



THE PAN GROUP

# THE CHARIOT

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SELL

HOLD

BUY

-15%

0%

15%

Upside

Agriculture Industry

# THE PAN GROUP JOINT STOCK COMPANY

Ho Chi Minh Stock Exchange (HOSE)



THE PAN GROUP

**Figure 1: Market profile****MARKET PROFILE**

<b>Current Price</b>	23,500
<b>52-Week High/Low</b>	25,400/17,138
<b>Shares Outstanding (mn)</b>	208,894,750
<b>Market Cap (VND trn)</b>	6,016,169
<b>Foreign Ownership</b>	16.43%
<b>Foreign Ownership Limit</b>	49.00%
<b>EV/EBITDA (LTM)</b>	8.3x
<b>EV/Revenue (LTM)</b>	0.6x
<b>Forward P/E</b>	10.4x

Source: Team's Analysis

**Valuation date: 09/12/2024****Current price: 23,500 VND****Ticker: PAN (HOSE)****Recommendation: BUY****Target price: 28,800 VND****Upside: 22.55%****Stock Exchange: Ho Chi Minh****Sector: Agriculture****Industry: Beverage & Tobacco/ Food Products**

The Pan Group Joint Stock Company is a leading agriculture and food conglomerate in Vietnam, PAN Group pursues the mission of nourishing the world, ensuring food security, providing safe and nutritious products, and creating value for farmers, families, and society. Additionally, the group holds shares in many large companies in the agriculture, food, and fisheries sectors.

**PAN: BUY position for spectacular returns**

We issue a **BUY** recommendation for PAN at the 1-year target price of VND 28,800/share, representing an upside of 22.55% from its closing price of VND 23,500 on 12th Sept, 2024. We believe that PAN deserves a **BUY** rating as the company is fully recovering its sales to traditional customers, while also expanding its export markets. This will lead to improved profitability for shareholders, with a forward P/E ratio of 10.4x (**Figure 1**), aligning with the following merits and concerns:

**MERITS****Vinaseed, the main player in the industry.**

No.1 in crop seeds: 21% market share (2024)

No.1 in fumigation: 60% market share

No.2 in pesticide: 11% market share

The company aims to sell 150,000 tons in 2025, ~ 35% market share.

**SaoTa: tapping into high-value markets**

Unlike other food companies, SaoTa stands out by processing both shrimp and vegetables. Many seafood companies have over 30 years of experience, but there are few that focus on processing ready-to-eat vegetables and deeply processed products. It is even rarer to find companies that excel in both shrimp and vegetable processing, with only a handful able to do so. This reason leads SaoTa to the strictest market-Japan

**Bibica: health-conscious sweets**

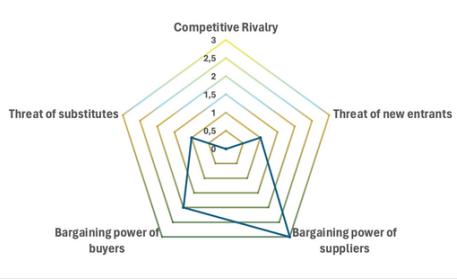
Latest innovations can meet the nutritional needs of specific consumer groups: dieters, diabetics, pregnant women, and others requiring specialized nutrition solutions. As health awareness continues to rise among Vietnamese consumers, this trend presents an opportunity for PAN to achieve profit growth of up to 28% during the 2025-2029 period.

**CONCERNs****Climate change and La Niña - Impact on PAN's Agricultural Operations**

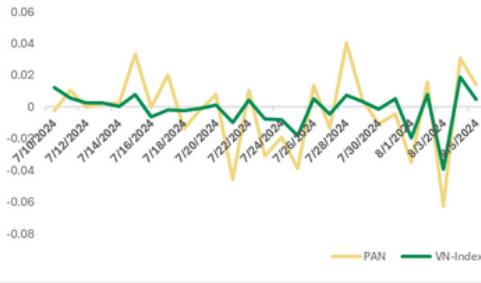
Despite having a strong network of top-tier companies in the agriculture and food sectors, PAN cannot escape the impacts of climate change and La Niña. The company has suffered losses from extreme weather events such as rising temperatures, unseasonal floods, saltwater intrusion, drought, and frost. Additionally, if the La Niña phenomenon persists until mid-2026, it will further pressure PAN's business operations, limiting revenue growth in its agriculture and food sectors to around 10%.

**Inefficient debt management strains a company's financial stability**

Over the past five years, PAN's net profit in 2023 amounted to VND 10.442 trillion, equivalent to 1.25 times its equity. While this reflects a positive move demonstrating the company's ambition to expand its business scale, it also means that the company will face greater pressure to ensure its ability to meet debt obligations. Without effective debt management plans and stable cash flow, the company's liquidity ratio is expected to continue falling below 1x in the coming years.

**Figure 2: Porter's 5 factor Analysis**

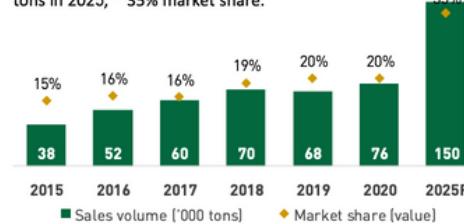
Source: Team's Analysis

**Figure 3: PAN & VNINDEX Rate of Return**

Source: PAN, Team's Analysis

**Figure 4: Vinaseed market share**

tons in 2025, ~ 35% market share.

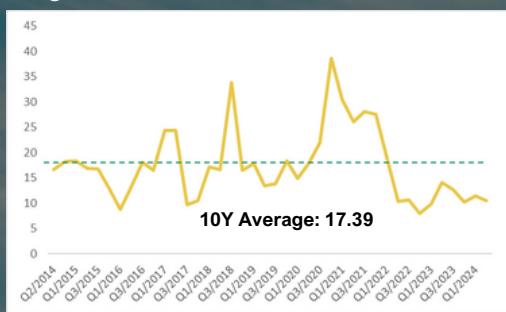


Source: PAN, Team's Analysis

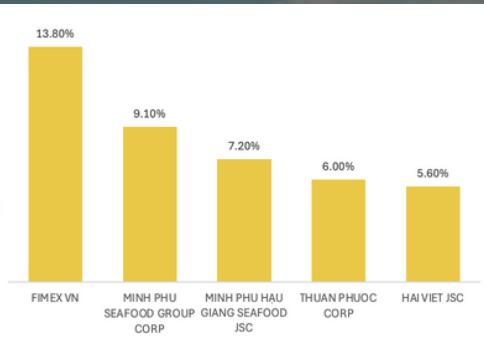
KEY FINANCIAL METRICS	2019A	2020A	2021A	2022A	2023A	2024F	2025F	2026F	2027F	2028F	2029F
Net Revenue (VND bn)	7,813	8,329	9,249	13,655	13,205	14,721	16,012	17,222	18,224	19,328	20,551
EBITDA Margin (%)	20.18	15.86	10.01	20.05	18.62	19.91	17.07	16.79	15.81	15.41	15.01
Net Profit Margin (%)	5.79	4	5.52	5.82	6.19	5.73	5.84	5.91	5.61	5.3	5
EPS (VND/Share)	1,488	908	1,399	1,790	1,943	2,166	2,403	2,614	2,768	2,943	3,142
ROAE (%)	7.46	5.41	7.43	10.28	10.07	9.62	9.69	9.58	8.77	8.09	7.5
ROIC (%)	33.44	19.31	-1.04	49.63	36.15	50.41	37.66	38.33	37.18	39.94	43.06



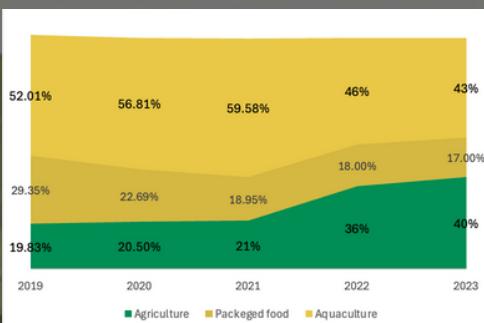
THE PAN GROUP

**Figure 5: Historical & Forward P/E of PAN**

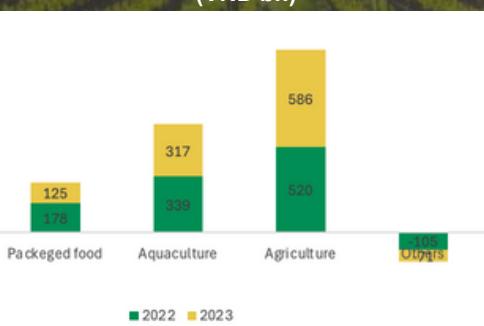
Source: PAN, Team's Analysis

**Figure 6: The market share of shrimp exports to Japan**

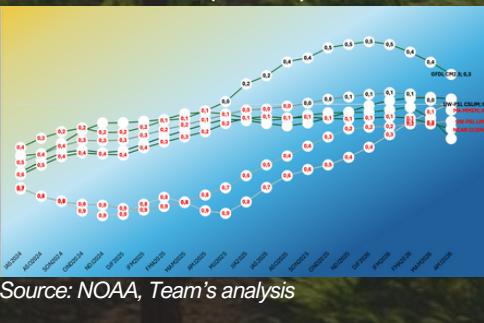
Source: VASEP, Team's Analysis

**Figure 7: Revenue Breakdown by Segment**

Source: PAN, Team's Analysis

**Figure 8: Profit before tax structure (VND bn)**

Source: PAN, Team's Analysis

**Figure 9. ENSO Model Predictions (2024-26)**

Source: NOAA, Team's analysis

## BUSINESS DESCRIPTION

Established in 1998 as an industrial sanitation firm, The PAN Group has since expanded its operations to the agricultural and food sector, starting in 2012. Over a decade, the company has played a crucial role in facilitating the access of Vietnamese agricultural products to regional and international markets. In 2023, the enterprise's revenue is VND 13,205 billions with the 2019A - 2023A CAGR 11.4% and profit after tax is VND 817 billions.

### BUSINESS MODEL

The PAN Group drives its growth from 3 main segments: Agriculture, Aquaculture and Packaged foods. ([APPENDIX B1](#))

**Agriculture:** The PAN Group's principle activity in the agriculture sector ranges from researching, producing, trading, exporting and importing agricultural goods. The Group is the leader in the seed industry in Vietnam with a market share of 21%. It has 06 subsidiaries and 09 research centers across the country. Besides, PAN maintained the 1st position in the fumigation and pest control industry for 3 years (2021A - 2023A). The Group collaborated with SALAD BOWL, LTD from Japan, founded PAN - Hulic Joint Stock with an aim to take advantage of technology transfer from Japan, producing world-class agriculture goods which adapt to the domestic consumer and international market.

**Packaged foods:** The PAN Group owned reputable food companies ([APPENDIX B2](#)) which consistently generated stable annual revenue. Specifically, Bibica Joint Stock Company ranks among the top five confectionery companies in the country. Its candy products hold a leading position nationwide with a 7.2% market share, while Bibica's dry biscuit line commands approximately 20% of the biscuit market. Even though profit before tax decreased from 2022 ([Figure 8](#)), the packaged food segment managed to meet The Group annual targets.

**Aquaculture:** The Group expanded to the aquaculture field in 2018, primarily focusing on farming, processing, preserving aquatic products, and seafood export. The Group is widely known as a supplier of high-class processed seafood from Vietnam to fastidious markets around the world. Since then, The Group has taken the most value exporting shrimp to Japan ([Figure 6](#)). This segment has witnessed strong revenue growth and accounted for 43% ([Figure 7](#)) in the revenue structure of the PAN Group in 2023.

### CORPORATE STRATEGY

**Instead of concentrating on a solitary industry, the Group has constructed a varied ecosystem:** Regarding companies where PAN Group holds direct or indirect investments, the Group will proactively increase its equity stake during favorable market conditions to maximize investment efficiency. Concurrently, the Group will actively pursue strategic partnerships to collaborate in business activities and share the associated benefits. M&A endeavors will be undertaken at both the Group and subsidiary levels to fill in essential gaps within the value chain.

**Focus on developing core business in Agriculture and Food:** The companies which PAN has invested in are all leading companies in the agriculture and food sector. A strong focus on this area enables the Group to enhance its core competencies and achieve long-term sustainable development with a 20-30 year outlook.

**Build up and completing the Farm- Food- Family model with an integrated full value chain:** Through a system of foundational companies, PAN has the ability to connect quickly and efficiently from the farm (Farm) to the processing and packaging stage (Food) and to consumers (Family) through a variety of distribution channels. Becoming an all-rounder, PAN is capable of enhancing its reputation in both domestic and international markets.

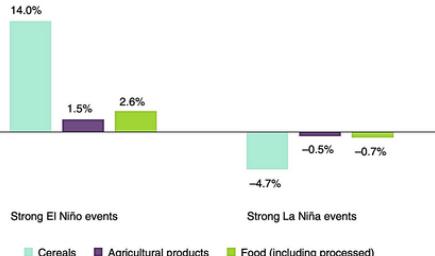
## INDUSTRY OVERVIEW

### AGRICULTURE

#### Fertilizer Prices Stabilize in 2024 Amid Supply and Cost Adjustments: Positive

The fertilizer price remained stable during the second quarter of 2024 ([APPENDIX C2](#)) due to 2 reasons: [1] China requested several fertilizer companies to halt exports after domestic prices soared in 9/2023, leading to significant fluctuations in fertilizer prices worldwide and in Vietnam, where China is the main supplier. However, the World Bank predicted that China may ease these export restrictions in 2025.

**Figure 10. Price during ENSO**



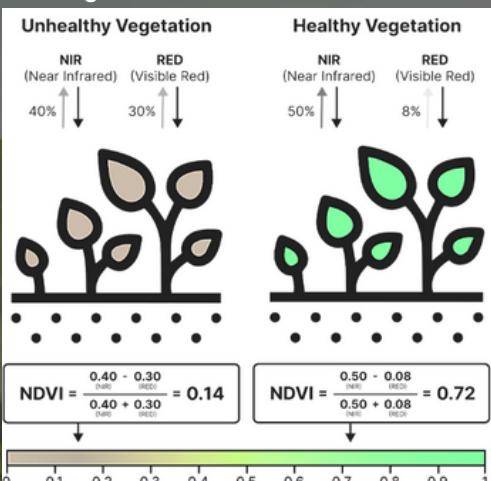
Source: NOAA, Team's analysis

**Figure 11. Funa Techo affecting Mekong Delta**



Source: Team's analysis

**Figure 12. How NDVI is measured**



Source: Treambatch

**Figure 13: Rice price in large export (2/8/2024)**



Source: Ozyra, Team's analysis

**Figure 14: Geographic Footprint In 35+ Export Markets.**



Source: PAN, Team analysis

**[2] Fertilizer input costs have dropped significantly from their 2022-23 peaks (natural gas prices in Europe rose by almost 15 percent in 2024Q2 (q/q) but are still 11 percent lower than a year ago, sulfur prices are around 26 percent lower than a year ago).**

### India's Easing of Export Ban Could Undercut Global Prices, Pressuring Vietnam: Negative

India is exporting over 40% of the world's total rice supply. If India lifts or eases its export ban, it will likely reduce the rice prices of major exporting countries worldwide. Vietnam, with the highest rice prices in the world recently, will also face pressure to lower prices. We based on 2 factors for the India easing ban in the future: [1] The fertilizer price decreases ([APPENDIX C2](#)), and [2] India's domestic price have been keeping.

### La Niña- Weather Forecasting, Potentially Driving Down Global Food Prices: Negative

There are 7 ENSO forecast models, and 5 of them predict that a La Niña event (negative value) will occur. In the following years, although the models may not all show the same pattern, 4 out of 7 models still suggest that La Niña will persist until mid-2026. Production quantity is normally increase and rice price falls based on history statistic during La Niña ([Figure 10, APPENDIX C4](#))

### AI Shaping Agriculture: Positive

Agriculture industry is currently facing three major global challenges that artificial intelligence (AI) can help address: [1] Pests and Diseases: Trapview has developed a device for trapping and identifying pests. By leveraging Trapview's database, AI can identify over 60 pest species. [2] Soil Quality and Irrigation Systems: CropX has developed a platform that farmers can gain insights into soil type and vegetation indices such as NDVI ([Figure 12](#)), SAVI, and soil moisture to optimize crop management strategies [3] Weeds: Carbon Robotics has employed advanced algorithms in their computer vision solution to identify weeds by analyzing data from over 42 high-resolution cameras that scan.

### Land Use Tax Extension Crucial for Supporting Vietnam's Agricultural Growth: Positive

[1] During the implementation of the 5 - year socio-economic development plan for 2021-2025 and [2] the severe impact of the pandemic and global geopolitical fluctuations (Middle East, Russia-Ukrainian, EU and China,..) have significantly slowed Vietnam's economic growth in the first half of the 5-year plan for 2021-2025. Achieving an average annual GDP growth target of approximately 6.5-7% is proving to be very challenging. Therefore, continuing the policy of exempting land use taxes during the 2026-2030 period is considered necessary to support sustainable agricultural development by Ministry of Finance.

### Thai Farmers Embrace High-Quality Vietnamese Rice Varieties for Better Yields: Positive

[1] Vietnam's government prioritizes investment in irrigation, with 85% of rice fields irrigated, the highest in the Southeast Asia and South Asia (other countries often rely on rain-fed cultivation, with only 20-50% of fields irrigated). [2] Vietnam's rice breeding strategy focuses on high yield, short growth cycles (90-110 days), and high quality. Therefore, Jasmine 85, has been using by Thai local farmers.

## AQUACULTURE

### Funan Techo- Saltwater intrusion and water volume: Negative

In the most unfavorable case, when the flow through the sluice gates is not controlled as notified by Cambodia at 3.6 m<sup>3</sup>/s combined with water supply for agriculture in the provinces of Kandal, Takeo, Kampot, and Kep ([Figure 11](#)), it will significantly affect the flow regime and the amount of sediment reaching the Mekong Delta, while also increasing the area of saltwater intrusion deep into the delta. This could potentially reduce the water volume in the Hau River by 5-13% during the dry season and by 2-6% during the rainy season. Similarly, the flow in the Tien River could decrease by 2-4% during the dry season and by 1-3% during the rainy season.

### Global Protein Consumption Set to Surge- Healthier and Greener Choices : Positive

In response to increasing affluence among consumers in emerging economies, global per capita intake of protein is projected to rise to 79.8g per day by 2033, from 76.6g in the base period ([APPENDIX C3](#)). In the high-income countries of North America, Europe and Central Asia, despite the broad stability of dietary patterns in these regions, mounting environmental and health concerns are expected to shift consumer preferences away from red and processed meat, notably beef, towards cleaner and allegedly more environmentally friendly alternatives such as poultry, fish and plant-based protein.

### Vietnamese Shrimp: It Will Be Much More Difficult: Negative

We observe that the price of Vietnamese shrimp is significantly higher than the global average due to a very low success rate in farming. [1] The quality of the broodstock is unstable, and recently, the EHP bacteria, which primarily live in seawater, have adapted to lower salinity environments, making this disease more "common" and harder to prevent and treat. [2] The water quality in the farming environment is inadequate.

**Figure 15: Pan's and Peer %yoy [Q2/23 to Q2/2024], total employee**



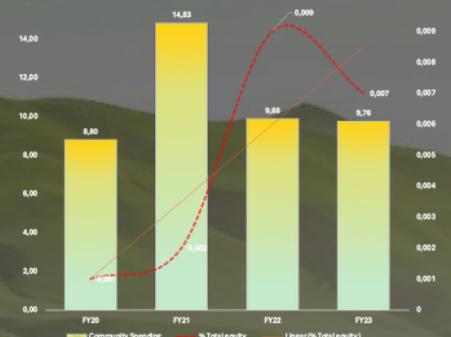
Source: Team's analysis

**Figure 16: OPEX Expenses and TOI per Employee (FY18-21) [VND Billion]**



Source: PAN, Team analysis

**Figure 17: Community Spending (FY20-23) Value and % of Total Equity [VND Billion]**



Source: PAN, Team analysis

**Figure 19: ESG focus topic**



Source: PAN, Team analysis

**Figure 20: Applied Standards**



Source: Vietnam National Institute of Nutrition

## PACKED FOOD

### Vietnam's New Tax Proposal on Sugary Beverages: Negative

Vietnam does not encourage sugary foods. Recently, in the amendment to the Special Consumption Tax, the Ministry of Finance proposed a 10% special consumption tax on sugary beverages according to Vietnamese standards (carbonated drinks, tea, coffee, fruit juices, energy drinks, electrolyte drinks, and sports drinks. This could disadvantage the packed food market...)

## COMPETITIVE LANDSCAPE

We have identified the following key competitors for PAN:

- In the agriculture sector:** The domestic competitors of Vinaseed are (1) Trung An Hi-Tech Farming and (2) Loc Troi. Internationally, when exporting rice, we see (1) India, Thailand, and Pakistan as Vietnam's competitors.
- In the seafood sector:** The domestic competitors of Sao Ta are (1) Minh Phu Seafood Corp and (2) Vinh Hoan. Internationally, when exporting shrimp, two major markets to watch are (1) Ecuador and (2) India.
- In the packed food sector:** Currently, Bibica in particular and the confectionery industry in Vietnam in general do not have enough resources for export, so the competitors considered within Vietnam are (1) KIDO and (2) Huu Nghi. For the same reason, we see long-established foreign competitors in the domestic market such as Nestle and Mondelez

### Early AI Adoption

As mentioned, global technology is advancing to improve pest control, seed quality, and soil quality. Pan has been using Japan's Farm Record software to store production logs and Israel's Agritech, which employs satellite technology to monitor weather conditions, pests, and manage the use of fertilizers and pesticides. According to Vietnam Report, the top high-tech agricultural companies Loc Troi's and Vinaseed. While the latest Loc Troi's technology applications are used post-production, Vinaseed applies them during production. Therefore, Pan is currently leading in the application of technology in food production.

### SaoTa's Strategic Shift: Tapping into High-Value Markets

Shrimp exports face the challenge of high production costs. Our major export market is the U.S. However, Ecuador and India can always export shrimp to the U.S. at lower costs, and recently, Ecuador has even been willing to sell at a loss. Recognizing this issue, SaoTa has been shifting from "reduce U.S. increase Japan." Japan is a country that accepts higher prices, values deep processing, and demands high-quality products. In 2023, 45% of SaoTa's revenue came from the Japanese market, while 30% came from the U.S. Next were the EU with 7%, Australia with 7%, South Korea with 6%, and other markets accounting for 5%. We believe this is a smart strategy PAN focused on ESG early and now, leading in the industry.

### Bibica, aligning with the clean consumption trend

Bibica has partnered with the Vietnam National Institute of Nutrition to successfully research and develop specialized product lines enriched with bioactive compounds beneficial to health. These innovations address the nutritional needs of specific consumer groups, including individuals on restricted diets, those with diabetes, pregnant women, and others requiring tailored dietary solutions.

## ENVIRONMENTAL, SOCIAL & GOVERNANCE

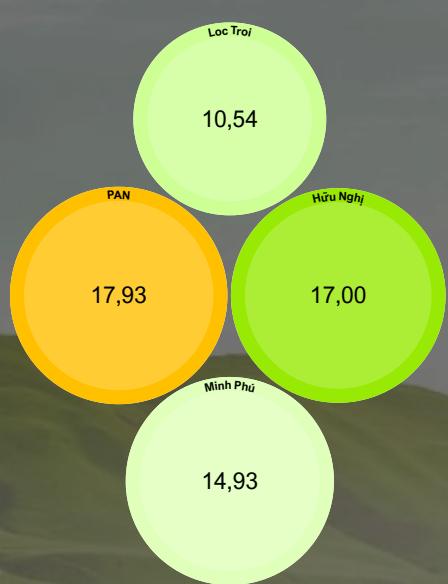
Despite facing many challenges, it is on the journey of sustainable development for more than 10 years.

### ENVIRONMENT

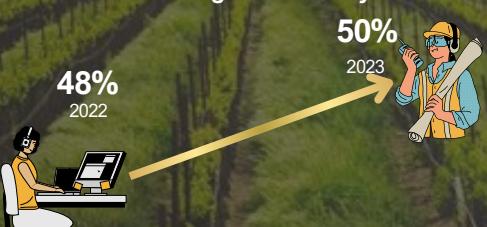
The majority of the rise in GHG emissions is expected to take place in middle and low-income areas, largely driven by the rapid growth in ruminant livestock production ([APPENDIX C3](#)). Rice farming is a significant contributor to direct agricultural GHG emissions, as irrigated paddy fields release large amounts of methane. Fig. 20 summarizes Environmental, Social, and Governance (ESG) performance in Pan recent years. Fig. 19 outlines its internal areas of focus. Its total waste (7,65 tons/1billion revenue) fell 61.27% in 2023 ([APPENDIX B3](#)). 100% of waste is sorted at the source, integrating ideas and goals to reduce emissions from research, development of new products, and production processes. 100% of contractors collecting, transporting, and processing waste have sufficient licenses and capacity according to legal requirements. We believe Pan is on track to realize ESG by the goals:

**Figure 20: ESG Performance, FY20-23**

Source: PAN, Team's analysis

**Figure 21: CEO pay ratio, FY2023**

Source: LinkedIn, Team's analysis

**Figure 22: PAN on the right track to meet its 50% female gender ratio by 2023**

Source: PAN, Team's analysis

**Figure 23: Subcommittee expertise**

Source: PAN, Team's analysis

[1] Commitment to achieving net-zero emissions by 2050. [2] 0 legal violations and environmental incidents during the operations of the units. [3] 0 complaints or lawsuits from the surrounding community regarding environmental issues. [4] 1 million trees by 2030.

## SOCIAL

Factors positively impacting PAN's social ratings include its commitment to diversity (**Figure 20**), a healthy and safe workforce, and information security.

**Human resource is one of the long-term growth pillars of the agriculture company.**

**With their employee,** PAN has been proactively investing in several key areas: [1] implementing incentives such as salary and bonus increases to boost productivity, [2] developing a Talent Management Model to enhance internal efficiency and [3] establishing a Learning and Development framework aimed at nurturing and retaining talent. This focus is reflected in rising employee costs, increasing annual income per staff member, and a significant increase in OPEX expense and TOI per employee (**Figure 16**). Additionally, by the time management is rising over time. [4] Occupation health and safety by following consistency health standard. (**Fig. 20**)

**With the labor force in the supply chain:** [1] Commitment to purchasing at agreed prices and quantities. [2] Technical training, fertilizer and supply support, and temporary funding for farmers. [3] Require employers and business owners to protect the environment, safeguard workers, and adhere to commitments regarding wages, insurance,... [4] Organize community activities, charity events, and support spiritual life for the community. It is proved through the rise in community spending value (**Figure 17**).

## GOVERNANCE

We believe PAN has an exemplary governance structure facilitating future growth (**Figure 22**). The evaluation is based on 2 factors: [1] the board of directors (BoD), [2] shareholder.

**Board of directors:** PAN's BoD has 7 members with the knowledge from various relevant fields strengthening PAN's position for future challenges and opportunities (**APPENDIX B6**). However, all of them are Vietnam and we believe having multinational employee representatives will enhance the governance further. In addition, 42% of the board members are women, a gender ratio which we think is suitable. One board members currently do not hold share. We suggest that all board members hold PAN shares in order to act in the best interest of shareholders.

**Shareholders:** 87.4% domestic investors and 12.6% foreign investors with 45% retail and 55% investors and institutional investors. PAN continue to attract foreign capital investment and locked its foreign ownership at 49% from 2023. Then the Vietnamese's brand will be maintained.

Having surpassed over 500 listed companies considered for the award, PAN was recognized with the highest honor, "Board of the Year" (**Figure 18**). The PAN Group's BoD was recognized operational effectiveness through its roles in supervising and protecting shareholder interests (**Figure 21**), creating value for the company's stakeholders, and complying with effective corporate governance principles, and contributing to sustainable development and climate change mitigation. (**APPENDIX B4**)

To summarize, we consider PAN ESG performance to be solid and we expect PAN' strong ESG standing to continue attracting ESG conscious investors who recognize and appreciate that the company poses a small ESG risk within their portfolio.

## FINANCIAL ANALYSIS

### LIQUIDITY EFFICIENCY

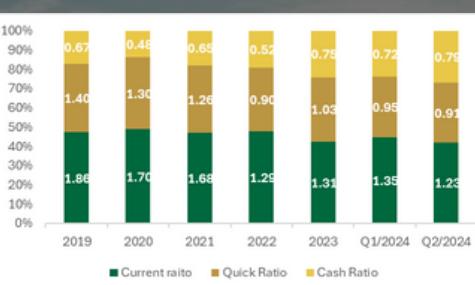
**The growth rate of the cash ratio reached 0.79, yet PAN's short-term liquidity remains unstable:** Along with the increase in Cash & Equivalents and short-term financial investments (**APPENDIX A1**), PAN's Cash ratio surged, peaking at 0.75 in 2023 (**Figure 25**), reflecting strong immediate liquidity. However, the current ratio and quick ratio declined significantly by approximately 0.63 and 0.49 (2019-Q2/2024). We attribute this decline to three factors: [1] A slight increase in the company's investment in fixed assets [2] A rise in inventory levels [3] A sharp increase in short-term liabilities (**APPENDIX A1**). This indicates that, despite a substantial amount of cash on hand, the company's overall liquidity still faces certain limitations. Nevertheless, with the increase in Cash & Equivalents and short-term financial investments, the company maintains a solid financial foundation, promising the potential for recovery and sustainable growth as external factors gradually stabilize.

**Figure 24: Subcommittee expertise**



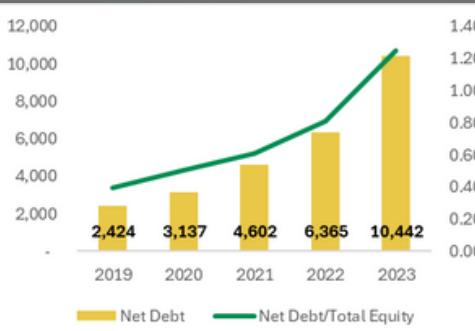
Source: PAN, Team's analysis

**Figure 25 : PAN's Liquidity**



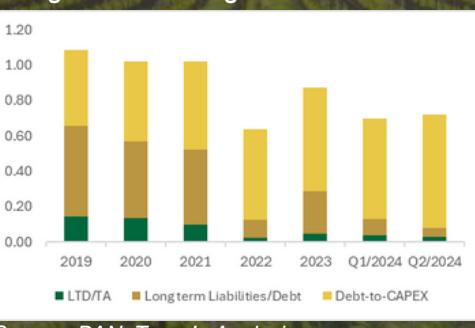
Source: PAN, Team's analysis

**Figure 26: PAN's Net Debt/Total Equity**



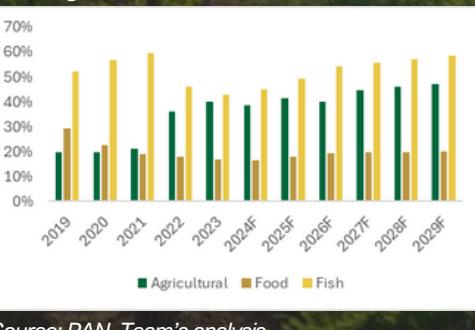
Source: PAN, Team's Analysis

**Figure 27: Leverage Ratios 2019-2023**



Source: PAN, Team's Analysis

**Figure 28: PAN's Revenue Structure**



Source: PAN, Team's analysis

## FINANCIAL CAPACITY

**[1] The significant increase in net debt, with a CAGR of 68% (2019A-2023A), poses a major challenge to the company's liquidity:** The net debt-to-equity ratio surged by 54% in 2023 to nearly VND 10,500 billion primarily focused on short-term debt, equivalent to 1.25 times the equity, indicating that the company has actively raised short-term capital to expand its business operations. Although we consider this situation as a positive signal of growth ambition, the significant increase in debt also places considerable pressure on the company's liquidity (**Figure 26**). Without a stable cash flow to service the debt, the company could face liquidity risks, potentially impacting its future business operations.

**[2] PAN shifts its financial strategy by increasing short-term debt by 39.1% to fund expansion projects:** Over the past five years, PAN has experienced a significant decline in long-term debt-related ratios (**APPENDIX A1**). Specifically, in 2023 the LTS/TA (**Figure 27**) ratio dropped to just 0.05, and the LTD/Debt ratio fell to 0.24 reflecting the company's increasing reliance on short-term debt. Simultaneously, the CAPEX ratio surged, indicating that the company is utilizing a substantial amount of short-term debt to finance financial investments aimed at scaling up and funding large projects. We believe that this trend is expected to continue, as Q2/2024 financial results also show a continued decline in the LTD/TA and LTD/Debt ratios to 0.03 and 0.05, respectively, while CAPEX has grown to 0.64, the highest level compared to the same period, indicating the company's focus on investment and development.

## OPERATIONAL EFFICIENCY

Although PAN is facing challenges in inventory management and asset utilization efficiency, we believe the root cause may stem from the company's excessive production expansion as revenue from the seafood sector outpaced that of agriculture in 2022 (**Figure 28**). This expansion was made to meet the growing demand of the seafood industry, leading to an increase in finished goods inventory (**APPENDIX A1**), which pressured the inventory turnover ratio (**Figure 29**), decreasing to 3.42 in 2023. Simultaneously, the total asset turnover ratio also dropped from a peak of 0.88 in 2022 to 0.73, indicating suboptimal asset utilization. However, with appropriate improvement strategies, PAN can overcome these difficulties and achieve better business results in the future.

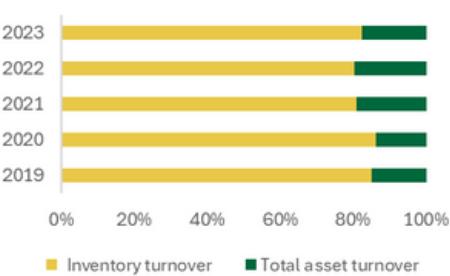
## EFFICIENT CAPITAL

**PAN's accounts payable turnover decreased sharply by 30% (2019-2023), ultimately reaching a low of 1.06:** We believe this decline from 1.50 to 1.06 (**Figure 30**) may result from a combination of factors indicating a shift in the company's financial strategy. The decrease in the current ratio and quick ratio (**Figure 25**) suggests that the company may have allocated a portion of its cash reserves to long-term investments and increased inventory levels. While this reallocation of resources has the potential to benefit future growth, it has negatively impacted the company's short-term liquidity, leading to delays in settling accounts payable. Although the cash ratio has increased, this liquidity has not yet been effectively utilized to meet short-term obligations. We consider that PAN may be reserving cash for strategic investment goals and to mitigate potential risks in the future.

## EARNING PERFORMANCE

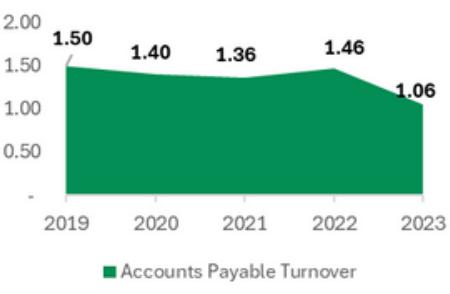
**PAN will continue to grow ROA at 4.54% and ROE at 10.8% in 2026F:** In the first two years, PAN faced significant challenges, clearly reflected in the decline of its operational indicators. However, from the third year onward, the situation improved substantially. Although there was a slowdown in 2023 (**Figure 31**), the company's performance remained superior compared to previous periods. ROE and ROA dropped to 9.79% and 4.05%, primarily due to a sharp increase in short-term assets, particularly in the business securities segment. This investment led to a near 1% drop in these indicators by year-end, along with a slight decrease in revenue. Nevertheless, positive signs emerged as the company reported a net profit of VND 85 billion in Q2/2024, up 31% compared to the same period last year. This growth was driven by several favorable factors: [i] the company's crop varieties were recognized, with Thailand importing them for cultivation; [ii] the company continued to expand its market share in the agrochemical sector; [iii] Fertilizer prices are expected to decline (**APPENDIX C2**) in the near future; [iv] the recovery of export orders, controlled inflation, and increased purchasing power in the U.S. and European markets; [v] The strong growth of subsidiaries and PAN's competitive edge over industry rivals (**APPENDIX D1 & D2**). We believe that PAN's net profit margin will continue to maintain stable growth, with a projected compound annual growth rate (CAGR) of 2.94% from 2020F to 2026F, potentially reaching 6.94%.

Figure 29: PAN's Turnover ratio



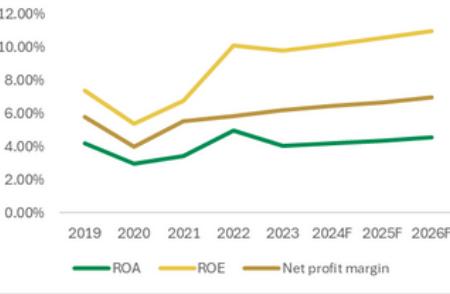
Source: PAN, Team's Analysis

Figure 30: Accounts Payable Turnover



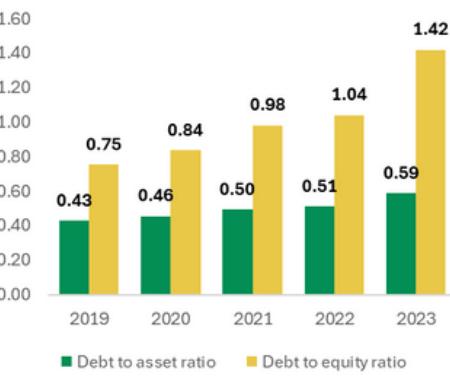
Source: PAN, Team's Analysis

Figure 31: PAN' Profitability (%)



Source: PAN, Team's Analysis

Figure 32: PAN's Debt



Source: PAN, Team's Analysis

Figure 33: PAN Risk matrix



Source: PAN, Team's Analysis

## INVESTMENT RISKS

### [E1] ENVIRONMENTAL - SOCIAL RISK

**[1] Climate change in agricultural:** In recent years, climate change has become one of the most significant risks to the agricultural sector, negatively impacting productivity and product quality. We believe that this environmental risk has a high likelihood of occurring, and its impact on PAN is substantial ([Figure 33 & APPENDIX B1](#)). The company has suffered considerable losses due to extreme weather events such as rising temperatures, unseasonal floods, saltwater intrusion, drought, and frost ([Figure 9](#)). These factors resulted in the agricultural sector contributing only 40% to the company's total revenue in 2023 ([Figure 28](#)). However, we are confident that with positive changes in weather conditions in the future, PAN can mitigate these risks and improve its business performance by implementing solutions such as: [i] reducing reliance on natural conditions through strategic response measures; [ii] using biological products and natural antibiotics to enhance immunity and promote sustainable growth; [iii] collaborating with major partners to seek appropriate technological solutions to address climate change.

**[2] Risks from Funan Techo canal project:** The Funan Techo Canal project in Cambodia, which began construction last month, has raised concerns about its potential impact on the ecosystem and water resources of the Mekong Delta. Concerns include the risk of disrupting the Western ecosystem, losing up to 50% of the Mekong River's water, and Cambodia possibly distancing itself from Vietnam to align more closely with China ([Figure 11](#)). We believe that if Cambodia can control the water flow through the canal, the impact on Mekong Delta will be minimal. However, if the sluices remain open continuously during both the flood and dry seasons, combined with water supply to the provinces of Kandal, Takeo, Kampot, and Kep, it will severely affect the flow and sediment supply to Mekong Delta, increase salinity intrusion, and negatively impact rice production in the region. To mitigate risks in the worst-case scenario, we propose several solutions: [i] Strengthening international cooperation to monitor and control water releases from Cambodia; [ii] Investing in irrigation infrastructure and dyke systems to protect key rice production areas; [iii] Enhancing research and applying water-saving irrigation technologies, and using salt-tolerant rice varieties to adapt to salinity intrusion; [iv] Coordinating with Cambodia to establish a mechanism for sharing information on water flow and regulation to ensure mutual benefits for both countries.

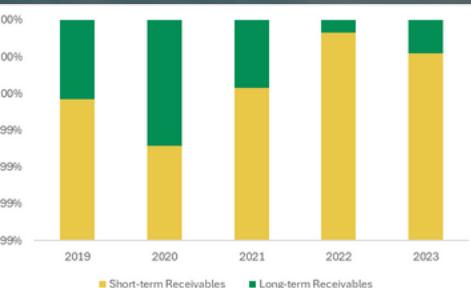
### [O1] FINANCIAL RISK

**[1] Credit Risk:** The increase in short-term receivables, along with the decrease in long-term receivables ([Figure 34](#)), could improve liquidity and short-term cash flow for the company ([Figure 25](#)) but it also increases credit risk, as evidenced by a 39.04% CAGR rise in debt restructuring ([Figure 26](#)). This may indicate a new business strategy focusing on short-term transactions to avoid the risks associated with long-term debt. While the potential for short-term profit improvement is feasible, the company must be cautious in managing credit risks. We believe this is a risk that directly impacts the company's operations. Therefore, to mitigate potential negative effects in the future, PAN needs to regularly assess the credit quality of its receivables, maintain strict control over outstanding customers, and only select highly trusted banking partners to ensure financial safety.

**[2] Interest risk ([Figure 35 & Figure 36](#)):** In 2023, PAN has tripled its short-term local currency borrowing compared to the previous year, with the majority of loans concentrated at the Joint Stock Commercial Bank for Foreign Trade of Vietnam, increasing from VND 2,167 billion to nearly VND 6,400 billion in short-term loans. The company may face several pressures such as: [i] Increased interest expenses, [ii] Pressure to repay short-term debt, [iii] Impact on credit rating, reducing future access to capital, [iv] Reduced ability for long-term investment. To manage these risks, PAN needs to closely monitor the monetary market and economic conditions while adjusting its financial strategy accordingly. Additionally, the company should take advantage of preferential loans with low interest rates from banks and optimize cash deposits to mitigate interest rate risks.

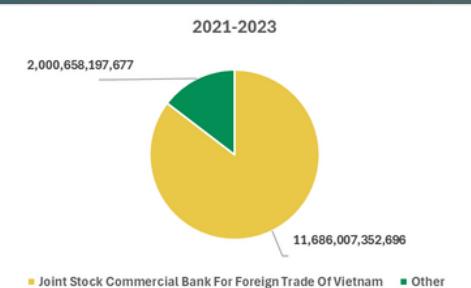
**[3] Market risk:** As of August 5, 2024, PAN's stock exhibits a high sensitivity to market fluctuations. When the VN-Index rises by 1%, PAN's stock price can increase by an average of 1.78% ([Figure 3](#)). This indicates that PAN's stock experiences greater volatility due to the positive correlation between its stock price and the business performance ([APPENDIX D1](#)) of its four subsidiaries: NSC, LAF, BBC, and FMC. This suggests that PAN has higher profit potential when the market rises, but it also implies higher risk, as PAN's stock may decline more sharply than the VN-Index when the market falls. However, PAN's investment portfolio includes both listed and unlisted stocks, with prices fluctuating daily. Most of these investments are long-term strategic positions in companies with solid financial, management, and production foundations, and significant growth potential. Therefore, the risk of stock price volatility in the market is relatively low, despite potential drops in the stock prices of some PAN subsidiaries.

**Figure 34: Short & Long term Receivables**



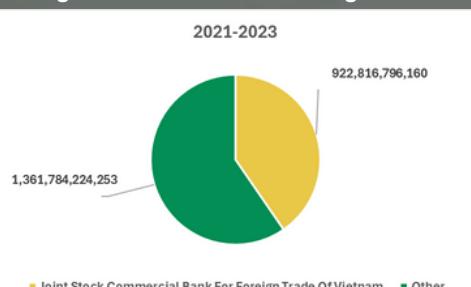
Source: PAN, Team's Analysis

**Figure 35: Short-term Domestic Loans**



Source: PAN, Team's Analysis

**Figure 36: Short-term Foreign Loans**



Source: PAN, Team's Analysis

**Figure 37: Valuation Summary**

INCOME APPROACH		
Method	Weight	Target
Discounted Cash Flow	20%	33,075
<b>Method</b>	<b>Weight</b>	<b>Target</b>
P/S Multiple	20%	30,700
P/E Multiple	20%	26,500
EV/Revenue	20%	27,300
EV/EBITDA	20%	26,300
		VND
Current Price (02 Aug, 2024)		22,400
<b>Target Price</b>		<b>28,800</b>
<b>P/S 12M fwd</b>		
Agriculture		0.3x
Packed Food		0.4x
Aquaculture		0.3x
<b>P/E 12M fwd</b>		
Agriculture		12.1x
Packed Food		11.7x
Aquaculture		13.3x
	<b>Upside</b>	<b>24.95%</b>

Source: PAN, Team's Analysis

**Figure 38: EV/Rev & EV/EBITDA of Agriculture**

	EV/Revenue	EV/EBITDA
Implied Enterprise Value	1,605,222,209,552	4,677,164,106,534
Net Debt	449,297,745,283	449,297,745,283
Implied Market Value	1,155,924,464,268	4,227,866,361,250
Median	0.73	8.58
Average	0.89	7.84

Source: Team's Analysis

## VALUATION

We reinstate our **BUY** recommendation on PAN Group (HoSE: PAN) with a 1-year target price of VND 28,800/share, representing an upside of 22.55% from its closing price of VND 23,500 on 13th Sept, 2024. Our valuation methodology employs a weighted average of the **Discounted Cash Flow [20%]** and **EV/Revenue [20%]**, **EV/EBITDA [20%]**, **P/S Multiple [20%]**, **P/E Multiple [20%]** comparing companies within each sector. Aside from our DCF Base case and P/S Multiple Base case, we also perform scenario analysis with 2 cases: Bull, Bear to assess market uncertainties on PAN value. Also, run a linear regression analysis for the subsidiary to forecast the revenue growth of the Agriculture and Aquaculture sector until 2029. Finally, to verify the robustness of our valuation, we did a Monte Carlo simulation, Sensitivity analysis. (Figure 37)

### DISCOUNTED CASH FLOW

We have employed the **FCFF method** alongside P/S and P/E multiples ([APPENDIX E](#)) to benchmark PAN against its industry peers across the Agriculture, Packaged Foods, and Aquaculture sectors. Our two-stage DCF model estimates an intrinsic value of VND 33,075 per share, representing a 43.49% premium over the most recent closing price of VND 23,500.

#### Terminal Value (TV) & Weighted Average Cost of Capital (WACC) - 10.58%

We project a WACC of 10.58% and determine the terminal growth rate to be 1.41%, derived from the average of Vietnam's long-term GDP growth rate and the lower bound of the RBA's 2%-3% inflation target range. A five-year horizon, extending to FY29, balances forecast accuracy with the time required to reach a stable state, considering: [1] NSC's development of new rice strains, which will significantly boost PAN's revenue growth; [2] plans to enhance cooperation among member companies in mobilizing and utilizing capital resources; [3] consolidated revenue and net profit growth rates of 12% and 10%, respectively; and [4] ROIC and ROE converging with WACC and COE, respectively. The intrinsic terminal value is calculated using the perpetual growth method (Figure 39).

Input	Rate	Source
Adjusted Beta	1.04	Using regional peers to arrive at unlevered and re-levered beta
Risk-Free Rate	2.84%	Vietnam's 10-year government bond yield (3Y Average)
Annual Market Return	16.82%	Vietnam 3Y arithmetic average annual market return
Country Risk Premium	4.40%	Damodaran (2024) based on the Moody's Rating of Ba3 for Vietnam
Cost of Equity	16.82%	CAPM is used with the incorporation of the country risk premium
Pre-Tax Cost of Debt	5.45%	Calculated by adding risk-free rate to PAN's synthetic default spread
Corporate Income Tax	22.00%	Corporate income tax decreed by the government of Vietnam
PAN's Parent D/(D+E)	0.33	Derived from PAN's debt and equity market value
<b>WACC</b>	<b>10.58%</b>	

Source: PAN, NYU, SBV, Damodaran, Team's Analysis

### AGRICULTURE - 31.39% EQUITY VALUE

#### Agricultural Revenue: 5.17% CAGR in 2023/29 (Figure 38)

The recent imposition of an export ban on rice by India, driven by domestic political considerations, has inadvertently created a favorable market dynamic for Vietnam's rice industry. As a result, the country's rice prices have surged to an unprecedented average of \$555 per ton, solidifying Vietnam's position as a global leader in rice exports, according to the Ministry of Industry and Trade. This favorable market environment is expected to fuel continued profitability within the broader agricultural sector, particularly in the sub-sectors of agricultural chemicals, seeds, and packaged rice.

#### Plant seeds sector

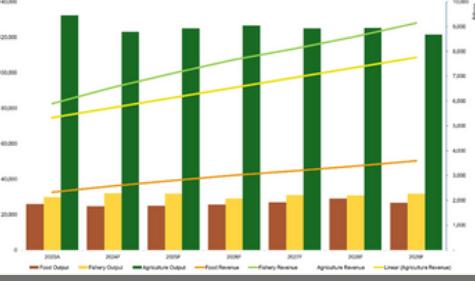
**Vinaseed (NSC) (8.36% Revenue CAGR in 2023/29):** The agricultural sector is projected to experience a modest increase in overall industry output in the upcoming year. This growth is primarily attributed to Vinaseed's impressive **8.36% Revenue CAGR** during the 2023-2029 period. Two key factors underpin this positive trajectory: (1) the burgeoning prominence of the rice sector within both domestic and international markets, and (2) India's strategic decision to curtail rice exports to major demand centers such as Europe and Japan. In tandem with these developments, the **rice output CAGR** is anticipated to reach **2.29%** over the same timeframe. While the pace of rice output growth may be relatively slow, the prevailing market conditions, characterized by a sustained upward trend in rice prices, present a significant short-term advantage for industry stakeholders (Figure 40). Regarding profitability, the Gross Profit Margin of the agricultural sector is forecast to stabilize at a commendable 31.24% for the 2023-2029 period. This marks a notable improvement compared to the historical average of 29.88% recorded during the 2019-2023 period.

Figure 39: DCF Output

DCF	
Present Value of FCF	4,602
Terminal Value	16,416
Present Value of Terminal Value	9,723
<b>Enterprise Value</b>	<b>14,325</b>
(+)Cash	1,536
(-) Debt	8,951
<b>Equity Value</b>	<b>6,909</b>
Share	209
<b>Implied Share Price</b>	<b>33,075</b>
Upside	40.75%

Source: Team's Analysis

Figure 40: PAN's industrial Revenue (VND bn) and Output (1000 Tons)



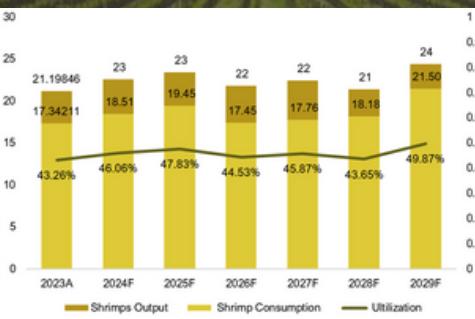
Source: PAN, Team's Analysis

Figure 41: EV/Rev & EV/EBITDA of Aquaculture

	EV/Revenue	EV/EBITDA
Implied Enterprise Value	4,954,674,456,589.57	8,685,911,532,148.14
Net Debt	677,143,601,932.13	677,143,601,932.13
Implied Market Value	4,277,530,854,657.44	8,008,767,930,216.01
dian	0.79	13.86
Average	0.97	17.66

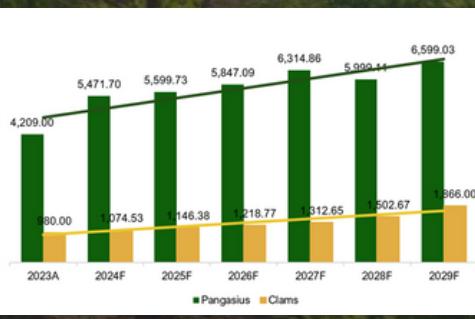
Source: Team's Analysis

Figure 42. Shrimp export output (1000 tons)



Source: PAN, team's Analysis

Figure 43. Output of pangasius and clams (tons)



Source: PAN, team's Analysis

## Agricultural Chemicals, Disinfection products

**Viet Nam Fumigation JSC (VFG) (5.46% Revenue CAGR in 2023/29)(VFG) (5.46% Revenue CAGR in 2023/29):** Agricultural chemicals and finished products represent a substantial portion of our revenue, comprising **84.12%** of VFG's total income. Additionally, disinfection and pest control services contribute significantly to PAN's financial performance. We are confident that their strategic services and products will foster a sustainable ecosystem and enhance product accessibility to small-scale farmers, as outlined in PAN's target objectives. This approach aligns with our commitment to promoting sustainable agriculture and supporting the needs of the farming community.

**Fimex VN (FMC) (2.19% Agricultural Products Consumption CAGR in 2023/29)** Sao Ta's processed agricultural products represent a substantial component of Pan Group's revenue stream, accounting for **37%** of the company's total earnings. While the projected production volume is expected to exhibit a slight decrease compared to consumer demand in the upcoming timeframe, the factory's operational efficiency is anticipated to undergo significant improvement. To maximize resource utilization and generate additional revenue, the enterprise plans to strategically lease out excess machinery during periods of reduced production or when equipment is idle.

## AQUACULTURE - 20.04% EQUITY VALUE

### Aquacultural Revenue: 6.46% CAGR in 2023/29 (Figure 41)

We anticipate that seafood growth will align with increased production, driven by a rising demand for high-quality seafood products in certain European countries. From 2022, the revenue structure will have a major shift with the seafood industry's **revenue contribution** reaching **40%**. In the near future, we predict that the figure will increase to **45%**.

### Shrimp farming and processing (Figure 42)

**Fimex VN (FMC) (9.33% Revenue CAGR in 2023/29):** The Vietnamese shrimp industry is currently grappling with intense competition from India and Ecuador, which are actively seeking to expand their market share in the global export market. Domestically, factories in Sao Ta are operating below capacity due to sluggish demand, necessitating strategic measures to optimize resource utilization.

Expanding into the Japanese market presents significant challenges due to the prevailing economic instability in the region. Despite the steady profits generated by the shrimp farming industry, the export output is likely to stagnate due to a confluence of uncertainties and fluctuating market demand. Notwithstanding these challenges, Fimex VN remains committed to driving business efficiency through effective resource management. The company's shrimp consumption growth, as evidenced by a **CAGR of 3.121%** from 2023 to 2029, coupled with a stable **gross profit margin of 10.14%**, underscores its ability to navigate the dynamic market landscape and deliver sustainable financial performance.

### Pangasius and clam export sector (Figure 43)

**Aquatex Bentre (ABT) (6.61% Revenue CAGR in 2023/29):** Ben Tre Seafood is poised for expansion in both pangasius and clam exports in the near future. China, the United States, and Europe represent promising markets with growing demand as the global economy stabilizes following the inflationary period. We anticipate a positive **CAGR of 6.35%** for **pangasius exports** and a **CAGR of 9.63%** for **clam exports**, encompassing both processed and in-shell varieties. The favorable macroeconomic environment, characterized by increased international interest in Vietnamese seafood following the COVID-19 pandemic, further supports our optimistic outlook for the company's growth trajectory.

We expect ABT's GPM to remain stable at **18.03%** on average with targets for stability and expansion of export markets.

## PACKED FOOD - 48.57% EQUITY VALUE

### Packed Food Revenue: 6.38% CAGR in 2023/29 (Figure 44)

The packed food segment is projected to experience a steady revenue CAGR of 6.38% from 2023 to 2029. This growth trajectory is anticipated to be influenced by evolving consumer preferences, as there is a growing emphasis on consuming high-quality yet health-conscious food products. As consumers become more discerning in their choices, the industry will need to adapt to meet these evolving expectations, focusing on innovation, natural ingredients, and environmentally responsible practices.

### Confectionery Sector

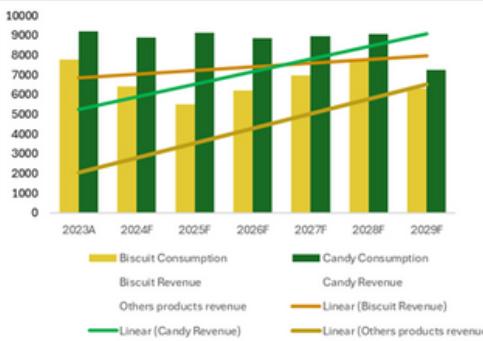
**Bibica (BBC) (9.07% Revenue CAGR in 2023/29):** Confectionery and sugarcane products constitute the primary drivers of output and contribute 13% of the average revenue to Pan Group's overall financial performance. The company's strategic investments in cookies and sponge cake have proven effective in diversifying its customer base and appealing to a wide

Figure 44: EV/Rev & EV/EBITDA of Packed Food

	EV/Revenue	EV/EBITDA
Implied Enterprise Value	1,236,186,558,509.44	2,581,716,037,941.68
Net Debt	966,914,994,870.55	966,914,994,870.55
Implied Market Value	269,271,563,638.90	1,614,801,043,071.13
dian	0.64	6.48
Average	0.82	8.71

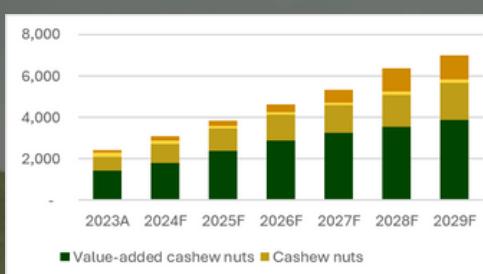
Source: PAN, team's Analysis

Figure 45: Biscuit/Candy Output (tons) and Biscuit/Candy Revenue (VND bn)



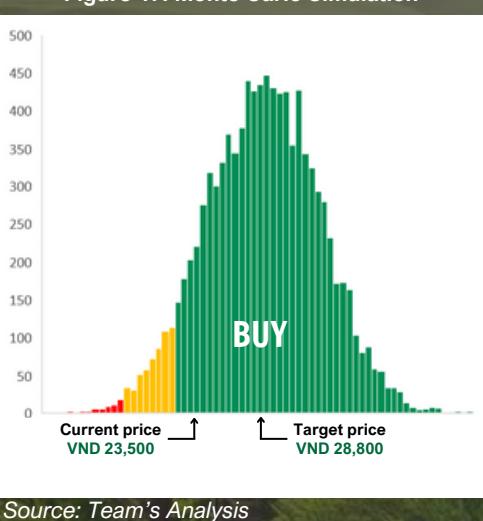
Source: BBC, team's Analysis

Figure 46: Lafooco's Nuts Output (tons)



Source: LAF, team's Analysis

Figure 47: Monte Carlo Simulation



Source: Team's Analysis

range of consumer preferences. Based on the positive trajectory of these initiatives, Bibica anticipates maintaining its operational efficiency and achieving a sustainable **revenue CAGR of 9.07%** in the future. Furthermore, the category of other sweet products is projected to achieve a remarkable **revenue CAGR of 17.63%**, outpacing the traditional confectionery categories of biscuits (3% revenue CAGR) and candy (10% revenue CAGR) (Figure 45). The consumption of Candy and Biscuit group is projected to have a demand CAGR of -3.37% and -2.94% respectively. This surge in demand can be attributed to the increasing preference for innovative and diverse food products among consumers, both domestically and internationally. To capitalize on this trend and sustain its growth trajectory, Bibica is expected to prioritize investments in product innovation.

### Nuts snack and fruit snack sector (Figure 46)

**Lafooco (LAF) (11.03% Revenue CAGR in 2023/29):** The nutritious nuts and fruit snacks category has emerged as a leading performer, securing the second position in terms of output based on historical data. This segment has demonstrated robust growth, with an output CAGR of 11.03% in the period from 2023 to 2029.

### Coffee sector

**Shin Coffee (2.67% Revenue CAGR in 2023/29):** The coffee finished products group is a subsidiary that is not listed on the stock exchange and has recorded a decline in profits in recent years of operation. In the future, the CAGR of this product group is 2.67% expected to be for 2023/29.

## SENSITIVITY ANALYSIS

Since we used different WACC and terminal growth rates across our FCFF models, we conducted a sensitivity analysis to assess the impact of changes in WACC and terminal growth rates. We adjusted both metrics by increments of 0.50%, increasing WACC by 0.50% and terminal growth rate by 0.50%. Our analysis revealed that 88.00% of our scenarios fell within our BUY recommendation range, but the highest increase of 0.50% in the terminal growth rate combined with the lowest decrease of 0.50% in WACC would shift our recommendation to SELL.

WACC (%)	Terminal Growth Rate (%)				
	0.41%	0.91%	1.41%	1.91%	2.41%
9.58%	33,750	36,800	40,200	44,050	48,450
10.08%	29,850	32,550	35,500	38,850	42,650
10.58%	26,350	28,700	31,350	34,300	37,550
11.08%	23,200	25,300	27,600	30,200	33,050
11.58%	20,300	22,200	24,250	26,550	29,050

Source: Team's Analysis

## SCENARIO ANALYSIS

A comprehensive **Monte Carlo simulation**, involving 1,000,000 iterations, was conducted to model the potential effects of fluctuations in key assumptions such as the terminal growth rate, WACC, and variables like Vietnam's GDP growth. This simulation allowed us to assess the robustness of our valuation under different macroeconomic conditions. The results were overwhelmingly positive, with 94% of the simulations pointing toward a BUY recommendation. The estimated fair value per share ranged from VND11,940 to VND59,451, highlighting a significant potential upside for investors (Figure 47).

We also performed a **scenario analysis** to provide investors with a clearer view of PAN's future prospects. Our bear and bull case scenarios incorporate the effects of potential downside risks, as highlighted in the Investment Risks section, as well as possible gains from a business environment that may outperform expectations. In these scenarios, the average profit margin ranged from 5% in 2015 to 15% in 2017 for the same periods. The summarized results are presented in below table.

ELEMENT	BEAR CASE	BASE CASE	BULL CASE
Agriculture	India eases export ban, lowering Vietnam's rice prices	Fertilizer prices fall, India bans rice exports, leading to increased rice prices	Continuous gate openings and water supply have increased saltwater intrusion, impacting the Mekong Delta.
Revenue CAGR	3.83%	7.60%	20.91%
Packed food	La Niña extends causing food prices to drop.	Invest in infrastructure and larger projects, expand business scale	Bibica has collaborated with the Vietnam National Institute of Nutrition, helping the brand successfully research and launch specialized product lines. These products are enriched with beneficial bioactive compounds that cater to the needs of individuals with special dietary requirements
Revenue CAGR	5.92%	8.46%	8.46%
Aquaculture	La Niña extends, leading to cooler seas, harmful microorganisms, disease outbreaks, and reduced aquaculture and fishing yields.	Land use tax extension; recovery in export orders, controlled inflation and improved purchasing power in US and European markets	Global per capital intake of protein is projected to rise to 79.8g per day by 2033, from 76.6g in the base period.
Revenue CAGR	2.70%	13.04%	16.54%
Target Price (VND)	19,100	28,800	35,000
Up (Down) side	-18.72%	22.55%	48.94%
Rating	SELL	BUY	BUY

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APPENDIX E4: RELATIVE P/E & P/B, EV/REV & EV/EBITDA VALUATION FOR AQUACULTURE

## GLOSSARY

EBIT Margin	Earnings Before Interest and Taxes Margin	Bn	Billion
EBITDA Margin	Earnings Before Interest, Taxes, Depreciation and Amortization	LTD/TA	Long term Debt/ Total Asset
ROS	Return on Sales	EV	Equity Value
ROCE	Return on Capital Employed	q/q	quarter/quarter
ROEA	Return on Equity Adjusted	TOI	Total Operating Income
ROE	Return on Equity	OPEX	Operating Expenditure
ROA	Return on Asset	Mn	Million

# APPENDIX SEXTION A: FINANCIAL STATEMENT

## APPENDIX A1: BALANCE SHEET

BALANCE SHEET (VND Billion)	2019A	2020A	2021A	2022A	2023A	2024F	2025F	2026F	2027F	2028F	2029F
<b>A. Current Assets and Short-term Investments</b>	5,683	6,169	10,059	10,115	14,281	14,896	15,453	15,974	16,408	16,885	17,413
I. Cash and Cash Equivalents	2,194	2,026	2,841	1,838	1,402	2,276	2,380	2,477	2,559	2,650	2,749
Cash	881	628	940	1,081	846	947	82	1,009	928	996	831
Cash Equivalents	13.8	1,398	1,901	757	557	1,329	1,568	1,468	1,632	1,654	1,918
II. Short-term Financial Investments	1,184	1,104	2,944	2,988	7,291	7,291	7,291	7,291	7,291	7,291	7,291
III. Short-term Receivables	791	1,489	1,606	2,068	2,332	2,137	2,325	2,501	2,646	2,807	2,984
Short-term Trade Receivables	738	936	980	1,345	1,449	1,282	1,395	1,500	1,588	1,684	1,790
Advances to Suppliers	64	171	143	25	97	17	16	25	32	40	49
Short-term Loans Receivable	-	345	455	574	752	24	233	250	265	281	298
Other Short-term Receivables	63	108	98	79	85	684	744	800	847	898	955
Provision for Short-term Doubtful Debts	(73)	(71)	(70)	(55)	(51)	(50)	(63)	(75)	(85)	(96)	(209)
IV. Total Inventories	1,407	1,454	2,526	3,049	3,083	3,021	3,286	3,534	3,740	3,966	4,217
V. Other Current Assets	106	96	142	171	171	171	171	171	171	171	171
<b>B. Fixed Assets and Long-term Investments</b>	5,081	5,167	4,965	5,967	5,907	5,562	5,895	6,205	6,463	6,749	7,062
I. Long-term Receivables	3	10	6	1	4	4	4	4	4	4	4
II. Fixed Assets	3,040	3,521	3,402	3,827	4,122	3,776	4,107	4,418	4,675	4,958	5,272
Tangible Fixed Assets	1,161	1,796	1,721	2,000	2,373	2,018	2,173	2,385	2,663	2,853	3,077
Intangible Fixed Assets	1,879	1,725	1,681	1,827	1,749	1,758	1,935	2,033	2,012	2,105	2,195
III. Investment Properties	0	0	43	414	419	419	419	419	419	419	419
IV. Long-term Work in Progress	805	43	471	535	191	191	191	191	191	191	191
V. Long-term Financial Investments	549	885	208	514	525	525	525	525	525	525	525
Investments in Associates and Joint Ventures	522	659	80	288	299	299	299	299	299	299	299
Other Equity Investments	26	26	28	26	26	26	26	26	26	26	26
Held-to-maturity Investments	-	200	-	200	200	200	200	200	200	200	200
VI. Total Other Long-term Assets	319	409	355	506	540	540	540	540	540	540	540
VII. Goodwill	366	299	480	168	105	101	103	104	106	106	106
<b>TOTAL ASSETS</b>	10,765	11,336	15,024	16,082	20,188	20,458	21,348	22,180	22,871	23,634	24,475
<b>C. Liabilities</b>	4,619	5,163	7,444	8,203	11,845	19,432	20,280	21,074	21,738	22,469	23,275
<b>I. Current Liabilities</b>	3,060	3,639	5,993	7,813	10,866	18,407	19,212	19,968	20,604	21,304	22,075
Short-term Borrowings and Finance Lease Obligations	1,814	2,561	3,838	5,121	8,379	12,800	13,847	12,753	11,937	10,607	8,513
Short-term Trade Payables	383	298	770	1,23	927	1,007	966	1,043	1,092	1,143	1,216
Advances from Customers	169	97	239	58	43	240	38	406	528	687	893
Taxes and Other Payables to the State	71	46	71	58	26	95	26	235	249	264	282
Payables to Employees	208	24	252	332	378	567	851	1,276	1,94	2,871	4,307
Short-term Accrued Expenses	201	225	411	650	481	957	1,079	1,757	2,491	3,589	5,231
Short-term Unearned Revenue	0	0	3	1	0	0	0	0	0	0	0
Other Short-term Payables	143	23	301	332	361	2,431	1,583	2,79	1,998	1,654	1,026
Short-term Provisions	-	-	10	10	10	10	10	10	10	10	10
Bonus and Welfare Fund	70	65	99	28	59	89	247	308	384	478	596
<b>II. Long-term Liabilities</b>	1,559	1,524	1,452	391	979	1,026	1,068	1,106	1,133	1,165	1,200
Other Long-term Payables	7	6	42	8	8	8	8	8	8	8	8
Long-term Borrowings and Finance Lease Obligations	1,275	1,258	1,63	4	603	603	603	603	603	603	603
Deferred Income Tax Liabilities	245	229	228	351	341	387	429	467	495	526	562
Long-term Provisions	32	30	28	27	28	28	28	28	28	28	28
<b>D. Owners' Equity</b>	6,146	6,173	7,580	7,878	8,343	9,187	10,123	11,141	12,219	13,365	14,588
<b>I. Owners' Equity</b>	6,146	6,173	7,580	7,878	8,343	9,187	10,123	11,141	12,219	13,365	14,588
Owners' Contributed Capital	1,731	2,164	2,164	2,64	2,63	2,163	2,163	2,63	2,63	2,163	2,163
Share Premium	1,337	905	905	905	905	905	905	905	905	905	905
Other Capital of the Owners	5	5	5	55	55	55	55	55	55	55	55
Treasury Shares	(1)	(68)	(68)	(68)	(67)	(67)	(67)	(67)	(67)	(67)	(67)
Development Investment Fund	242	303	347	350	379	379	379	379	379	379	379
Undistributed After-tax Profit	463	523	864	1,166	1,452	2,296	3,231	4,250	5,328	6,474	7,697
Non-controlling Interests	2,358	2,432	3,453	3,386	3,556	3,556	3,556	3,556	3,556	3,556	3,556
<b>TOTAL LIABILITIES AND EQUITY</b>	10,765	11,336	15,024	16,082	20,188	20,458	21,348	22,180	22,871	23,634	24,475

## APPENDIX A2: INCOME STATEMENT

Income Statement (VND Billion)	2019A	2020A	2021A	2022A	2023A	2024F	2025F	2026F	2027F	2028F	2029F
Total Operating Revenue	7,985.9	8,541.9	9,462.9	14,094.6	13,716.6	14,720.6	16,012.1	17,222.1	18,224.0	19,328.3	20,551.3
Deductions from Revenue	173.1	212.6	214.3	439.5	512.0	405.5	4411	474.4	502.0	532.4	566.1
<b>Net Revenue</b>	<b>7,812.8</b>	<b>8,329.3</b>	<b>9,248.6</b>	<b>13,655.1</b>	<b>13,204.6</b>	<b>14,315.1</b>	<b>15,571.1</b>	<b>16,747.7</b>	<b>17,722.0</b>	<b>18,795.9</b>	<b>19,985.2</b>
Cost of Goods Sold	6,155.1	6,792.2	7,498.2	9,186.8	10,544.8	11,487.0	12,494.9	13,439.0	14,220.9	15,082.6	16,036.9
<b>Gross Profit</b>	<b>1,657.6</b>	<b>1,537.1</b>	<b>1,750.3</b>	<b>2,736.5</b>	<b>2,659.8</b>	<b>2,828.1</b>	<b>3,076.2</b>	<b>3,308.7</b>	<b>3,501.2</b>	<b>3,713.3</b>	<b>3,948.3</b>
Financial Income	174.5	299.9	311.8	318.8	577.8	393.8	393.8	393.8	393.8	393.8	393.8
Financial Expenses	186.5	291.8	266.2	361.7	576.0	392.2	392.2	392.2	392.2	392.2	392.2
<b>Including: Interest Expenses</b>	<b>712</b>	<b>268.1</b>	<b>281.1</b>	<b>242.4</b>	<b>46.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Share of Profit or Loss from Associates and Joint Ventures	52.4	60.8	60.9	9.8	10.7	10.7	10.7	10.7	10.7	10.7	10.7
Selling Expenses	647.3	653.8	739.6	1,218.1	1,061.1	1,175.9	1,279.1	1,375.8	1,455.8	1,544.0	1,641.7
General and Administrative Expenses	534.2	547.1	560.9	650.2	659.2	695.9	734.6	775.5	818.6	864.1	912.2
Operating Profit	518.5	405.1	566.3	834.1	952.1	968.6	1,074.9	1,189.8	1,239.2	1,317.6	1,406.8
Other Income	13.5	91.3	19.0	115.8	21.5	21.5	21.5	21.5	21.5	21.5	21.5
Other Expenses	14.5	100.9	14.4	7.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Other Profit	(0.9)	(9.6)	4.6	98.2	3.9	3.9	3.9	3.9	3.9	3.9	3.9
<b>Profit Before Tax</b>	<b>515.6</b>	<b>395.5</b>	<b>560.8</b>	<b>932.4</b>	<b>956.0</b>	<b>972.6</b>	<b>1,078.8</b>	<b>1,173.8</b>	<b>1,243.1</b>	<b>1,321.5</b>	<b>1,410.7</b>
Current Corporate Income Tax	78.2	75.1	510	188.1	159.1	516	188.1	182.9	193.7	-	-
Deferred Corporate Income Tax	(14.5)	(12.8)	(0.9)	(30.1)	(20.2)	(22.5)	(25.0)	(27.1)	(28.8)	(30.6)	(32.6)
<b>Net Profit After Tax</b>	<b>452.0</b>	<b>333.2</b>	<b>510.8</b>	<b>794.3</b>	<b>817.1</b>	<b>843.5</b>	<b>935.7</b>	<b>1,018.0</b>	<b>1,078.1</b>	<b>1,146.2</b>	<b>1,223.5</b>
Profit Attributable to Owners of the Parent	257.4	188.3	296.1	374.0	405.9	452.5	501.9	546.0	578.3	614.8	656.3
Profit Attributable to Non-Controlling Interests	194.6	144.9	214.6	420.3	411.2	391.1	433.8	472.0	499.8	531.4	567.2

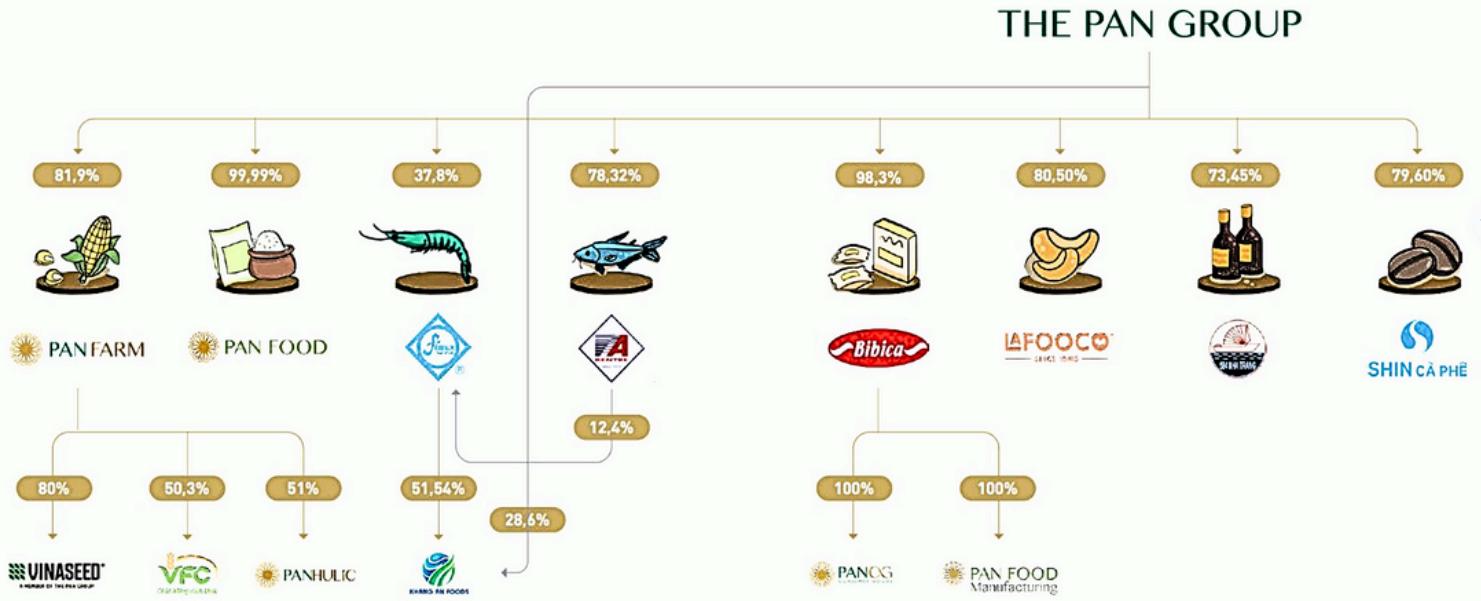
# APPENDIX SECTION A: FINANCIAL STATEMENT

## APPENDIX A3: CASH FLOW

CASH FLOW (VND Billion)	2019A	2020A	2021A	2022A	2023A	2024F	2025F	2026F	2027F	2028F	2029F
<b>Cash Flows from Operating Activities</b>	(4.0)	(224.1)	(1,427.2)	1,045.5	(4,268.8)	4,031.3	(245.3)	1,439.8	774.3	710.9	634.8
Profit Before Tax	515.6	395.5	580.8	932.4	956.0	972.6	1078.8	1,173.8	1,243.1	1,321.5	1,410.7
Adjustments for:	271.1	318.9	247.2	337.5	419.8	188.2	50.6	(101.1)	(319.2)	(597.6)	(957.4)
Depreciation and Amortization	318.7	389.5	393.8	429.3	500.0	426.5	463.9	498.9	528.0	559.9	595.4
Provisions	15.8	2.0	(33.4)	(13.8)	(21.1)	56.9	20.3	19.0	15.8	17.4	19.3
Unrealized Foreign Exchange Gains/Losses	(0.6)	(10)	(19.9)	(9.2)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Gains/Losses from Investment Activities	(234.0)	(339.6)	(312.4)	(311.3)	(519.6)	(654.3)	(823.9)	(1037.5)	(1308.5)	(1645.3)	(2,071.9)
Interest Received	-	-	-	-	-	-	-	-	-	-	-
Interest Expenses	712	268.1	29.1	242.4	456.5	355.2	386.3	415.5	439.7	466.3	495.8
<b>Operating Profit Before Changes in Working Capital</b>	<b>786.7</b>	<b>714.4</b>	<b>808.0</b>	<b>1,269.8</b>	<b>1,375.8</b>	<b>1,160.8</b>	<b>1,129.4</b>	<b>1,073.7</b>	<b>923.9</b>	<b>723.9</b>	<b>453.3</b>
Increase/Decrease in Receivables	(8.9)	(289.2)	362.3	(344.1)	(650)	395.2	124.8	182.1	214.8	221.3	227.8
Increase/Decrease in Inventories	87.6	(50.6)	(5610)	(5250)	(18.2)	218.7	(257.8)	(2415)	(200.0)	(220.5)	(244.1)
Increase/Decrease in Payables (Excluding Interest Payable and Corporate Income Tax Payable)	450.1	(174.7)	213.7	433.3	(354.0)	2,339.2	(6056)	1,098.1	507.0	663.3	881.2
Increase/Decrease in Prepaid Expenses	(106.8)	8.2	59.3	(35.4)	(58.5)	(58.5)	(58.5)	(58.5)	(58.5)	(58.5)	(58.5)
Increase/Decrease in Other Current Assets	(900.0)	(0.2)	(1994.4)	695.0	(4,470.0)	599.4	60.0	58.2	46.6	51.3	56.8
Interest Paid	(146.8)	(2610)	(218.8)	(2018)	(462.5)	(392.2)	(392.2)	(392.2)	(392.2)	(392.2)	(392.2)
Corporate Income Tax Paid	(94.1)	(89.8)	(41.7)	(167.6)	(114.1)	(129.1)	(143.2)	(165.8)	(165.0)	(175.4)	(187.2)
Other Cash Payments from Operating Activities	(72.2)	(813)	(64.6)	(78.7)	(102.3)	(102.3)	(102.3)	(102.3)	(102.3)	(102.3)	(102.3)
<b>Cash Flows from Investing Activities</b>	<b>(1,162.5)</b>	<b>(447.2)</b>	<b>806.5</b>	<b>(1,936.9)</b>	<b>168.7</b>	<b>(634.1)</b>	<b>(603.8)</b>	<b>(577.3)</b>	<b>(559.9)</b>	<b>(540.0)</b>	<b>(516.4)</b>
<b>Payments for Acquisition of Fixed Assets and Other Long-term Assets</b>	<b>(829.5)</b>	<b>(245.5)</b>	<b>(591.6)</b>	<b>(672.3)</b>	<b>(341.1)</b>	<b>(585.2)</b>	<b>(636.5)</b>	<b>(684.6)</b>	<b>(724.5)</b>	<b>(768.4)</b>	<b>(817.0)</b>
Proceeds from Disposal of Fixed Assets and Other Long-term Assets	10	118.3	10.3	236.2	23.6	78.8	858	92.2	97.6	103.5	10.1
Payments for Loans Given and Acquisition of Debt Instruments of Other Entities	(412.9)	(650.2)	(148.6)	(2,725.3)	(2,718.4)	(1748.9)	(1825.2)	(1898.6)	(1956.4)	(2,022.2)	(2,094.8)
Proceeds from Loan Recoveries and Disposal of Debt Instruments of Other Entities	375.1	186.2	393.3	1665.2	2,709.1	1,199.4	1,304.4	1,402.8	1,484.2	1,574.0	1,673.5
Payments for Investment in Other Entities	(493.8)	(108.5)	650.7	(687.8)	-	-	-	-	-	-	-
Proceeds from Investment in Other Entities	-	-	270.0	2.6	-	-	-	-	-	-	-
Dividends and Profits Received	197.5	252.6	222.3	244.3	495.5	421.8	467.8	509.0	539.1	573.1	611.8
<b>Cash Flows from Financing Activities</b>	<b>822.4</b>	<b>503.1</b>	<b>1,435.9</b>	<b>(106.9)</b>	<b>3,661.9</b>	<b>(2,114.8)</b>	<b>1,851.0</b>	<b>(1,250.1)</b>	<b>(213.7)</b>	<b>(226.3)</b>	<b>(240.6)</b>
Proceeds from Issuing Shares and Capital Contributions from Owners	30.0	-	4719	-	-	-	-	-	-	-	-
Payments for Capital Contributions to Owners, Purchase of Treasury Shares	0.3	(167.1)	-	-	-	-	-	-	-	-	-
Proceeds from Short-term and Long-term Borrowings	7,692.5	12,445.8	11,700.6	13,496.5	20,217.6	25,262.1	30,420.4	31,610.6	32,606.5	33,703.6	34,912.8
Repayment of Borrowings	(6,850.8)	(11,777.5)	(1,551)	(19,453.1)	(16,381.3)	(27,205.4)	(28,392.4)	(32,664.3)	(32,606.5)	(33,703.6)	(34,912.8)
Dividends and Profits Paid to Owners	(49.6)	(58.0)	(185.5)	(150.3)	(174.5)	(1715)	(177.1)	(198.4)	(213.7)	(226.3)	(240.6)
<b>Net Cash Flows During the Period</b>	<b>(344.1)</b>	<b>(168.2)</b>	<b>815.2</b>	<b>(998.4)</b>	<b>(438.3)</b>	<b>1,282.4</b>	<b>1,001.9</b>	<b>(387.6)</b>	<b>0.7</b>	<b>(55.3)</b>	<b>(122.2)</b>
Cash and Cash Equivalents at the Beginning of the Period	2,538.2	2,194.5	2,025.8	2,841.3	1838.0	1,402.4	2,275.8	2,379.7	2,477.3	2,559.4	2,649.8
Effect of Exchange Rate Changes on Cash and Cash Equivalents	0.4	(0.5)	0.3	(4.9)	2.7	(409.0)	(897.9)	485.1	814	145.7	2217
Cash and Cash Equivalents at the End of the Period	2,194.5	2,025.8	2,841.3	1838.0	1402.4	2,275.8	2,379.7	2,477.3	2,559.4	2,649.8	2,749.2

## APPENDIX SECTION B: BUSINESS DESCRIPTION & ESG

### APPENDIX B1: MAIN PRODUCTS OF PAN GROUP



## APPENDIX B2: SUSIDIARIES AND AFFILIATES

No.	Company	Address	Industry	Charter Capital (VND)	The Pan Group's Ownership (direct or indirect)
<b>AGRICULTURE</b>					
1	PAN Farm Joint Stock Company	15th Floor, ICON4 Tower, 243A De La Thanh, Lang Thuong Ward, Dong Da District, Hanoi	Agriculture	1,220,738,040,000	81.91%
2	Vietnam National Seed Group Joint Stock Company (Vinaseed)	1 Luong Dinh Cua, Phuong Mai Ward, Dong Da District, Hanoi	Researching, producing, trading, exporting and importing agricultural and forestry plant seeds; producing, trading, exporting and importing agricultural products and materials	175,869,880,000	80.05%
3	Vietnam Fumigation Joint Stock Company (VFCL)	29 Ton Duc Thang Street, Ben Nghe ward, District 1, Ho Chi Minh city	Manufacturing, processing, bottling and packaging pesticides, pesticide materials, and sterilization materials [no activities of manufacturing, processing, bottling and packaging are conducted at the headquarter]	417,146,140,000	51.25%
4	PAN-HULIC Joint Stock Company	Tan Lap Hamlet, Tan Van Commune, Lam Ha District, Lam Dong Province	Manufacturing and trading vegetables and flowers	157,441,940,000	50.97%
<b>PACKAGED FOOD</b>					
1	PAN Food Joint Stock Company	LotA1-9, VL3 Road, Vinh Loc 2 Industrial Park, Long Hiep Commune, Ben Luc District, Long An Province	Manufacturing and distributing foods	1,000,000,000,000	99.99%
2	Bibica Joint Stock Company	4433 Ly Thuong Kiet, Ward 8, Tan Binh District, Ho Chi Minh City	Producing and trading sugar, confectionery, malt beverages, wine [alcoholic drinks], nutritional powder, milk and dairy products, soy milk, soft drinks, powdered soft drinks [no production activities are conducted at the headquarter]; specializing in real estate	187,526,870,000	98.30%
3	Long An Food Processing Export Joint Stock Company (Lafocco)	81B Highway 62, Ward 2, Tan An City, Long An Province	Processing, manufacturing, trading, importing, exporting agricultural and aquatic products; providing agricultural support services	147,280,190,000	80.52%
4	584 Nha Trang Seafood Joint Stock Company	1210 Le Hong Phong street, Phuoc Long Ward, Nha Trang City	Assessing aqua product quality, processing and preserving fishery and aquaculture products	64,019,090,000	73.45%
5	Golden Beans Coffee Joint Stock Company	497/23 Su Van Hanh, Ward 12, District 10, Ho Chi Minh city, Vietnam	Wholesale distributing food, agricultural and forestry products, growing coffee trees	73,234,630,000	79.59%
<b>AQUACULTURE</b>					
1	Sao Ta Food Joint Stock Company (Firmex VN)	Km2132, HighWay 1A, Ward 2, Soc Trang Town, Soc Trang Province	Farming, processing and preserving aquatic products, importing machinery, equipment and materials for the processing industry	653,888,890,000	50.12%
2	Khang An Food Joint Stock Company	Lot B, An Nghiep Industrial Park, An Hiep Commune, Chau Thanh District, Soc Trang Province, Vietnam	Farming, processing, preserving aquatic products, importing machinery, equipment for the processing industry	350,000,000,000	80.11%
3	Ben Tre Aquaproduct Import and Export Joint Stock Company (Aquatex Bentre)	Tan Thanh Commune, Chau Thanh District, Ben Tre Province, Vietnam	Culturing, processing and exporting aquatic products; processing feeding food for aquaculture, livestock and poultry	143,872,070,000	76.47%

## APPENDIX B3. ESG PERFORMANCE

Changing over year	Factor	2020	2021	2022	2023
	CO2 emissions/Revenue(million tons/ billion revenue)	12,49	8,40	7,32	7,65
	Solid Waste/Revenue (tons/billion revenue)	146,79	109,36	478,666,00	10,27
	Average Salary (million VND)	9,90	8,90	13,10	13,70
	Workplace Accidents (Cases)	5	4	7	0
	Female Employee Structure (%)	49,72	48,90	48,00	50,00
	Community Support Funds (billion)	8,80	14,83	9,88	9,76
	Energy Consumption/Revenue	70,424	29	24,324	50,996
	Wastewater/Revenue (m3/billion revenue)	122,77	9,338,00	1.118,493,60	5,614,599,00
	Cleanwater consumption/Revenue	64,19	132,62	108,49	1,429,831,00
	Turnover Rate/Total Employees at Year-End (%)	46,94	26,99	30,00	35,20
	Collaborating Households	70,000	36,445	36,381	35,207
	Regarding Violations of Customer Privacy or Data Loss	0	0	0	0
	Total Number of Violations and Negative Impacts on Customer Safety and Health	0	0	0	0
	Average Training Time (Hour/employee)	29	11	18	12
	Tax Payment Over the Years (billion)	0,0351	0,0298	11,8880	0,0083

Source: PAN, Team analysis

## APPENDIX B4: RISK GOVERNANCE

Brand Risks	<b>High</b>
Market Risks	<b>High</b>
M&A Risks (Mergers and Acquisitions)	<b>High</b>
Compliance Risks	<b>High</b>
Legal Risks	<b>Medium</b>
Human Resource Management Risks	<b>Medium</b>
Credit Risks	<b>Medium</b>
Liquidity Risks	<b>Low</b>
Interest Rate Risks	<b>Low</b>

## APPENDIX B5: ESG STRATEGY



## APPENDIX B6: BOARD OF DIRECTORS

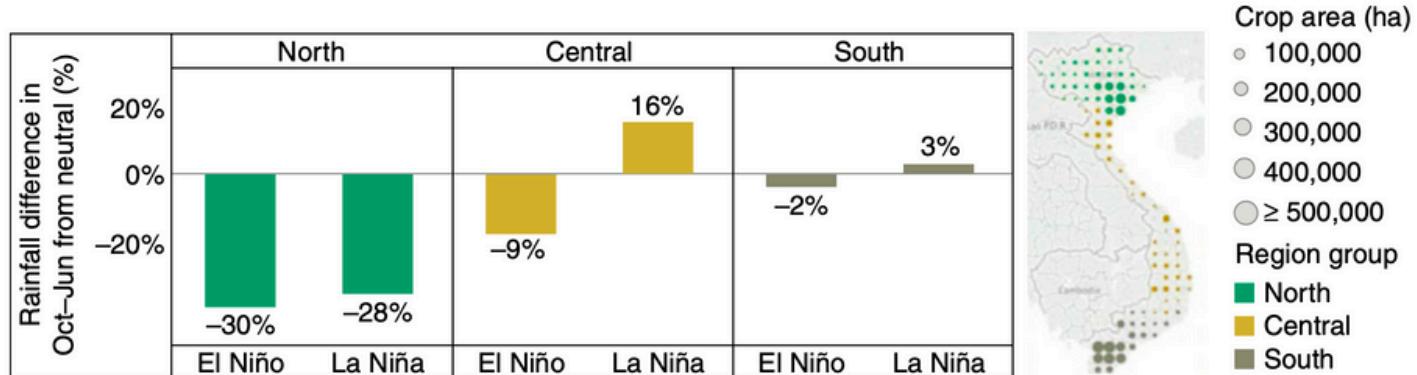
No.	Name	Position	Member since	Age	Tenure (years)	Share held	% Outstanding	Pay value (2023), million	Dividend yield	Resident	Education	Work Experience
1	Nguyễn Duy Hưng	Chairman of BOD	2022	62	25	1226000	0.587	240.000	613.000.000	Vietnam	Master of Business Administration	Founder of PAN Group. The founder, chairman of the Board of Directors, and CEO of SSI Securities Corporation.
2	Nguyễn Thị Trà My	Vice Chairman of BOD	2022	54	17	23828927	0.464	2.946.923	11.914.463.500	Vietnam	Master of Business Administration	Co-founder, Vice Chairman, and CEO of PAN Group. Founder and CEO of CSC Vietnam JSC. 18 years of experience as CFO of Deputy General Director at Biomin Vietnam.
3	Nguyễn Duy Khánh	Non-Executive BOD Member	2022	33	9	20125	0.096	180.000	10.062.500	Vietnam	Bachelor of Finance	CEO of NDH Invest Ltd. Founder and a significant contributor to the success of SSI International Corp.
4	Nguyễn Vũ Thùy Hương	Non-Executive BOD Member	2022		12	124,062	0.059	180.000	62.031	Vietnam	Master of Corporate Finance	Director of the Investment Division at SSI.
5	Phạm Viết Müôn	Independent BOD Member	2022	70	6	45000	0.022	180.000	22.500.000	Vietnam	Ph.D. in Economics, being awarded the First Class Labor Medal by the State in	Deputy Chief of the Government Office of the Socialist Republic of Vietnam.
6	Hà Thị Thanh Vân	Non-Executive BOD Member	2022	56	11	360000	0.172	180.000	180.000.000	Vietnam	Bachelor of Literature and Linguistics	Director of PAN Pacific Co., Ltd. Head of Marketing and Business Development at PPC Trading and Service Co., Ltd.
7	Bùi Xuân Tùng	Independent	2022	-	-	-	-	-	-	Vietnam	-	-

## APPENDIX B7: EXECUTIVE COMMITTEE

No.	Name	Position	Resident	Education	Other position	Honor
1	Nguyễn Thị Thanh Tuyết	Chairman of VFC	Vietnam	Agriculture Engineer	Ministry of Agriculture	-
2	Trần Thị Kim Liên	Chairwoman of Vinaseed	Vietnam	Bachelor of Economics, Bachelor of Laws Political level: Advanced	Lecturer	The 50 most influential women in Vietnam by Forbes
3	Hồ Quốc Lực	Chairman of Fimex VN	Vietnam	Master and Doctor of Economics	-	
4	Trương Phú Chiến	Chairman of Bibica, CEO of PAN Food	Vietnam	Bachelor Degree in Economics	-	
5	Nguyễn Văn Khải	Chairman of Aquatex Ben Tre and Lafocco	Vietnam	Master's degree in Industrial Administration	-	
6	Huỳnh Ngọc Diệp	Chairman cum CEO of 584 Nha Trang	Vietnam	MBA	Finance – Business manager	
7	Trương Công Cử	CEO of VFC	Vietnam	Agriculture Engineer	Quarantine officer - Plant Quarantine Department Region II	
8	Đương Ngọc Kim	CEO of Khang An Foods JSC.	Vietnam	Business Administration	Factory Manager,	
9	Phạm Hoàng Việt	CEO of Fimex VN	Vietnam	Business Administration and Law	Business Administration	
10	Nguyễn Quốc Hoàng	CEO of Bibica	Vietnam	Chemical Engineering Technology in Food	Head of Supervisory Board	
11	Phan Ngọc Sơn	CEO of Lafocco	Vietnam	Bachelor degree in Physics and Economics Management	-	
12	Nguyễn Quốc Trường	CEO of Vinaseed	Vietnam	MSc Business with Financial Management	Investment Analyst of FPT Capital.	
13	Phan Hữu Tài	CEO of Aquatex Ben Tre	Vietnam	Master of Finance	-	

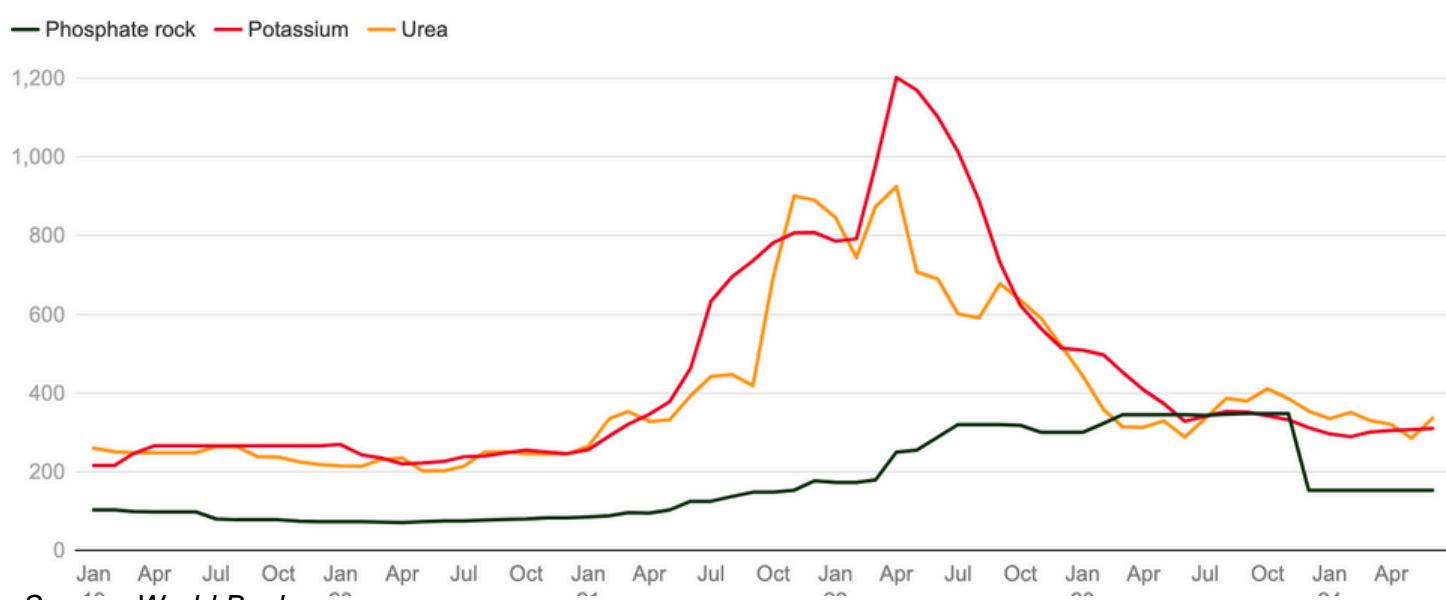
## APPENDIX SECTION C: INDUSTRY OVERVIEW & COMPETITIVE POSITIONING

### APPENDIX C1: DIFFERENCES OF RAINFALL BETWEEN EL NIÑO AND NEUTRAL PHASE IN SUBREGIONS

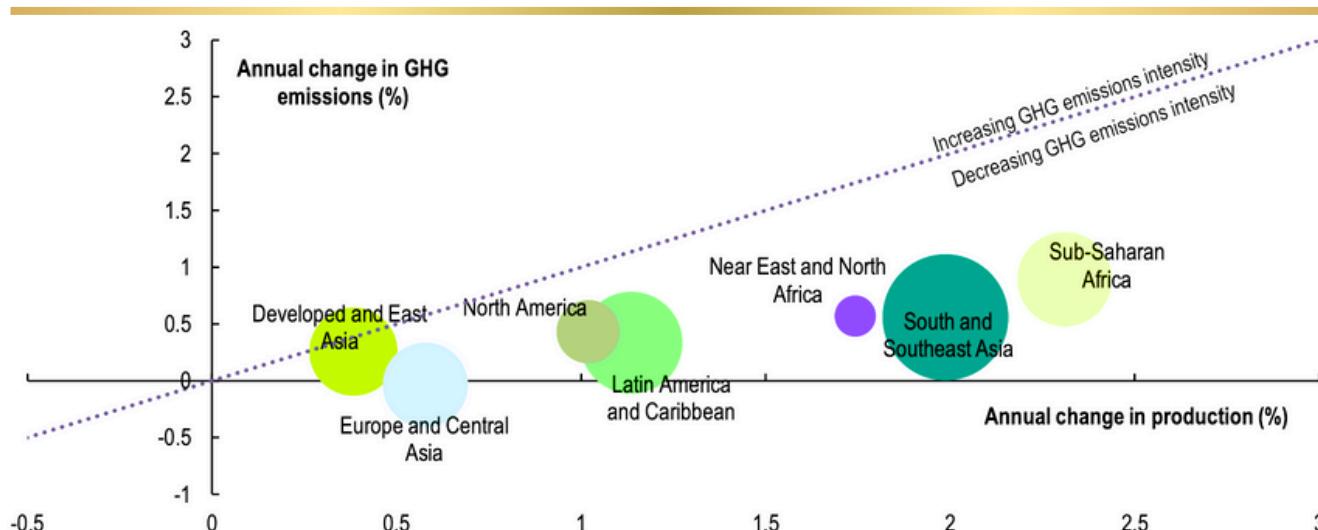


Source: STRIKING A BALANCE

### APPENDIX C2: FERTILIZER PRICE (USD/T)

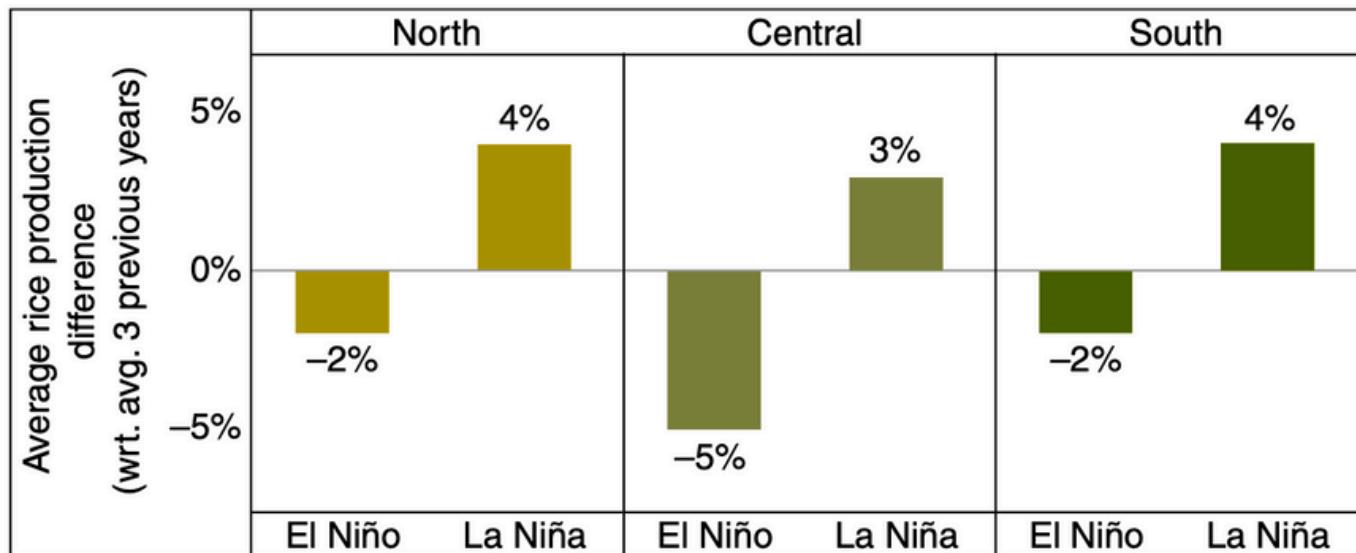


### APPENDIX C3: GHG EMISSIONS AND EMISSIONS INTENSITY FROM AGRICULTURE, 2021 TO F2033



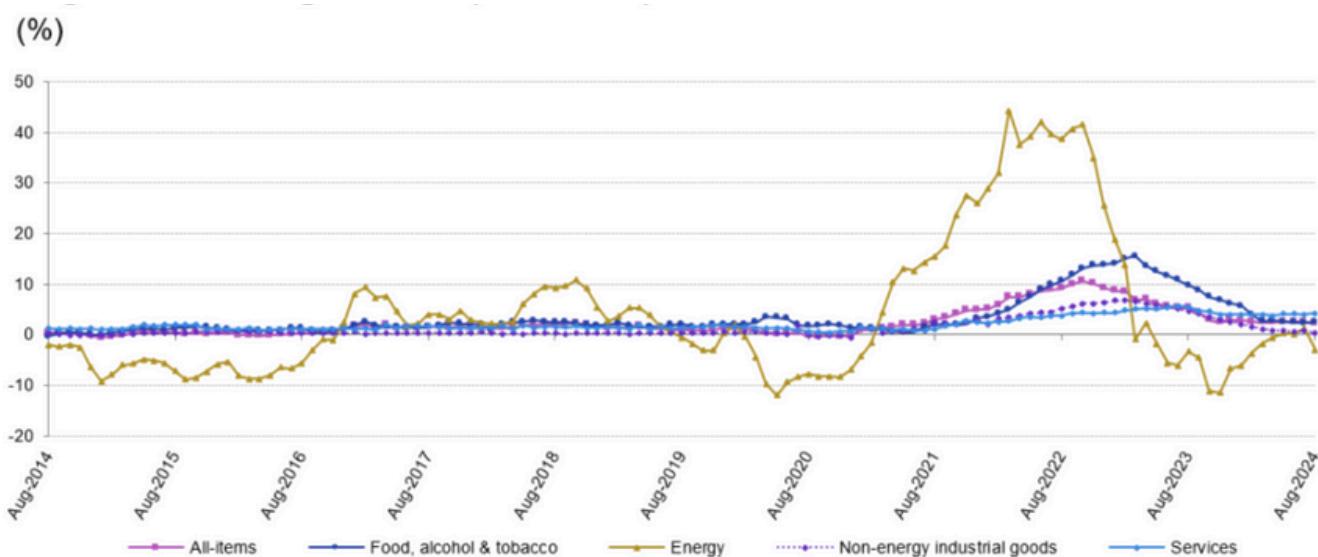
Source: FAOSTAT

## APPENDIX C4: AVERAGE ANNUAL RICE PRODUCTION DURING ENSO YEARS SUBREGIONS



Source: STRIKING A BALANCE

## APPENDIX C5: EU AREA INFLATION



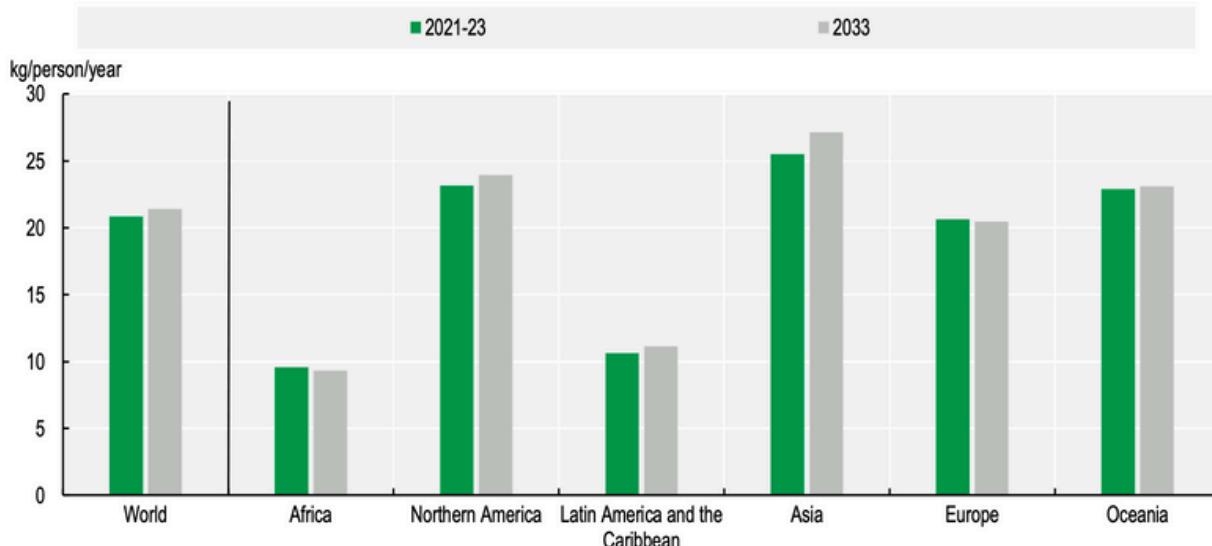
Source: Eurostat

## APPENDIX C6: PEER COMPARISON

Sector	Company	Net revenue, Q2/2024	Net revenue, Q2/2023	%yoy	Market Cap (billion)	P/E	Employee (2023)
Agriculture	Vinaseed (PAN)	3.737.704	2349918	0,59	1.379,60	6,17	722
	Trung An Hi-Tech Farming	2.704.200	1615429	0,67	438.438,59	-25,12	2931
	Loc Troi	3.848.690	3677970	0,05	1.581,64	5,33	3500
Aquaculture	SaoTa (PAN)	1.242.799	1032765	0,20	3.056,93	10,91	3910
	Minh Phú seafood corp.	3.737.704	2349918	0,59	6.598,14	228,08	12382
	Vinh Hoan	3.195.660	2723684	0,17	15.823,95	19,68	10000
Packed food	Bibica (PAN)	260	210	0,24	956,39	7,83	1000
	KIDO	1.716.603	2317149	-0,26	15.881,39	-30,22	3173
	Hữu Nghị	361.469	332416	0,09	894,00	7,24	1900

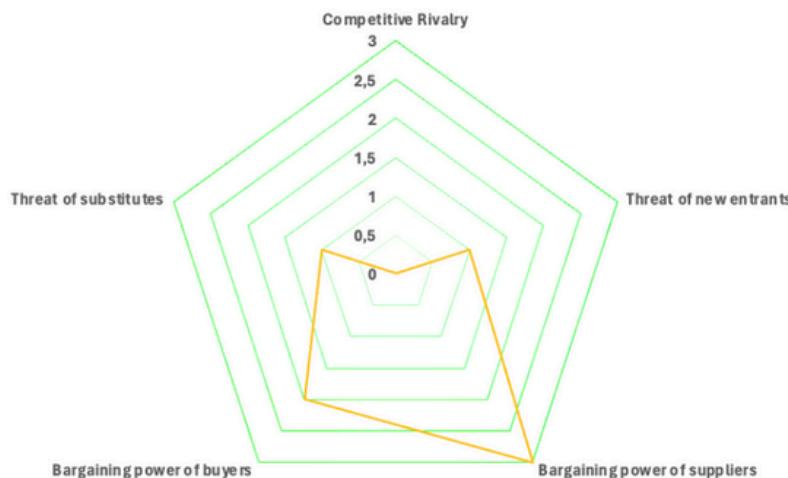
Source: Team's analysis

## APPENDIX C7: PER CAPITA CONSUMPTION OF FISH



Source: OECD

## APPENDIX C8: PORTER'S 5 FORCES



### COMPETITIVE RIVALRY: 0

**Vinaseed:** The largest market share for plant varieties is 21%

**SaoTa:** Vietnam has differences in the production process: meticulous processing. Meanwhile, shrimp from India and Ecuador are simply processed and not suitable for the Japanese market

**Bibica:** Compared to Q2/2023, the revenue of Hai Ha Confectionery Joint Stock Company in Q2/2024 decreased by more than 12%. Huu Nghi Food Joint Stock Company increased by 8%. Bibica Joint Stock Company increased by 10% compared to the same period

### THREAT OF NEW ENTRANTS: 1

**Vinaseed:** Vietnam is vulnerable to the effects of climate change, including erratic rainfall patterns, extreme weather events, and the spread of pests and diseases.

**SaoTa:** Japanese consumers have strict quality requirements.

**Bibica:** Compared to domestic confectionery manufacturers, foreign companies always have an advantage in terms of financial resources as well as technology

### BARGAINING POWER OF SUPPLIERS: 3

**Vinaseed:** Materials from subsidiaries, not dependent on third parties

**SaoTa:** Fimex VN has put the Vinfarm farm area in Vinh Thuận into operation, expanding the farming area by an additional 203 hectares, bringing the total farming area to 525 hectares, with the capacity to supply 16,000 tons of raw shrimp per year. This helps in securing a self-sufficient supply of raw materials.

**Bibica:** Independent production.

### BARGAINING POWER OF BUYERS: 2

**Vinaseed:** Vietnam National Seed Group Joint Stock Company (Vinaseed)

**SaoTa:** Japanese partners tend to avoid changing suppliers when business processes are running smoothly.

**Bibica:** The brand does not have exclusivity

### THREAT OF SUBSTITUTES: 1

**Vinaseed:** Owning 3 out of 7 popular rice products in Vietnam.

**SaoTa:** The supply of shrimp in India, Vietnam, and Thailand is scarce, and stock levels are low due to high interest rates and storage costs. This has led to a sharp increase in the price of Ecuadorian shrimp in Japan.

**Bibica:** The pressure of competition is increasing due to free trade agreements, leading to more imported products entering Vietnam and directly competing with domestic products.

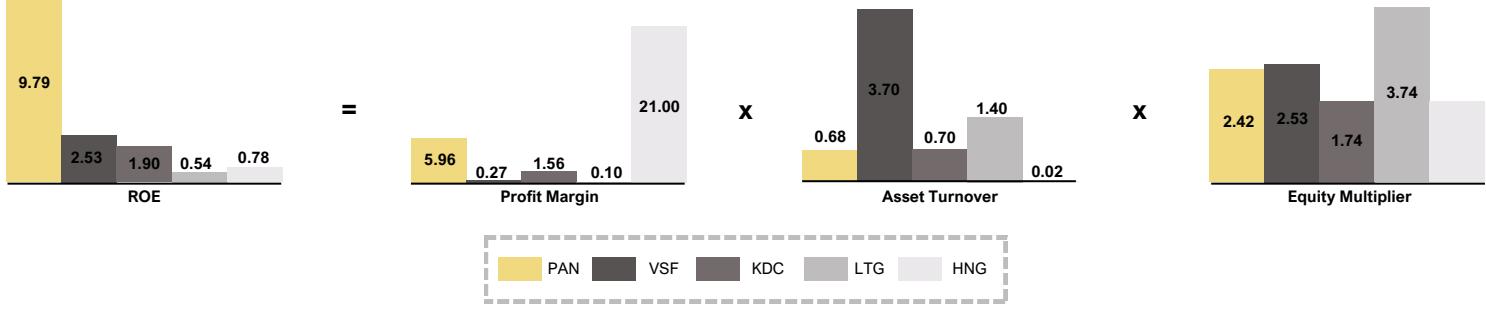
Source: Team Consensus

## APPENDIX SECTION D: FINANCIAL ANALYSIS

### APPENDIX D1: PEER SELECTION

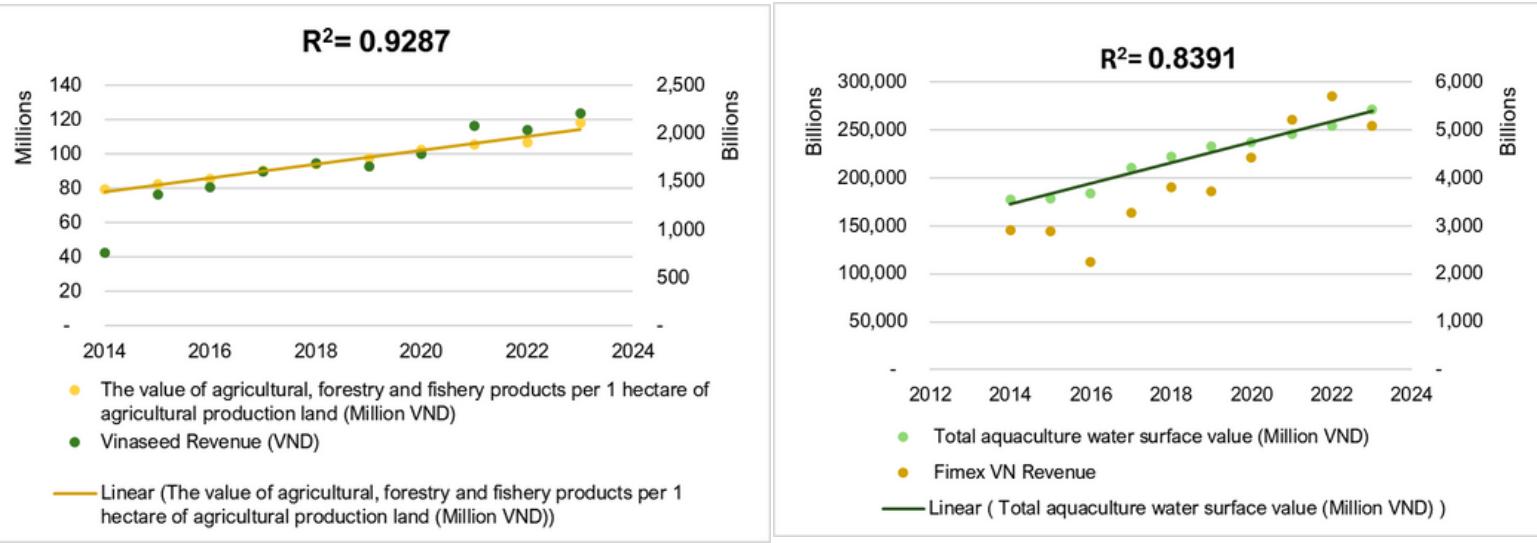
	2021	2022	2023	ROEA (%)	2021	2022	2023	ROAA (%)	2021	2022	2023	ROS (%)	2021	2022	2023	Asset Turnover (x)
Vietnam National Seed Group JSC	17.5	16.62	15.98		11.75	11.15	10.53		11.7	12.01	11.31		1.03	0.95	0.96	
Viet Nam Fumigation Joint Stock Company	16.67	21.36	24.79		8.83	9.86	10.37		7.93	7.7	9.06		1.11	1.28	1.14	
Long An Food Processing Export Joint Stock Company	22.33	13.42	14.00		16.27	7.53	7.78		9.54	5.05	6.63		1.70	1.49	1.17	
Bibica Corporation	2.16	16.45	6.93		1.41	11.06	4.60		2.05	11.96	6.46		0.69	0.92	0.71	
Sao Ta Foods Joint Stock Company	17.47	15.10	12.69		12.11	10.86	8.70		5.52	5.63	5.94		2.36	2.00	1.60	
Bentre Aquaproduct Import And Export JSC	8.15	14.46	13.28		5.94	10.57	10.03		9.89	10.43	11.99		0.57	1.01	0.84	
Median	17.07	15.78	13.64		10.29	10.72	9.37		8.74	9.07	7.85		1.07	1.15	1.05	
	<b>Debt to Equity (x)</b>				<b>Net Margin (%)</b>				<b>Gross Profit Margin (%)</b>				<b>EBITDA Margin (%)</b>			
Vietnam National Seed Group JSC	0.48	0.50	0.54		11.70	12.01	11.31		32.17	33.51	31.18		17.50	18.66	17.68	
Viet Nam Fumigation Joint Stock Company	0.88	1.42	1.36		7.93	7.70	9.06		24.49	23.86	23.88		11.13	10.71	12.66	
Long An Food Processing Export Joint Stock Company	0.42	1.16	0.50		9.54	5.05	6.63		19.51	15.94	17.90		13.67	10.53	12.88	
Bibica Corporation	0.67	0.36	0.65		2.05	11.96	6.46		29.43	29.56	33.38		9.49	19.58	13.51	
Sao Ta Foods Joint Stock Company	0.37	0.41	0.50		5.52	5.63	5.94		10.18	10.97	9.69		7.44	7.63	9.57	
Bentre Aquaproduct Import And Export JSC	0.42	0.32	0.33		9.89	10.43	11.99		18.96	18.94	15.69		13.59	13.37	16.28	
Median	0.45	0.46	0.52		8.73	9.06	7.85		22.00	21.40	20.89		12.36	12.04	13.20	

### APPENDIX D2: PAN'S ROE DECOMPOSITION VERSUS VIETNAMESE PEERS, 2023



## APPENDIX SECTION E: Regression analysis for Sector growth rate

### APPENDIX E1: REGRESSION ANALYSIS FOR SECTOR'S REVENUES AND THE AREA VALUE OF VIETNAMESE AGRICULTURE/AQUACULTURAL



We use regression to forecast the growth rate of **near-future periods**. For the **Agricultural** sector, we forecast the revenue of the company that is the main contributor to this sector in Pan Group, Vinaseed, by using the independent variable: **The value of agricultural, forestry products per 1 hectare** of agricultural production land (unit: Million VND) (Appendix E). With the average growth of the independent variable being **4.41%**, we get an  $R^2$  coefficient of 0.9288 and forecast the revenue for Vinaseed in 2024 to increase by 6.4%. From there, we would calculate the growth for each period to apply to the DCF model.

Similar to Pan's second main industry, the **Seafood sector**, we use the independent variable **Total aquaculture water surface value (Million VND)** to forecast growth for the aquaculture industry with the representative company Fimex VN. There is a certain correlation between the two sets of numbers within 9 years, the explanatory level of the regression model is **0.8391**, so we accept the growth rate result for the aquaculture industry as **15.94% for 2024, 8.04% for the 2-year cycle, and 4.8% for the long-term cycle**.

## APPENDIX E2: RELATIVE P/E & P/B, EV/REV & EV/EBITDA VALUATION FOR AGRICULTURE

No.	Company	Ticker	Country	Share Price	Shares Outstanding (M)	EV/Revenue	EV/EBITDA	P/E	P/S
1	Sysco Corporation	NYSE: SYY	America	491.52	492	0.29	6.10	21.30	0.49
2	Công ty cổ phần Rau quả Thực phẩm An Giang	UpCOM: ANT	Vietnam	14.40	14	1.00	9.94	22.90	0.30
3	Chaman Lal Setia Exports Ltd	NSE: CLSEL	India	51.78	52	0.67	5.62	10.38	0.88
	Công ty Cổ phần Xuất nhập khẩu Nông sản Thực phẩm An Giang	UpCOM: AFX	Vietnam	35.00	35	0.54	12.79	10.30	0.13
5	Công ty Cổ phần Nông sản thực phẩm Quảng Ngãi	UpCOM: APF	Vietnam	25.94	26	0.47	7.78	8.49	0.24
6	GFP Public Co. Ltd.	BKK: GFPT-F	Thailand	1,250.00	1,250	1.25	9.38	11.68	0.85
7	Thai Eastern Group Holdings Ord Shs	BKK: TEGH	Thailand	1,080.00	1,080	0.60	11.11	16.48	0.29
8	Công ty cổ phần Tập đoàn Giống cây trồng Việt Nam	HOSE: NSC	Vietnam	0.08	0.08	0.79	4.84	6.28	0.60
Median						0.73	9.38	10.38	0.30
Average						0.89	10.05	12.11	0.40
High						2.02	22.94	22.90	
75th Percentile						1.18	11.11	16.48	
25th Percentile						0.55	6.10	8.49	
Low						0.29	4.84	1.13	

## APPENDIX E3: RELATIVE P/E & P/B, EV/REV & EV/EBITDA VALUATION FOR PACKED FOOD

No.	Company	Ticker	Country	Share Price	Shares Outstanding (M)	EV/Revenue	EV/EBITDA	P/E	P/S
1	Công ty Cổ phần Lương thực Bình Định	UpCOM: BLT	Vietnam	50,900	0.05	0.06	3.55	14.04	0.14
2	Công ty Cổ phần Nafoods Group	HOSE: NAF	Vietnam	17,750	0.02	1.13	8.27	10.18	0.64
3	Công ty Cổ phần Đầu tư Du lịch và Phát triển Thủy sản	HoSE: DAT	Vietnam	8,140	0.01	0.41	6.19	6.80	0.17
4	Công ty CP dồ hộp Hạ Long	HNX: CAN	Vietnam	42,000	0.04	0.52	11.97	17.40	0.28
5	Indofood Sukses Makmur Tbk PT	HKG: 0322	Indonesia	6,100	8,780	1.34	6.38	6.57	0.48
6	Tingyi (Cayman Islands) Holding Corp	IDX: INDF	Thailand	9.43	5,630	0.52	6.07	17.02	0.66
7	Công ty Cổ phần Chế biến Hàng xuất khẩu Long An	HOSE: LAF	Vietnam	16,250	0.02	0.76	5.86	8.36	0.55
8	Công ty Cổ phần Bibica	HOSE: BBC	Vietnam	49,500	0.05	1.42	10.67	9.65	0.61
Median						0.64	6.48	10.18	0.47
Average						0.80	8.51	11.75	0.40
High						1.58	19.60	17.40	
75th Percentile						1.29	10.07	15.69	
25th Percentile						0.43	6.10	8.36	
Low						0.06	3.55	6.57	

## APPENDIX E4: RELATIVE P/E & P/B, EV/REV & EV/EBITDA VALUATION FOR AQUACULTURE

No.	Company	Ticker	Country	Share Price	Shares Outstanding (M)	EV/Revenue	EV/EBITDA	P/E	P/S
1	Nissui Corp	TYO: 1332	Japan	831	310.83	0.77	13.05	12.17	0.34
2	Công ty cổ phần Thủy Độc Sản	UpCOM: SPV	Vietnam	19,000	10.80	0.74	8.53	11.37	0.46
3	Công ty Cổ phần Đầu tư và Phát triển Đa Quốc Gia	HOSE: IDI	Vietnam	9,500	273.17	0.82	12.84	25.21	0.19
4	KYOKUYO CO., LTD.	TYO: 1301	Japan	3,760	11.88	0.56	14.66	7.73	0.16
5	Công ty Cổ phần Camimex Group	HOSE: CMX	Vietnam	8,800	101.90	0.99	11.59	44.93	0.36
6	Công ty TNHH MTV Nông súc Sản XNK Cần Thơ (Cataco)	UpCOM: CCA	Vietnam	15,500.00	14	0.77	20.76	57.33	0.17
7	CTCP Xuất nhập khẩu Thủy sản Cửu Long An Giang	HOSE: ACL	Vietnam	12,400	50	1.50	18.00	63.13	0.56
8	Công ty Cổ phần Thực phẩm Sao Ta	HOSE: FMC	Vietnam	48,950	65.39	0.57	5.96	10.59	0.63
Median						0.79	13.86	13.39	0.40
Average						0.97	17.66	27.32	0.39
High						1.66	55.55	63.13	
75th Percentile						1.27	17.40	44.93	
25th Percentile						0.74	11.91	11.37	
Low						0.56	5.96	7.73	