial information and quantitative evidences to develop strong narratives which will support their conclusions.

Recommended readings:

- Damodaran, A. (2017). *Narratives and Numbers: The Value of Stories in Business*
- Koller, T. (2020). *Valuation: Measuring and Managing the Value of Companies*
- Ansoff, H. I. (1957). *Strategies for Diversification. Harvard Business Review.*

b) Dividend Policy Theory and Shareholder Returns

The case study expects students to understand the role of dividend policy in firm's value determination and its relationship with the investment decisions, value creation, and shareholder preferences. The case requires evaluating how different strategic choices may affect cash generation, dividend distributions, and the potential trade-offs between short-term shareholder returns and long-term value creation.

Recommended readings:

- Miller, M. H., & Modigliani, F. (1961). *Dividend Policy, Growth, and the Valuation of Shares*
- Bhattacharya, S. (1979). *Imperfect Information, Dividend Policy, and the Bird in the Hand Fallacy*
- Barber, B. M., & Odean, T. (2000). *Trading Is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors*.

c) Corporate Governance and Principal–Principal Conflict Theory

Understanding of the nature of Principal–Principal conflict in concentrated ownership structures and how different shareholder groups may have different priorities in dividends, cash generation, and long-term value creation is essential for this case study. The case requires evaluating whether controlling and minority shareholders may prefer different paths for company's strategic development based on their expectations regarding investments risks and returns.

Recommended readings:

- Li, J., & O'Connor, A. (2011). *Corporate Governance, Principal–Principal Agency Conflicts, and Firm Value*.
- Young, M. N., Peng, M. W., Ahlstrom, D., Bruton, G. D., & Jiang, Y. (2008). *Corporate Governance in Emerging Economies: A Review of the Principal–Principal Perspective*.

2) Recommended Discussion Sequence and Suggested Time Allocation

To maximize the educational value of the case study, instructors are advised to guide the discussion through a sequence that progressively connects strategic context with financial analysis, strategy evaluation and finishes with core governance question discussion:

Step 1 – Establish the Strategic Context (Sections 1 and 2)

Step 2 – Analyze Navigator's Current Position (Section 3)

Step 3 – Compare Diversification Strategies (Section 4.3)

Step 4 – Evaluate Execution Risks and Trade-offs (Question A and B)

Step 5 – Discuss Possible Governance Conflicts of Interests (Question C)

The questions are designed for 90-minute class discussion:

Question A – 40 minutes

Question B – 20 minutes

Question C – 30 minutes

4.3 Diversification Strategies Analysis

A. Continuation of the Ongoing Strategy

Revenue Mix

The first strategy represents Navigator's conservative diversification strategy and is aligned with currently announced strategic plan. Under this approach, the share of UWF and pulp in the company's revenue mix is expected to continue declining at a moderate pace, reaching 61.2% by 2032. Meanwhile, the contribution of the tissue and packaging segments is projected to increase to 29.3% and 8.6%, respectively due to underlying market growth in tissue segment and capacity driven growth in packaging. Finally, the energy segment is expected to gradually phase out following the expiration of FiT-supported units in 2029 and 2030 (a dynamic common across both strategies) (Table 9). Check Appendix B1 for more details.

Table 9: Strategy 1 – Forecasted Revenues

	A2025	F2026	F2027	F2028	F2029	F2030	F2031	F2032
Consolidated	**1 970**	**1 947**	**2 121**	**2 212**	**2 246**	**2 214**	**2 258**	**2 302**
UWF + Pulp	66.4%	63.2%	63.8%	63.2%	62.4%	63.4%	62.2%	61.2%
Packaging	4.0%	4.7%	5.7%	6.2%	6.9%	7.7%	8.2%	8.6%
Tissue	24.6%	26.5%	25.4%	25.6%	26.4%	28.0%	28.6%	29.3%
Energy	5.0%	5.7%	5.1%	4.9%	4.3%	1.0%	1.0%	1.0%

Operating Performance Dynamics

Consolidated EBIT margin is projected to partially recover from the 2025-2026 decline following commodity prices rebound and macroeconomic stabilization. However, it is not expected to return to the historical peaks during the forecasted period due to the continuation of the diversification strategy. The shift away from UWF and pulp, historically highest-margin segment, toward tissue and packaging will constrain the recovery of consolidated margins.

Despite recently announced investments in tissue reels capacity, which are expected to lift the segment's EBIT margin to an average of 13.9% based on The Navigator's guidance in the Consolidated Annual Results of 2025 (vs. 11.7% historically), the tissue segment will still operate with structurally lower margins as its UK operations are not fully vertically integrated.

Packaging, despite having the highest projected average EBIT %, among all segments (18.1%), still represents a negligible portion of forecasted revenues and is therefore too immature to materially influence consolidated results. The segment's superior profitability is primarily supported by shared production stages with the mature UWF and pulp segment, lower exposure

to commodity price volatility, limited competition due to the industry's relative immaturity, and regulatory support for sustainable packaging products.

The UWF and pulp segment is expected to maintain a solid profitability level, with an average EBIT margin of 16.4%. Nevertheless, this remains below the historical average of 19.7% as the gradual conversion of production capacity in favor of packaging, together with structurally deteriorating demand conditions and the recent commodity price disruption, is expected to continue pressuring profitability across the sector. Therefore, consolidated operating margin averages at 14.0% in the forecasted period in contrast with historical 15.6%. (Table 10) Look for other Income Statement assumptions in Appendix B2.

Table 10: Strategy 1 – Forecasted EBIT Margin

	A2025	F2026	F2027	F2028	F2029	F2030	F2031	F2032
Consolidated	**10.5%**	**9.1%**	**13.1%**	**14.9%**	**14.9%**	**15.0%**	**15.1%**	**15.7%**
UWF + Pulp	12.7%	9.6%	15.0%	17.4%	17.7%	18.2%	18.2%	18.9%
Packaging	-	14.9%	18.0%	18.3%	18.3%	18.9%	19.0%	18.9%
Tissue	13.1%	12.9%	12.7%	14.0%	13.7%	14.4%	14.8%	14.9%

Capital Requirements

Capital requirements consist primarily of maintenance expenditures and previously announced investments in the packaging and tissue segment aimed at increasing production capacity in packaging and deepening the level of vertical integration in tissue. Therefore, the CapEx/Revenue ratio averages 10.0% during the forecasted period, compared to the historical average of 9.5%, reflecting increased maintenance CapEx in the tissue segment following the acquisitions completed in 2023 and 2024. Look at Appendix B3 for more details.

Capital Allocation Efficiency

Company's CT metrics in the forecasted period are expected to be supported by increasing utilization rates in the tissue segment (CT: 0.93 vs. 1.06) but pressured by the deterioration of the UWF segment (CT: 1.28 vs. 1.08). Meanwhile, CT of the packaging segment is projected to be lower than UWF (CT: 1.02) due to gradual ramp-up of utilization rates. Overall, consolidated CT is expected to slightly deteriorate, reaching a forecasted average of 0.89 compared to the historical average of 0.94, reflecting lower efficiency in the use of invested capital for revenue generation due to investments in value chain integration rather than revenue generation in tissue and decrease of utilization rates in UWF. Consequently, driven by both

lower CT and weaker operating profitability, the projected average of consolidated operating ROA equals 9.3%, representing a decline of 1.6 percentage points relative to the historical result. See Appendix B6.

Value Creation

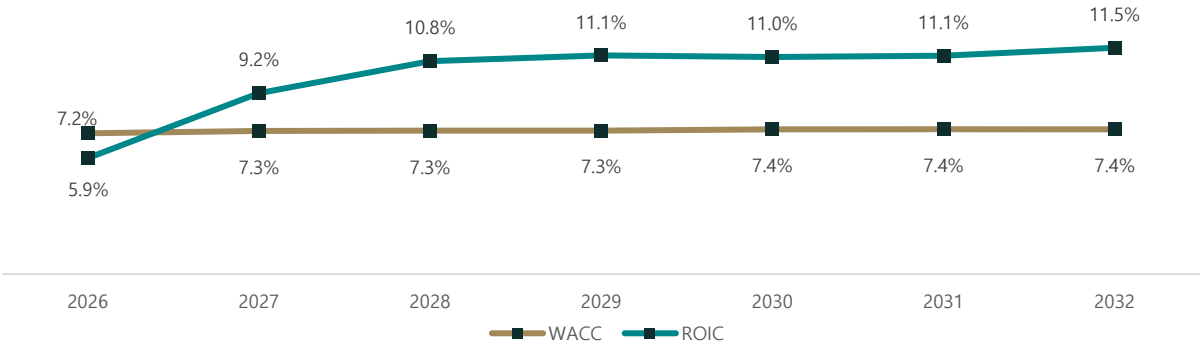
UWF and pulp segment's ROIC is expected to remain superior to tissue during the forecasted period. However, the average spread between the segments is projected to narrow significantly, declining from 8.1 percentage points historically to only 2.4 percentage points in the forecasted period. (Table 11) This convergence follows the patterns discussed previously, reflecting improving efficiency in the tissue segment alongside the gradual deterioration of returns in the mature UWF and pulp segment. Packaging segment demonstrates the highest average ROIC among all segments during the forecasted period, primarily due to outperformance in 2026–2027 resulting from lower exposure to the commodity cycle bottom. However, following the recovery period, the UWF and pulp segment is expected to surpass packaging.

Table 11: Strategy 1 – ROIC

	A2025	F2026	F2027	F2028	F2029	F2030	F2031	F2032
Consolidated	**7.2%**	**5.9%**	**9.2%**	**10.8%**	**11.1%**	**11.0%**	**11.1%**	**11.5%**
UWF + Pulp	10.5%	6.3%	11.4%	14.1%	14.9%	15.3%	14.7%	14.9%
Packaging	-	10.2%	14.3%	13.9%	13.9%	14.0%	13.8%	13.3%
Tissue	11.0%	9.8%	9.2%	10.1%	10.2%	11.1%	12.0%	12.6%

On the consolidated level, Navigator is projected to continue creating economic value throughout the forecasted period almost in all years except for 2026 as geopolitical and natural events alongside the bottom phase of the commodity price cycle materially impacted. Following the recovery in 2027, the average spread between ROIC and the required return is projected to stabilize at approximately 2.8% (Figure 13) showing a slight increase in the last forecasted year due to full depreciation of existing by 2026 energy segment's assets.

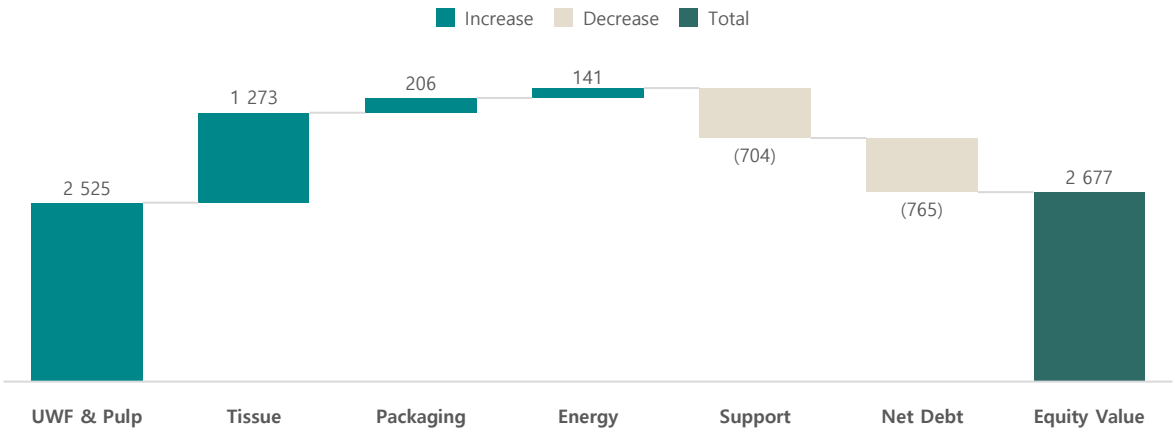
Figure 13: Strategy 1 – ROIC vs WACC (Forecasted)



Shareholder Returns

The DCF SoP valuation under this strategy results in an Enterprise Value of €3.441 billion, where UWF and pulp account for 61%, tissue for 31%, packaging for 5%, and the liquidating energy segment for 3%. After accounting for Net Debt, Non-Controlling Interests, and the overfunded defined benefit plan, the implied Equity Value equals €2.677 billion, corresponding to €3.76 per share. (Figure 14) Check Appendix B4 for DCF SoP inputs.

Figure 14: Strategy 1 – Equity Value Bridge by Business Segment



Under this strategy, Navigator is projected to generate around 0.08 FCFF per unit of IC (vs. 0.11 historically, excluding M&A expenditures from FCFF) and 0.09 FCFF per unit of revenue (vs. 0.12 historically, excluding M&A expenditures from FCFF), reflecting the decline of its main cash-generating segment. However, as the strategy under consideration is not capital-intensive and does not project further acquisitions, income investors can expect Navigator to continue allocating a significant portion of its net income to dividends, resulting in a higher average DPS of 0.30 during the forecasted period (vs. 0.27 historically). See Appendix B6.

Continuation of the Ongoing Strategy – Sensitivity Analysis

Bear Scenario

Under the bear scenario, UWF and pulp revenues reach €1.341 billion by 2032 (vs. €1.408 billion in the base scenario), which corresponds to 60.0% of total revenues in that year (vs. 61.2%). Following the revenue decrease, the segment's EBIT margin averages 14.9% (vs. 16.4%), reducing average consolidated EBIT margin to 13.0% (vs. 14.0%).

The company's capital turnover figures also reflect the commodity price decline. Thus, the UWF and pulp segment's CT falls to 1.06 (vs. 1.08), accelerating the existing deterioration in the segment and slightly decreasing consolidated CT (0.88 vs. 0.89).

Therefore, following the decline in EBIT and CT, the company's ROIC reaches only 10.0% by 2032 (vs. 11.5%) and results in an average ROIC of 9.2% (vs. 10.1%) during the forecasted period. The UWF and pulp segment's ROIC averages at 11.5% (vs. 13.1%) and, unlike in the base scenario, shows a gradual decline during last forecasted years.

The implied share price under this scenario equals €3.20 (vs. €3.76, a decrease of 15.1%), reflecting the decrease of the UWF and pulp segment's EV to €2.098 billion (vs. €2.525 billion: -16.9%) due to weaker segment's ROIC. Following the revenue decline, the company's FCFF to Invested Capital and FCFF to Revenue also decrease, reaching 0.07 and 0.08, respectively (vs. 0.08 and 0.09). Expected dividends consequently decrease as well, with average DPS reaching 0.26 (vs. 0.30). Overall, the bear scenario has a stronger impact on the terminal value, as the effects of declining commodity prices become more pronounced over the long term.

Bull Scenario

Under the bull scenario, the faster pace of commodity price growth lifts the UWF and pulp segment's revenues to €1.515 billion by 2032 (vs. €1.408 billion in the base scenario), which represents 62.9% of total revenues. Average consolidated EBIT margin increases to 14.9% (vs. 14.0%), following the revenue-driven increase in the EBIT margin of the UWF and pulp segment (17.9% vs. 16.4%).

Capital turnover of the company also benefits from the underlying commodity price growth and averages 0.90 during the forecasted period (vs. 0.89), while UWF and pulp segment reaches 1.11 (vs. 1.08).

Therefore, UWF and pulp's ROIC reaches 19.2% by 2032 (vs. 14.9%), with an average of 14.7% during the forecasted period (vs. 13.1%). Consolidated ROIC reaches an average of 11.0% during the forecasted period (vs. 10.1%), with 13.9% in the final year (vs. 11.5%).

The implied share price under this scenario equals €4.59 (vs. €3.76, increase by 22.1%), reflecting the increase in the UWF and pulp segment's EV to €3.146 billion (vs. €2.525 billion an increase of 24.6%) due to stronger segment's ROIC. Additional revenues are also reflected in the company's FCFF generation ability. Thus, under the bull scenario, the company is expected to generate 0.09 FCFF per unit of invested capital (vs. 0.08) and 0.10 FCFF per unit of revenue (vs. 0.09), which allows the company to allocate an average DPS of 0.33 during the forecasted period (vs. 0.30).

Table 12: Strategy 1 – Sensitivity Analysis Results

	Bear Scenario			Base Scenario			Bull Scenario		
	2030	2031	2032	2030	2031	2032	2030	2031	2032
Revenue	2 164	2 200	2 235	2 214	2 258	2 302	2 267	2 337	2 409
EBIT %	13.6%	13.6%	13.9%	15.0%	15.1%	15.7%	16.3%	17.2%	18.3%
CT	0.89	0.89	0.88	0.91	0.91	0.90	0.93	0.93	0.94
ROIC	9.8%	9.7%	10.0%	11.0%	11.1%	11.5%	12.3%	13.0%	13.9%
FCFF/IC	0.07	0.06	0.08	0.08	0.07	0.09	0.09	0.08	0.11
FCFF/Revenue	0.07	0.06	0.09	0.08	0.08	0.10	0.09	0.09	0.12
DPS	0.30	0.29	0.29	0.33	0.33	0.46	0.37	0.37	0.55
Share price	3.20 (-15.1%)			3.76			4.59 (+22.1%)		

B. Accelerated Organic Diversification

Revenue Mix

The second strategy represents Navigator's more aggressive diversification strategy. Under this approach, packaging capacity will additionally increase to 300kt in 2029 and 400kt in 2031 (which will reduce UWF production capacity by the same amount), while the UK and Spain tissue operations will become fully integrated by 2030. Thus, until 2029, the only revenue differences between the two strategies are the different pace of packaging growth and, consequently, the different amount of pulp available for sale on the market. UWF and Tissue revenues are expected to remain identical between the two strategies until 2029 and 2030, respectively, when the decline in UWF capacity becomes a constraint and the commissioning of another reels machine occurs. Therefore, the share of UWF and pulp in the company's revenue mix is expected to reach 54.4% by 2032. Meanwhile, the contribution of the tissue and packaging segments is projected to increase to 29.9% and 14.8%, respectively. (Table 13) Check Appendix B1 for more details.

Table 13: Strategy 2 - Forecasted Revenues

	A2025	F2026	F2027	F2028	F2029	F2030	F2031	F2032
Consolidated	**1 970**	**1 947**	**2 126**	**2 223**	**2 219**	**2 209**	**2 237**	**2 300**
UWF + Pulp	66.4%	63.2%	63.5%	62.4%	60.0%	59.8%	56.8%	54.4%
Packaging	4.0%	4.7%	6.0%	7.2%	8.9%	10.9%	12.8%	14.8%
Tissue	24.6%	26.5%	25.4%	25.5%	26.7%	28.4%	29.4%	29.9%
Energy	5.0%	5.7%	5.1%	4.9%	4.3%	1.0%	1.0%	1.0%

Operating Performance Dynamics

In this strategy, additional investments in tissue reels capacity are expected to increase the segment's EBIT margin to an average of 14.9% (1.1% higher than in Strategy 1). The superiority of operating performance in this strategy becomes noticeable from 2030, following the commissioning of a new reels machine. Before, the EBIT margin of the segment is even lower under this strategy due to higher D&A figures resulting from additional investments.

Packaging, similarly, to the first strategy, is expected to account for the highest projected average EBIT margin among all segments (19.3%), however, with slightly more significant contribution to consolidated results due to its higher revenue share. The segment's superior profitability is explained by the same factors, however, under this strategy Navigator captures larger portion of market growth.

UWF and pulp segment's operating performance is almost identical between 2 diversification strategies until 2028, as the only difference is pulp revenues. Afterwards margins are expected to go down due to lower available capacity for UWF production. Thus, UWF and pulp segment' EBIT margin is expected to average around 15.5%. Therefore, consolidated operating margin averages at 13.9%. (Table 14) Check
Appendix B2 for Income Statement's assumptions.

Table 14: Strategy 2 – Forecasted EBIT Margin

	A2025	F2026	F2027	F2028	F2029	F2030	F2031	F2032
Consolidated	**10.5%**	**9.1%**	**13.2%**	**15.0%**	**14.2%**	**14.7%**	**15.1%**	**15.9%**
UWF + Pulp	12.7%	9.6%	15.1%	17.3%	16.6%	16.8%	16.3%	17.0%
Packaging	-	14.9%	19.2%	20.6%	19.3%	21.2%	19.8%	19.8%
Tissue	13.1%	12.9%	12.7%	13.8%	13.2%	15.3%	18.2%	18.6%

Capital Requirements

Under second strategy company's CapEx/Revenue ratio is expected to average at 11.3% (1.3 percentage points higher than in Strategy 1) reflecting additional investments in packaging and tissue segments as well as maintenance of UWF and pulp. Check Appendix B3 for more details.

Capital Allocation Efficiency

Consolidated capital turnover is expected to be lower than under the first strategy, averaging at 0.86 (CT Strategy 1: 0.89). This result is explained by faster decline of utilization rates in UWF and investments focused on operational integration of tissue. Therefore, capital turnover in UWF and pulp segment is projected at average of 1.05 while tissue's average is expected to

be around 0.96. Meanwhile, capital turnover of the packaging segment is higher than under the first strategy (1.04 vs. 1.02) due to faster growth of utilization rates. Subsequently, operating ROA is expected to be lower than under the first strategy, averaging 9.0%. See Appendix B6.

Value Creation

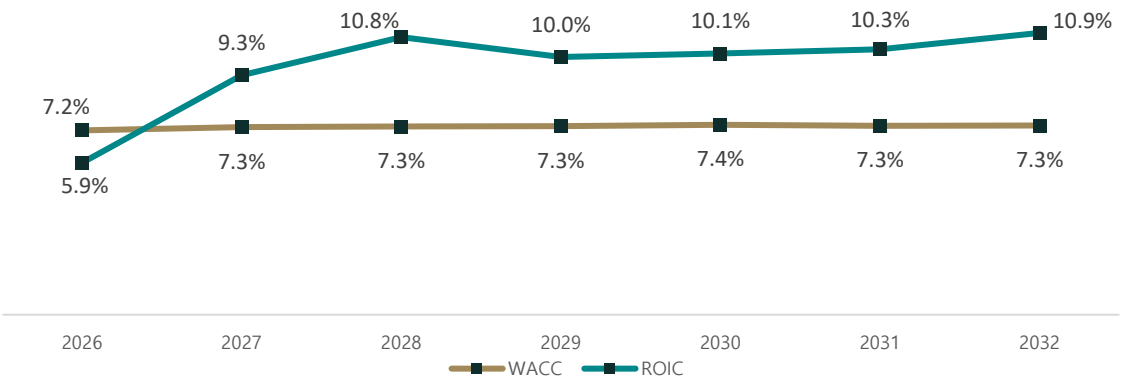
As under the first strategy, the UWF and pulp segment's ROIC is expected to remain higher than tissue's, with an average gap of 1.5 percentage points. However, the difference compresses mostly due to lower ROIC in the UWF segment (12.0% vs. 13.1%), while tissue's ROIC remains almost unchanged across both strategies (10.5% vs. 10.7%). Reflecting higher capital requirements in the tissue segment under this strategy, tissue's ROIC is expected to remain lower until 2030, after which it is projected to exceed the results of the first strategy. Packaging segment again shows the highest ROIC among all segments. (Table 15)

Table 15: Strategy 2 – ROIC

	A2025	F2026	F2027	F2028	F2029	F2030	F2031	F2032
Consolidated	**7.2%**	**5.9%**	**9.3%**	**10.8%**	**10.0%**	**10.1%**	**10.3%**	**10.9%**
UWF + Pulp	10.5%	6.3%	11.5%	14.0%	13.4%	13.6%	12.4%	12.6%
Packaging	-	10.2%	15.7%	16.1%	14.6%	15.6%	14.5%	14.9%
Tissue	11.0%	9.8%	9.2%	9.5%	8.6%	10.1%	12.5%	13.5%

On the consolidated level, Navigator is still expected to create economic value under this strategy, however, the average spread between ROIC and the required return is projected at approximately 2.3%. (Figure 15) This result reflects the faster shift away from mature UWF and pulp segments, which can generate high ROIC immediately following the recovery period after 2027, while tissue, being a younger and less mature segment, reaches higher ROIC only after commissioning the new machine and returning to maintenance CapEx levels. Thus, even though tissue's ROIC surpasses UWF and pulp in 2031 under this strategy, it is still not enough to offset the decline in UWF and pulp ROIC between the strategies.

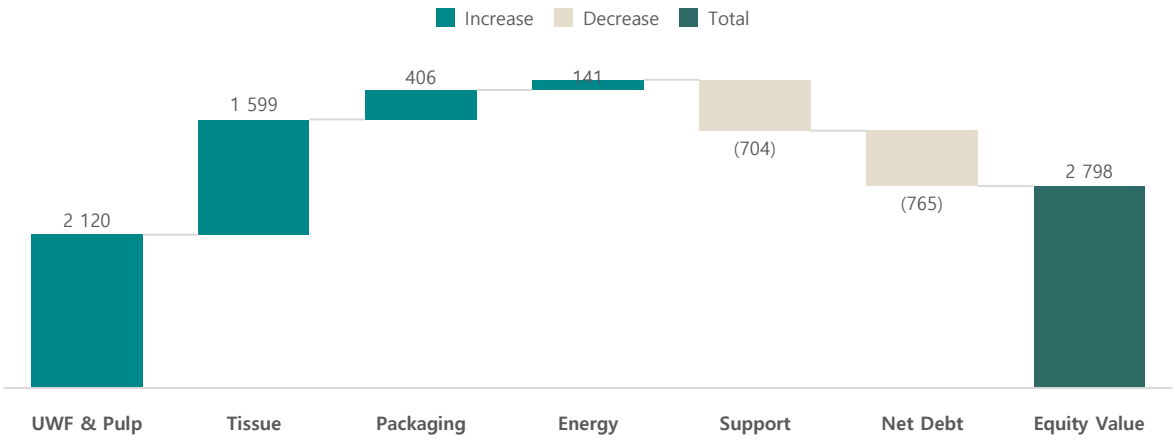
Figure 15: Strategy 2 – ROIC vs WACC (Forecasted)



Shareholder Returns

The DCF SoP valuation under the second strategy results in an Enterprise Value of €3.562 billion, where UWF and pulp account for 50%, tissue for 37%, packaging for 10%, and the liquidating energy segment for 3%. After accounting for Net Debt, Non-Controlling Interests, and the overfunded defined benefit plan, the implied Equity Value equals €2.798 billion, corresponding to €3.93 per share. (Figure 16) Check Appendix B4 for the inputs.

Figure 16: Strategy 2 – Equity Value Bridge by Business Segment



Under the second strategy, Navigator is projected to generate lower FCFF per invested capital and revenue (0.07 and 0.08, respectively), reflecting the faster decline of UWF and higher capital requirements of the tissue and packaging segments. Thus, under this strategy, The Navigator Company is expected to allocate only around €0.27 in dividends per share, with the difference in expected DPS between strategies being primarily explained by differences in capital expenditure requirements. See Appendix B6.

Accelerated Organic Diversification – Sensitivity Analysis

Bear Scenario

Under the bear scenario, company's consolidated revenues reach 2.243 billion euros (vs. €2.300 billion in the base scenario), representing a decrease of 2.5%. Consolidated EBIT margin averages 13.0% (vs. 13.9%) reaching 14.4% in year 2032 (vs. 15.9%). Overall, the impact of the bear scenario on both revenues and profitability remains broadly consistent with the Continuation of the Ongoing Strategy (final year revenue decrease: 2.9%, consolidated average EBIT margin decrease: 1.0% and final year consolidated EBIT margin decrease: 1.8%), indicating limited resilience of the Accelerated Organic Diversification Strategy to commodity price downturns in the short term.

Commodity price decline leads to further weakening of capital allocation efficiency in the segment (CT: 1.03 vs. 1.05) and leads to a deterioration of consolidated CT (0.85 vs. 0.86).

Therefore, the company's ROIC declines by 11.0% in 2032 (9.7% vs. 10.9% in the base scenario) and averages 8.9% during the forecasted period (vs. 9.6%), representing a decrease of 7.3%. In contrast, under the bear scenario of the Continuation of the Ongoing Strategy, ROIC declines by 13.0% (10.0% vs. 11.5%) in 2032, while the average ROIC during the forecasted period decreases by 8.9% (9.2% vs. 10.1%), indicating slightly greater resilience of the second strategy in preserving value creation ability under commodity price decline.

The implied share price under this scenario equals €3.47 (vs. €3.93, representing a decrease of 11.8%), indicating greater stability under declining commodity price environment than the Continuation of the Ongoing Strategy where price decreased by 15.1% (€3.20 vs. €3.76).

Following the revenue decline, the company's FCFF to Invested Capital and FCFF to Revenue also decreased, reaching 0.06 and 0.07, respectively (vs. 0.07 and 0.08). Expected dividends decrease moderately by 7.4%, with average DPS reaching 0.25 (vs. 0.27), compared to a 13.3% decline in DPS under the Continuation of the Ongoing Strategy.

Therefore, the bear scenario under Accelerated Organic Diversification strategy demonstrates moderately greater resilience to commodity price declines than the Continuation of the Ongoing Strategy scenario across all key evaluation metrics in the short term, with this resilience gradually increasing over time.

Bull Scenario

Under the bull scenario, the faster pace of commodity price growth lifts consolidated revenues to €2.392 billion by 2032 (vs. €2.300 billion in the base scenario), representing growth of 4.0%. Consolidated EBIT margin increases to 14.7% (vs. 13.9%), with a 2.2 percentage point increase in 2032 (18.1% vs. 15.9%). However, these improvements are moderately lower than under bull scenario in the Continuation of the Ongoing Strategy, which showed revenue growth of 4.6% (2.409 vs. 2.302), an increase of 0.9 percentage points in average EBIT margin (14.9% vs. 14.0%), and a 2.6 percentage point increase in consolidated EBIT margin in the final year (18.3% vs. 15.7%).

The benefit of underlying commodity price growth on the company's capital allocation efficiency increases average capital turnover to 0.87 during the forecasted period (vs. 0.86).

Therefore, consolidated ROIC averages 10.4% during the forecasted period (vs. 9.6%), representing an increase of 8.3%, and reaches 12.9% in the final forecasted year (vs. 10.9%), corresponding to an increase of 18.0%. By comparison, under Continuation of the Ongoing Strategy in bull scenario average consolidated ROIC increases by 8.9% during the forecasted period (11.0% vs. 10.1%) and by 20.8% in the final year (13.9% vs. 11.5%).

The implied share price under this scenario equals €4.60 (vs. €3.93, representing an increase of 16.9%), indicating lower sensitivity to commodity price growth than the Continuation of the Ongoing Strategy, under which the implied share price increases by 22.1% (€4.59 vs. €3.76).

Thus, under the bull scenario, the company is expected to generate 0.07 FCFF per unit of invested capital (vs. 0.07) and 0.09 FCFF per unit of revenue (vs. 0.08), allowing the company to allocate an average DPS of 0.28 during the forecasted period (vs. 0.27). This represents an increase of 3.7%, compared to a 10.0% increase under the bull scenario of the Continuation of the Ongoing Strategy (0.33 vs. 0.30).

The results indicate that, under both scenarios, the Accelerated Organic Diversification Strategy is less sensitive to underlying commodity price changes than the Continuation of the Ongoing Strategy scenario, reflecting the smaller share of UWF production in the company's overall operations. However, this reduction in earnings volatility comes at the cost of lower short-term profitability, cash generation, and capital allocation efficiency due to the additional investments required to accelerate the diversification process and decrease of the main cash generative segment in overall company's operations.

Table 16: Strategy 2 – Sensitivity Analysis Results

	Bear Scenario			Base Scenario			Bull Scenario		
	2030	2031	2032	2030	2031	2032	2030	2031	2032
Revenue	2 163	2 187	2 243	2 209	2 237	2 300	2 257	2 304	2 392
EBIT %	13.4%	13.8%	14.4%	14.7%	15.1%	15.9%	15.9%	16.9%	18.1%
CT	0.84	0.83	0.83	0.86	0.84	0.85	0.87	0.86	0.88
ROIC	9.1%	9.2%	9.7%	10.1%	10.3%	10.9%	11.2%	11.8%	12.9%
FCFF/IC	0.05	0.05	0.08	0.06	0.06	0.09	0.07	0.08	0.10
FCFF/Revenue	0.06	0.07	0.09	0.07	0.08	0.10	0.08	0.09	0.12
DPS	0.28	0.28	0.29	0.31	0.32	0.33	0.33	0.36	0.39
Share price	3.47 (-11.8%)			3.93			4.60 (+16.9%)		

Execution Risk Stress Test

As previously was mentioned, second strategy assumes additional investments in the tissue and packaging segments and therefore includes assumptions about new investments outcomes on profitability and NVG's ability to sustain larger scale of product deployment than under the first strategy. Thuse, these assumptions need to be stress tested as new investments create possible execution risks which should be considered for comprehensive analysis of the strategy. The Investment Execution Risk scenario assumes that only 50% of the base-case improvement in tissue EBIT margin and no additional capture of the market growth are achieved as a result of lower efficiency of a new machine in UK than expected under base scenario, while stronger competitive pressures result in only half of the projected in the base scenario growth in the number of active clients in the packaging segment, with volume per client remaining stable. The stress test results on the consolidated financials as well as on tissue and packaging segments separately are shown below:

Table 17: Strategy 2 Execution Risk Stress Test Results on Consolidated Financials

Consolidated Results	Execution Risk Scenario			Base Scenario		
	2030	2031	2032	2030	2031	2032
Revenue	2 194	2 215	2 272	2 209	2 237	2 300
EBIT %	14.4%	14.5%	15.2%	14.7%	15.1%	15.9%
ROIC	9.9%	9.8%	10.4%	10.1%	10.3%	10.9%
FCFF	153	160	226	158	171	238
EVA	65	65	82	72	79	97
Share price	3.51 (-10.7%)			3.93		

Table 18: Strategy 2 Execution Risk Stress Test Results on Tissue Financials

Tissue Results	Execution Risk Scenario			Base Scenario		
	2030	2031	2032	2030	2031	2032
Revenue	619	647	675	627	657	687
EBIT %	14.6%	16.4%	16.8%	15.3%	18.2%	18.6%
ROIC	9.5%	11.1%	12.0%	10.1%	12.5%	13.5%
FCFF	57	83	88	59	92	97
Enterprise Value	1 339 (-16.3%)			1 599		

Table 19: Strategy 2 Execution Risk Stress Test Results on Packaging Financials

Packaging Results	Execution Risk Scenario			Base Scenario		
	2030	2031	2032	2030	2031	2032
Revenue	199	228	258	240	287	340
EBIT %	20.0%	18.0%	17.5%	21.2%	19.8%	19.8%
ROIC	13.1%	11.6%	11.3%	15.6%	14.5%	14.9%
FCFF	(3)	(5)	8	(2)	(4)	10
Enterprise Value	276 (-32.0%)			406		

4.4 Q&A from Case Study

A. What are the strategic trade-offs associated with each diversification strategy?

The comparison between the Continuation of the Ongoing Strategy and the Accelerated Organic Diversification Strategy clearly illustrates the strategic trade-offs associated with each alternative. These trade-offs can be divided into short-term and long-term sacrifices, reflecting the different objectives pursued by each strategy.

The Continuation of the Ongoing Strategy maintains a moderate pace of diversification in order to maximize benefits from the high profitability and resulting strong cash generation of the UWF and pulp segment. However, this comes at the cost of slower development of the packaging and tissue segments, representing better short-term financial performance in exchange for long-term resilience.

Therefore, slower growth of packaging segment's production capacity creates potential future capacity constraints. Pursuing this strategy, the company is projected to fully utilize its packaging production capacity of 200kt by 2032. The absence of additional capacity investments may limit further expansion beyond the forecasted period, particularly given that converting an additional UWF paper machine into packaging production requires approximately 3 years to complete. As results company exposes itself to potential loss of future market share in packaging to earlier movers.

The tissue segment under this strategy is expected to continue operating without full vertical integration in its UK and Spain operations. Consequently, the company sacrifices approximately 2% of potential revenue growth after 2030 compared to the Accelerated Organic Diversification Strategy (where full vertical integration of the UK and Spain operations is expected to be achieved by that year), as a fully integrated model allows Navigator to capture

growth across both reels and final products markets. (Table 9 and Table 13) In addition, tissue is expected to operate at a lower profitability level due to reduced control over the production chain, resulting in an average EBIT margin of 14.7% after 2030 compared with 17.4% under another strategy. (Table 10 and Table 14)

As a result, the company sacrifices part of the opportunities associated with future oriented packaging and tissue segments. Consequently, transforming Navigator's revenue mix toward more resilient sources of earnings at a slower pace.

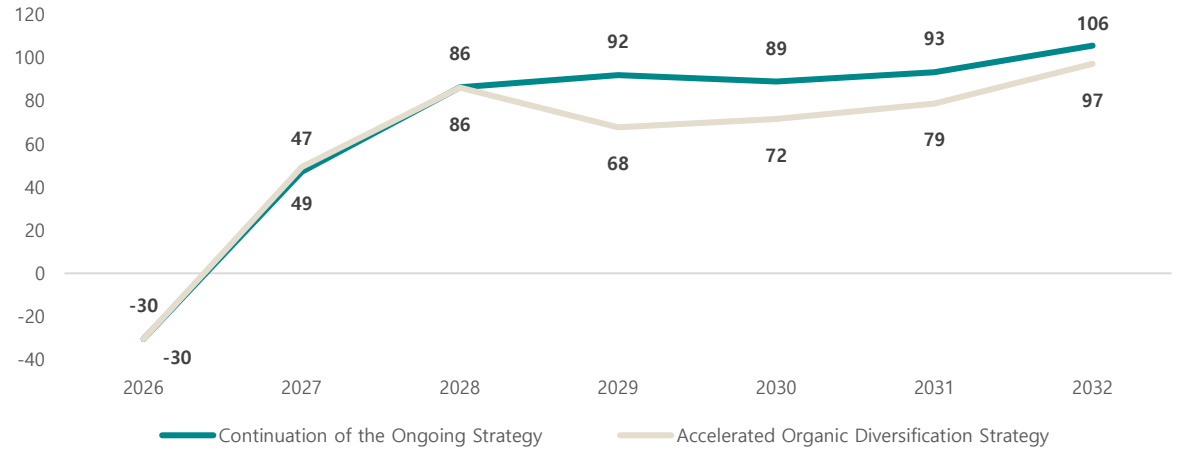
The Accelerated Organic Diversification Strategy assumes a faster diversification away from the UWF and pulp segment in order to maximize the benefits associated with the growth of the packaging and tissue segments. However, this comes at the expense of UWF and pulp revenue disruption, weaker free cash flow generation, and reduced capital allocation efficiency in the short term. Consequently, the company sacrifices part of its near-term value creation potential in exchange for stronger long-term business resilience and a more diversified revenue base.

Thus, by accelerating its revenue diversification pace company refuses from 7.9% UWF and pulp revenues after 2029 (the year since when packaging capacity increase becomes a constraint for UWF production capacity) (Table 9 and Table 13) which along with increased capex requirements in tissue and packaging segment throughout the forecasted period (CapEx is expected to be higher by 12.9% under this strategy see Appendix B3) decrease its FCFF generation in the short term by 12.4%. See Appendix B5.

Revenue disruption and massive capital injections further translate into less efficient capital allocation in the forecasted period as increase in packaging CT (1.04 vs. 1.02 under Continuation of the Ongoing Strategy) does not offset the decrease in UWF and pulp segment's CT (1.05 vs. 1.08).

Therefore, despite a stronger focus on packaging, the segment with the highest projected ROIC, Navigator is expected to generate less economic value added ($EVA = (ROIC - WACC) * Invested\ Capital$) in the short term due to the deterioration of profitability and returns in the UWF and pulp, the segment with the biggest invested capital in it. (Figure 17). Appendix B5.

Figure 17: EVA Comparison in Both Strategies



Eventually, by pursuing the Continuation of the Ongoing Strategy, Navigator preserves its short-term profitability, cash generation, and capital efficiency, but sacrifices part of the long-term benefits associated with a faster transition toward growing market segments. In contrast, the Accelerated Organic Diversification Strategy strengthens the company's long-term positioning and reduces its dependence on structurally declining and cyclical businesses, but requires substantial upfront investments whose benefits materialize gradually, resulting in lower free cash flow generation and value creation during the forecasted period.

B. Which are the risks of execution of each strategy?

Each strategy carries a set of execution risks arising from the key strategic decisions underlying it. Appearance of those risks may affect the company's ability to achieve the projected operational, financial, and strategic outcomes and change all the expected results.

Pursuing the **Continuation of the Ongoing Strategy** is mainly associated with the risks related to underlying commodity price uncertainty or falling behind industry evolution:

1) Higher Exposure to Commodity Price Volatility

Due to the larger share of UWF and pulp in the company's revenue mix and high sales volumes, Navigator remains less diversified from this risk, with its financial performance remaining highly sensitive to underlying commodity price fluctuations. As the sensitivity analysis demonstrates, all key evaluation metrics are materially affected by adverse price movements. Under the bear scenario, the implied share price is 15.1% lower than in the base scenario (€3.20 vs. €3.76). Similar patterns can be observed across other performance indicators. Average EBIT margin and ROIC decline by approximately 7% (13.0% vs. 14.0% and 9.2% vs. 10.1%, respectively), while the expected average dividend per share decreases by 13.4% (€0.26 vs.

€0.30). On the contrary, the impact of commodity price declines on the financial performance under the Accelerated Organic Diversification Strategy is mitigated due to its lower dependence on the UWF and pulp segment. (Table 12)

2) Risk of Delayed Strategic Repositioning

The Continuation of the Ongoing Strategy may expose Navigator to additional constraints in competitive capabilities of the company in the tissue and packaging segments in the future. If the company maintains a conservative investment approach toward these segments while competitors pursue more aggressive expansion strategies, consequently developing larger scale and stronger customer relationships. Consequently, the company may face difficulties in responding quickly to future market challenges when diversification is no longer a choice but an inevitable strategic necessity. Over time, this could weaken Navigator's competitive position in the segments, which are expected to be important for its long-term growth and resilience of its business model.

Pursuing the **Accelerated Organic Diversification Strategy** is primarily associated with risks arising from projected investments execution and the uncertainty surrounding the expansion into less mature markets:

1) Execution Risk and Market Uncertainty

Investments Efficiency Risk

This risk reflects the uncertainty around the efficiency of the projected capital expenditures in the tissue segment. Although the investment influence on profitability is based on management guidance and historical evidence, its accuracy cannot be guaranteed. Consequently, actual operating and financial performance may deviate from projected in the base scenario results, leading to lower-than-expected profitability, capital allocation efficiency, and value creation. Stress test of the strategy 2 execution risk has shown that if investments in tissue segment appear to be 50% less efficient than in the base scenario the segment's EBIT margin in the final forecasted year is expected to be 9.7% lower (16.8% vs. 18.6%) resulting in 11.1% decrease in segment's ROIC (12.0% vs. 13.5%) and consequently decreasing EV of the segment by 16.3% (1 339 vs. 1 599 million of euros). (Table 18)

New Segments' Markets Development and Competitive Risk

The Accelerated Organic Diversification Strategy assumes that the Navigator will be able to successfully capture the tissue and packaging segments' markets growth. However, this ability is uncertain. This risk is particularly relevant in the packaging segment as relative to the

Continuation of the Ongoing Strategy company is expected to increase its number of active clients by 7.8% CAGR faster (20.1% vs. 12.3%, see Appendix B1) as well as moderately increase the average volume per client compared to a stable level under the alternative strategy. Consequently, any inability to attract new customers, increase sales volumes, or compete effectively against existing players in these markets may result in lower capacity utilization and consequent revenue growth obstacles. Lower level of number of clients growth than projected under base scenario would reduce segment's expected EBIT margin by 11.6% by the final forecasted year (17.5% vs. 19.8%) consequently affecting segments ROIC (11.3% vs. 14.9%) and weakening the long-term value creation of the segment resulting in 32.0% lower EV (276 vs. 406 million euros). (Table 19)

Overall, the Accelerated Organic Diversification Strategy under the base scenario generates a lower level of economic value added in the short term than the Continuation of the Ongoing Strategy due to the gradual pay-off of additional investments. The considered underperformance relative to expectations further decreases the company's expected consolidated EBIT margin by 4.4% (15.2% vs. 15.9%) and ROIC by 4.6% (10.4% vs. 10.9%) in the final forecasted year, therefore reducing expected by 2032 FCFF by 5.0% (€226 million vs. €238 million). Alongside relatively stable invested capital figures, this results in a 15.5% decrease in EVA (€82 million vs. €97 million), consequently the implied share price drops by 10.7% (€3.51 vs. €3.93) further reducing the attractiveness of the strategy for certain types of shareholders. (Table 17)

2) Acquisition and Integration Risk

Although additional M&A activity is not explicitly modeled, new acquisitions remain a possible strategic option under the Accelerated Organic Diversification Strategy, particularly for the long-term expansion of the tissue segment as was observed historically. That step could accelerate market penetration and capacity growth in new or less developed geographical markets, such as France. However, it would introduce additional risks related to acquisition pricing, integration efficiency, realization of expected synergies, and potential overpayment for target company. Furthermore, following the significant investments already projected under the accelerated strategy (packaging production capacity extension and vertical integration development in tissue), additional debt financing may increase financial pressure and reduce the company's financial flexibility. Any inefficiencies in capital allocation or post-acquisition integration may ultimately lead to value destruction if the acquired businesses fail to achieve the expected operating and financial performance.

C. Can controlling and minority shareholders prefer different strategies and why?

The ownership structure of The Navigator Company gives a rise to a possible Principal–Principal conflict, as Semapa, the controlling shareholder, owns approximately 70% of Navigator's shares, while the remaining shares are divided among minority investors. Navigator follows a "one share, one vote" voting structure. Therefore, company's ownership configuration allows Semapa to unilaterally approve any resolution requiring a simple majority (>50%) and even resolutions requiring a qualified majority (2/3) without seeking for minority support. Thus, Navigator's diversification dilemma may create a potential conflict between shareholders with different objectives, rather than the classic Principal–Agent conflict between shareholders and managers.

Semapa clearly represents a shareholder with a long-term prospects, as besides the fact that a controlling shareholder cannot usually easily exit its position and consequently cares more about the company's long-term value, it also owns a large portion of The Navigator Company (previously Portucel) for 35 years already and therefore may prioritize value creation through reinvestment in favor of a more resilient and sustainable business model in the long-term.

Meanwhile, the minority shareholders can be representatives of both long-term and short-term oriented shareholders. Institutional investors like pension funds or any other long-term oriented mutual funds will most likely prefer to secure long-term value over short-term gains. Whereas retail investors are a heterogeneous group. Evidence suggests that individual stock investors often exhibit relatively short holding periods (Barber & Odean, 2000). Consequently, some minority shareholders may place greater emphasis on near-term cash distributions and lower execution risk than on value that is expected to be gained further into the future.

Consequently, Semapa along with other institutional investors are more likely to prefer the Accelerated Organic Diversification Strategy, as it reduces company's exposure to the BHKP price volatility while expanding its operations in the segments with more stable demand and greater prospects than UWF and pulp. This is also reflected in the higher estimated equity value under this strategy (€3.93 vs. €3.76 per share), which along with lower FCFF during the forecasted period (1.224 vs.1.397 billion euros) represents the long-term value creation of additional investments rather than immediate payoff.

In contrast, the minority shareholders may be more interested in pursuing the Continuation of the Ongoing Strategy, as it provides stronger short-term cash flow generation, higher dividend

distributions (DPS of 0.30 vs. 0.27), and lower execution risk due to the maturity of the main operating segment. Although company's dividend policy is theoretically irrelevant for firm's value (Modigliani & Miller, 1961), those assumptions may not fully hold in practice. For a company such as Navigator, which has historically distributed substantial dividends (DPS of 0.27), a reduction or stagnation in dividend payouts in favor of long-term capital investments may be interpreted by short-term gain seeking investors as a negative signal regarding future prospects and potentially increase the attractiveness of strategies that preserve levels of FCFF generation.

Nevertheless, as Semapa effectively controls all key corporate decisions, including dividend policy, major investments, and the company's overall strategic direction. The potential conflict between shareholders arises from different return preferences, with Semapa prioritizing long-term value creation and business resilience, while some minority shareholders may favor immediate cash distributions and near-term returns.

References

Barber, B. M., & Odean, T. (2000). Trading is hazardous to your wealth: The common stock investment performance of individual investors. The Journal of Finance, 55(2), 773–806. https://doi.org/10.1111/0022-1082.00226

Confederation of European Paper Industries. (2025). Cepi key statistics 2024. https://www.cepi.org/cepi-key-statistics-2024/

Damodaran, A. (2025). Country risk: Determinants, measures and implications—The 2025 edition. https://doi.org/10.2139/ssrn.5354459

Damodaran, A. (2026). Ratings, interest coverage ratios and default spread. https://pages.stern.nyu.edu/adamodar/New_Home_Page/datafile/ratings.html

Euribor Rates. (2026). Current Euribor rates. Retrieved May 6, 2026, from https://www.euribor-rates.eu/en/

Fernandez, P., Habibian, A., & Fdez. Acín, A. (2026). Survey: Market risk premium and risk-free rate used for 97 countries in 2026. https://doi.org/10.2139/ssrn.6570342

Latta, G. S., Plantinga, A. J., & Sloggy, M. R. (2016). The effects of internet use on global demand for paper products. Journal of Forestry, 114(4), 433–440. https://doi.org/10.5849/jof.15-096

Modigliani, F., & Miller, M. H. (1961). Dividend policy, growth, and the valuation of shares. The Journal of Business, 34(4), 411–433. https://doi.org/10.1086/294442

Mordor Intelligence. (2025). Writing and printing paper market size and share—Growth trends and forecast (2025–2030). https://www.mordorintelligence.com/industry-reports/writing-and-printing-paper-market

Mordor Intelligence. (2026). Molded fiber packaging market size and share—Growth trends and forecast (2026–2031). https://www.mordorintelligence.com/industry-reports/molded-fiber-packaging-market

Mordor Intelligence. (2026). Tissue paper market size and share—Growth trends and forecast (2026–2031). https://www.mordorintelligence.com/industry-reports/global-tissue-paper-market-industry

The Navigator Company. (2019-2025). Investor presentations and Annual reports 2019-2025. https://thenavigatorcompany.com/en/investors/financial-information/

The Navigator Company. Press releases. https://en.thenavigatorcompany.com/media/documentos/

Appendix A: Case Study Supplementary Materials

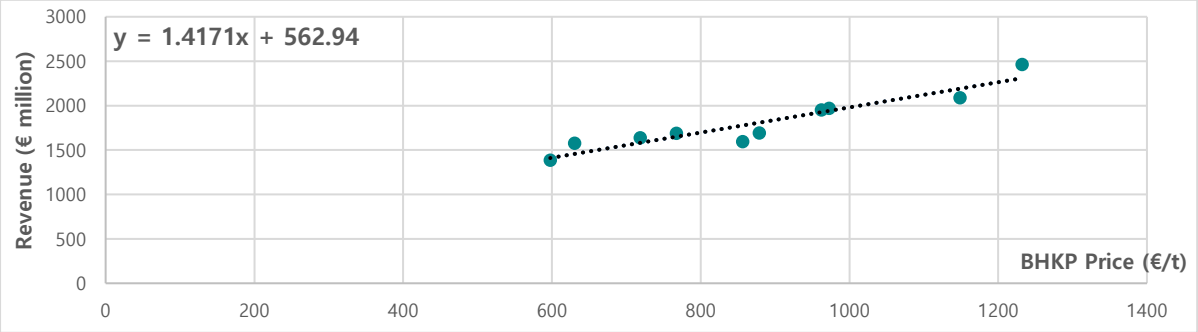
Appendix A1: NVG's Revenue Sensitivity to Pulp (BHKP) Prices

Limitations: analysis indicates correlation rather than causation, as revenues are also influenced by other factors.

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
BHKP	631	719	879	768	598	857	1232	962	1149	973
Revenue	1 577	1 637	1 692	1 688	1 385	1 596	2 465	1 953	2 088	1 970

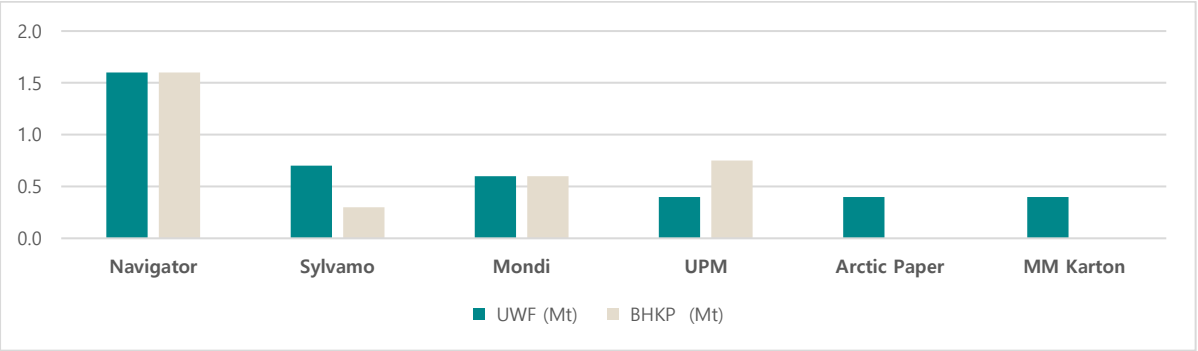
Regression Statistics				
Pearson's r	R^2	N of observations	BHKP t stat	BHKP P value
0.9408	0.8852	10	7.8546	4.98×10^{-5}

The regression results indicate that the relationship is statistically significant at the 1% level.



Appendix A2: Comparable Companies Selection

Competitors	
The competitors list consists of the top five companies identified by NVG in the 2024 annual report as the main UWF and Pulp producers. This sample is used for comparison with NVG, as they all share relatively similar business models and risk exposures.	MM Karton AG (**MMKV.VI**) Mondi PLC (**MNDI.L**) Sylvamo Corp (**SLVM.N**) Arctic Paper SA (**ATC.WA**) UPM-Kymmene Oyj (**UPM.HE**)



Appendix A3: Financial Ratios Comparison NVG vs Competitors

Capital Intensity	2021	2022	2023	2024	2025
UPM-Kymmene Oyj	1.89	1.77	1.85	1.82	1.85
Mondi PLC	1.20	1.22	1.36	1.26	1.41
MM Karton AG	1.31	1.03	1.22	1.19	1.18
Sylvamo Corp	0.75	0.77	0.69	0.82	0.82
Arctic Paper SA	0.70	0.66	0.77	0.80	0.89
Competitors	**1.17**	**1.09**	**1.18**	**1.18**	**1.23**
Navigator	**1.59**	**1.10**	**1.46**	**1.48**	**1.66**

Capital Turnover	2021	2022	2023	2024	2025
UPM-Kymmene Oyj	0.68	0.72	0.67	0.68	0.67
Mondi PLC	1.09	1.07	0.90	1.01	0.89
MM Karton AG	1.00	1.26	1.03	1.09	1.05
Sylvamo Corp	2.12	2.00	2.29	1.84	1.84
Arctic Paper SA	2.24	2.17	1.82	1.70	1.54
Competitors	**1.42**	**1.44**	**1.34**	**1.26**	**1.20**
Navigator	**0.85**	**1.30**	**0.98**	**0.96**	**0.83**
Operating ROA	**2021**	**2022**	**2023**	**2024**	**2025**
UPM-Kymmene Oyj	9.1%	5.4%	6.4%	5.3%	5.2%
Mondi PLC	11.2%	13.2%	7.8%	6.6%	4.3%
MM Karton AG	12.0%	4.2%	3.7%	4.8%	0.0%
Sylvamo Corp	20.4%	15.4%	17.4%	9.1%	9.1%
Arctic Paper SA	10.4%	25.5%	12.8%	7.1%	-3.0%
Competitors	**12.6%**	**12.7%**	**9.6%**	**6.6%**	**3.1%**
Navigator	**9.0%**	**21.1%**	**12.8%**	**12.3%**	**6.4%**

Gross Profit Margin	2019	2020	2021	2022	2023	2024
UPM-Kymmene Oyj	16.7%	14.1%	17.4%	19.2%	10.9%	14.8%
Mondi PLC	45.0%	44.8%	39.6%	38.6%	37.4%	41.5%
MM Karton AG	24.6%	24.3%	21.4%	24.1%	24.6%	26.2%
Sylvamo Corp	34.3%	19.1%	24.2%	27.8%	24.5%	24.9%
Arctic Paper SA	18.8%	19.0%	20.7%	28.8%	21.0%	17.0%
Competitors	**27.9%**	**24.3%**	**24.7%**	**27.7%**	**23.7%**	**24.9%**
Navigator	**57.6%**	**58.9%**	**60.5%**	**60.7%**	**56.6%**	**57.8%**
EBIT Margin	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
UPM-Kymmene Oyj	13.1%	8.9%	15.9%	16.8%	5.8%	5.8%
Mondi PLC	16.8%	13.0%	11.3%	18.9%	10.4%	6.1%
MM Karton AG	10.0%	9.2%	8.8%	10.9%	4.7%	4.7%
Sylvamo Corp	12.3%	3.8%	11.6%	14.8%	10.8%	11.8%
Arctic Paper SA	6.1%	5.6%	7.2%	17.2%	10.1%	5.4%
Competitors	**11.7%**	**8.1%**	**10.9%**	**15.7%**	**8.4%**	**6.8%**
Navigator	**13.8%**	**10.1%**	**14.4%**	**23.3%**	**18.8%**	**18.1%**

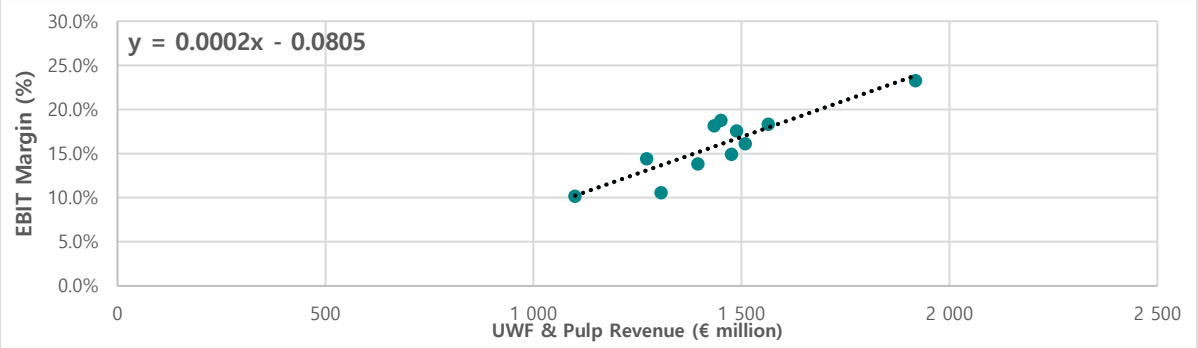
Appendix A4: Correlation Between UWF + Pulp Revenues and NVG's EBIT Margin

Limitations: analysis indicates correlation rather than causation, as revenues are also influenced by other factors.

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Rev	1 488	1 476	1 509	1 565	1 395	1 100	1 272	1 918	1 451	1 434	1 307
EBIT	17.5%	14.9%	16.1%	18.3%	13.8%	10.1%	14.4%	23.3%	18.8%	18.1%	10.5%

Regression Statistics				
Pearson's r	R^2	N of observations	UWF&Pulp t stat	UWF&Pulp P value
0.8891	0.7906	11	5.8296	2.50×10^{-4}

The regression results indicate that the relationship is statistically significant at the 1% level.



Appendix A5: UWF & Pulp vs. Tissue Comparison

UWF + Pulp Ratios Computation (*Amounts in €m except percentage*)							
Account / Metric	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Goodwill / Intangibles	377	377	377	377	377	377	377
PP&E	704	787	764	729	869	959	1 016
ROU Assets	0	48	48	56	63	66	65
Biological Assets	-	149	147	122	116	115	121
Non-current receivables	26	4	1	8	34	5	2
Inventories	177	155	164	265	255	237	237
Trade receivables	122	100	172	259	180	195	207
Other current receivables	25	50	27	51	84	86	68
Other assets	28	25	50	66	55	79	71
Total Assets	**1 459**	**1 694**	**1 749**	**1 934**	**2 033**	**2 119**	**2 163**
+ Inventories	177	155	164	265	255	237	237
+ Trade receivables	122	100	172	259	180	195	207
+ Other current receivables	25	50	27	51	84	86	68
– Other payables	133	181	250	309	300	307	293
Working Capital	**192**	**123**	**113**	**267**	**219**	**211**	**218**
Invested Capital*	896	1 107	1 072	1 174	1 267	1 352	1 420
Average Invested Capital	**943**	**1 001**	**1 090**	**1 123**	**1 220**	**1 309**	**1 386**
Revenue	1 395	1 100	1 315	2 008	1 491	1 509	1 388
EBIT	311	141	247	584	303	336	176
NOPAT	244	123	200	444	240	273	145
D&A	103	98	81	129	100	102	116
CapEx	129	50	67	103	166	210	173
FCFF	177	240	225	316	221	174	80
Capital Intensity	**1.10x**	**1.43x**	**1.31x**	**0.92x**	**1.33x**	**1.38x**	**1.54x**
Capital Turnover	**1.48x**	**1.10x**	**1.21x**	**1.79x**	**1.22x**	**1.15x**	**1.00x**
CapEx/Revenue	**9.3%**	**4.5%**	**5.1%**	**5.1%**	**11.2%**	**13.9%**	**12.5%**
ROIC	**25.8%**	**12.3%**	**18.4%**	**39.5%**	**19.7%**	**20.8%**	**10.5%**
FCFF/Invested Capital	**0.19**	**0.24**	**0.21**	**0.28**	**0.18**	**0.13**	**0.07**

* $Invested\ Capital\ for\ segments = PP\&E + ROU\ Assets + Biological\ Assets + Working\ Capital$
In 2018 Invested Capital was equal to 989

Tissue Ratios Computation (*Amounts in €m except percentage)*							
Account / Metric	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Goodwill / Intangibles	1	1	1	1	5	46	44
PP&E	168	157	151	145	223	321	322
ROU Assets	-	-	-	-	-	31	54
Biological Assets	-	-	-	-	-	-	-
Non-current receivables	-	-	-	2	5	8	-
Inventories	22	18	21	29	30	64	66
Trade receivables	27	27	31	44	66	102	79
Other current receivables	-	1	3	3	9	19	12
Other assets	1	1	1	4	10	97	96
Total Assets	**219**	**205**	**208**	**227**	**348**	**687**	**674**
+ Inventories	22	18	21	29	30	64	66
+ Trade receivables	27	27	31	44	66	102	79
+ Other current receivables	0	1	3	3	9	19	12
– Other payables	13	11	14	19	39	59	62
Working Capital	**36**	**36**	**42**	**57**	**66**	**125**	**96**
Invested Capital*	204	193	192	201	289	476	472
Average Invested Capital	222	198	192	197	245	383	474
Revenue	132	142	146	198	294	456	484
EBIT	(7)	11	19	31	63	76	63
NOPAT	(6)	9	15	24	50	62	52
D&A	19	16	10	10	12	31	35
CapEx	19	5	5	5	10	22	32
FCFF	**28**	20	15	14	42	12	84
Capital Intensity	**1.88x**	**1.50x**	**1.42x**	**1.10x**	**0.98x**	**1.13x**	**1.41x**
Capital Turnover	**0.60x**	**0.71x**	**0.76x**	**1.00x**	**1.20x**	**1.19x**	**1.02x**
CapEx/Revenue	**14.2%**	**3.6%**	**3.1%**	**2.4%**	**3.6%**	**4.9%**	**6.7%**
ROIC	**-2.6%**	**4.7%**	**8.0%**	**12.1%**	**20.3%**	**16.2%**	**11.0%**
FCFF/Invested Capital	**0.12**	**0.10**	**0.08**	**0.07**	**0.17**	**0.03**	**0.18**

Appendix A6: WACC Assumptions

	UWF & Pulp	Tissue	Packaging	Energy
Rf	3%	3%	3%	3%
Beta	0.89	0.80	0.93	0.71
MRP	5.2%	5.2%	5.2%	5.2%
CRP	2.0%	1.4%	2.6%	1.6%
Ke	9.4%	8.3%	10.3%	7.8%

* $Invested\ Capital\ for\ segments = PP\&E + ROU\ Assets + Biological\ Assets + Working\ Capital$
In 2018 Invested Capital was equal to 239

Cost of Equity (Ke) | computed separately for each segment to reflect the different risks associated with them. The method used for Ke was the CAPM with a CRP factor, where **Ke = RFR + β × (MRP + CRP)**.

Market Risk Premium (MRP) and Risk-Free Rate (RFR) | based on German MRP reported by Fernández et al. at 2026, the RFR is the 10-year Government Bond Yield of Germany, as NVG operates mainly in Europe.

Country Risk Premium (CRP) | computed for each business segment based on the geographical distribution of revenues. CRPs by country were sourced from Damodaran's research.

Beta (β) | calculated separately for each business segment using bottom-up beta derivation process. First, the peer group for each business segment were selected through Refinitiv based on industry classification and geographical exposure. Observed betas were unlevered and adjusted for cash, then computed the average industry betas, and readjusted them for the cash ($\frac{Cash}{Equity+Debt} = 0.04$) and leverage ($\frac{Debt}{Equity} = 0.41$) of NVG.

	Pulp & UWF	Tissue	Packaging	Energy
Industry βu cash adj	0.72	0.64	0.75	0.57
NVG βu (cash included)	0.69	0.62	0.72	0.54
NVG βl	0.89	0.80	0.93	0.71

Cost of Debt (Kd) | computed as Euribor (2.867%) plus a spread associated with a credit rating. The credit rating for NVG was estimated through Moody's Framework designed specifically for Paper and Forest Products companies. Through this methodology an estimated credit rating for NVG is Baa, which corresponds to a credit spread of 1.11% according to Damodaran's Credit Default Spreads data. Resulting in pre-tax Kd equal to 3.98%.

Moody's Credit Rating Framework:

Factor	Weight	Navigator	Rank	Score	Weighted
Revenue	10.0%	**$2Bi - $5Bi**	Ba	12	1.2
Product Diversification	7.5%	**Four product segments**	A	6	0.5
Geographic Diversification	7.5%	**Moderate geographic diversification - More than one mill in at least one region**	Ba	12	0.9
Market Characteristics	15.0%	**Modestly competitive provider of products in fragmented industries; modest market position in most product lines; modest entry barriers; demand and pricing are cyclical;**	Ba	12	1.8
Fiber and Energy Cost Profile	5.0%	**Moderate access to wood supplies; fiber supply and pricing are subject to volatility**	Ba	12	0.6
EBIT Margin	10.0%	**15% - 20%**	Baa	9	0.9
Debt / EBITDA	10.0%	**1x - 2x**	A	6	0.6
EBITDA / Interest Expense	10.0%	**10x - 20x**	A	6	0.6
RCF / Net Debt	10.0%	**35% - 60%**	A	6	0.6
Financial policy	10.0%	**Predictable financial policies that preserve creditor interests; although modest event risk exists**	A	6	0.9

Scorecard outcome	8.6	*Total weighted score*
Range fit	7.5 - 10.5	*Credit Rating score range that corresponds to this result*
Rating	**Baa**	

Cost of Debt (Kd)		Capital Structure				
Spread (Baa)	1.11%	Debt Weight		29%		
Euribor	2.867%	Equity Weight		71%		
Pre-tax Kd	3.98%		Pulp & UWF	Tissue	Packaging	Energy
Tax Rate	27.5%	Ke	9.4%	8.3%	10.3%	7.8%
After-tax Kd	2.88%	WACC	7.5%	6.7%	8.1%	6.4%

Euribor Rates, "Current Euribor Rates," accessed May 6, 2026, https://www.euribor-rates.eu/en/

Appendix B: Diversification Strategies Supplementary Materials

Appendix B1: Revenue Forecast Assumptions

Strategy 1 – UWF	2026	2027	2028	2029	2030	2031	2032
Revenues	**1 033**	**1 153**	**1 237**	**1 242**	**1 243**	**1 245**	**1 246**
PIX A4 Copy-B (€/t)	1 006	1 040	1 067	1 072	1 078	1 083	1 089
Sales Volume (mt)	1 134	1 224	1 280	1 275	1 270	1 265	1 260
Capacity Available	1 500	1 400	1 400	1 400	1 400	1 400	1 400
Utilization Rate	76%	87%	91%	91%	91%	90%	90%
Strategy 2 – UWF	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
Revenues	**1 033**	**1 153**	**1 237**	**1 136**	**1 142**	**1 059**	**1 065**
PIX A4 Copy-B (€/t)	1 006	1 040	1 067	1 072	1 078	1 083	1 089
Sales Volume (mt)	1 134	1 224	1 280	1 170	1 170	1 080	1 080
Capacity Available	1 500	1 400	1 400	1 300	1 300	1 200	1 200
Utilization Rate	76%	87%	91%	90%	90%	90%	90%

Assumptions:

1) Underlying commodity prices are normalized and expected to grow in line with the pre-pandemic trend.
2) Sales volumes are determined based on historical averages in 2028 and gradually decline thereafter.
3) Available UWF capacity decreases alongside the increase in available packaging capacity.
4) Utilization rates diverge between strategies start from 2029 due to differences in available capacity.

Strategy 1 – Tissue	2026	2027	2028	2029	2030	2031	2032
Revenues	**516**	**539**	**567**	**593**	**619**	**647**	**675**
Market Size Portugal	**388**	**404**	**422**	**438**	**454**	**471**	**488**
Navigator's Market Share	*27%*	*27%*	*27%*	*27%*	*27%*	*27%*	*27%*
Capture Ratio	*27%*	*27%*	*27%*	*27%*	*27%*	*27%*	*27%*
Market Size Spain	**1 745**	**1 817**	**1 896**	**1 967**	**2 040**	**2 117**	**2 196**
Navigator's Market Share	*9%*	*9%*	*10%*	*10%*	*10%*	*10%*	*10%*
Capture Ratio	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*
Market Size UK	**1 284**	**1 332**	**1 381**	**1 431**	**1 481**	**1 532**	**1 585**
Navigator's Market Share	*13%*	*13%*	*14%*	*14%*	*14%*	*14%*	*14%*
Capture Ratio	*15%*	*15%*	*17%*	*17%*	*17%*	*17%*	*17%*
Market Size France	**1 789**	**1 836**	**1 894**	**1 953**	**2 012**	**2 070**	**2 131**
Navigator's Market Share	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*
Capture Ratio	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*
Strategy 2 – Tissue	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
Revenues	**516**	**539**	**567**	**593**	**627**	**657**	**687**
Market Size Portugal	**388**	**404**	**422**	**438**	**454**	**471**	**488**
Navigator's Market Share	*27%*	*27%*	*27%*	*27%*	*27%*	*27%*	*27%*
Capture Ratio	*27%*	*27%*	*27%*	*27%*	*27%*	*27%*	*27%*
Market Size Spain	**1 745**	**1 817**	**1 896**	**1 967**	**2 040**	**2 117**	**2 196**
Navigator's Market Share	*9%*	*9%*	*10%*	*10%*	*10%*	*10%*	*10%*
Capture Ratio	*15%*	*15%*	*15%*	*15%*	*16%*	*16%*	*16%*
Market Size UK	**1 284**	**1 332**	**1 381**	**1 431**	**1 481**	**1 532**	**1 585**
Navigator's Market Share	*13%*	*13%*	*14%*	*14%*	*14%*	*14%*	*14%*
Capture Ratio	*15%*	*15%*	*17%*	*17%*	*19%*	*19%*	*19%*
Market Size France	**1 789**	**1 836**	**1 894**	**1 953**	**2 012**	**2 070**	**2 131**
Navigator's Market Share	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*
Capture Ratio	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*

Assumptions:

1) Market sizes of countries are expected to grow with nominal GDP.
2) NVG is expected to keep the same market share in Portugal and France as it has a long presence there and is not going to increase production capacity in those countries.
3) NVG is expected to have a capture ratio slightly higher than its market share in UK and Spain due to recent acquisitions. Under the second strategy a small increase of capture ratio in UK and Spain is expected due to commissioning of new production capacity.

Strategy 1 – Packaging	2026	2027	2028	2029	2030	2031	2032
Revenues	**91**	**121**	**137**	**155**	**170**	**186**	**198**
Average Price (€/mt)	914	922	938	949	962	974	988
No. Of Active Clients	554	651	728	813	878	948	999
Volume per Client (mt)	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Total Volume Sold	100	131	146	163	176	190	200
Total Capacity (mt)	100	200	200	200	200	200	200
Strategy 2 – Packaging	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
Revenues	**91**	**129**	**161**	**198**	**240**	**287**	**340**
Average Price (€/mt)	914	922	938	949	962	974	988
No. of Active Clients	554	686	836	1 002	1 181	1 380	1 599
Volume per Client (mt)	0.20	0.20	0.21	0.21	0.21	0.21	0.22
Total Volume Sold	100	139	172	209	249	294	345
Total Capacity (mt) – constraint	100	200	200	300	300	400	400

Assumptions:

1) Average price is expected to grow align with the inflation rate while number of active customers is modeled to decelerate overtime in both strategies but at different pace.
2) Volume per client is expected to remain unchanged under the first strategy. While, under the second strategy, NVG is assumed to achieve higher average volume per client because of longer-term customer relationships.

Strategy 1 – Consolidated	2026	2027	2028	2029	2030	2031	2032
Revenues	**1 947**	**2 121**	**2 212**	**2 246**	**2 214**	**2 258**	**2 302**
UWF Paper	1 033	1 153	1 237	1 242	1 243	1 245	1 246
Pulp	196	200	161	159	160	159	162
Tissue	516	539	567	593	619	647	675
Packaging	91	121	137	155	170	186	198
Energy	110	108	109	96	22	22	22
Strategy 2 – Consolidated	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
Revenues	**1 947**	**2 126**	**2 223**	**2 219**	**2 209**	**2 237**	**2 300**
UWF Paper	1 033	1 153	1 237	1 136	1 142	1 059	1 065
Pulp	196	198	149	197	178	212	186
Tissue	516	539	567	593	627	657	687
Packaging	91	129	161	198	240	287	340
Energy	110	108	109	96	22	22	22

Appendix B2: Profit and Loss Statements

Strategy 1	2026	2027	2028	2029	2030	2031	2032
Revenue	1 947	2 121	2 212	2 246	2 214	2 258	2 302
% YoY	*-1.2%*	*8.9%*	*4.3%*	*1.6%*	*-1.4%*	*2.0%*	*1.9%*
COGS	(864)	(906)	(918)	(919)	(873)	(887)	(902)
% YoY	*0.0%*	*4.9%*	*1.3%*	*0.2%*	*-5.0%*	*1.6%*	*1.6%*
Gross Profit	1 083	1 215	1 294	1 327	1 341	1 371	1 400
%	*55.6%*	*57.3%*	*58.5%*	*59.1%*	*60.6%*	*60.7%*	*60.8%*
SG&A	(785)	(810)	(836)	(864)	(867)	(878)	(892)
Other	64	65	72	78	71	74	71
EBITDA	362	470	530	541	545	566	579
%	*18.6%*	*22.2%*	*24.0%*	*24.1%*	*24.6%*	*25.1%*	*25.2%*
D&A	185	193	200	206	214	224	217
EBIT	177	277	329	335	332	342	362
%	*9.1%*	*13.1%*	*14.9%*	*14.9%*	*15.0%*	*15.1%*	*15.7%*
Net Income	118	200	239	249	246	254	268
%	*6.1%*	*9.4%*	*10.8%*	*11.1%*	*11.1%*	*11.2%*	*11.6%*
Strategy 2	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
Revenue	1 947	2 126	2 223	2 219	2 209	2 237	2 300
% YoY	*-1.2%*	*9.2%*	*4.6%*	*-0.2%*	*-0.5%*	*1.3%*	*2.9%*
COGS	(864)	(907)	(921)	(914)	(869)	(867)	(888)
% YoY	*0.0%*	*5.0%*	*1.6%*	*-0.7%*	*-5.0%*	*-0.3%*	*2.4%*
Gross Profit	1 083	1 220	1 303	1 305	1 340	1 370	1 413
%	*55.6%*	*57.4%*	*58.6%*	*58.8%*	*60.7%*	*61.3%*	*61.4%*
SG&A	(785)	(812)	(839)	(858)	(867)	(874)	(893)
Other	64	65	72	78	71	74	71
EBITDA	362	473.58	535	525	544	570	591
%	*18.6%*	*22.3%*	*24.1%*	*23.7%*	*24.6%*	*25.5%*	*25.7%*
D&A	185	193	202	211	220	232	225
EBIT	177	281	333	314	324	338	366
%	*9.1%*	*13.2%*	*15.0%*	*14.2%*	*14.7%*	*15.1%*	*15.9%*
Net Income	118	202	242	231	239	249	270
%	*6.1%*	*9.5%*	*10.9%*	*10.4%*	*10.8%*	*11.2%*	*11.7%*

Assumptions:

1) Energy segment FiT-supported units are expected to phase out in two stages according to company guidance: 13% in 2029 and an additional 17% in 2030. Therefore, segment's revenues are affected afterwards.
2) COGS are expected to grow aligned with segment's specific utilization rates growth accounting also for inflation. Following the transition of energy production toward internal consumption, the company is assumed to benefit at the COGS level from lower energy costs in 2029 and 2030, as internally generated energy replaces previously purchased market energy. These benefits are allocated among operating segments.
3) In SG&A External services are treated as variable costs and projected based on historical relationships with revenues. Payroll expenses and other operating expenses are treated as relatively fixed costs.
4) Useful life of a newly acquired assets is assumed to be 25 years.

Appendix B3: Capital Requirements Forecast Assumptions

Strategy 1 – CapEx	2026	2027	2028	2029	2030	2031	2032
Capital Expenditures	**237**	**191**	**154**	**162**	**252**	**294**	**238**
UWF Paper	81	29	45	64	151	188	129
Pulp	41	36	30	29	29	28	29
Tissue	82	89	52	39	41	43	45
Packaging	27	32	22	25	27	29	30
Strategy 2 – CapEx	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
Capital Expenditures	**237**	**197**	**218**	**244**	**281**	**303**	**244**
UWF Paper	81	29	45	59	139	161	111
Pulp	41	35	26	34	30	36	31
Tissue	82	89	103	96	57	44	46
Packaging	27	40	39	51	51	58	53

Assumptions:

1) UWF paper and pulp capital expenditures under both strategies s are projected based on utilization rates and historical CapEx per kt metrics. Additionally, UWF CapEx reflects the segment's historical investment cycle.
2) The tissue segment is expected to increase maintenance CapEx due to higher utilization rates and additional installed capacity (70kt) after 2028. In the first strategy, investments of €115 mil related to the TM2 installation are allocated in 2026–2028. In the second strategy, another €123 mil investments are assumed.
3) PM3 rebuilding for packaging is assumed at CapEx of €30 mil, allocated in 2025–2027. Under the second strategy, an additional €90 mil investment is assumed to support a further 200kt increase in capacity.

Appendix B4: DCF SoP Inputs for Terminal Period

Strategy 1	UWF + Pulp	Packaging	Tissue	Strategy 2	UWF + Pulp	Packaging	Tissue
FCFF	191	13	55	FCFF	157	32	70
ROIC	14.9%	13.3%	12.6%	ROIC	12.6%	14.9%	13.5%
RR	0.8%	50.5%	23.7%	RR	-1.8%	35.1%	24.4%
G	0.13%	6.7%;3.1%	3.0%	G	-0.23%	5.2%; 3.1%	3.3%

Assumptions:

1) Terminal FCFF is calculated as NOPAT in the final year multiplied by (1 – Terminal Reinvestment Rate).
2) ROIC of the final forecasted year is assumed as terminal ROIC.
3) Terminal reinvestment rate is calculated as maintenance CapEx – D&A + changes in Working Capital in the last forecasted period, divided by NOPAT of the final forecasted period.
4) G is calculated as the multiplication of ROIC and RR. For the packaging segment, the H-model is applied, assuming a convergence period of 6 years after which growth is assumed to converge to nominal GDP growth.

Appendix B5: Key Financials

Strategy 1	Historical		Forecasted						
	2024	2025	2026	2027	2028	2029	2030	2031	2032
Working Capital	141	191	183	211	227	237	251	259	267
Total Assets	3 353	3 189	3 250	3 304	3 341	3 294	3 271	3 426	3 283
Equity	1 356	1 413	1 451	1 512	1 562	1 500	1 511	1 532	1 470
FCFF	175	171	84	175	269	277	187	171	234
Invested Capital	2 313	2 422	2 430	2 458	2 428	2 398	2 456	2 533	2 556
EVA	149	68	-30	47	86	92	89	93	106

Strategy 2	Historical		Forecasted						
	2024	2025	2026	2027	2028	2029	2030	2031	2032
Working Capital	141	191	183	211	227	229	245	248	256
Total Assets	3 353	3 189	3 250	3 308	3 352	3 375	3 366	3 521	3 479
Equity	1 356	1 413	1 451	1 514	1 565	1 568	1 588	1 612	1 646
FCFF	175	171	85	171	209	192	158	171	238
Invested Capital	2 313	2 422	2 430	2 464	2 497	2 537	2 619	2 693	2 714
EVA	149	68	-30	49	86	68	72	79	97

Appendix B6: Key Ratios

Strategy 1	Historical		Forecasted						
	2024	2025	2026	2027	2028	2029	2030	2031	2032
Current Ratio	1.24	1.41	1.56	1.63	1.75	1.61	1.55	1.22	1.12
Quick Ratio	0.90	0.93	1.06	1.11	1.23	1.12	1.06	0.87	0.73
Cash Ratio	0.32	0.20	0.33	0.34	0.43	0.37	0.28	0.29	0.10
Interest Coverage	14.66	6.50	5.74	8.95	10.60	13.82	12.47	12.03	11.95
Net Debt/EBITDA	1.13	1.86	1.74	1.25	0.97	0.99	1.05	1.12	1.25
Capital Turnover	0.96	0.83	0.80	0.87	0.91	0.93	0.91	0.91	0.90
Capital Intensity	1.48	1.66	1.65	1.55	1.50	1.48	1.48	1.48	1.46
OROA	12.3%	6.4%	5.5%	8.5%	9.9%	10.1%	10.1%	10.2%	10.8%
ROE	21.5%	10.4%	8.3%	13.5%	15.6%	16.2%	16.3%	16.7%	17.9%
ROIC	14.1%	7.2%	5.9%	9.2%	10.8%	11.1%	11.0%	11.1%	11.5%
FCFF/IC	0.08	0.07	0.03	0.07	0.11	0.11	0.08	0.07	0.09
FCFF/Revenue	0.08	0.09	0.04	0.08	0.12	0.12	0.08	0.08	0.10
DPS	0.21	0.25	0.11	0.20	0.27	0.44	0.33	0.33	0.46
CapEx/Revenue	18.7%	10.7%	12.2%	9.0%	7.0%	7.2%	11.4%	13.0%	10.3%
WACC	7.3%	4.4%	7.2%	7.3%	7.3%	7.3%	7.4%	7.4%	7.3%
Strategy 2	**Historical**		**Forecasted**						
	2024	2025	2026	2027	2028	2029	2030	2031	2032
Current Ratio	1.24	1.41	1.56	1.63	1.65	1.51	1.43	1.14	1.14
Quick Ratio	0.90	0.93	1.06	1.11	1.13	1.03	0.95	0.79	0.77
Cash Ratio	0.32	0.20	0.33	0.34	0.33	0.28	0.17	0.21	0.14
Interest Coverage	14.66	6.50	5.74	9.06	10.70	12.36	11.67	11.31	11.57
Net Debt/EBITDA	1.13	1.86	1.74	1.25	1.07	1.14	1.19	1.23	1.17
Capital Turnover	0.96	0.83	0.80	0.87	0.90	0.88	0.86	0.84	0.85
Capital Intensity	1.48	1.66	1.65	1.54	1.50	1.52	1.53	1.54	1.52
OROA	12.3%	6.4%	5.5%	8.6%	10.0%	9.3%	9.6%	9.8%	10.4%
ROE	21.5%	10.4%	8.3%	13.6%	15.7%	14.8%	15.2%	15.6%	16.6%
ROIC	14.1%	7.2%	5.9%	9.3%	10.8%	10.0%	10.1%	10.3%	10.9%
FCFF/IC	0.08	0.07	0.03	0.07	0.08	0.08	0.06	0.06	0.09
FCFF/Revenue	0.08	0.09	0.04	0.08	0.09	0.09	0.07	0.08	0.10
DPS	0.21	0.25	0.11	0.20	0.27	0.32	0.31	0.32	0.33
CapEx/Revenue	18.7%	10.7%	12.2%	9.3%	9.8%	11.0%	12.7%	13.5%	10.6%
WACC	7.3%	4.4%	7.2%	7.3%	7.3%	7.3%	7.4%	7.3%	7.3%

A sharp decline in liquidity ratios in 2031 and 2032 is explained by the debt repayment schedule provided by the company. Consolidated WACC figures are based on the EBIT-contribution-weighted average of each segment.