

THE NAVIGATOR COMPANY, S.A.

PULP AND PAPER

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COMPANY REPORT

23 MAY 2018

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Investing today to embrace the Future

Outstanding performance leads to success

- Our recommendation for Navigator's stock performance is a **BUY**, with a price target of €5.56 for FY18, which represents a 18% upside potential, based on our valuation. Navigator's **solid balance sheet, high operational efficiency and strong cash flow generation** provide a potential attractive investment in the stock market.
- Pulp and paper industry is facing a full transformation.** New market and consumer needs, higher competition, and increase on regulatory policies, will significantly impact the industry in the nearly future. Consequently companies have to **innovate and embrace digitalization** in order to remain competitive.
- Navigator has been preparing the future by **investing on its production capacity and innovation** of its paper and pulp mills and therefore, the company has the most modern facilities within the industry, resulting in high efficiency levels.
- Navigator has been also **shifting its business portfolio to other profitable segments**, namely Tissue and Packaging, due the deterioration of UWF paper market in the future.
- Despite the impact from the forest fires occurred in Portugal during FY17, Navigator was capable to take advantage of **vertical integration align with its cost reduction measures**, to remain as one of the most efficient players in the market.
- It is predictable a **generous dividend pay-out** for the next periods, supported by the mind-set from the principal shareholder and privileged positioning of the company on the pulp and paper market environment.

Recommendation: BUY

Price Target FY18: 5.56 €

Price (as of 23-May-18) 4.97 €

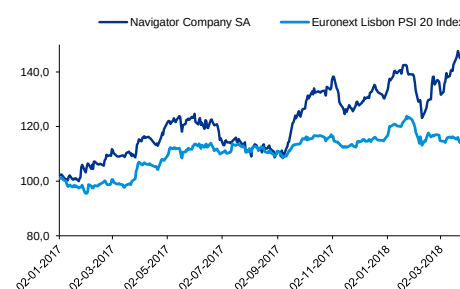
Reuters: NVGR.LS, Bloomberg: NVG PL

52-week range (€) 3.55 - 4.97

Market Cap (€m) 3,228.7

Outstanding Shares (m) 717.5

Source: Thomson Reuters



Source: Thomson Reuters

(Values in € millions)	2017	2018E	2019F
Revenues	1,637	1,695	1,731
EBITDA	404	418	418
Net Profit	208	187	190
EPS	0.29	0.26	0.26
P/E	14.7	25.6	26.0
EBITDA margin	24.7%	24.6%	24.2%
ROE	16.8%	15.8%	16.0%
ROA	8.6%	7.7%	7.8%
Div Yield	6.1%	5.0%	4.0%
Net Debt / EBITDA	1.9x	1.8x	1.7x
EV / EBITDA	10.8x	11.5x	11.8x

Source: Thomson Reuters and analyst estimates.

THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY [INSERT STUDENT'S NAME], A MASTERS IN FINANCE STUDENT OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS. THE REPORT WAS SUPERVISED BY A NOVA SBE FACULTY MEMBER, ACTING IN A MERE ACADEMIC CAPACITY, WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL.
(PLEASE REFER TO THE DISCLOSURES AND DISCLAIMERS AT END OF THE DOCUMENT)

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Executive summary

Target price: €5.56

Upside potential: 18%

Navigator is one of the most efficient players in the market

Sources of upside potential:

- **High efficiency**
- **Diversification strategy**
- **Emerging markets**
- **Industry Consolidation**
- **Modernization**

Pulp & Paper prices are expected to remain stable in the future

Digitalization is the main driver for the industry transformation

More regulation can negatively impact the industry

We initiate with a **BUY recommendation** for Navigator, reflecting a one year **target price of €5.56**, with an **upside potential of 18%** when comparing with €4.97 price as of 11th May 2018. The upside potential includes the capital gain between target and actual price, plus the cash gain from 2018 announced dividends of €0.28 per share. Our valuation was based on a Free Cash Flow to Firm valuation model and was supported by a relative valuation throughout comparable companies and precedent transactions.

Navigator`s price target is greatly influenced by the expected stabilization of Pulp and Paper prices in the future, supported by Asian demand. The diversification and cost efficiency strategy align with focus on innovation, will allow the company to mitigate future threats related with environmental regulation and industry transformation.

Navigator`s **sources of upside potential** rely mainly on taking advantage of its vertical integration on the production process by providing high quality products more efficiently than its competition. Navigator is currently focused on the modernization of its production process and factories in order to become more efficient. The increase on the production capacity align with the diversification strategy will allow the company to become less depend on UWF sector and invest into other profitable segments, levered by the expected synergies of the existing business. This mind-set will permit the company to be ahead of its competitors and be well positioned for the upcoming industry challenges.

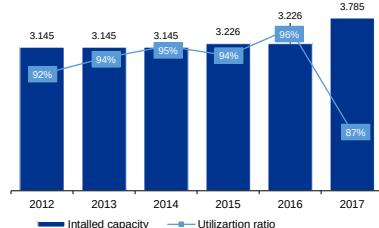
Pulp and paper prices are highly influenced by demand from emerging markets, being Chinese economy the main pulp and paper consumption driver. China is expected to have a positive outlook in the medium / long term that would sustain the Pulp and Paper prices.

Pulp & Paper **industry is facing a full transformation**. New market and consumer needs, higher competition, and increase on regulatory policies, will impact the industry in the nearly future. Even so, the industry has continued to grow and has been consolidating, demonstrating a high degree of resilience.

Portuguese government and regulatory entities have been imposed several **restrictions** regarding eucalyptus plantations. If these restrictions escalate, it could impact the company operational efficiency, resulting in higher costs with raw material importations. Even so, expected increases on supply from Asia and Latin America, would maintain wood prices at low levels. The Mozambique investment is a consequence of tighter regulation in Portugal, and can be a source of upside potential for Navigator.

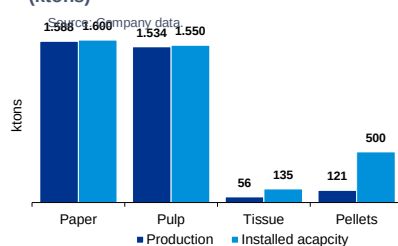
Company overview

Figure 1. Installed capacity (ktons)



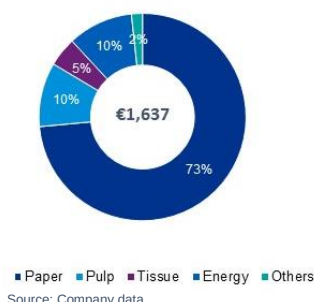
Source: Company data.

Figure 2. Installed capacity per segment (ktons)



Source: Company data.

Figure 3. Revenues per business segment ('000)



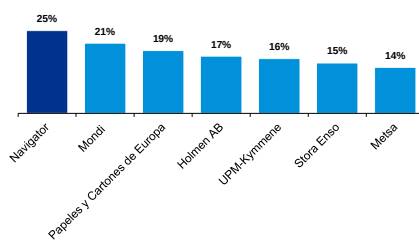
Source: Company data.

Figure 4. Revenues by geography ('000)



Source: Company data.

Figure 5. EBITDA margin 2017



Source: Company data and Thomson Reuters.

The Navigator Company S.A. (former known as Portucel), is a Portuguese vertically integrated pulp and paper manufacturing company. The company carry out the production and sale of uncoated wood-free paper (UWF) and bleached eucalyptus kraft pulp (BEKP) as well as Tissue, Energy and Forest products. Currently being the Europe market leader in the UWF sector, the company is predominantly owned by Semapa (69.4%) and is listed on the Euronext Lisbon and is integrated on the Portuguese main stock index, PSI 20.

Company description

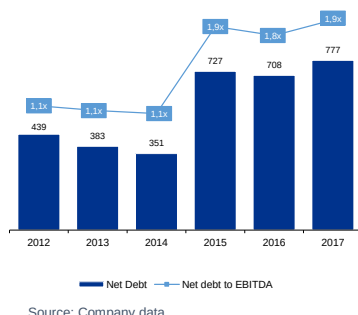
Navigator inception backs in 1953, with the beginning of its activity by the name of *Companhia Portuguesa de Celulose* in Cácia, led by Manuel Santos Mendonça. Lately in the beginning of the XXI century, there was occurred a remarkable consolidation process with the acquisition of Inapa and Soporcel, giving origin to The Navigator Company (known as Portucel). In the meanwhile the company had been state owned (1976 to 1995), being the majority of the company capital acquired by Semapa during 2004.

Currently Navigator is positioned as the European leader on the production and sale of uncoated wood-free paper (UWF) and is among the top 10 producers worldwide. In Portugal the company has a considerable weight on the economy, being responsible for 3% of the country's exportations and 1% of Portuguese GDP. Moreover, the company relevance on the country goes beyond the paper industry, as it is responsible for 5% of the country's total energy produced and 50% of the energy generated through biomass.

The company position its products in a premium category, by selling high quality products worldwide. Around 95% of Navigator's turnover relies to foreign countries – Europe (60%), Middle East (11%), U.S. (10%) and Africa (10%).

The Navigator Company is responsible to manage four manufacture plants in Cácia, Figueira da Foz, Setúbal (headquarter) and Vila Velha de Rodão which allows the company to have a production capacity of 1.6 million tons of paper, 1.5 million tons of pulp, 0.6 million tons of Tissue and approximately 2.5 TWh energy generation capacity. A considerable part of pulp and energy produced by the company is integrated in the paper manufacturing process, positioning the company as a fully value chain integrated company that allow Navigator to be one of the most efficient players on the market. Additionally the company is also responsible for the sustainable management of 118 thousand ha of Portuguese eucalyptus forest that uses to supply part of its raw material needs (c.20%).

Figure 6. Net Debt (€'000)



Since FY15, the company has been investing on its production capacity of existing products, as well as in new profitable markets such as Tissue and Pellets business segments, in order to diversify its portfolio. These investments forced the company to lever its capital structure, achieving a D/E ratio of 69% that is above the average industry (46%). Consequently, Navigator's Net debt to Ebitda ratio also increased from 1.1x (FY14) to 1.9x (FY17).

SWOT analysis

Navigator's main source of strengths and weakness, as well as the opportunities and threats that the company will face in the future are summarized below:

Strengths

Market leader position
Operational efficiency (vertical integration)
Manufacturing capabilities
Focus on Research & Development

Weaknesses

Raw material scarcity and price volatility
Dependency on UWF paper segment
High labor costs
Dependency on European markets

Opportunities

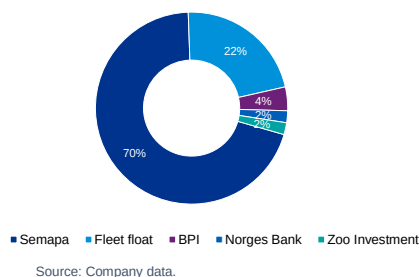
Explore other profitable business segments
Explore other profitable geographies
Positive positioning for industry transformation
Mozambique Project

Threats

Industry capacity increases
Protective trading policies
Environmental regulation
Currency risks

Source: Company data and analyst estimates.

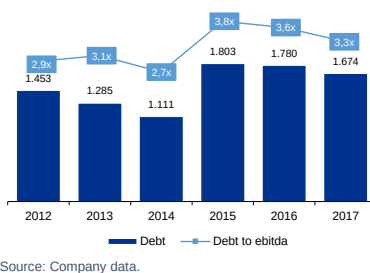
Figure 7. Navigator shareholder structure 2016



Shareholder structure

The major shareholder of Navigator is Semapa – Sociedade de Investimento e Gestão, SGPS, S.A. with 70% of the company shares. The other shareholders are BPI Pension Fund (4%), Zoom Investment (2%) and Norges Bank (2%) and the remaining capital (22%) is traded on the Euronext Lisbon. Moreover, disregarding Semapa, Portugal (38%), U.S. (23%) Norway (14%), UK (8%) and Germany (7%) are the main origins of Navigator's capital.

Figure 8. Semapa's Debt (€'000)



The dominant position of Semapa in the Navigator's capital should be further analysed since it can influence the company management decisions and capital distributions. One of the facts that should be taken into considerations relies on the high leveraged ratio of Semapa. Despite the debt reduction of c. €106 million during FY17, the company ended up the year with a Net Debt to EBITDA ratio of 3.3x. This scenario does not get better if we analysed the sources of revenues vs. debt. Semapa main sources of revenues come from Navigator (76%), Cecil (23%) and ETSA (1.3%), however in terms of Net Debt the scenario is different. Navigator accounts for 41% of Semapa's net debt, while Secil accounts for 25% and the Holding itself for 33%. For Secil, this numbers represent a Net Debt to EBITDA ratio of 4.7x, worsening if we consider the exposure of the cement business to under developed countries. This could be a risk of contaminating Navigator, since Semapa can use the company strong cash flow generation capacity to reduce the Group's debt, through dividend distribution, instead of

Figure 10. Dividend Yield 2017

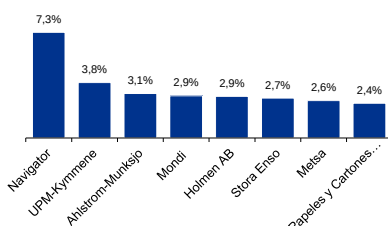


Figure 9. Dividend per share (€)



invest in the future performance of Navigator itself. Comparing with the industry, Navigator's dividend yield is quite above its peers, suggesting that the company may be pressured to maintain a high yield in the future.

The Sector

Macroeconomic overview

According to IMF, the world economy have registered a growth of 3.7% (FY16: 3.2%), representing one of the highest values since FY10.

In Europe, the economy has grown by 2.4%, representing a notable increase when compared with FY16 (1.8%). The positive economic activity of Euro zone is a consequence of the development measures adopted, namely on the improvement of financial conditions and the on recovery of the labour market. The lower prices of Brent also had a positive impact on the European economy.

The Portuguese economy followed the same pace. Since FY14, Portugal has been recovering from debt crisis at a solid pace, posting a GDP real growth rate of 2.7% in FY17. In the next 3 years, it is expected a slight growth deceleration, stabilizing between 1.4% and 1.6% from FY20 onwards. The evolution of the real economy has been key to unemployment reduction, which is expected to reduce further until c. 6% in FY21. Inflation rate is expected to stand at 0.8% in FY18, increasing towards 2% until FY21. Regarding interest rates, 3-month Euribor shall keep negative until FY19, increasing afterwards up to 0.8% in FY22.

Regarding the North American economy, it was registered an increase of 2.3% (FY16: 1.5%) with very low levels of unemployment. Moreover, it was been approved a new fiscal plan that would enhanced the development of the North American companies as well as the internal consumption.

China registered a notable GDP growth of 6.9% (FY16: 6.7%) and is expected to remain stable during the following years, stabilizing on 5.5% on 2023. The inflation would be around 2.8% for the projection period with low levels of unemployment (c.4%).

Pulp and Paper

Pulp (BEKP) and Paper (UWF) industry remain the principal source of revenues of Navigator, accounting for c. 10% and 74%, respectively, of the total turnover. The pulp and paper industry is facing a full transformation. New market and consumer needs, higher competition, and increase on regulatory policies, will significantly impact the industry in the nearly future. Digitalization is the main driver for the industry transformation, and is originating smarter and more

Figure 11. Worldwide macroeconomic data

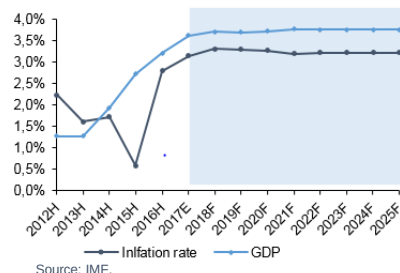


Figure 12. Europe macroeconomic data

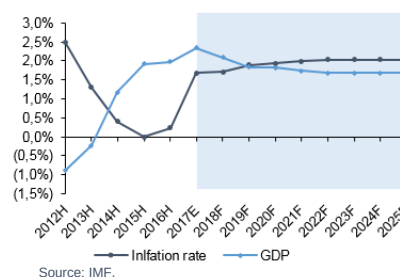


Figure 13. Portugal macroeconomic data

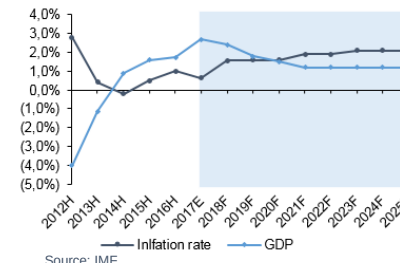


Figure 14. China macroeconomic data

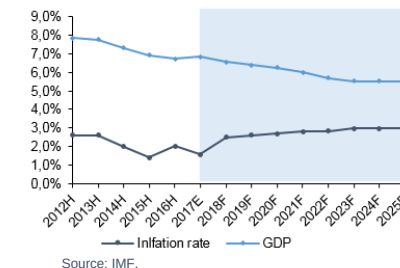


Figure 15. European Pulp capacity (ktons)

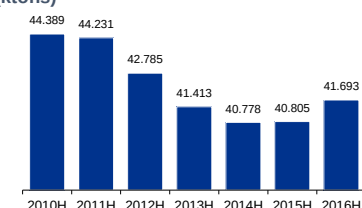
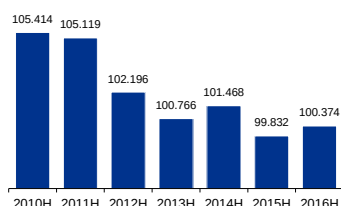
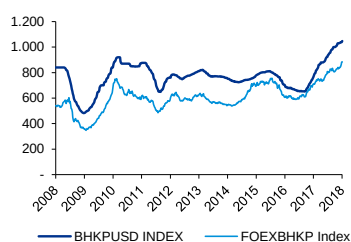


Figure 16. European Paper capacity (ktons)



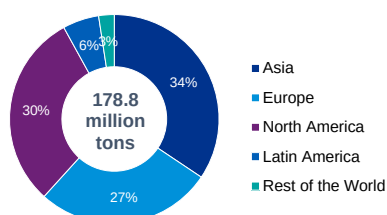
Source: CEPI.

Figure 17. BHKP Index (€)



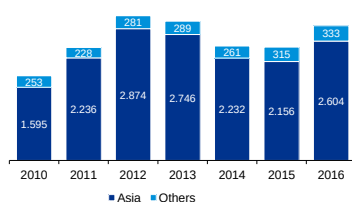
Source: Bloomberg.

Figure 18. World Pulp Consumption 2016



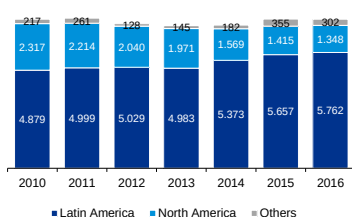
Source: CEPI.

Figure 19. European Pulp Exportations (ktons)



Source: CEPI.

Figure 20. European Pulp Importations (ktons)



Source: CEPI.

integrated factories within the production process. Nowadays, modern mills have smart equipment that interact in real time with an integrated environment in order to increase efficiency and meet customer needs faster.

However, digitalization represents a huge challenge to the pulp and paper industry and has been affecting consumption and prices in the last years, being traditional paper replaced by digital alternatives. In Europe the pulp and paper capacity accounted in FY16 to 41.7 million tons and 100.3 million tons, respectively, as a result of a downward trend on both pulp and paper production capacity with CAGR of -1% and -0.8% respectively, since FY10.

The deterioration of the production capacity is also been reflected in lower levels of production for pulp and paper manufacturers. Since FY10 the **pulp sector** has been facing a decline of 4.1% (c. -1.6 million tons) that escalate to 6.8% (c. -2.7 million tons) if we compare to 2000. Nonetheless, it should be noted that FY16 seems to stand as a shift in this negative trend with an increase on production of 2.7%. The recent positive trend is corroborated in pulp price indexes, with deep price upswings during FY17 (BHKP USD: +51%; BHKP Eur: +33%), achieving to an average price for the year of €725 /ton (FY16: €625 /ton). FY18 is following the growth tendency with the major players of the sector, including Navigator, announcing new price increases. The current momentum lived in the pulp industry is mainly boosted by the recovery of the Asian market reflected in the increase of importations. Furthermore, for FY18/9 it is expectable a stabilization on pulp prices with slight corrections for lower prices, as a result of the adjustments between demand and supply, as a result of the increases on the industry installed capacity, mainly from China (+1.2 Mton) and UAE (300 kton). In terms of geography, according to the latest data from CEPI (FY16), Asia leads the worldwide pulp consumption (178.8 million tons) with 34%, followed by North America and Europe. In terms of pulp production (179.4 million tons), North America (36%), Europe (25%) and Asia (22%) are the main producers, however, Latin America with 15% is gaining weight along the years. In order to fulfil the gap between pulp's consumption and production in Europe, historically, both Latin and North America are the main pulp suppliers, representing together c.96% of Europe imports during FY16. On the other hand, c. 89% of total exportations went to Asia, representing an evident dependency of Europe from this geography

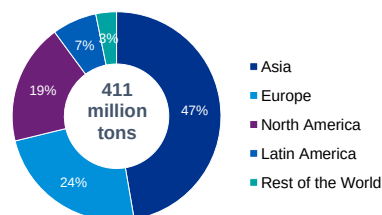
In what concerns **paper UWF market**, we have been facing a decrease on the European installed capacity (c. 100.4 million tons) of c. 4.8% (c. -5.0 million tons) between FY10 and FY16. This negative trend is also followed by a decline on the paper production (c. 90.9 million tons) of 5.9% (c. -5.7 million tons). The higher variation on the production vs capacity represents a decrease on the paper operating rate of 1.2% reflecting a negative variation of paper demand. However,

Figure 21. A4 B-COPY Index (€)



Source: Bloomberg.

Figure 22. World Paper consumption by region 2016



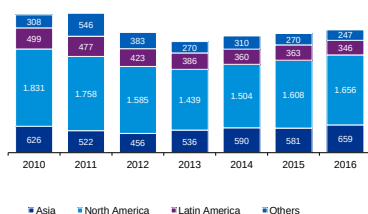
Source: CEPI

Figure 23. European Paper exportations (ktons)



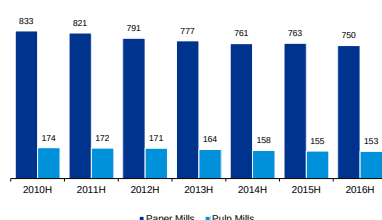
Source: CEPI

Figure 24. European Paper importations (ktons)



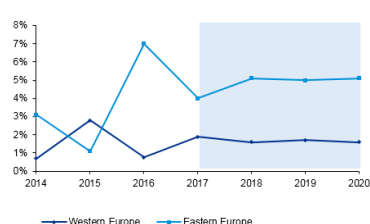
Source: CEPI

Figure 25. Nr. of Pulp and Paper mills



Source: CEPI

Figure 26. European Tissue consumption



Source: CEPI

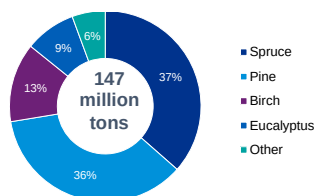
as aforementioned on pulp performance, FY16 seems to invert the past years negative trend, suggesting a recovery on the paper industry. From FY15 to FY16 the installed capacity has increased by 0.5% while the consumption has been relatively stable with a slight decrease of 0.1%. According to Navigator, during FY17 the demand for UWF has increased by 0.1%, influenced by a positive performance from Asian markets, corroborating the inversion trend. In terms of price performance, the paper UWF main index (A4 B-COPY Index), has been reflecting a downward trend since FY13. However, during FY17 this index had a positive performance with an average price of €815 /ton, still, slightly below the FY16 average of €824 /ton. This trend should be maintained during FY18 with paper producers seeing its margins shrink due to raw material cost increases, namely on pulp and wood. Asia is leading by far the global paper production (c. €407.6 million tons) and consumption (c. €410.7 million tons) with 46% and 47% market share, respectively. Europe stands right after Asia, with 26% and 24% of worldwide production and consumption, followed by North America with 20% and 19%, respectively. Regarding international trading, the European major importations come largely from North America (57%), followed by Asia (23%) and Latin America (12%). On the exportations side, European companies are very dependent on Asia (42%) namely on China, being the remaining weight split between North America (19%), Latin America (12%) and Others (26%).

Furthermore, in Europe the industry is facing a considerable reduction of the number of companies during the last years (-52 since 2010) accounting to around 623 firms, suggesting an advanced stage of consolidation of the industry. Moreover, we have also been facing a reduction on the number of pulp and paper mills in the last few years. It should be noted that the gap between pulp and paper prices was never lower than now, which represent a great pressure to non-integrated companies, giving room to a reduction on number of factories (meaning less installed capacity) and benefiting vertically integrated companies, such as Navigator.

For the Tissue sub-segment it was observed an increase on consumption, mainly driven by Eastern Europe countries. Even so, the economic recovery, boosted by the Tourism sector, in Portugal and Spain also had a positive impact on Tissue demand. The low weight of Tissue products result on high transportation costs by m3 and therefore it cannot be exported efficiently. This could be an issue for Navigator to fulfil high potential emerging markets, such as China and India and could lead to inorganic growth throughout acquisitions.

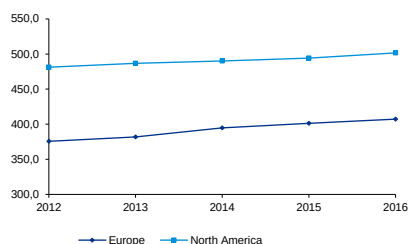
Wood

Figure 27. European wood consumption by specie



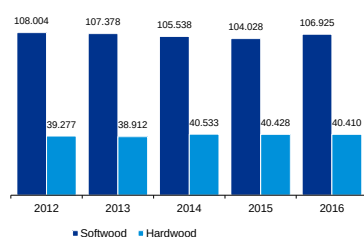
Source: CEPI

Figure 28. Industrial roundwood consumption



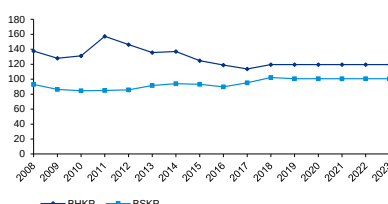
Source: FAO (UNECE).

Figure 29. European wood consumption for Pulp&Paper industry



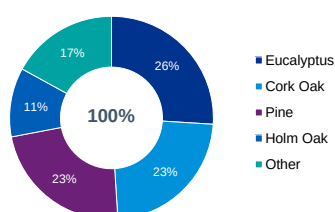
Source: CEPI.

Figure 30. Hardwood (BHKP) vs. Softwood (BSKP) Indexes



Source: Thomson Reuters.

Figure 31. Portuguese Forest by specie 2016



Source: Instituto de Floresta Nacional.

Wood plays a core feature on the pulp and paper manufacturing process, being the main raw material and the principal source of cost for the industry. As a raw material, wood can be split between hardwood and softwood. Softwood is mainly produced in North America and Scandinavia from pines and firs. Softwood is perceived to have higher quality, mainly due to its softness and longer fibres and therefore is expensive than hardwood. Hardwood is the main material used by Navigator, to produce printing and writing fine paper and contrary to softwood, is mainly produced in the southern hemisphere, namely Latin America, Asia and Iberian Peninsula. Navigator main source of wood are eucalyptus allowing the company to provide distinguished products with high quality and uniqueness.

In Europe, wood removals increased by 1.2% in FY16, achieving 392 million m3, and it is expectable to maintain the same trend, but at a slower pace (0.4%) during FY17. In terms of consumption it also registered a growth of 1.5%, from 401 million m3 to 407 million m3, mainly supported by countries such as Finland, Portugal, Romania, Poland and Turkey. In terms of international trade, Europe registered during FY16 an amount of roundwood imports of 55 million m3 demonstrating an increase of 2.3% from FY15. This growth was driven from increases of 3.5% on softwood (36.1 million m3), rather than hardwood that stayed flat regarding FY15 (18.7 million m3).

Regarding the consumption of wood fibre by the pulp and paper industry, it accounted for the highest level in five years, arising to 147 million m3 in FY16. This amount represents an increase of almost 2% from FY15, mainly motivated by countries like Finland, Austria, Norway, Poland and Spain. Moreover, it was also visible a shift from hardwood (-1.8%) to softwood (+1.4%) consumption, suggesting an increase on the demand for tissue and packaging instead of printing paper. Moreover, this trend results from a decrease on the softwood prices, that is gaining attractiveness against hardwood. If this trend stands in the future, hardwood paper producers could lose competitiveness in the market.

In Portugal, the consumption was higher than the increase on the eucalypt area and therefore it is expectable an increase of wood prices. Prices will also be affected by forest fires occurred in Portugal that could lead to raw material shortage. Portuguese government and regulatory entities have been imposed several restrictions regarding eucalyptus plantations. Recently, following the forest fires occurred during the summer of FY17, it was approved in Portugal a new legislation that forbid the plantation of new areas of eucalyptus. The responsible entities argue that this measure will contribute for a better balance between different forest species and at the same time ensure biodiversity and the activity of all forest industries. On the other side, the government allowed the transference of eucalyptus plantations from the interior to the coast, where pulp

Figure 32. Portuguese wood consumption by source 2016

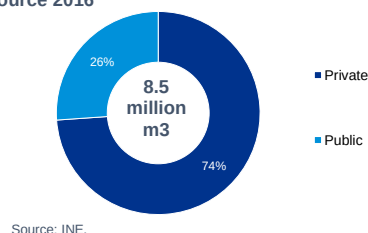


Figure 33. Portuguese Eucalyptus area 2016

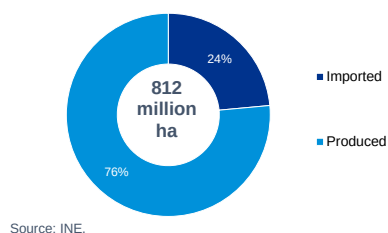


Figure 34. Navigator's wood importations 2016

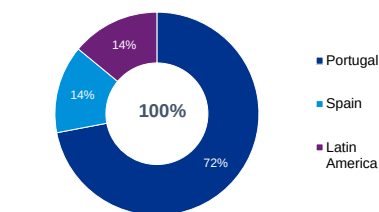


Figure 35. Navigator's revenues and EBITDA margin (€'000)

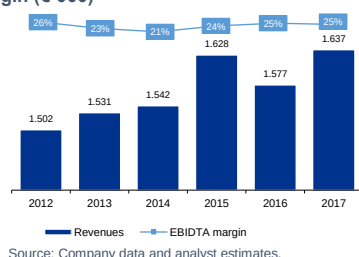


Figure 36. EBITDA bridge 2017 (€'000)

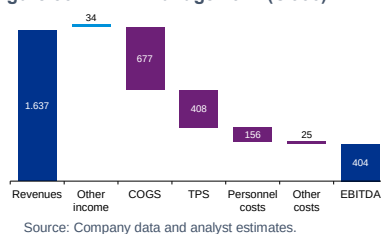
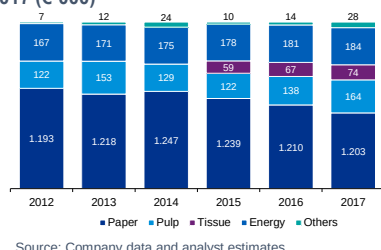


Figure 37. Revenues by business segment 2017 (€'000)



manufactures could take higher productivity ratios while exploring the wood. The company, in the voice of its CEO, has been showing its disappointment to the applicable legislation, arguing that it could compromise the company competitiveness, due to lack of raw material that would lead to an increase on importations. Furthermore, it is also enhanced the weight of Navigator within the Portuguese economy and the negative impact of the new legislation that could lead to the outflow of currencies, to the destruction of direct employment and the abandon of interior areas. With these arguments, the company is committed to struggle against the new legislation imposed by the government. Regarding wood importations, the main supplier come from the neighbour, Spain, however the supply was not enough and the company had to import wood from Latin America, namely Brazil and Uruguay. Besides the expectable increase on the integrated paper production capacity, on these countries, that could compromise supply, there is a damaged risk associated with the maritime transport, since the origin to Navigator's factories. For that matter, Navigator tries to mitigate this risk for Latin America suppliers' through an insurance contract covering any damage during the transport.

Financials

As of FY17 Navigator announced a reported EBITDA of €404 million, which reflects an increase of 1.6% when comparing with FY16 (€397 million). This increase is mainly explained by a combination of revenue growth from all the business sectors of 3.8%, with greater emphasis on Pulp (19%), Energy (13%) and Tissue (10%) segments. Moreover, the company is carrying out significant cost reduction measures (M2) with an estimated impact of -€27 million in FY17. Nevertheless, the company estimates a negative impact of c. -€7 million regarding the forest fires that occurred during the 2017 summer in Portugal. Navigator had a decrease of 63% on financial results as a result of the company debt restructuring and from a positive impact of exchange rates. Despite this aforementioned results, the company reported a decline of 4% on net income, mainly explained by the upturn on the income tax arising to €-40 million that compares to €7 million in FY16 that resulted from fiscal benefits.

Turnover

Regardless of the company efforts to diversify its business segments, during FY17 **UWF Paper revenues** continued to be the most relevant source of revenues, representing 74% of the company's turnover. Revenues from UWF Paper remained relatively stable achieving a sale volume of 1,578 thousand tons reflecting a negative variation of -1% from FY16 (1,587 ktons). During the year, it was observable a progressive improvement on market conditions with a gradual

Figure 38. Navigator's Paper Installed capacity and quantity sold 2017 (ktons)

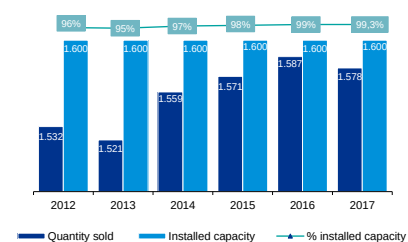


Figure 39. Navigator's Paper historic price and growth 2017 (€)

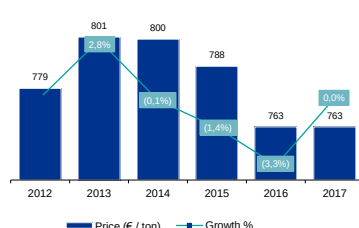


Figure 40. Navigator's Pulp Installed capacity and quantity sold 2017 (ktons)

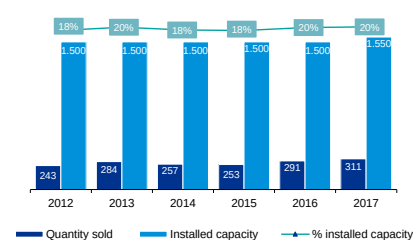


Figure 41. Navigator's Pulp historic price and growth 2017 (€)

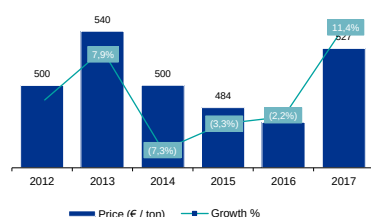
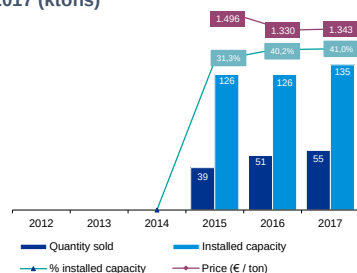


Figure 42. Navigator's Tissue historic installed capacity, quantity sold and price 2017 (ktons)



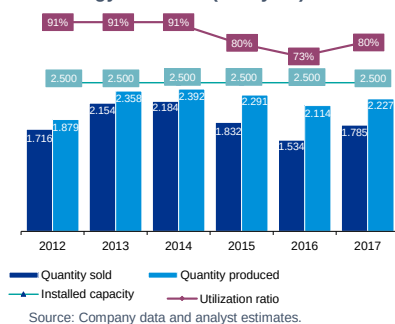
increase of exportations by the company to Europe and overseas. The worldwide demand for UWF Paper have marginally increased by 0.2% during the year, mainly supported by China improvements. Europe faced a decrease of 0.7% on paper consumption. In terms of price, the UWF price index (PIX A4), had a favourable performance during FY17 achieving €815 /ton, however it remains below of 2016 prices (€824 /ton). In line with the market, Navigator had several price improvements during the year, but still, UWF prices stayed similar to FY16 due to exchange devaluation from both dollar and liber against euro, as well as a poor market mix performance.

Regarding Navigator's **BEKP Pulp sales** it was a positive year for the company, reaching €164 million in sales, an increase of 19% when compared with the previous year. The company took advantage of the good performance of the market in terms of demand and price increases, both in Europe and China. On one hand, the company registered an increase of 7% in sold tons, on the other hand the pulp price increased by 11.4%. The price growth reflected a rise on the pulp main index – PIX BHKP – of 15% from €628 /ton to €725 /ton.

Tissue segment has been one of the major commitments of the company in order to diversify its business portfolio, since UWF paper market has been deteriorating over time. In this regard, the revenue amount from this source increased by 10% when compared with FY16, characterized by an expansion on the production capacity and an improvement on the product mix, by selling more finished products rather than reels. Furthermore, the company was also been able to benefit from the macroeconomic positive outlook, in Portugal and Spain, namely boosted by the tourism sector that allowed the company to increase its prices, partially offsetting the increase on production price as a result of the previously mentioned price escalations on Pulp.

Navigator's **energy** revenues represent c. 10% of the company total turnover. The company uses part of the energy produced on its production process of pulp and paper, only selling the surplus. Still, in Portugal the company is the largest biomass power producer with c. 50% of total biomass production in the country and has an energy generation capacity of 2.5 TWh, contributing for c.4% of the total energy produced in Portugal. The energy is produced mainly from four natural gas and biomass cogeneration stations and two biomass thermoelectric plants. During FY17 the company accounted for an increase of 13% on its energy sold, mainly due to non-recurrent events occurred during FY16 that negatively impacted the energy sales. Furthermore, part of this segment increase is a result of an increase on the efficiency of energy generation assets and the growth of Brent prices that influence directly the energy price. In terms of energy produced it should be noticed that FY17 was the first year of full operation from the

Figure 43. Navigator's energy produced vs. energy sold 2017 (GW / year)



photovoltaic central in Setúbal paper mill in self-consumption system. Moreover part of the energy sold is co-generated during the manufacturing process and therefore is reported on the pulp and paper segments. Due to the lack of historic information available, we have considered the FY16 weight on energy produced in paper and pulp factories for FY15.

FY17 was also characterized by the beginning of the **Pellets** business in the U.S.A. accounting for €15 million in sales with the sale of 121 thousand tons. However, it was not a good start for Navigator on this business, since several problems on the production and sale process had arisen alongside with the deterioration of the international pellets market, reflecting a negative impact of €16 million on the company EBITDA.

OPEX: As previously mentioned, Navigator has a very efficient cost structure, positioning the company with a comfortable EBITDA margin of 24.7%. This margin was mainly achieved by continuous cost restructuring measures (M2 programme) held by the company that comprised c. 126 new internal actions during FY17. These measures had most of its impact on Navigator's variable costs, namely on wood and chemical costs integrated on the production process of pulp and paper, and on energy and product packaging. Regarding fixed costs, in FY17 the company faced an increase on personnel costs mainly due to the increment of the number of employees related with the Tissue and Pellets businesses. It should be noticed that the company had incurred in non-recurrent costs and profits during FY17, such as (1) costs related with forest fires that have occurred in Portugal during the summer months arising to €7.0 million and (2) the indemnities received regarding the facility fires in Vila Velha de Ródão and Setúbal, impacting positively the EBITDA in €6.5 million.

Overall, for the period 2012 – 2017, Navigator's EBITDA has been shown to be robust and relatively stable, ranging between [21.4% - 25.7%] by virtue of the company vertical integration and outstanding performance, and constant cost efficiency measures implemented by the management.

Financial costs: Concerning financial expenses, Navigator faced a rising trend until FY15 with a decrease on FY16 and FY17. The company has been restructuring its debt, by contracting new financing lines and replacing the existing ones. Despite the increase on the debt amount, this restructuring allowed the company to reduce its debt by c. €5 million during FY17. Furthermore, the devaluation of the dollar align with the company positive hedging activity provided a total decrease on financial costs of €13 million.

Net income: Despite the Group good operational efficiency and the cost reduction on the financial expenses during FY17, Navigator's net income

Figure 44. Operational expenditures (€000)

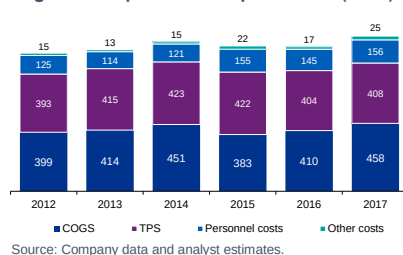


Figure 45. Navigator's wood and energy costs (€000)

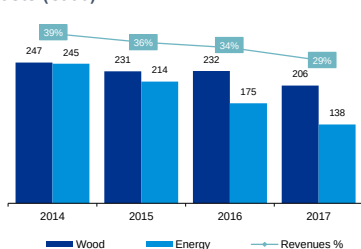


Figure 46. Navigator's EBITDA (€000)

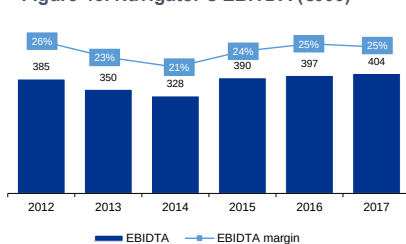


Figure 47. Navigator's implicit interest rate vs Euribor rate

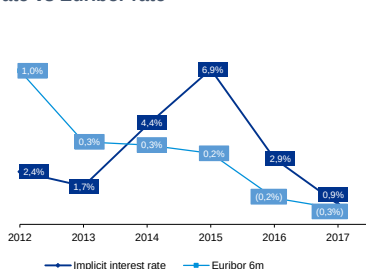
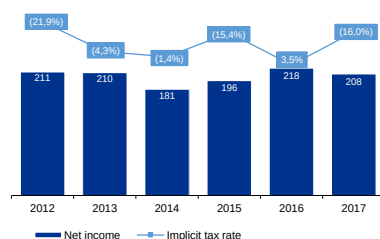
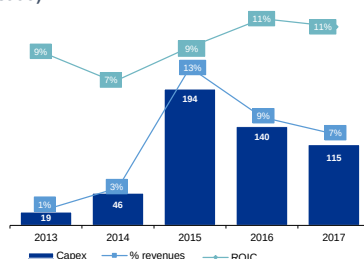


Figure 47. Navigator's net income vs. effective tax rate (€000)



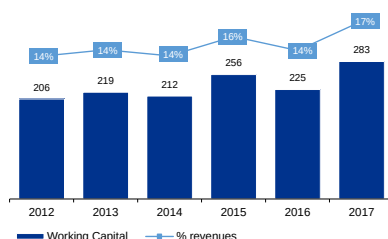
Source: Company data, and analyst estimates.

Figure 48. Navigator's Capex and ROIC (€000)



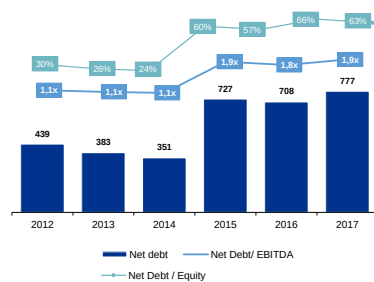
Source: Company data and analyst estimates.

Figure 49. Navigator's Working Capital (€000)



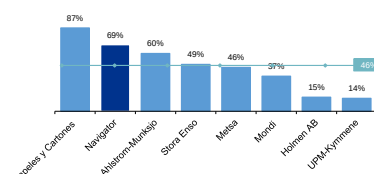
Source: Company data and analyst estimates.

Figure 50. Navigator's Net Debt (€000)



Source: Company data and analyst estimates.

Figure 51. Industry's D/E ratio 2017



Source: Company data, Thomson Reuters and analyst estimates.

suffered decrease of c. 4.2% comparing to FY16. This decline is explained by the increase on the income tax accounted by the company, arising to c. - €40 million in FY17 that compared to +€7 million in FY16 as a result of tax benefits. During the last few years, the company has been taking advantage from several tax benefits mainly due to the increase on the utilization of renewable energy on its production process. However this benefit should not hold in future as we already seen during FY17 with a considerable increase on the corporate income taxes.

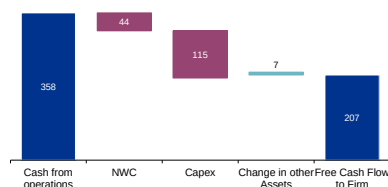
Fixed assets & Capex: Navigator had several investments during the period 2013 – 2017 in order to renovate and expand its production capacity, namely on the pulp (BEKP) and paper (UWF) business, but also to enter in new business segments such as Tissue and Pellets sectors. Since FY13 the company had already made c. €513 million in CAPEX which can be highlighted the Pellet's mill construction on the U.S. (c. €115 million), the acquisition and development of the AMS for the Tissue segment (c. € 80 million), renovation and expansion of Cácia mill (c. €86 million), the development of the Mozambique project (c. €52 million) and renovation and expansion of Figueira da Foz mill (c. €40 million).

Furthermore, the invested capital was translated in higher returns, with the Return On Invested Capital ratio evolving positively since FY15.

Net Working Capital: For the period 2013 – 2017 the company working capital has been relatively stable, evolving in line with the company business operations (CAGR 6.6%). During FY17, despite de decrease on c. €20 million on inventories as a result of the fire on the Rodão mill and the turbulent beginning at the Pellets business in the U.S., Navigator showed an increase in working capital. The WC growth was mainly motivated by the increase of receivables related with the anti-dumping tax imposed by the U.S. Government to Navigator imports, that the company does not agree. Furthermore, the reduction of state and other public entities of €43 million also contributed to the WC increase.

Net Debt: The group made a successful debt restructure during the last few years allowing Navigator to reduce its cost of debt, delay its debt maturity and diversify its counterparties. Since 2015 the company has been increasing its net debt in order to meet its capital requirements from organic and inorganic growth. As of FY17 Navigator's net debt accounts for €777 million, representing an increase of c. €69 million. This variation is mainly justified by the considerable amount of Capex incurred during FY17, as well as, the €250 million paid in dividends to its shareholders. The ratio Net debt to EBITDA is 1.9x and Net debt to Equity is 66% as of FY17 and should be lowered in the future, based on the company's peers levered ratios.

Figure 52. Navigator's Free Cash Flow to Firm bridge 2017 (€000)



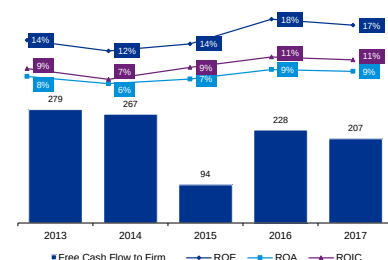
Source: Company data, and analyst estimates.

To sum up, the company has been performing well during the period under analysis with a strong performance and a solid balance sheet. Despite the increase on debt position, the company return ratios have been improved with the capex expansions. As of FY17 the company free cash flow ascended to c. €207 million.

Valuation

Discounted Cash Flow valuation approaches regards to the present value of future cash flows that the company will generate in the future, discounted to a cost of capital that better reflects the non-diversifiable risk of the company. We believe that discounted cash flow method are the most reliable to estimate the company's fair value.

Figure 53. Navigator's historic Free Cash Flow to Firm and return ratios 2017 (€000)



Source: Company data, and analyst estimates.

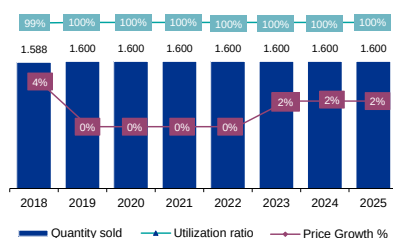
Business Plan assumptions

Regarding Turnover, it was assumed a CAGR of 2.4% detailed as:

UWF Paper: sales are projected at a CAGR of 1.4% for the projected period, assuming that the company will work in full capacity at FY19 (1.6 million tons). For FY18 it was considered an increase of 3.6% on prices, following an announcement from the company regarding an increase on European prices for UWF within a range of 6%– 8%, in order to compensate the increases on wood and pulp, and to follow the A4 B-COPY Index trend. For the period 2019 – 2025 it was expected a stabilization of the market, by a reduction on European installed capacity from non-integrated companies, with the Asian market offsetting the decrease on European demand. The quantity sold was kept stable along the forecasted period, as well as prices, evolving at inflation since FY23.

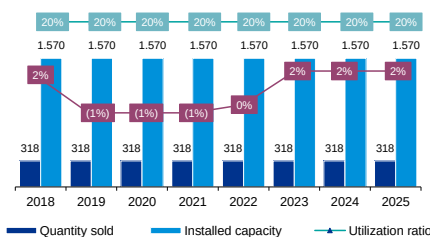
BEKP Pulp: The company already announced new installed capacity for FY18, namely on the Figueira da Foz factory arising to 1.6 million tons. Based on historical data, an assumption was been made regarding the amount of pulp sold to the market (rather than the one integrated in the production process), amounting to 20% of total pulp production. Concerning pulp sales prices, FY17 were very positive year, with several price increases during the year. Since the supply is expected to remain stable, there is a positive outlook for the prices to remain stable with slight corrections for lower prices, in the projection period.

Figure 54. Navigator's UWF Paper projections (ktons)



Source: Company data, and analyst estimates.

Figure 55. Navigator's BEKP Pulp projections (ktons)



Source: Company data, and analyst estimates.

Tissue: The Tissue segment is one of the most recent bets from Navigator in order to diversify its business portfolio. The segment started in FY15 with the investment on AMS and since then the revenues increased 26% between FY15 and FY17. Currently the company is selling both finished goods and reels but it is expectable an improvement on the product mix, by selling more finished goods

Figure 56. Navigator's Tissue projections (ktons)



Figure 57. Navigator's Energy projections (GW/year)



Figure 58. Navigator's Turnover projections (€000)

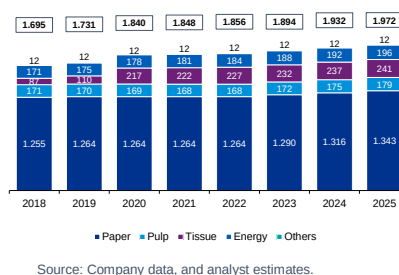
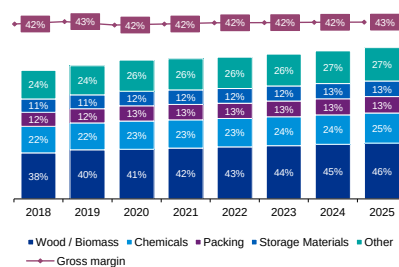


Figure 59. Cost of Goods Sold projections

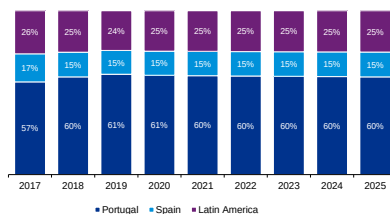


with the announced developments on Tissue factories. In terms of production capacity the company has already capacity to produce c. 106 thousand tons and it was already announced an increase of 9 thousand tons on AMS + 70 thousand tons on Cácia mill. These improvements are expected to occur during FY18, 9 thousand tons in the beginning and 70 thousand tons during the second semester. The tissue mills are expected to be fully operating during FY20. Concerning tissue prices, the recovery on demand settled by the Portuguese (and Spanish) economic recovery allowed the company to increase its prices during FY17. However, the prices are evolving at inflation during the projected period, since we are not expecting further price increases.

Energy: The energy produced allow the company to fulfil the pulp and paper manufacturing process and sell the surplus to the market. It was made an assumption, considering that the company level of energy produced will change in the same percentage of production increases on paper, due to cogeneration in the pulp and paper production process. Considering this assumption, we have included in the energy segment the sales of energy produced from biomass thermoelectric plants and from pulp and paper segments. Taking this into consideration, the sales of energy amounted to 167 million Euros in FY17 (1.8 GWh) with a production capacity of 2.5 million GWh. Moreover, energy sales were projected to stay relatively stable with a CAGR of 2% from FY18 to FY25. The level of energy sold per energy produced was remain stable along the projection period (80%), based on historic periods adjusted from non-recurrent events. Non-recurrent events relates to the (i) photovoltaic plant from Setubal mill, operating in auto consumption during FY17 and should continue in the future; (ii) the natural gas cogeneration from Figueira da Foz plant also started to work in auto consumption mode and (iii) the maintenance and repair occurred during FY16 and FY17 on Navigator's energy plants. All in all, it is expected that energy sales accounts for c. 10% of Navigator's total sales during the projection period.

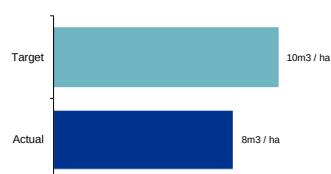
COGS are mainly comprised by wood (31%), chemicals (22%), packing (11%) and storage materials (11%). The COGS for the projection period have increased by a CAGR of 3.2%, mainly motivated by the increase on costs with the main raw material (wood). Regarding wood cost projections, it was considered that the internal wood supply (it is not accounted on COGS) will remain stable on 20%, according to new legislation from the Portuguese government that does not allowed new eucalyptus areas in Portugal. Therefore it was been split the wood cost between Portuguese supply and external supply (Spain + Latin America). Concerning PT supplies, according to historical data, it was considered a total eucalypt forest of 811 thousand ha, of which Navigator's market share is c.50%

Figure 60. Navigator's wood importations projections



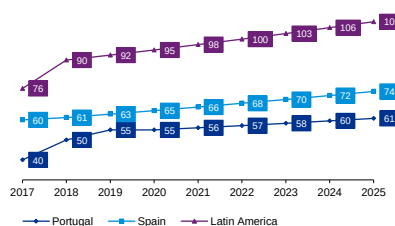
Source: Company data, and analyst estimates.

Figure 61. Wood productivity efficiency ratio



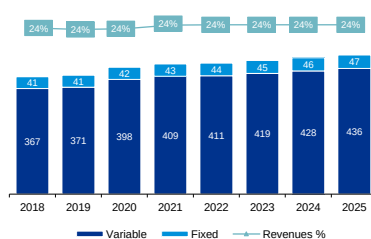
Source: Company data, CELPA and analyst estimates.

Figure 62. Navigator's wood cost per ton



Source: Company data, EFII-GTM and analyst estimates.

Figure 63. Navigator's Third Party Supplies projections (€000)



Source: Company data, and analyst estimates.

(406 thousand ha). The company's market share resulted from an assumption of a productivity index of 8 m3 / ha of forest, in line with market practices in Portugal, and then converted into tonnes (0.9 m3 / ton). In this sense, in FY17 the company consumed 2,920 tons of wood from the Portuguese Forest. In terms of price, per ton it was considered 40 Eur / ton, in line with market practices. For the projections, the PT wood costs will increase by a CAGR of 5.2% mainly driven by (i) the increase on costs of wood, as a result of the forest fires in Portugal, that should arise to 50 eur /ton in FY18 and 55 eur /ton FY19 and should stabilize on 55 eur /ton in FY20, upgraded to inflation. According to Celpa (Associação da Indústria Papeleira) a productivity efficiency is expected to occur in Portugal from c. 8 m3 /ha to 10 m3/ha. We have considered as an upside to our valuation. Regarding wood importations it was considered two regions according to the current importation mix. On one hand, the company's first wood supply option, rather than Portugal, is the neighbour Spain. However, Spain also has its eucalyptus supply restrictions and therefore it was considered a weight on imports of 14% (FY16 data), that should remain stable in the projection period. In terms of price, we assumed a premium of 20 eur /ton from Portuguese wood, amounting to 60 eur /ton and evolving at inflation. As a result, the costs with wood from Spain achieved 35.5 million Euros during FY17, with a CAGR of 3.0% until FY25. In what concerns extra-Iberia wood imports, it was considered the current sources of supply, namely Brazil and Uruguay with a CAGR of 6.2% during the projection period. Navigator only rely to this markets after fulfil the Portuguese and Spanish supply due to the increase on prices, namely on transportation and due to increase on damage` risks. Bearing this in mind, in FY17 according to company's information, it was used these markets for 14% of wood consumption, resulting on 715 thousand tons, for a total cost of 54 million Euros, resulting on an implicit price of 76 eur /ton. For the projection period, it was considered a price of 90 eur/ton, upgraded at Latin American inflation rate and quantities resulting from the company needs, after fulfil the Iberian wood market. For the remaining COGS, it was assumed that they evolve in percentage of the Group turnover in the same weight of the previous two years.

Third party supplies: TPS estimated CAGR between 2018 and 2025 is 2.1% and were split between variable and fixed costs. The increase was mainly driven by the growth on variable costs (2.2%), namely transport expenses. Transport costs were projected to be 8.3% of sales according to historic data, and should increase 0.5% during FY20, FY21 due to the increase on the transport of goods, as a result of the increase of wood importations from Latin America. Moreover, it was also purged the non-recurrent costs, such as the increase on specialized

Figure 64. Navigator's Personnel costs projections (€000)

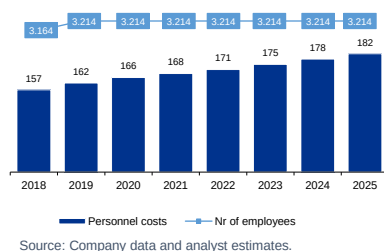


Figure 65. Navigator's Other costs and losses breakdown 2016

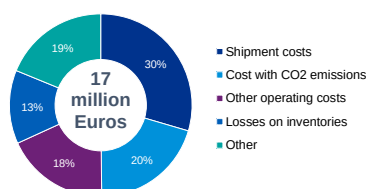


Figure 66. Navigator's Financial costs projections

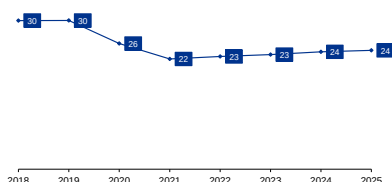
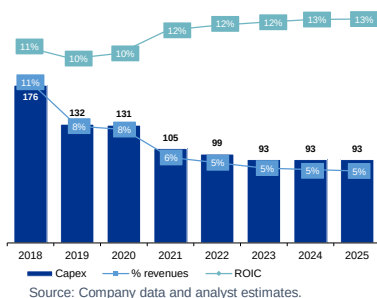


Figure 67. Navigator's Capex and ROIC projected (€000)



works during FY16 and FY17 related with the Pellets business. The fixed costs were forecasted to remain stable in line with historical data.

Personnel costs: were divided between statutory bodies, Employees, Social expenses and other personnel costs. From FY18 and FY25 the costs with remunerations are expected to grow at a CAGR of 1.2%. Overall, the costs were estimated based on historic data, removing non recurrent costs associated with the U.S. factory, resulting on a decrease on the number of employees. However it was also been take into considerations, an increase on the number of employees to respond to the capacity increase projected for the company, mainly on the Tissue sector. The net effect of these two events result on a decrease on the number of employees of -50, remaining stable in the projections

Other costs and losses: are mainly comprised by losses in inventories (7 million Euros), Shipment costs and CO2 emissions related costs. These costs were projected as a percentage of the company turnover, based on historic data. However, it should be noted that FY17 had several non-recurrent costs related with a fire in Rodão factory and losses in inventories driven from the Pellets business that were not projected for the future.

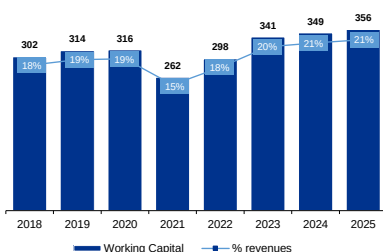
Group share of (loss) / gains of associated includes the accounting gain of 15.8 million regarding the Pellets business sale during FY18.

Financial results: are forecasted based on the company's debt amount. Although, during FY17 the company had accounted significant decrease on financial interests as a result of different factors, it is expectable a 3.8% cost of debt for the company in the future.

Taxes: Even considering that historically, the company has been taking advantage of tax benefits, (mainly related with renewable energies), this event should not be preserved in the future. Therefore, the Income tax was projected based on Navigator's Nominal tax (CIT: 21%) and Municipal surtax (1.5%) plus a State surtax based on the company results (0% - 7%).

Capex and Depreciation: For 2018 the company is also committed to a significant amount of CAPEX, namely the continuing expansion of Cácia (c. €90 million) and Figueira da Foz mill (c. €45 million). Navigator is currently focused on the modernization of its production process and paper mills in order to became more and more efficient. The company is also diversifying its business segments, in order to became less depend on the UWF sector and invest into other profitable segments. This mind-set will allow the company to be ahead of its competitors and be well positioned for the upcoming industry challenges. Bearing this in mind, although the company does not have any capex commitments apart from the ones aforementioned, it was been considered a high level of capex for

Figure 68. Navigator`s Working Capital projected (€000)



Source: Company data and analyst estimates.

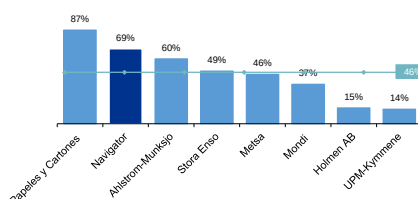
the projection period. The level of capex was computed based on the company depreciations, from 110% (FY19) to 100% (FY21), in order to support the business activity and maintain Navigator as one of the most modern players in the industry.

Working capital projections were made based on historical data reported by the company, namely based on (i) the days of receivables or payables for clients, other receivables and suppliers, (ii) Days inventory held for Inventories, (iii) historic percentage of capex for investment suppliers, net of non-recurrent events (Pellets business) and (iv) as a percentage of the company`s revenues for the remaining balance sheet items, including operational cash. As a result, the projected working capital reflects an annual investment of 2.1% in order to support the growth on business operations.

WACC and Terminal Value

The Discounted Cash Flow approach used to accesses the Navigator`s fair value implies the calculation of the Weighted Average Cost of Capital (WACC. It was computed a **WACC of 6.8%** being our estimates were based on:

Figure 69. Navigator`s peers Capital Structure



Source: Company data Thomson Reuters.

Capital Structure: The target capital structure for Navigator has to be consistent with the company`s long term strategy. Since there are no company specific guidance regarding the future capital structure, it was analysed the Navigator`s peers capital structure in order to define a long term target capitalization. Based on this approach, it was computed a D/E ratio of 46%.

Cost of equity represents the required return that an equity investor is willing to receive in order to invest in a certain company. Since the cost of equity of a company cannot be observable in the market, it was applied the CAPM.

Table 1. Navigator`s comparable companies for beta purposes

Comparable Companies		
Company	Country	Unlevered beta
Navigator	Portugal	0,60
Paper Sector		
Ahlstrom-Munksjo	Sweden	0,39
Holmen AB	Sweden	0,84
Metsa	Finland	1,10
Mondi	UK	n.a
Papeles y Cartones de Europa	Spain	0,45
Stora Enso	Finland	n.a
UPM-Kymmene	Finland	1,48
Median		0,84
Pulp Sector		
Altri SGPS SA	Portugal	1,09
Ence Energia y Celulosa SA	Spain	0,48
Rottneros AB	Sweden	1,22
Statistics Pulp and Paper		
Median		0,97

Source: Company data Thomson Reuters.

- Risk free rate** is the expected rate of return for an equity investor for a riskless asset. It was been used the Yield of a 30 year zero coupon German bond, that is the best proxy for a riskless security traded in Europe.
- Levered Beta** is the measure of covariance or systematic risk between the company`s returns and the return of a certain market. Our approach was to extract the unlevered betas form Navigator`s peers from Thomson Reuters and then re-levered the median of peer`s betas according to Navigator`s target capital structure.
- Market Risk Premium** describes the return demanded by an investor above the risk free rate for holding a market portfolio containing risk securities. Our approach was based on the market risk premium computed by Aswath

Damodaran published in January FY18 based on the average historical monthly risk premiums.

Table 2. Navigator`s Weighted Average Cost of Capital

WACC	
Risk free	1,4%
Gearing [D/(D+E)]	31,5%
D/E	46%
Beta unlevered (β_u)	0,97
Beta levered (β_l)	1,41
Market Risk Premium	5,1%
Tax rate	22,5%
Cost of equity	8,5%
Risk free	1,4%
Spread	2,4%
Custo da Dívida (Pre-tax)	3,8%
Cost of debt	2,9%
WACC	6,8%

Source: Company data Thomson Reuters and analyst estimates.

Cost of debt reflects the price paid by the company to issue debt at the optimal cost structure. At the target capital structure, the cost of debt could be obtained through the yield to maturity on the company current outstanding debt, namely on the public traded debt, such as bonds. However, as stated before, we assumed that currently the company is not on its optimal cost structure and therefore the cost of debt should be obtained from Navigator`s peers. However there is no available information in the market and therefore it was considered the risk free plus the spread associated with companies, with Navigator`s credit rating. (Moody`s Ba2 spread).

Terminal Value: As previously mentioned, the DCF valuation method is based on the future cash flows generated by the company, however given the technical impossibility of calculating the company`s cash flows indefinitely, it was necessary to compute the terminal value to quantify the company`s cash flow after the projection period. It is expectable that terminal value represents a considerable amount of the company`s valuation on a DCF approach, and so it is crucial to ensure that the terminal year (final year of projection) represents a steady and mature state of the company`s performance. In our valuation the terminal growth was computed based on perpetuity growth method, assuming the last projected year as a perpetuity growing at a settled date. Regarding the terminal growth rate, we have assumed a growth of 2% considering that: (i) on one hand the UWF market is already in a high stage of consolidation and there are no growth expectations, and the impact of digitalization would reduce future prospects. On the other hand, the company has been demonstrating quite resilient and is committed to explore the market with greater efficiency and higher degree of innovation than its peers. Moreover, the diversification strategy and the company efforts to explore further opportunities in other profitable markets and segments, would bring a future growth perspectives. Consequently, it was projected a perpetuity growth rate of 2%, in line with the long term inflation expected for Europe.

Regarding the high degree of volatility that can be assumed on the definition of WACC and growth rate on perpetuity (g) on the Enterprise Value, a sensitivity analyses was made:

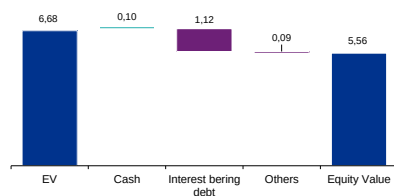
Table 3. WACC and Terminal Growth rate sensibility analysis

		WACC				
		5,8%	6,3%	6,8%	7,3%	7,8%
Terminal Growth Rate	1,0%	5,91	5,23	4,67	4,19	3,79
	1,5%	6,55	5,73	5,07	4,52	4,07
	2,0%	7,37	6,36	5,56	4,92	4,39
	2,5%	8,43	7,15	6,17	5,40	4,77
	3,0%	9,89	8,18	6,94	5,99	5,23

Source: Company data and analyst estimates.

Equity Value

Figure 70..Navigator`s Equity Value bridge 2018 (€000)



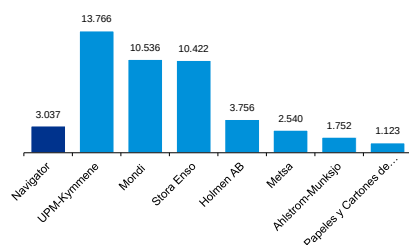
Source: Company data and analyst estimates..

To derive from Enterprise Value to Equity value, it was necessary to make some adjustments, mainly deducting the market value of Net debt. Market value of Net Debt includes the total debt and excess cash reported by the company, as well as other debt and cash like items. In Navigator`s case it were considered the following debt like items the: (i) expected debt (€806 million),(ii) Pensions and other post-employment benefits (€5 million), (iii) Provisions (€20 million) and (iv) Deferred tax liabilities (€83 million). As cash like items there were summed up the: (i) excess cash (€69 million), (ii) Deferred tax assets (€45 million, (iii) Other financial assets (€0.4 million) and (iv) Investment properties (€0.1 million). We have computed and Equity Value of 3,990 million Euros, that results in a **Target Price of €5.56**. Additionally, to compare the target price with the Navigator`s current stock price we added the already announced dividends (€200 million) to be paid during FY18, to the company`s Equity value resulting in an upside potential of 18%.

Multiple Valuation

To corroborate the fair value of Navigator driven from FCF valuation method, it was also conducted a Multiple valuation based on the company peers and precedent transactions. First of all, it was analysed the industry players in order to define a comparable group for Navigator and after that, there were chosen the main value drivers that better reflect the company market value. The Navigator`s peer group and valuation ratios are the following:

Figure 71.Peers Market Cap 2017 (€000)



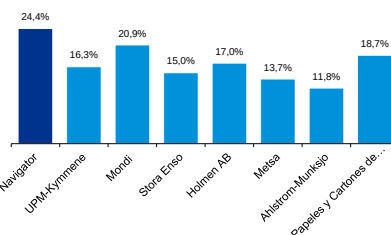
Source: Company data, Thomson Reuters.

Table 4. Comparable companies for valuation purposes

Comparable Companies								
Company	Country	Market Cap (\$'000)	EBITDA Margin (%)	EV/ SALES	EV/ EBITDA	Ratio D/E	Ratio P/E	Div Yield
Navigator	Portugal	3.036.821	24,4%	2,5x	10,3x	69,3%	16,03	7,3%
Paper Sector								
Ahlstrom-Munksjo	Sweden	1.752.289	11,8%	1,0x	8,6x	60,4%	14,99	3,1%
Holmen AB	Sweden	3.756.154	17,0%	2,6x	15,0x	14,8%	19,26	2,9%
Metsa	Finland	2.539.600	13,7%	1,7x	12,7x	45,9%	15,03	2,6%
Mondi	UK	10.535.779	20,9%	1,8x	9,2x	36,8%	13,53	2,9%
Papeles y Cartones de Europa	Spain	1.122.876	18,7%	1,9x	10,6x	87,0%	14,39	2,4%
Stora Enso	Finland	10.422.028	15,0%	1,4x	9,4x	49,0%	13,78	2,7%
UPM-Kymmene	Finland	13.765.681	16,3%	1,7x	10,1x	13,7%	15,08	3,8%
Median			16,3%	1,7x	10,1x	45,9%	14,99	2,9%

Source: Company data and Thomson Reuters.

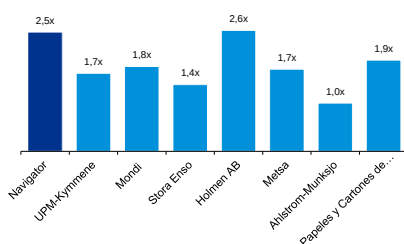
Figure 72. Peers EBITDA margin 2017 (€000)



Source: Company data, Thomson Reuters.

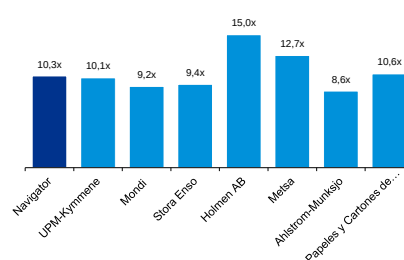
In terms of EBITDA margin, Navigator is clearly one step ahead of its competitors, with an EBITDA margin of 24.4% comparing with the industry median of 16.3%. This reflects the company positioning in the market allowing to demand higher prices due to the quality of its products. Moreover, the company efforts to reduce costs are also reflected in this ratio.

Figure 73. Peers EV/EBITDA ratio 2017 (€000)



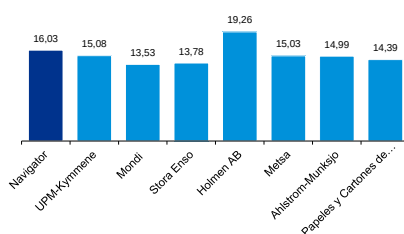
Source: Company data, Thomson Reuters.

Figure 74. Peers EV/Sales ratio 2017 (€000)



Source: Company data, Thomson Reuters.

Figure 75. Peers P/E ratio 2017 (€000)



Source: Company data, Thomson Reuters.

EV/SALES ratio of Navigator is higher than its competitors, which could suggest that the company could be perceived as overvalued, since the cost of investors to buy the company sales are higher than the industry. However other factors can explain this event. If we consider that Navigator's products have a premium when compared to its peers' products reflecting its high quality and differentiation features. Moreover, due to the future challenges of the Paper and Pulp industry, Navigator is likely to take maximum benefit from industry transformation and therefore a premium should be paid. Even so, we have not considered this ratio for valuation purposes due to the fact that sales may be an indication of size, but totally disregard key value drivers, such as profitability and cash flow generation.

EV/EBITDA is the most common ratio used in multiple valuation approaches since it reduces the risk of distortion that may arise from different capital structures, taxes, and depreciation and amortization account policies among different companies. Navigator EV/EBITDA is similar to the industry companies.

P/E can be defined as how much an investor is willing to pay for an extra Euro of the company's earnings. Navigator's P/E ratio (16.03) is slightly above its peers (14.99). This may suggest that Navigator could be perceived in the market to have higher growth expectations, however it should be noted that P/E is influenced by the company capital structure, that in the Navigator's case is higher than the industry.

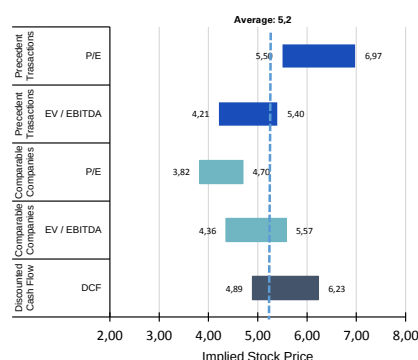
Precedent transaction analysis are another method to imply the company fair value, throughout the implied multiples that resulted from previous M&A transactions in the Pulp & Paper industry. However, it should be noted that transaction multiples could be biased due to several factors: (i) multiples often are overvalued due to the control premium paid by the acquirer or (ii) due to synergies that could result from the deal, (iii) multiples are often calculated on a last twelve months basis (best information at the transaction date) and (iv) the transaction ageing and external environment could not reflect the current market conditions. Even so, we have conducted an analysis based on the most relevant and similar transactions occurred in the last three years:

Table 5. Precedent transactions

Precedent Transactions								
Date	Country	Target	Deal Value EUR(m)	Deal %	Enterprise Value EUR(m)	Revenue Multiple	EBITDA Multiple	P/E Multiple
Jan-18	U.S	KapStone Paper and Packaging	3.991	100,0%	3.991	1,5x	12,8x	14,2x
Feb-17	Brazil	Eldorado Brasil Celulose SA	3.670	81,0%	4.032	5,3x	10,5x	25,6x
Nov-16	South Korea	Hansol Artone Paper Co., Ltd.	293	100,0%	293	1,0x	10,7x	28,5x
Jun-16	China	Bracell Ltd.	146	16,3%	1.015	2,6x	7,8x	0,2x
Oct-15	U.S	Wausau Paper Corp.	150	100,0%	601	1,9x	17,8x	n.a.
Jul-15	U.S	Cytec Industries Inc.	5.420	100,0%	5.420	3,0x	19,0x	n.a.
May-15	Portugal	Semapa	670	45,5%	2.893	1,4x	7,1x	13,1x
Apr-15	China	Lee & Man Paper Manufacturing	152	6,8%	3.533	1,7x	9,1x	9,8x
Jan-15	China	Lee & Man Paper Manufacturing	94	4,3%	3.457	1,7x	9,1x	9,8x
Median			293		3.457	1,7x	10,5x	13,1x

Source: Mergersmarket

Figure 76. Navigator's Multiple Valuation (€000) 2018



Source: Company data, Thomson Reuters and analyst estimates.

The relative valuation was based on EV/EBITDA and P/E ratios, as we consider that are the most reliable ratios to determine the fair value of Navigator. Although we consider that comparable companies and precedent transactions have their specific features, we can observe a consistency on the relative valuation outputs when compared with the DCF approach, supporting our recommendation.

Other Projects

Mozambique: With the purpose of consolidating its leading position in the pulp and paper market, Navigator is engaged with a project in Mozambique in order to feed the company growth strategy. The project mission is to develop the largest integrated forest project of pulp, paper and energy production in the country. The project is managed by Portucel Mozambique, owned by 80% from Navigator and 20% from IFC, a World Bank member. Due to the social component and the positive impact of the project on the Mozambique community, Navigator found World Bank as a good partner for the project, giving support and credibility for the project as well as access to different sources of capital. The project is comprised by 356 thousand ha of land, including legal permits to use and plant and is seen as a great opportunity driven by the worldwide supply limitations, namely in Portugal and also due to the increase demand in Asia. Not only the proximity with Asia but also low cost of land and the high productivity potential, make Mozambique a very attractive investment. The project has been suffering several delays due to political and economic instability from the country and is currently split in two phases: (1) Woodchips project – includes 35 to 40 kha of planted area, with a capacity of 700 kton/ yera woodchips and is planned to start in 2022; (2) Pulp Project (potential): planned capacity of 1.5 MtAD/ year, with a potential start up between 20216 and 2030. According to management, the company remains engaged with the project but needs to clarify several situations and conditions to proceed with the project.

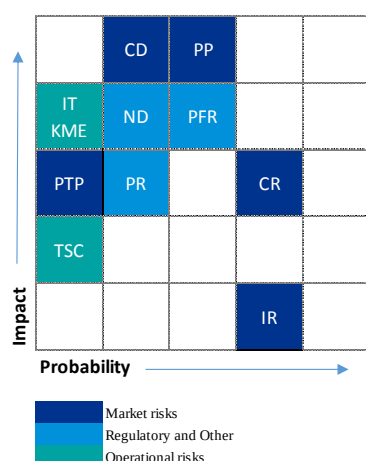
Due to the early stage of this project, to the current instability on the country and scepticism showed by the management we have considered a zero NPV for this project, however this should be considered as an upside potential for Navigator.

Colombo - Pellets business: In line with Navigator's diversifying strategy, the company entered into the pellets business by investing in the construction of a pellet's factory in the United States of America with an investment of c. €114 million. The factory started its activity during FY17 with an installed capacity of 500 kton and sales of €15 million (120 kton). However the company found a difficult environment and had several problems in managing the factory, making it a cash burner with a negative EBITDA during FY17. Furthermore, during the year, the company received an attractive opportunity to sell the business by

Enviva Holdings and signed an agreement of \$135 million. We have reflected this transaction in our business plan. The pellet's business sale does not mean a backward on the company's diversifying strategy, since it is expected that the company use the cash proceedings to invest on the pulp and tissue sectors, where Navigator has higher know-how and competitive advantages.

Investment Risks

Figure 77. Navigator's Risk matrix



Source: Analyst estimates

Paper and Pulp prices volatility (PP): Fluctuations in UWF and BEKP prices would directly impact Navigator's turnover and therefore the target price.

Fluctuations could occur due to unbalances between supply and demand as a result of fierce competition between incumbents or new capacity increases. We have forecasted stabilization of UWF and BEKP prices in FY19 and onwards, however external events could affect this assumption and impact our valuation.

China demand (CD): China has been one of the major growth drivers for the Paper industry, as it is expected to stand in the future. Despite the low level of Navigator's exposure to the Asian market, the Pulp and Paper prices are directly correlated with China economic performance.

Protective trading policies (PTP): International trading are exposed to foreign policies that can affect business relations between different geographies. Recently, U.S. have imposed an anti-dumping duty to Navigator's products. There is an high degree of unpredictability related with this measures, however they could have a considerable impact on Navigator's profitability.

Protective forest regulation (PFR): Wood is the main cost for Navigator's production process and therefore, increases in wood prices would affect the company's profitability. In Portugal, a tight regulation have been increased, with limitation to eucalyptus new plantations. The excess of regulation would limit the wood availability in Portugal and could be reflected in price upsurges. Even so, Navigator has a good relationship with wood suppliers that could diminish this risk. Moreover, the scarcity of raw material would result in wood importations from Spain and Latin America causing cost increases for Navigator.

Transportation and shipment costs (TSC): The scarcity of raw material in Portugal and the high exposure of Navigator's revenues to external markets, make transportation and shipment costs fluctuations an important feature to the company profitability (8% of revenues). However, these costs have been stable in the past and are expected to remain in the future.

Natural disasters (ND): Navigator's assets are exposed to natural disasters being factory and forest fires the most common. The company's factories are covered by insurance companies, reducing the impacts from a disaster. Forest

fires in Portugal are common during the summer months and could result in wood scarcity, pressuring local wood prices upwards and increasing importations from foreign countries.

Pollution regulation (PR): Society is becoming more concern about pollution issues and so the regulators. Pulp and Paper industry could significantly affect the environment and so, has a tight regulation. In China, some factories have been closed for not complying with internal and external regulation policies. To mitigate this risk, Navigator has set several mechanisms by cooperating with environmental authorities, mainly on forest management and by use renewable energies on its production process.

Currency risks (CR): Exchange rate variations could affect the company profit since part of the Navigator`s sales are received in non-Euro currencies and part of raw material imports from Latin America are paid in USD. Furthermore, Navigator has also one subsidiary in Poland and other in Mozambique that are also exposed to currency risks. In order to minimize this risk, the company resort to derivative instruments otherwise it will be very exposed to exchange rate fluctuations.

Interest rate risk (IR): Interest rates increases would affect the Navigator`s financial results, since the company debt costs are indexed to Euribor. Even though low interest rates have positively impacted the company financial results, higher rate are expected in the future with the economy recovery.

Key management and employees (KME): The company capacity to maintain key managers and employees will be determinant to maintain operational efficiency and achieve the business plan that support the target price. A poor management in the future would compromise the company strategy and affect the business performance.

Industry transformation (4th revolution) (IT): As previously mentioned, the Pulp and Paper industry will face several challenges in the future and the capability of the company to surpass the upcoming changes can affect the target price.

In order to quantify the impact of the major investment risks described before, it was made a sensitivity analysis to Navigator`s target price to measure the impact on Target Price

Figure 78. Navigator`s Sensitivity analysis to target price

Sensitivity analysis for Navigator Valuation			
Variables	Low estimate	Base case	High estimate
Paper price	-10%	790	10%
Target Price	3,95	5,56	6,97
Wood price	10%	-	-10%
Target Price	5,46	5,56	5,66
Eucalyptus area	(20%)	812 há	20%
Target Price	4,73	5,56	6,10
Productivity index	6,00	8,00	10,00
Target Price	4,62	5,56	6,23
WACC	7,8%	6,8%	5,8%
Target Price	4,39	5,56	7,37
Terminal Growth	1,0%	2,0%	3,0%
Target Price	4,67	5,56	6,94

Source: Analyst estimates

Appendix

Financial Statements

Balance sheet (€ 000)																
	2012H	2013H	2014H	2015H	2016H	2017E	2018P	2019P	2020P	2021P	2022P	2023P	2024P	2025P		
Assets																
Non-current Assets																
Goodwill	376.756	376.756	376.756	377.339	377.339	377.339	377.339	377.339	377.339	377.339	377.339	377.339	377.339	377.339	377.339	
Other Intangible assets	4.549	3.350	3.416	4.932	4.301	3.878	3.917	3.956	3.986	4.038	4.076	4.117	4.158	4.200		
Property, plant and equipment	1.398.755	1.316.186	1.250.352	1.320.799	1.294.979	1.266.559	1.197.914	1.209.866	1.231.667	1.231.587	1.231.507	1.231.425	1.231.343	1.231.260		
Investment properties	109.056	111.339	-	427	427	99	99	99	99	99	99	99	99	99		
Biological assets	126	229	113.969	116.997	125.613	129.397	129.397	129.397	129.397	129.397	129.397	129.397	129.397	129.397		
Other financial assets	1.791	-	229	229	260	424	424	424	424	424	424	424	424	424		
Available-for-sale financial assets	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Deferred tax assets	38.952	30.727	23.419	50.934	44.199	44.728	44.728	44.728	44.728	44.728	44.728	44.728	44.728	44.728		
	1.929.985	1.838.588	1.768.141	1.871.657	1.847.200	1.812.425	1.753.819	1.765.810	1.787.651	1.787.611	1.787.570	1.787.530	1.787.488	1.787.447		
Current assets																
Inventory	212.388	202.925	188.860	212.555	208.888	188.599	222.662	230.651	240.225	242.808	245.519	250.846	256.292	261.858		
Receivables and other current assets	188.359	200.812	188.808	215.371	215.878	240.705	235.340	240.332	255.479	256.507	257.677	262.926	268.284	273.751		
State and other public entities	64.395	53.050	62.930	57.643	69.619	75.076	75.076	75.076	75.076	75.076	75.076	75.076	75.076	75.076		
Cash and cash equivalents	329.388	524.294	499.553	72.658	67.542	125.331	153.960	162.459	77.802	21.425	55.467	93.185	120.437	141.117		
Operating Cash	74.928	76.348	76.884	72.658	67.542	81.606	84.545	86.338	77.802	21.425	55.467	93.185	98.380	98.344		
Excess cash	254.440	447.946	422.669	-	-	43.724	69.415	76.120	-	-	-	-	-	-		
	794.500	981.082	940.150	558.226	561.927,23	629.711	687.038	708.518	648.582	595.817	633.739	682.034	720.089	751.803		
Total assets	2.724.485	2.819.669	2.708.292	2.429.883	2.409.127	2.442.136	2.440.857	2.474.327	2.436.233	2.383.428	2.421.309	2.469.563	2.507.577	2.539.250		
Capital and Reserves																
Share Capital	767.500	767.500	767.500	767.500	717.500	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000	500.000		
Treasury Shares	(88.934)	(94.305)	(96.974)	(96.974)	(1.002)	(1.002)	(1.002)	(1.002)	(1.002)	(1.002)	(1.002)	(1.002)	(1.002)	(1.002)		
Fair Value reserves	73	213	(2.329)	(1.889)	(7.572)	(3.021)	(3.021)	(3.021)	(3.021)	(3.021)	(3.021)	(3.021)	(3.021)	(3.021)		
Other reserves	66.218	75.266	83.845	91.781	99.709	327.290	327.290	327.290	327.290	327.290	327.290	327.290	327.290	327.290		
Currency translation reserves	946	(1.297)	725	5.688	(779)	(13.967)	-	-	-	-	-	-	-	-		
Retained earnings	523.626	522.172	519.395	273.082	205.640	167.388	175.158	203.259	231.717	266.755	289.557	312.354	324.231	336.369		
Net profit for the period	211.169	210.038	181.467	196.404	217.501	207.770	187.341	189.717	233.586	228.016	227.972	237.540	242.758	248.256		
Dividends paid in advance	-	-	-	(29.971)	-	-	-	-	-	-	-	-	-	-		
Non-controlling interest	239	239	235	8.622	2.273	420	420	420	420	420	420	420	420	420		
Total Equity	1.480.837	1.479.826	1.453.663	1.214.263	1.233.270	1.184.879	1.186.187	1.216.665	1.288.991	1.318.459	1.341.217	1.373.581	1.390.677	1.408.312		
Liabilities																
Non-current liabilities																
Deferred taxes liabilities	192.368	99.280	95.893	88.296	59.860	83.024	83.024	83.024	83.024	83.024	83.024	83.024	83.024	83.024		
Pensions and other post-employment benefits	5.315	-	-	-	6.457	5.090	5.090	5.090	5.090	5.090	5.090	5.090	5.090	5.090		
Provisions	4.653	49.317	41.149	59.206	31.049	19.537	19.537	19.537	19.537	19.537	19.537	19.537	19.537	19.537		
Interest-bearing liabilities	473.260	771.632	468.458	686.571	638.559	670.853	711.655	705.953	581.757	515.877	538.703	545.929	559.768	565.663		
Other non-current liabilities	13.853	48.259	38.552	38.539	29.301	25.466	25.466	25.466	25.466	25.466	25.466	25.466	25.466	25.466		
	689.459	966.489	644.052	872.611	769.226	803.969	844.772	839.069	714.874	648.993	671.819	679.046	692.884	698.780		
Current liabilities																
Interest-bearing liabilities	219.745	59.702	304.735	40.579	69.702	150.206	94.673	100.431	99.626	82.100	75.802	76.024	77.043	78.996		
Non financing	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Payables and other current liabilities	233.848	201.063	211.925	225.064	255.831	259.510	271.652	274.580	289.170	290.304	291.899	297.344	303.401	309.889		
State and other public entities	100.596	112.620	93.917	77.246	81.098	43.572	43.572	43.572	43.572	43.572	43.572	43.572	43.572	43.572		
	554.189	373.355	610.577	343.009	406.632	453.287	409.897	418.593	432.368	415.975	408.273	416.936	424.016	432.157		
Total Liabilities	1.243.648	1.339.844	1.254.629	1.215.620	1.175.857	1.257.257	1.254.669	1.257.662	1.147.242	1.064.969	1.080.092	1.095.982	1.116.904	1.130.937		
Total equity and liabilities	2.724.485	2.819.669	2.708.292	2.429.883	2.409.127	2.442.136	2.440.856	2.474.327	2.436.232	2.383.427	2.421.309	2.469.563	2.507.577	2.539.249		
INCOME STATEMENT (€ 000)																
	2012H	2013H	2014H	2015H	2016H	2017E	2018P	2019P	2020P	2021P	2022P	2023P	2024P	2025P		
Revenue																
Sales	1.498.559	1.526.952	1.537.678	1.624.102	1.573.520	1.632.127	1.690.898	1.726.762	1.835.591	1.842.981	1.851.383	1.889.102	1.927.595	1.966.878		
Services rendered	3.056	3.658	4.601	3.921	3.865	4.707	4.154	4.242	4.509	4.527	4.548	4.640	4.735	4.832		
Other income																
Gains on the sale of non-current assets	1.338	1.034	409	1.268	661	1.628	-	-	-	-	-	-	-	-		
Other operating income	29.284	17.931	30.651	24.939	40.859	28.177	29.163	29.769	31.381	31.510	31.655	32.234	32.825	33.429		
Change in the fair value of biological assets	(1.713)	2.283	2.630	3.028	8.616	3.784	-	-	-	-	-	-	-	-		
Costs																
Cost of inventories sold and consumed	(608.923)	(659.833)	(675.103)	(688.695)	(661.686)	(652.187)	(713.287)	(738.880)	(769.551)	(777.826)	(786.509)	(803.576)	(821.020)	(838.850)		
Variation in production	(3.075)	877	(13.786)	19.221	(2.752)	(25.301)	(8.454)	(8.634)	(9.178)	(9.215)	(9.257)	(9.446)	(9.638)	(9.834)		
Third party supplies	(392.899)	(415.261)	(429.028)	(421.930)	(404.495)	(407.745)	(412.527)	(440.257)	(461.897)	(452.457)	(454.767)	(463.866)	(472.346)	(483.020)		
Personnel costs	(125.355)	(114.268)	(120.563)	(154.751)	(144.513)	(156.405)	(167.743)	(161.743)	(165.600)	(168.918)	(171.099)	(174.674)	(178.324)	(182.056)		
Other costs and losses	(14.783)	(12.896)	(15.050)	(21.504)	(16.633)	(25.307)	(20.142)	(20.569)	(21.842)	(21.930)	(22.030)	(22.503)	(22.962)	(23.430)		
EBITDA	385.418	350.496	328.442	330.907	397.441	403.837	417.703	418.420	465.052	449.832	444.113	451.912	459.866	467.953		
Ebitda margin %	25,7%	22,9%	21,3%	24,0%	25,2%	24,7%	24,6%	24,2%	25,3%	24,3%	23,9%	23,9%	23,8%	23,7%		
Net provisions	14.950	(13.964)	1.337	14.562	(421)	(4.084)	-	-	-	-	-	-	-	-		
Depreciation and Amortization	(114.174)	(102.821)	(111.502)	(121.716)	(166.661)	(144.704)	(138.756)	(120.301)	(109.403)	(105.216)	(99.051)	(92.887)	(92.881)	(92.875)		
EBIT	286.194	323.711	218.277	282.853	230.359	255.049	278.947	298.119	355.649	344.616	345.062	359.025	366.985	375.078		
Group share of (loss) / gains of associated	606	-	-	-	-	-	15.800	-	-	-	-	-	-	-		
Net financial results	(16.298)	(14.148)	(34.152)	(50.259)	(20.796)	(6.697)	(30.284)	(30.286)	(25.591)	(22.458)	(22.967)	(23.359)	(23.917)	(24.212)		
	216.563	307.563	184.124	232.594	209.563	248.352	248.663	267.835	330.058	322.158	322.096	335.666	343.068	350.867		
EBT																
Ebit margin %	18,0%	14,3%	11,9%	14,3%	13,3%	15,1%	15,6%	15,5%	17,9%	17,4%	17,4%	17,7%	17,8%	17,6%		
Income tax	(59.317)	(9.520)	(2.655)	(35.829)	7.266	(39.584)	(77.122)	(78.116)	(96.472)	(94.141)	(94.123)	(98.127)	(100.310)	(102.611)		
% tax	(21,9%)	(4,3%)	(1,4%)	(15,4%)	(3,5%)	(16,0%)	(29,2%)	(29,2%)	(29,2%)	(29,2%)	(29,2%)	(29,2%)	(29,2%)	(29,2%)		
Net Income	211.185	210.043	181.468	196.766	216.830	207.769	187.341	189.717	233.586	228.016	227.972	237.540	242.758	248.256		
Non-controlling interests	(116)	(6)	(3)	(361)	1072	1.100	-	-	-	-	-	-	-	-		
Net profit for the period	211.169	210.038	181.467	196.404	217.502	207.770	187.341	189.717	233.586	228.016	227.972	237.540	242.758	248.256		
	(16)	(0,5%)	(13,6%)	8,2%	10,7%	(4,5%)	(7,0%)	(8,8%)	1,3%	23,1%	(2,4%)	(0,0%)	4,2%	2,3%		
Cash Flow Statement																
	2012H	2013H	2014H	2015H	2016H	2017E	2018P	2019P	2020P	2021P	2022P	2023P	2024P	2025P		
EBIT	286.194 </															

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Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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