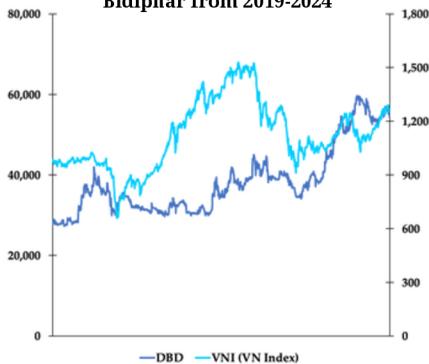


## RECOMMENDATION: BUY

Figure 1: The fluctuation of VN Index and Bidiphar from 2019-2024



Source: HoSE, Team analysis

Figure 2: The Bidiphar's information and market overview.

Market Overview	
First Trading Date	June 15th, 2018
Market Cap	4,108.9 (Billion)
Target Price (VND)	69,666
Price	53,700
ROI	28%
52-week high (VND)	59,640
52-week low (VND)	38,320
Shares outstanding (m)	6.915
EV/EBITDA	12.05x
Foreign Ownership	13.2%

Source: Vietstock, Team analysis

Figure 3: Key ratios of Bidiphar

Key ratios (FY2023e)	
Net Debt/EBITDA	0.586
Debt to avg. Assets (%)	29%
Revenue Growth (%)	7.09%
EPS	3593
EPS Growth	10.47%

Source: Team analysis

## EXECUTIVE SUMMARY

We reaffirm our BUY recommendation for Binh Dinh Pharmacy (HoSE: DBD), with a 1-year target price of VND 69,666, up 28% from its closing price of VND 53,700 on April 9, 2024. To avoid a skewed result when appraising DBD, we used measurements that took internal and external factors into consideration that affect the technique. Our valuation technique includes the Discounted Free Cash Flow to the Firm and the Enterprise Multiple Method.

Binh Dinh Pharmaceutical - Medical Equipment Joint Stock Company (HoSE: DBD) is a pioneering Vietnamese enterprise in Vietnam's cancer drug production segment. Their scope of business includes the production and trade of various pharmaceutical products, medicinal herbs, and medical equipment. In recent years, by successful restructuring strategy with leading manufacturer investment in cancer-treatment products, DBD effectively utilized its resources to make significant strides in the pharmaceutical industry. Their commitment to quality and innovation has positioned them as a trailblazer in Vietnam's cancer drug production segment.

Our proprietary analysis suggest the potential of DBD has been undervalued in the current market due to: [1] The outstanding branding position of DBD in anti-cancer treatment based on the external factors and internal improvement, and [2] The continuous investment in EU-GMP factories with the purpose of quality enhancement and expansion of bidding opportunities.

### [1] Leading in manufacturing anti-cancer drugs in the domestic market

With the impressive growth rate of 60% and 23% in 2022 and 2024 respectively, DBD has strengthened its branding position through the official inauguration of the Anticancer Drugs Manufacturing Factory in the end of 2023, which is expected to meet EU-GMP for the following 2 years. Besides, DBD has currently allowed to deliver 17 different ingredients into market, of which two components are monopolistically bided. In terms of external factors, Vietnam has been suffering from the increasing cancer cases and the rejuvenation of infected patients. Moreover, Vietnam's government published Circulars to develop and strengthen the local pharmaceutical manufacturing capacity. Therefore, these are projected to deliver a promising sales growth in the future with the support of both internal and external factors.

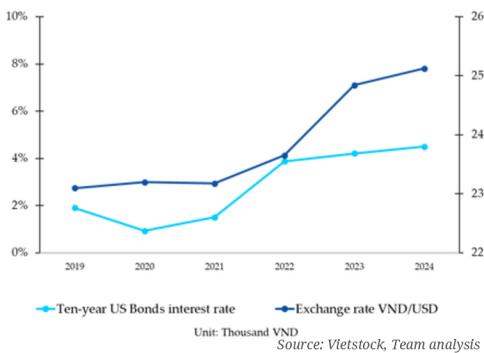
### [2] Strategically pouring money into EU-GMP factories

DBD firstly mentioned about the EU-GMP transition since 2019 after the announcement Circulars 03/2019/TT-BYT in the project of the Anticancer Drugs Manufacturing Factor. For 4 years, the first EU-GMP oriented factory into the business operation in the end of 2023 and DBD also announced the starting construction of new factories, Anticancer Drugs Manufacturing Factory, which has been invested at over 840 billion VND and also oriented to the EU-GMP standards. Besides, DBD also disclosed the upcoming projects of Non-beta lactam OSD facility, which could deliver over 1.2 billion product units through the total investment of 820 billion VND. In spite of not having the EU-GMP factories, DBD has proactively in this dream and is expected to materialize it in the near future with the huge sales growth due to bidding expansion.

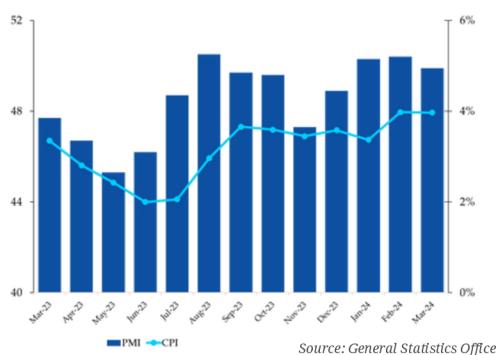
## KEY FINANCIALS

Financial Ratio	2020	2021	2022	2023	2024F	2025F	2026F	2027F	2028F
Net Revenue	1,261,729	1,256,952	1,558,504	1,554,821	1,651,770	1,837,833	2,040,404	2,279,547	3,082,884
Net Revenue Growth (%)	-9.94%	-0.38%	23.99%	-0.24%	6.24%	11.26%	11.02%	11.72%	35.24%
Gross Profit	414,796	491,139	622,566	767,652	798,520	894,929	993,570	1,110,020	1,501,203
Gross Revenue Growth (%)	-3.11%	18.40%	26.76%	23.30%	4.02%	12.07%	11.02%	11.72%	35.24%
Gross Profit Margin	32.88%	39.07%	39.95%	49.37%	48.34%	48.69%	48.69%	48.69%	48.69%
Net Profit	157,860	189,124	243,555	269,055	313,782	350,165	370,100	499,663	566,123
Growth (%)	10.99%	19.80%	28.78%	10.47%	16.62%	11.59%	5.69%	35.01%	13.30%
Net Profit Margin	12.51%	15.05%	15.63%	17.30%	19.00%	19.05%	18.14%	21.92%	18.36%
EPS	3014	3283	3252	3593	3573	3629	3515	4232	4794
ROE(%)	16%	17%	18%	19%	16%	16%	16%	16%	16%
FCFF	107,616	12,711	39,052	199,213	(48,520)	(649,185)	503,075	(855,925)	393,958
DPS	15%	22%	23%	20%	37%	11%	30%	12%	15%

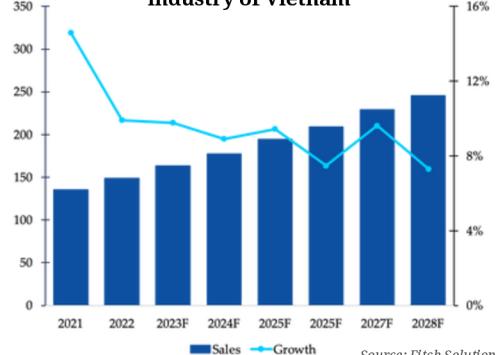
**Figure 4: The 10-year US bond interest rate from 2019 to 2024**



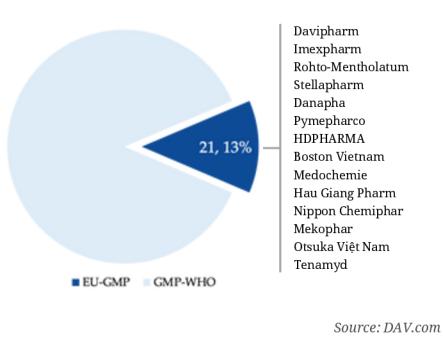
**Figure 5: The monthly PMI and CPI of DBD since 2023**



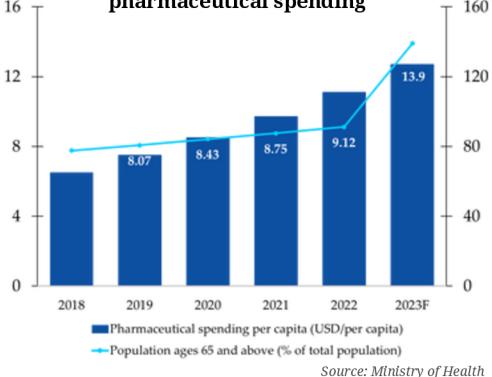
**Figure 6: The projected pharmaceutical industry of Vietnam**



**Figure 7: The proportion of GMP factories in Vietnam**



**Figure 8: The population and pharmaceutical spending**



## MACRO ECONOMY

### Global Economy - The drear picture of 2023-2024 economy

The global economy in the period 2023-2024 has slight growth but is heavily weighted down with high-interest rates, heightened debt and multiple extreme political failures. Success in halting inflation through tightened money policy of central banks has been going on since 2021 by rapidly continuously increasing interest rates, in the end of 2023, FED increased interest rates 11 times, Europe Central Bank 10 times and the Bank Of England 14 times. While the Russia-Ukraine war has turned to year 3, another political failure erupted in 10/2023 in the Middle East has created turmoil in the economy, especially necessities like fossil fuel price and food prices, this threatened economic growth and inflation containment. As the world economy became more vulnerable to extreme geopolitical failures between Russia and Ukraine, the ongoing heating of the Middle East has created a humanitarian disaster which WHO has called out for 219M USD for medical aid (ANTV, 2024). This led to a global growth drop from 3.5% to 3%. (Huy, 2024).

The global economy also faces an enormous debt crisis, global debt in the first half of 2023 reached 307,000B USD, and the proportion of global debt relative to GDP has reached 336%. The interest environment and plummeting economic growth have made waves of bankruptcy in many countries like Germany, France, and Japan, and large real estate businesses in China also met the same fate. The public debt piled up and FED tightened its monetary policy, barricading the growth even more. The 10-year US bond interest rate rose significantly from 2019 to 2024 due to the expectations of inflation in the market, global debt, and economic uncertainty. (Duc, 2023)

The Federal Reserve is accountable for the spiked exchange rate, as the FED has been keen on keeping the interest rate high to hold down inflation. The USD has not stopped rising as the FED still has not sighted any reduction in inflation ratio, therefore the interest rate cut is hardly a reality (Reuter, 2024). The rising Dollar currency put the VND far back behind, increasing the expenditure cost in VND when it comes to import raw material. Importing costs also exploded due to foreign shipping firms increasing the shipping fees up from 80% to 300% of the original cost due to geopolitical conflict in the Red Sea. (Hang, 2024)

### Vietnam - The steady landscape of Vietnam's macroeconomy

Vietnam's macroeconomy is steady despite the turmoil in the global economy, with slight growth expected. The indexes show a complex yet steady landscape with the country's GDP growth at 5.56% (GSO, 2024), indicating Vietnam's ability to expand its economy resiliently. However, CPI has risen to 3.97% (GSO, 2024), higher than the same quarter in 2023, signalling inflation pressures. PMI, a critical gauge of economic activity within the manufacturing sectors, plays a pivotal role in identifying a thriving market. Challenges such as transportation delays from providers have strained expenditures. Despite escalating input costs, output prices had to be trimmed to stimulate demand. Consequently, the PMI dipped below 50 points, reaching 49.9 (Quang, 2024) in March 2024. Core inflation is steady at 2.81%, and inflation is expected to be 4.0% (ADB, 2024).

## PHARMACEUTICAL INDUSTRY

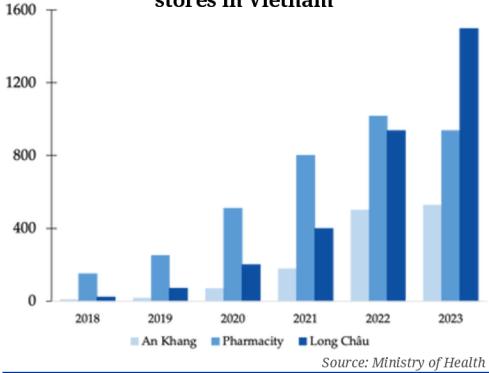
According to WHO, the pharmaceutical industry of Vietnam is ranked at 3 out of 4 classification levels with a 5-year aggregate pharma sales growth of over \$1 bn. The pharmaceutical industry of Vietnam has experienced tremendous growth in recent years with a value of 5.4 billion USD in 2018 to 7 billion USD in 2022 after Covid-19, and it is projected to reach 10 billion USD in 2030 and up to 21 billion USD in 2045. Moreover, Vietnam also recorded an annual compound growth rate of 10.6%/year in the period of 2018-2022 with an expected growth rate of 8.4% in 2024, which is lower than 14.4% of all industries in Vietnam. According to Decision No. 1165/QĐ-TTg signed by Deputy Prime Minister Tran Hong Ha in 2023, Vietnam aims to enhance domestic pharmaceutical manufacturing to meet 80% of using demand and then deliver revenue of 70% compared to the whole medical market in 2030. According to the Vietnam Report, it evaluated the pharmaceutical industry as one of the industries owning good resistance to the detrimental impact of the macroeconomy as well as the domestic market.

## SUPPLY

### [1] Strong push of Vietnam's government in domestic pharmaceutical manufacture

According to the Vietnam Pharmaceutical Companies Association (2023), Vietnam successfully produced and delivered 70% of total demand in pharmaceutical and medical products, which contributed to 46% of total industry sales in 2023. Besides, Vietnam's government has desired to enhance the domestic supply and eliminate Vietnam's dependence

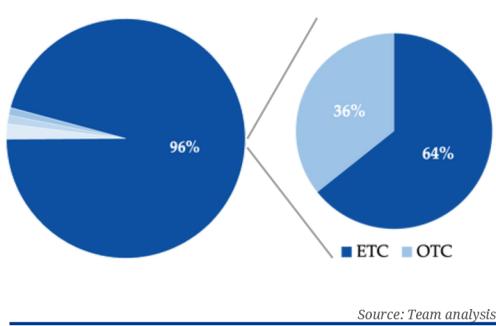
**Figure 9: The number of pharmaceutical retail stores in Vietnam**



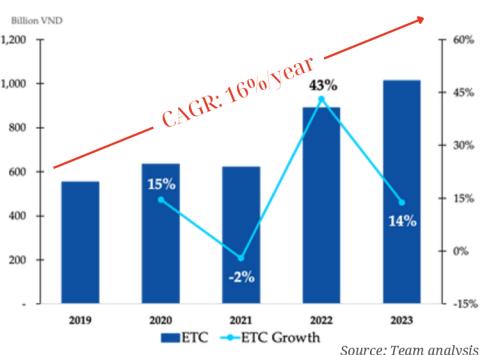
**Figure 10: The operating scope of DBD across Vietnam**



**Figure 11: The proportion of DBD's revenue**



**Figure 12: The ETC revenue growth rate of DBD**



on foreign countries. To materialise these goals, the government has initially set the light on the quality of the manufacturing process to ensure the high quality of pharmaceutical outcomes. Two Circulars, including Circulars 03/2019/TT-BYT and Circulars 06/2023/TT-BYT, have been published to brand classification based on the ranking of its manufacturing process and limitation of foreign-imported products in bidding participation. Moreover, Vietnam has currently organised a new program under Decision 1165/QĐ-TTg, whose name is “National Strategy For Development Of Vietnam Pharmaceutical Industry To 2030 And Vision To 2045”. Through this event, Vietnam officially set the goals for the pharmaceutical manufacturing industry in 2023 to gain 80% of domestic demand and account for 75% of industry revenue.

### [2] Domestic pharmaceutical manufacture and the effort in quality enhancement

Currently, Vietnam has witnessed the huge investment stemming from pharmaceutical companies in building new factories with the purpose of meeting the EU-GMP standards, which are evaluated as the highest standards in medicine production. This story has been directly or indirectly triggered by the Government’s strategy in developing domestic manufacturing ability. Hence, owning EU-GMP factories is also considered as the passing ticket for these companies in expanding the bidding opportunities and maximising the sales under Circulars 06/2023/TT-BYT. The upgrading process of GMP includes 4 levels, namely GMP - ASEAN → GMP - WHO → PIC/S → EU-GMP. Throughout Vietnam, there are 264 manufacturing facilities meeting the GMP standards but only 21 of them gained EU-GMP or equivalent levels. In spite of low EU-GMP factory numbers, continuous investment has indicated the development of both quantity and quality in the pharmaceutical industry in the near future as well as the high probability of materialising the government’s goals.

### [3] ... But the dependence on foreign countries in manufacturing is undeniable

According to the report of DAV, the majority of raw materials applied into the producing process is imported from foreign countries, especially in India and China. Therefore, the pharmaceutical industry has still suffered from detrimental factors triggered by globalisation or geopolitical issues. For instance, the strict monetary policies in the US and the low interest rate conducted in Vietnam has contributed to the depreciation of VND and then resulted in the high exchange rates or geopolitical issue might lengthen or disrupt the supply chain process, which would directly impact on the cost of goods sold expenses as well as the operation of pharmaceutical manufacture.

## DEMAND

### [1] The ageing population and higher spending on medicine per capita in Vietnam

According to the Statistic of Vietnam, there are 100,3 million citizens in 2023, of which 13,9% are above 60 years old and classified as the elderly people. With the absence of war and developed medical industry, the health of Vietnamese people has been significantly improved for the last 20 years. Based on the Ministry of Health, Vietnam is projected to reach the aged population in 2036 with 14,2% elderly under the total population. Besides, Vietnamese citizens have become more cautious about their health after the attack of Covid-19 pandemic. Hence, this contributed to the increasing trend of medical spending from 4.2 million in 2018 to 4.38 million VND in 2023.

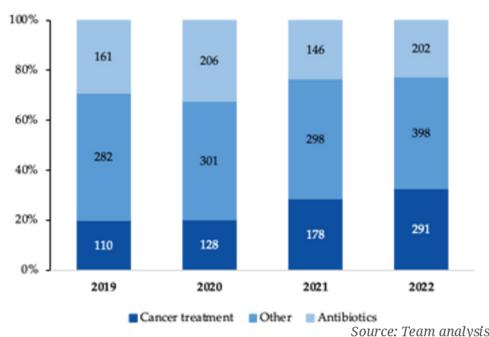
### [2] The concentration of the government on Health Insurance promotion

The purchasing power of health insurance has increased in recent years due to the promotion and encouragement of the government. In 2018, Vietnam only recorded 80% of the total population participating in the Health Insurance Program; this ratio has increased to 93.4% by the end of 2023. This factor could directly raise the frequency of hospital visits and then contribute to higher consumption in the ETC channel, which matches the current trend in the pharmaceutical industry of Vietnam. Specifically, the number of winning bids through ETC of the whole industry has climbed to 53K billion VND in Feb 2024. In the future, the ETC channel is expected to be the potential selling channel of Vietnam pharmaceutical industry and this is also considered as a main driver of the potential growth.

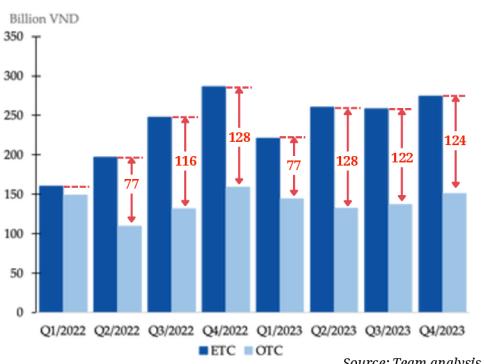
### [3] The accidental advantages from the intense battle of the medicine retail industry

While the potential growth of ETC channel is classified as the main driver triggering the investment incentives of investors, revenue gathered from OTC channel illustrates the sustainable low growth rate due to the expansion of the retail industry. Currently, three names including Pharmacity, Long Chau and An Khang are well-known candidates in market share competition and considered as bright investment spots in their ecosystem. For 5 years, the number of pharmaceutical retail stores has increased significantly from 297 in 2018 to 2959 in 2023, especially Long Chau. Higher number of stores contributes to higher demand

**Figure 13: The proportion of product types under ETC**



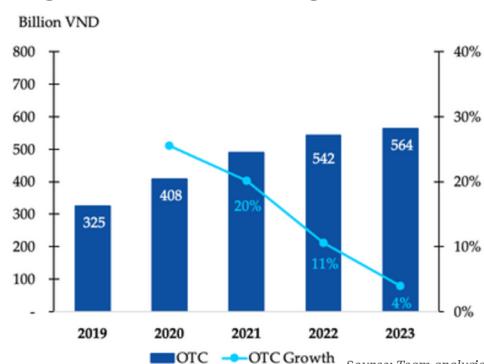
**Figure 14: The gap between ETC and OTC**



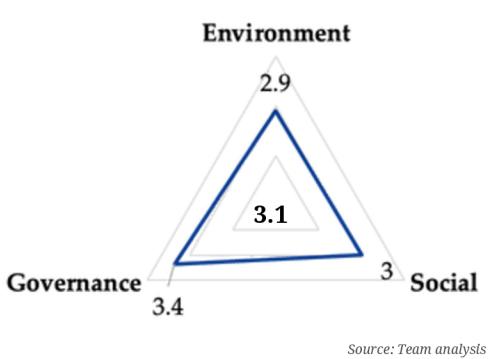
**Figure 15: The number and value of winning bids in 2023 of DBD**



**Figure 16: The OTC revenue growth of DBD**



**Figure 17: The ESG ranking**



for selling products. Therefore, this story has generated numerous opportunities for pharmaceutical companies to leverage, attract committed relationships with B2B customers, increase selling coverage to B2C customers and then result in higher sales. Moreover, Vietnamese people have been sticking to the tradition of convenience of purchasing and consuming medicine without description for decades and this is hard to completely switch to another style. Therefore, demand through the OTC channel could still deliver a positive contribution to the whole pharmaceutical industry but at a decreasing growth rate.

## DBD INTRODUCTION

Binh Dinh Pharmaceutical and Medical Equipment Joint Stock Company (Ticker: DBD) was established in 1980 and was listed on HOSE in 2018. With 45 years of experience, Bidiphar has secured a spot among the Top 5 esteemed pharmaceutical companies and received recognition as a national brand in 2022. Besides, DBD's operating and selling scope has been expanded to among Vietnam with the presence in all 63 cities and provinces and owned 16 branches across the country. DBD has three facilities in Binh Dinh that can produce over two billion units at full capacity. Given that DBD is among Vietnam's leading manufacturers of pharmaceuticals used in treatment for cancer, this guarantees substantial development income. By the end of 2023, it developed a EU-GMP Anti-Cancer Drugs Manufacturing Factory in Nhon Hoi, Binh Dinh and this has strengthened the branding position in a specific sector as well as illustrated the long term strategic orientation. Besides, DBD offers 17 product lines that comprise 300 distinct goods categorized into 6 product types, with the highlighted point in anticancer treatment. DBD has delivered to over 2000 medical facilities through ETC channel and 21,000 pharmacies and drugstores through OTC channel.

## REVENUE PORTFOLIO

Although the product portfolio of DBD varies from numerous products related to health protection and illness treatment, 96% of sales gathered in 2023 was rooted from the manufacturing products. Under the groups of manufacturing products, there are a total of two methods to distribute and earn revenue, including ETC and OTC.

### Ethic Drugs (ETC) - A promising factor for the strong development of DBD in future

The revenue collected from the distribution through the ETC channel recorded the CAGR at 16%/year in the period of 2019-2023; of which the bright spots are located at 43.13% in 2022 and 13.43% in 2023. Moreover, this figure is considered as a positive indicator for the revenue growth of DBD because it is higher compared to the industry which is 12%/year. Besides, the product portfolio of ETC channel has witnessed a switching trend in selling and distribution. With the well-known branding in cancer treatment, DBD has strategically focused on anti-cancer products. Although anti-cancer medicines accounted for only 32.6% of total revenue, it gained an increase of 63.4% compared to 2022, which is classified as the main driver in the total ETC sales. Otherwise, the remaining product types, including Antibiotics and others, gained over 33% of total revenue in 2023 but it is lower compared to the previous year. Therefore, these could prove a positive transformation of DBD in branding position as well as the strategic ambition of becoming the biggest manufacturer of anti-cancer products in the domestic market. According to data from DAV, DBD officially won 1967 bids from 2023 with the main responsibility of distributing its pharmaceutical products to hospitals and medical facilities in Vietnam, which is projected to deliver over 1,000 billion VND from 2024 to 2026.

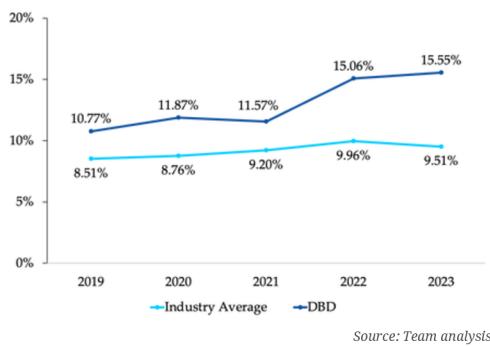
### Over-the-counter (OTC) - Low growth rate but holding an important role in operation

Although the OTC of the whole industry is evaluated to suffer from horizontal growth with the CAGR below 10%/year, DBD gained the increasing trend of 15%/year in the period of 2019-2023, which is only 1% lower compared to the operating of ETC channel. Moreover, DBD has announced their successive approach to over 20% new customers and achieved revenue growth in several specific product types, namely 23.4% in anti-infection, 38.5% in eye-drops, 17% in vitamin and mineral. Otherwise, DBD is evaluated to be one of pharmaceutical companies leasing in the switching trend from OTC to ETC distribution. Hence, DBD also recorded the increasing trend at a decreasing rate, and there is only 4% growth rate in 2023, which is significantly lower compared to 10.6% in 2022. In addition, the gap between sales stemming from ETC and OTC has widened among quarters for 2 current years. These factors are the foundation for the projection on DBD' horizontal growth through the OTC channel in the future.

## ENVIRONMENT, SOCIAL AND GOVERNANCE

Using the MSCI Scoreband and ASEAN Corporate Governance Scorecard, BidiPhar, a Vietnamese firm, for a more region-specific evaluation. BidiPhar achieved an A-average with

**Figure 18: Net Profit Margin (%)**



a score of 3.1 (Figure 17), based on a scale of 1 (no application) to 4 (active action). In summary, BidiPhar strives to practice ESG, but it still lacks clear regulations for each pillar. An explanation of the ESG scoring pillar is presented in the Appendix D.

### Environment

**DBD, a pharmaceutical entity, primarily utilizes natural resources...** such as herbs and plants in its operations, positioning it as a relatively eco-friendly industry. A 75-hectare plot of land has been dedicated to cultivating medicinal herbs, preventing overharvesting and ensuring sustainable supplies. **Concerning waste management, BidiPhar consistently complies with governmental regulations**, ensuring that these directives are thoroughly implemented. However, there is a lack of evidence indicating a heightened consciousness towards the adoption of green technologies for environmental protection or the presence of explicit, measurable objectives in this regard. Based on the MSCI Scoreband, DBD's Environment Pillar is rated as 2.9/4.

### Social

**Societal responsibility is valued...** DBD is actively engaged in numerous charity activities. The company's most notable program is its blood donation initiative, known as "BidiPhar - mỗi giọt máu một tấm lòng". BidiPhar also regularly conducts other charitable activities, such as donating medicine to underprivileged communities. Qualifications and training are the keys to human value... For its employees, DBD has established a compensation and reward structure based on the 3P model. The company also incentivizes employees by offering rewards for surpassing KPI targets or demonstrating exceptional performance. Furthermore, DBD maintains a good balance in terms of gender diversity, with a significant proportion of its workforce holding university and college degrees. For the Social Pillar, DBD is rated as 3/4 according to the MSCI Scoreband.

### Governance

**DBD's corporate governance is commendable...** with a rating of 3.4/4, as reflected in its high rating on the ASEAN Corporate Governance Scorecard. The company emphasizes transparency and ensures shareholders are treated fairly, with equal voting rights and participation in significant decisions. Moreover, BidiPhar is mostly owned by the state-owned Binh Dinh Development Fund (13.34%), which provides additional government support. This ownership structure enhances its strategic planning and regulatory compliance capabilities. Lastly, The board of directors and executives at BidiPhar are highly qualified, with most holding a degree or master's in their field of expertise. Their academic and professional backgrounds enable them to make strategic decisions that align with the interests of shareholders and promote the company's long-term sustainability.

## FINANCIAL ANALYSIS

### [1] The impressive revenue growth but underperforming compared to the target

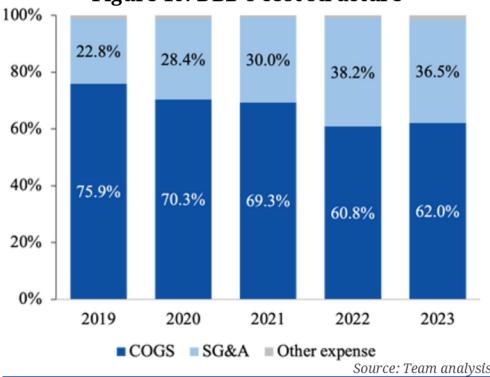
Since 2022, DBD has witnessed a rapid growth in the firm Net Profit Margin from appropriately 11.5% to more than 15%, which was significantly higher than the pharmaceutical industries at the rate of around 9.5%. (Figure 18) Both increasing revenue and reducing expenditure are considered as the main reasons leading to DBD's impressive profit growth rate. Specifically, in the company's cost structure, the proportion of COGS decreased from 69.3% in 2021 to 60.8% in 2022 and stabilized in the following year due to DBD's transition to self-manufacturing. (Figure 19) In contrast, expenses for SG&A have recorded a rise from 30% in 2021 to 36.5% in 2023 due to the firm increasing investment in Selling and Marketing activities with the main purpose of enhancing the winning probability in bidding, encouraging the sales growth, and promoting self-manufacturing products. On the other hand, DBD has consecutively fallen short of achieving their objective income in spite of owning an outstanding growth rate in revenue, as the actual revenue only accounted for 96% of their targeted goal in 2023. Therefore, figure 20 illustrates the limitation of DBD in optimizing all opportunities to increase sales volume as expected.

### [2] The cost optimization through the restructuring strategy and new-settled overhead

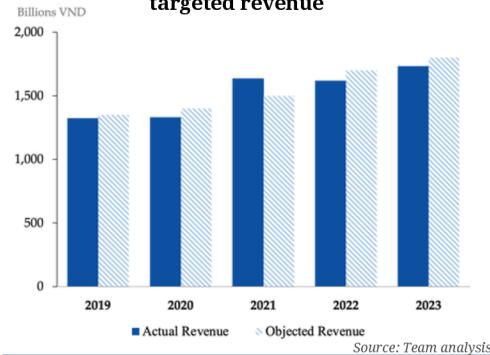
In 2019, DBD started to restructure its company and invested in more domestic manufacturing overhead which signifies the increase in financial leverage to 42.46%, higher than the industry average. By 2020, the leverage ratio declined significantly (Figure 21) and has stabilized since then as a result of the corporate restructuring plan. The dramatic decrease in financial leverage came from short-term debt (11.12%) whereas long-term debt only marginally rose (0.37%).

**Short-term debt:** DBD has possessed a capital working structure with high reliance on short-term financing. Compared to the industry, DBD's short-term debt reached 35.81%, slightly

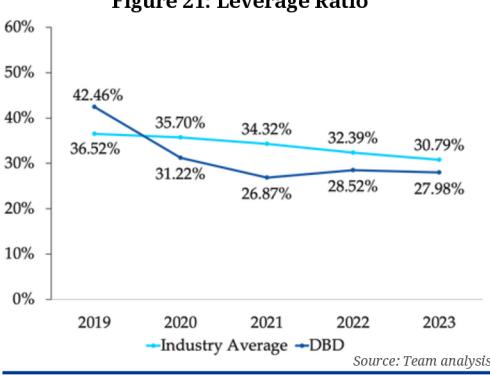
**Figure 19: DBD's cost structure**



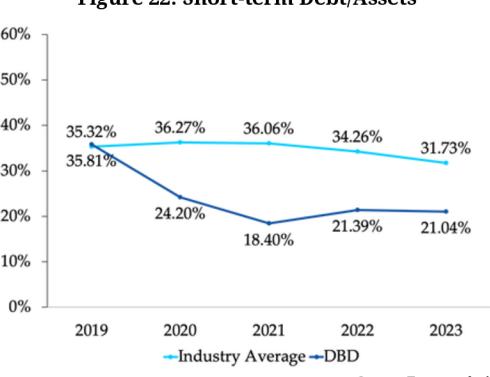
**Figure 20: DBD's actual revenue and targeted revenue**



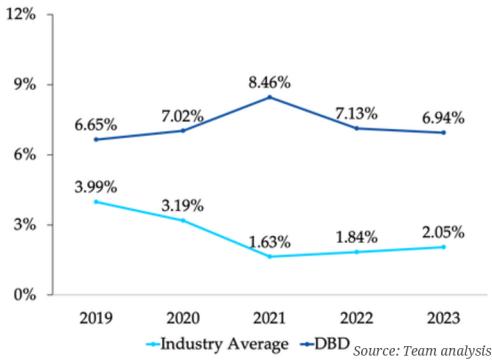
**Figure 21: Leverage Ratio**



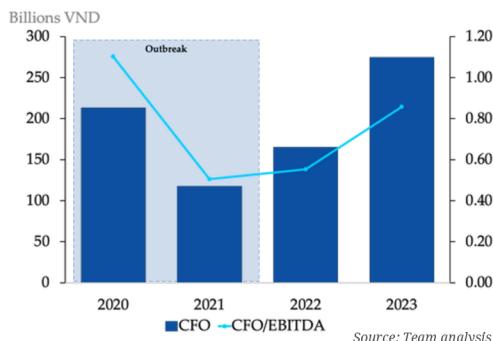
**Figure 22: Short-term Debt/Assets**



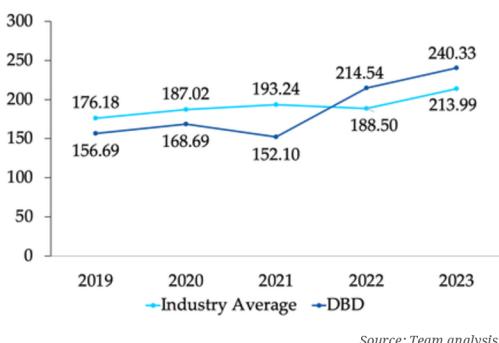
**Figure 23: Long-term Debt/Asset**



**Figure 24: DBD's CFO overtime**



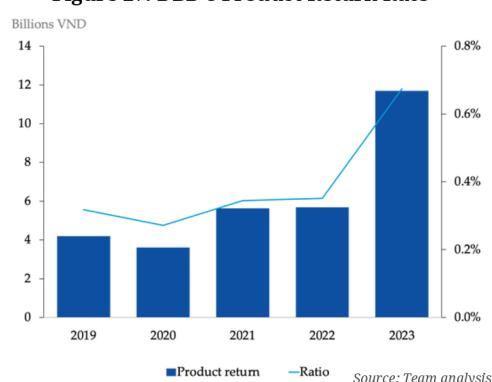
**Figure 25: CCC of DDB and Industry Average**



**Figure 26: Break down of DBD's CCC**



**Figure 27: DBD's Product Return Rate**



higher than the industry. (Figure 22) Then from 2020, the remarkable decline in short-debt was mostly attributed to: (1) short-term borrowing was thoroughly eliminated which reduced a portion of liabilities; (2) accounts payable for corporations reduced; (3) total assets increased as companies increased owner's equity through capital charter and gain.

**Long-term debt:** Since 2019, DBD's long-term debt has always been higher than its peers industry which explain for DBD had higher financial leverage in 2019. (Figure 23) However, its long-term debt was structured to support the company operations: (1) Long-term loans from 2019 used to invest in manufacturing plants have not yet matured. Although this loan accounted for the majority of long-term debt, thanks to the initial investment, the company's profits increased significantly and could offset this loan; (2) The remaining debt was Technology-science development fund: maintained to help the company develop drug projects; help reduce taxes for businesses; Credit incentives for businesses.

Thanks to successfully implementing restructuring strategy and new-settled manufacturing overhead with very easing financial leverage. DBD' massive reduction in expenses has enabled DBD to increase their CFO and EBITDA ratio from only 0.5 in 2021 to 0.9 (Figure 24) in 2023, resulting in increased retained earnings. Given by the trend analyzed, CFO/EBITDA is expected to maintain a high rate which surpluses high free cash flow for DBD.

### [3] The transit to self-manufacturing and DBD's high return rate in selling products

Since 2022, there has been a significant increase in days in the cash conversion cycle, up to 214 days, (Figure 25) which was significantly higher than the industry average, the main reason coming from the rise in the inventory turnover in the day.(Figure 26) There are several reasons explaining this problem: (1) Due to the extreme volatility of the input material exchange rate, DBD imports buffer raw materials to reduce input costs, (2) The product return rate has doubled since 2022, (Figure 27) reaching 11 Billion VND in 2023. However, if the problem lasts for a longer period, DBD might face more challenges in liquidity and operation as inventories are not in-the-market which raises questions about their product quality.

## INVESTMENT THESIS

### Investment thesis #1 - Leading in manufacturing anti-cancer drugs in the domestic market

#### [1] The projected explosion of cancer cases and mortality in Vietnam

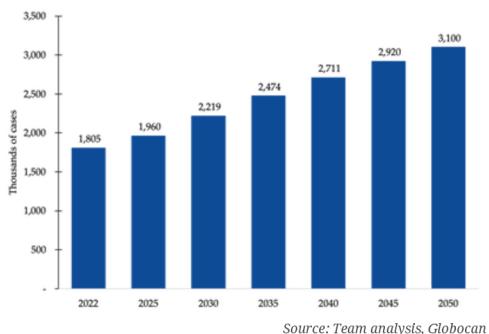
Vietnam is classified as one of the leading countries in cancer existence and widespread. According to the research of Ho Chi Minh City Oncology Hospital, there were over 30 thousand new cases recorded in November 2023, which illustrated an increase of 50% compared to 20,000 new cases in the previous year. Moreover, GLOBOCAN has also published information about Vietnam's cancer 2022 at the beginning of 2024, which highlighted over 180 thousand new cases and 120 thousand deaths. In addition, GLOBOCAN also projected an increase in cancer cases from 1,800 thousand in 2020 to 3,100 thousand in 2050. In terms of cancer, breast, lung and liver are the top 3 cancers with the most rapidly widespread and the highest number of deaths. Therefore, the cancer-increasing trend, going with the detrimental health impact triggered by the pollution increase and ageing population, is projected to continually rise and negatively impact the health of citizens.

#### [2] Cancer-treatment and the strategic orientation of DBD's development in future.

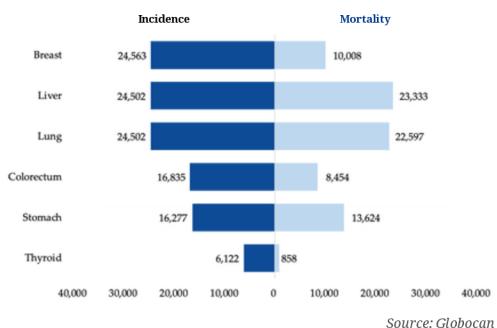
Anti-cancer medicine is considered as the most highlighted product line of DBD for recent years with a CAGR of 21%/year, which is significantly lower than the 38%/year of the pharmaceutical industry in the period of 2019-2023. Vietnam has a total of 5 domestic companies (DBD, Davipharm, Nanogen, BRV Healthcare, Hera Biopharm) operating in the scope of cancer treatment and these brands achieved only 6% market share in this sector while the 94% remaining belongs to foreign corporations including Roche Diagnostic, F Hoffman, Novartis,...This figure indicates local pharmaceutical manufacturers have yet to fully exploited the market of cancer treatment in Vietnam. The main reason is defined as the absence of EU-GMP factories for the anti-cancer manufacturing process and then contributing to the elimination of the bidding opportunities in Groups 1 and 2 based on the Circulars 06/2023/TT-BYT.

However, the story of DBD has turned into a new page with the inauguration of the Anticancer Drugs Manufacturing Factory in December 2023 having the annual capacity of over 3 million injections and 70 pills, of which 2 production lines are on the plan to register EU-GMP standards in 2024 and 2025. This milestone has indicated the strategic movement of DBD in anticancer treatment and huge expected revenue due to bidding group expansion. Besides, DBD has owned 17 ingredients in anti-cancer medicine preparation and 2 of them are monopolistically bidden by DBD in 2023, which is higher than the average of 5 ingredients for each local manufacturer in the cancer treatment market. As a result, the investment of DBD could contribute to the pricing decrease by 40% in local manufacturing

**Figure 28: Projected cancer cases in VN**



**Figure 29: Number of cancer cases and mortality in Vietnam**



**Figure 30: Short-term Debt/Assets**



**Anticancer injection production line**

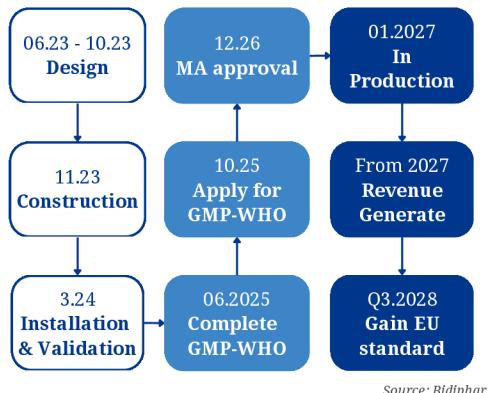
15.11.2024 ——————> 15.05.2025

**Anticancer tablet production line**

31.03.2025 ——————> 31.09.2025

Source: Bidiphar

**Figure 31: Short-term Debt/Assets**



**Figure 32: Expected Revenue of two factory construction projects**

**Small-volume injection facility**

2027	2028	2029	2030	2031
580.817	676.334	757.405	1.255.420	1.685.095

**Non-beta lactam OSD facility**

2028	2029	2030	2031	2032
356.647	503.808	728.579	1.621.609	1.957.858

Source: Bidiphar

medicine compared to the EU-imported products. Besides, Vietnam's government has made an effort in maximising the domestic manufacturing capacity and published the privilege of bidding for local pharmaceutical companies. Therefore, tremendous sales growth and market share expansion are expected to be delivered to DBD if it is successful to materialize its plan for an EU-GMP factory for cancer treatment and high-quality products.

### Investment thesis #2 - Strategically pouring money into EU-GMP factories

Due to the Circulars 06/2023/TT-BYT, the revenue stream of DBD is currently limited by the absence of EU-GMP factories to ensure the manufacturing process and outcomes' quality in spite of owning three factories meeting GMP-WHO standards. Since the beginning of 2023, DBD has won 1967 bids valued at more than 1,000 billion VND, which only accounted for 1% compared to the total value in bidding. Therefore, DBD has continuously announced the establishment of a new EU-GMP to raise the local manufacturing products and expand the bidding opportunities.

#### [1] Anticancer Drugs Manufacturing Factory

This factory was officially inaugurated in Dec 2023 and then effectively boosted the branding position of DBD in the sector of cancer treatment due to it being the first anticancer manufacturing facility in Vietnam. With a total investment of over 500 billion VND, the Anticancer Drugs Manufacturing Factory is planned to contribute huge revenue in future because of the combination of the government's encouragement of local manufacturing products and the EU-GMP standards. Otherwise, although this manufacturing facility has been applied in the business operations and generated sales contributing to total sales of DBD, it has yet to maximise the earned revenue and leverage the manufacturing power due to no achievement on EU-GMP standards. In September 2023, DBD published the plan for the EU-GMP upgrade of the Anticancer Drugs Manufacturing Factory for 2 separate product lines, namely anticancer injection and anticancer tablet.

For the anticancer injection product line, DBD has planned to register the EU-GMP examination on November 15 2024. However, this process could last over 6 months due to the evaluation and improvement if necessary. The details process has been visualized in the figure 30.

For anticancer tablets, this is the second product line of Anticancer Drugs Manufacturing Factory planned to apply for EU-GMP standard, whose date is March 31 2025. Based on the official announced plan by DBD, it is also projected to complete in the next 6 months on September 31 2025. The details have been mentioned in the figure 30.

#### [2] Small-volume injection facility

The announcement on the starting construction of the Small Volume Injection Facility was organized on the inauguration of the Anticancer Drugs Manufacturing Factory, which marked another milestone of DBD in enhancing product quality and expanding manufacturing capacity. According to DBD, the total investment of this factory is projected at 840 billion VND and planned to generate revenue from 2027 with the expected capacity of 120 million units per year. Specifically, total investment is collected from two sources including 140 billions from borrowings and 700 billions from capital investments. Besides, EU-GMP standards are also considered as the goals for the construction and establishment of these projects. According to the plan of DBD, the construction is going to be completed in the mid of 2025 and the GMP-WHO and EU-GMP achievement are projected to gain in June 2025 and Q3 2028, respectively. The further planned process is mentioned in the figure 31. In addition, the expected revenue of this project has been announced by the DBD in September 2023 with 580 billion VND in 2027. The expected revenue is mentioned in the figure 32.

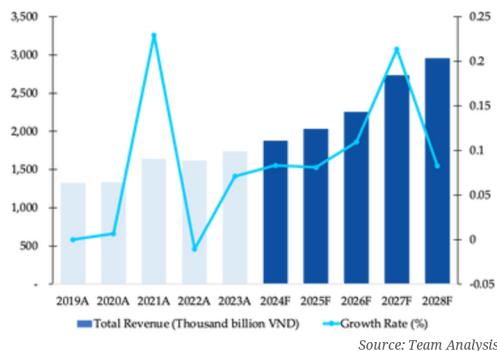
#### [3] Non-beta lactam OSD facility

Another published project aiming at the EU-GMP standards of DBD is named the Non-beta-lactam OSD facility, which is projected to have 820 billion VND in total investment and deliver an additional capacity of 1.2 billion units per year. However, DBD has not announced the details of the investment-calling plan, construction and evaluation plan or the approval of implementation. Therefore, this factory is excluded from the valuation model mentioned in the following part. Besides, DBD has also announced the expected revenue of this project after completion, which is projected to generate sales from 2028 at 356 billion VND. The details of expected revenue are mentioned in figure 32.

## REVENUE FORECAST

DBD is expected to maintain a Compound Annual Growth Rate (CAGR) of 16% driven by the expansion of its medical product manufacturing. Within this projection, the ETC segment is anticipated to exhibit robust growth of 16%. This growth is attributed to DBD's investments

**Figure 33: Revenue forecast**



**Figure 34: Projected Revenue by segments**

Year	2024F	2025F	2026F	2027F	2028F
<b>Manufacturing</b>	1,863	2,083	2,338	2,601	2,901
<b>ETC</b>	1,252	1,454	1,689	1,933	2,212
Anti-cancer	466	559	671	771	887
Antibiotics	278	330	392	466	553
Other	508	564	626	694	771
<b>OTC</b>	603	620	639	658	678
<b>Export</b>	7	8	9	10	11
<b>Other</b>	61	53	49	627	722
<b>Revenue</b>	1,925	2,137	2,387	3,229	3,624

Source: Team analysis

**Figure 35: WACC and CAPM**

Item	Rate
Risk-free rate	2.59%
Beta	0.254
Market Risk Premium	8.5%
Cost of Equity	4.75%
Pre-tax Cost of Debt	9%
Tax rate	20%
After-tax Cost of Debt	7.06%
Weight of Debt	27.96%
Weight of Equity	72.04%
WACC (annually)	5.40%
Terminal growth rate	1%

Source: Team analysis

**Figure 36: Real Revenue Growth of Pharmaceutical sector**

DBD Terminal Growth rate	
Industry Revenue Growth	4.99%
Inflation rate	4.0%
Real Revenue Growth	0.95%

Source: Team analysis

in research and development, leading to enhancements in existing formulations, the establishment of EU-GMP factories and the development of novel drugs, including those for cancer treatment and antibiotics. Additionally, the company has officially applied the Small Volume Injections into operation since 2024 and is planning to gain EU-GMP certificates in 2024 and 2025; hence, DBD is expected to achieve the CAGR of 20%/year with the highlighted increase in 2025F and 2026F after reaching EU-GMP standards. Conversely, the OTC segment is projected to experience more modest growth at a 3% CAGR due to the decreasing growth rate trend. DBD's strategic focus in this segment is to strengthen its position in the domestic market by actively participating in bids and supplying high-quality ethical drugs (ETC) to public hospitals and other healthcare institutions. Furthermore, other revenue streams, such as the Medical Equipment segment, are expected to face a slowdown due to reduced demand for specific types of medical devices. Notably, Binh Dinh Pharmacy has recently restructured this segment by establishing a new subsidiary to manage these operations. The overall revenue trend is illustrated in figure 32.

For those reasons, the report indicates that Binh Dinh Pharmacy's revenue is projected to continue growing in 2023 and 2024 due to significant advancements in cancer treatment. As a pioneering pharmaceutical company in this segment, Binh Dinh Pharmacy aims to offer a comprehensive portfolio of over 40 cancer treatment products to meet patient needs. Specifically, the total sales for 2024 are expected to reach 1,925 billion VND (representing an 11.17% YoY increase). Additionally, with plans to construct and expand an EU-GMP factory by the end of 2027, Binh Dinh Pharmacy anticipates substantial growth in total sales for 2027 and 2028, reaching 580,817 million VND and 676,334 million VND, respectively.

## VALUATION

This report issued a BUY recommendation for Binh Dinh Pharmaceutical and Medical Equipment Joint Stock Company (HoSE: DBD), setting a one-year target price at VND 69,666 VND. This represents a 28% upside from its closing price of VND 53,700 on April 20, 2024. To prevent skewed results in the valuation of Binh Dinh Pharmacy, measures were applied that take into account both internal and external factors that could influence the methodology. The valuation methodology used in this report includes both an income-based approach - the Discounted Free Cash Flow to the Firm, and a market-based approach - the Enterprise Multiple. There are several highlighted assumptions applied to this valuation below:

**[1] Revenue forecast:** Revenue forecast is projected to have a CAGR of 11.3% under the period of 2023-2028, which would increase from 1.6K billion VND in 2023 to 2.9K billion VND in 2028, which is forecasted based on the growth rate trend of product lines and channel distribution. Besides, the expected revenue announced by having a Small Volume Injection Facility has also been included in the forecast, which is separated from the selling product trend mentioned above.

**[2] COGS:** Due to the process of cost restructuring and self-manufacturing, DBD has succeeded in COGS optimization. Hence, the projection is established based on the average ratio of COGS over total revenue in 2022 and 2023. Since that, the increase in revenue would lead to increased COGS expense at the same intensity.

**[3] CAPEX:** The significant increase of capex in the Statement of Cash Flow and fixed assets in the Balance Sheet stemmed from the new factory construction of DBD, which is planned to start construction in 2024. Besides, the capex, excluding the new factory, is projected to account for 6.42% of the revenue based on the average of capex over sales in 2022 and 2023 because of the rising criteria of government in the manufacturing process since 2022. As a result, the CAGR of capex is 7%/year from 2023 through 2028.

## Income-based Approach - Discounted Cash Flow

The report evaluates the worth of DBD through the Discounted Free Cash Flow to the Firm (FCFF) method, given DBD's intention to undertake several projects, resulting in significant variations in net borrowing amounts. This method calculates the firm's equity value as the present value of future Free Cash Flow to the Firm, discounted at the Weighted Average Cost of Capital (WACC). Specifically, the DCF analysis focuses on a two-stage process: the Free Cash Flow derived from Revenue Projections and the Terminal Value derived from pharmaceutical operations, which include the production, distribution, and sale of medicines (Figure 34 & Figure 35)

In order to apply the discount rate for the DCF, the report evaluated the Weighted Average Cost of Capital (WACC). The WACC was estimated to be 5.4% on an annual basis. The detailed calculation is as follows (Figure 34)

**Figure 37: Present Value of Free Cash Flow to the Firm**

Year	2024F	2025F	2026F	2027F	2028F
<b>Net Income</b>	314	350	370	500	566
<b>Plus: Interest rate after tax</b>	10	13	18	26	33
<b>Plus: Total D&amp;A</b>	72	78	86	93	85
<b>Less: WCInv</b>	111	744	-392	1,095	101
<b>Less: CapEx</b>	334	347	363	380	189
<b>FCFF</b>	-49	-649	503	-856	394
<b>Discount period</b>	1	2	3	4	5
<b>Discount factor</b>	0.95	0.90	0.85	0.81	0.76
<b>Present Value</b>	(46)	(584)	430	(694)	303

Source: Team analysis

**Figure 38: Terminal Value and Implied stock Price**

Valuation Summary	
Total PV	(591,487)
Terminal Value	8,162,618
PV of Terminal Value	6,276,529
Enterprise Value	5,685,042
Plus: Cash	87,837
Less: Debt	556,068
Equity Value	5,216,811
Implied Stock Price	69,666

Source: Team analysis

**Figure 39: EV/EBITDA of pharmaceutical companies.**

Averaging EV/EBITDA	
DHG	13.75
DMC	10.26
IMP	10.15
DVN	24.2
DHG	13.75
DBT	14.1
SPM	12.65
<b>Average</b>	<b>14.12</b>

Source: Team analysis

**Figure 40: Equity and Market Stock Price by EV/EBITDA Multiple Method.**

Enterprise Value Multiple Method	
EBITDA	5,324,145
Equity Value	4,768,077
Implied Stock Price (EV/EBITDA)	63,673

Source: Team analysis

**Risk-free rate:** The risk-free rate was derived from the rate of the Government bonds in VietNam over a period of 10 years. The risk-free rate was expected to be earned on a certain investment that would carry zero risk. In realistic, the risk-free rate was commonly used by the yield of the Treasury bill (T-bill or Government bonds) over the course of 10 years (Binsbergen, 2022)

**Market-risk premium:** The report will evaluate the market-risk premium which indicates the expected excess return on the market. This market-risk premium would be determined by the correlation between the market return and the market volatility (Han, 2011).

**Beta:** The beta implies the sensitivity between a return of stock (calculated from the historical price of DBD) and the market return which is the VN Index 100 representing the VietNam stock market (Elbanna, 2015).

**Terminal Value:** The terminal value was the expected value of the firm beyond the explicit forecast period. In this report, it was calculated by the terminal growth rate with the theory of growth perpetuity. Therefore, the report utilized the Revenue Growth of the Pharmaceutical Industry and the Inflation Rate in Vietnam. This led to the establishment of an Adjusted Terminal Growth rate of 1%, which is indicative of the real revenue growth within the pharmaceutical sector (Chatfield, 1989).

**Discounted Free Cash Flow to the Firm:** The report calculated the Discounted Free Cash Flow (Figure 36) to the Firm over five years and added it to the Discounted Terminal Value to establish the Enterprise Value of Binh Dinh Pharmacy. The Enterprise Value, amounting to 5,685,042 million VND, represented the total market value of the company, encompassing all ownership interests and claims from both debt and equity (Figure 37). The Equity Value was derived from this Enterprise Value by subtracting Debt and Debt Equivalents and adding Cash and Cash Equivalents. As a result, Binh Dinh Pharmacy was projected to have an Equity Value of 5,216,811 million VND (Figure 37). This Equity Value was then divided by the number of basic shares outstanding to arrive at the market stock price of Binh Dinh Pharmacy, which was 69,666 VND/share, indicating a potential upside of 26% (Figure 37).

#### Market-based Approach - Enterprise Value Multiple Method

In addition to the DCF method, the report also employed the Enterprise Multiple Method under the Market Approach to value Binh Dinh Pharmacy. This involved using the Enterprise Value to EBITDA Multiple (EV/EBITDA) to estimate the market stock price of Binh Dinh Pharmacy at 63,673 VND/share, indicating a potential upside of 15%. The selected sample consisted of listed pharmaceutical companies in Vietnam with similar operations and capital structures (Figure 38). The average EV/EBITDA of the sample was then multiplied by the EBITDA of Binh Dinh Pharmacy to calculate the Enterprise Value. Consequently, Binh Dinh Pharmacy was projected to have an Equity Value of 4,768,077 million VND (Figure 39).

**EV/EBITDA Multiples:** The EV/EBITDA ratio is a crucial metric that offers an insight into Binh Dinh Pharmacy, particularly its EBITDA, which serves as a proxy for cash flow. In a volatile market, this ratio proves to be a valuable tool for comparing the total value of a business with the EBITDA it generates annually. Binh Dinh Pharmacy, being one of the leading manufacturers of medicines, particularly those for cancer treatment, in Vietnam, is recognized for its profitability and technological advancements. Consequently, it is anticipated that Binh Dinh Pharmacy will have an EV/EBITDA of 14.12x, translating to a market stock price of 63,673 VND/share.

#### Sensitivity Analysis

Sensitivity analysis had been applied to examine the different prices in distinguished market and industry movement. Throughout this model, 0.25% change in growth rate and 1% change in WACC were conducted and delivered the results that the valued price of DBD range from 47,000 VND to 103 VND.

## RISK

### Geopolitical Risk

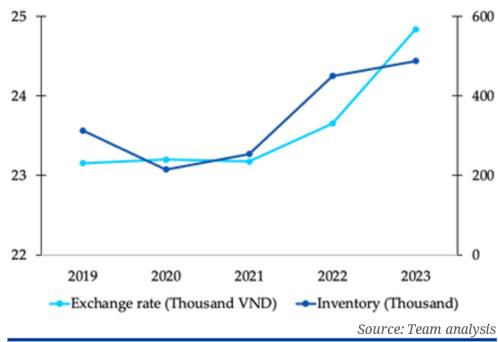
#### Heightened exchange rates and continuous geopolitical meltdown create a surge in raw materials prices.

Vietnam's pharmaceutical production market in general and any pharmaceutical business as Bidiphar in specific, depends mostly on imported raw materials. The pharmaceutical market imported 3,14B USD worth of pharmaceutical material in 11/2023, and Bidiphar was the one leading in terms of turnover among the only 15 companies importing raw material from France. However, heavy fluctuations in the exchange rate, deeply hurt imports due to a surge in the price of importing, and logistics. The current VND appreciation rate of USD has been climbing nonstop as a result of the inflation prevention

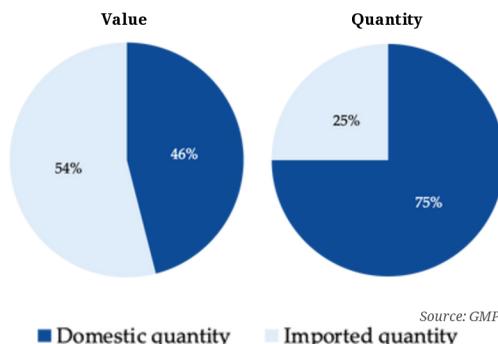
**Figure 41: Sensitivity Analysis**

		Growth				
		0.50%	0.75%	1.00%	1.25%	1.50%
WACC	7.40%	47,117	51,091	55,595	60,742	66,682
	6.40%	52,952	57,315	62,261	67,913	74,436
	5.40%	59,435	64,230	69,666	75,878	83,046
	4.40%	66,643	71,918	77,897	84,731	92,616
	3.40%	74,665	80,474	87,057	94,581	103,263
		Source: Team analysis				

**Figure 42: Inventory to exchange rate**



**Figure 43: Proportion and value of domestic and imported drugs**



policy from the FED, the escalating political meltdown in the Middle East, and the Russian-Ukraine conflicts are also factors that raised the interest rate significantly is a heavy risk DBD has to fight against. In 2023, the surge exchange rate has DBD to build up its inventory to hedge against a shortage of raw materials due to uncertain currency exchange.

### Regulatory Risk

#### Expiration of drug circulation licenses.

The build-up of inventory led to the risk of low inventory turnover, causing the expiration of unused material. The effectiveness of a medicine circulation license and raw materials for pharmaceutical operations is 5 years. Up to 19% of total bidden Oncology products are to expire in 2024, and 23% of Oncology treatment drugs are to expire by 2025. The extension for this licence is probable, but it takes 3 months to be effective disrupting the bidding operation of DBD. However, DBD has hedge taken into account that all Oncology products have to be transferred to and produced at a closed production chain in its EU-GMP-qualified factory in the future which can boost up production of 65 million pills, and 3,5 million bottles of Oncology drugs (Binh, 2021).

#### Confiscate of drug circulation licenses.

With the main product of Oncology drugs, a heavily regulated medical treatment, unqualified products can lead to the retraction of products. DBD has once confiscated a batch of Methotrexate worth 1.4B VND, 3% of total Oncology drugs bidden in 2022, DBD has also been reconciled with the circulation license of the same drug and has to be delayed up to 12 months to register a new license.

### Market Risk

#### Fierce competition from \$1 Oncology pills and countless appearances of new competitors hampered domestic productions.

India has announced a groundbreaking Oncology drug called R+Cu that hampered cancer cells and post-cancer treatment only costs 100 rupees, or 1 USD. R+Cu is expected to be on commercial sales from June-July 2024 (Linh, 2024). Moreover, China has also been the exploiting Oncology pharmaceutical market with many “giants” in the pharmaceutical industry pouring money into the circulation of their products in China and China’s PD1, PD-LD1 own product (Hang, 2019). As these businesses and products get mass sales, DBD products can struggle to sell their products domestically even with government support. But DBD with EU-GMP EU-GMP-qualified facilities and categories of over 24 oncology treatment products and over 75ha of land to cultivate raw materials to tackle the international competition (Bidiphar, 2023).

## APPENDIX NETWORK

<b>A. Financial Analyst</b>	<b>B. Industry and Competitors</b>	<b>C. Valuation</b>	<b>D. ESG</b>
1. Financial Ratio	1. PESTEL	1. Capital Asset Pricing Model and Weighted Average Cost of Capital	1. Environment Pillar
2. Balance Sheet	2. Porter's Five Forces	2. Real Revenue Growth of Pharmaceutical sector	2. Social Pillar
3. Income Statement	3. Competitors List	3. Terminal Value and Implied stock Price	3. Governance Pillar
4. Cash Flow		4. Present Value of Free Cash Flow to the Firm	4. Board of Management
		5. EV/EBITDA of pharmaceutical companies.	
		6. Equity and Market Stock Price by EV/EBITDA Multiple Method.	

### APPENDIX 1: GLOSSARY

Acronym	Definition
FED	Federal Reserves
GDP	Gross Domestic Product
PMI	Purchasing Manager Index
WHO	World Health Organization
GMP - ASEAN	Good Manufacturing Practice - Association of Southeast Asian Nations
GMP - WHO	Good Manufacturing Practice - World Health Organization
PIC/S	Pharmaceutical Inspection Convention and Pharmaceutical Inspection Co-operation Scheme
EU-GMP	European Union Good Manufacturing Practice
OTC	Over-The-Counter
ETC	Ethical Drugs
WACC	Weighted average cost of capital
DCF	Discounted Cash Flow
FCFF	Free cash flow to the firm
CAPEX	Capital Expenditure
CPI	Consumer Price Index
D&A	Depreciation and amortization
CFO	Cash flow from operations
EBITDA	Earnings before interest, taxes, depreciation and amortisation
DAV	Drug Administration of Vietnam
MSCI	Morgan Stanley Capital International
OSD	Design Of Modern Pharmaceutical Facilities

## APPENDIX A1: FINANCIAL RATIO

Financial Ratio	2020	2021	2022	2023	2024F	2025F	2026F	2027F	2028F
<b>Growth (%)</b>									
Revenue	8.31%	14.25%	-1.08%	7.09%	11.17%	11.02%	11.72%	35.24%	12.24%
COGS	-9.58%	22.22%	-15.90%	8.39%	10.51%	11.02%	11.72%	35.24%	12.24%
Gross profit	18.40%	26.76%	23.30%	4.02%	12.07%	11.02%	11.72%	35.24%	12.24%
Selling expense	29.96%	26.05%	28.37%	5.09%	12.23%	11.02%	11.72%	35.24%	12.24%
G&A expense	5.22%	43.56%	7.79%	-8.01%	10.71%	11.02%	11.72%	35.24%	12.24%
EBITDA	18.40%	26.76%	23.30%	4.02%	12.07%	11.02%	11.72%	35.24%	12.24%
Depreciation	43.61%	16.40%	30.40%	26.83%	46.96%	8.46%	9.21%	8.78%	-8.75%
EBT	9.57%	21.23%	29.36%	7.82%	13.35%	13.96%	7.40%	36.94%	13.30%
EBT/Operating profit margin	-10.68%	-6.24%	-5.08%	4.17%	3.07%	0.00%	0.00%	0.00%	0.00%
NPAT	10.99%	19.80%	28.78%	10.47%	16.62%	11.59%	5.69%	35.01%	13.30%
EPS	3014	3283	3252	3593	3573	3629	3515	4232	4794
<b>Liquidity ratio</b>									
Current ratio	2.40	3.30	3.08	3.02	2.91	4.38	3.19	3.61	4.07
Quick ratio	1.78	2.42	1.97	1.85	2.41	3.23	2.60	2.62	3.45
<b>Solvency (Financial Leverage)</b>									
Debt to avg. Equity	0.47	0.39	0.43	0.40	0.46	0.44	0.54	0.66	0.55
Debt to avg. Asset	0.29	0.28	0.31	0.29	0.33	0.32	0.37	0.43	0.35
Debt to EBITDA	0.91	0.67	0.70	0.70	0.80	0.86	0.99	1.05	0.92
Equity Multiplier	1.45	1.37	1.40	1.39	1.74	1.74	1.74	1.74	1.74
<b>Effciency</b>									
Account Receivable Turnovers	3.07	3.43	2.97	3.15	3.15	3.15	3.15	3.15	3.15
Account Receivable Days	119.07	106.48	122.72	115.82	116.02	116.02	116.02	116.02	116.02
Account Payable Turnovers	4.88	9.38	6.05	5.91	6.19	6.19	6.19	6.19	6.19
Account Payable Days	74.84	38.89	60.34	61.78	58.96	58.96	58.96	58.96	58.96
Inventories Turnovers	2.90	3.99	2.23	1.82	2.56	2.54	2.53	2.51	2.51
Inventories Days	125.80	91.45	163.32	200.67	142.41	143.69	144.50	145.16	145.43
Cash Conversion Cycle	170.02	159.04	225.70	254.71	199.47	200.75	201.56	202.22	202.49
Asset Turnover	0.82	1.04	0.90	0.85	0.82	0.82	0.82	0.82	0.82
Fixed Asset Turnover	5.18	6.29	5.15	4.63	3.88	3.33	3.45	4.31	5.11
<b>Profitability</b>									
Gross Profit Margin	39.07%	39.95%	49.37%	48.34%	48.69%	48.69%	48.69%	48.69%	48.69%
NPM	12.56%	12.13%	15.66%	16.29%	11.27%	11.27%	11.27%	11.27%	11.27%
EBITDA Margin	32.25%	35.46%	39.24%	48.99%	47.91%	48.86%	48.81%	48.76%	48.31%
EBIT Margin	15.37%	14.91%	19.20%	19.38%	13.79%	13.79%	13.79%	13.79%	13.79%
EBT Margin/Operating Profit Margin	41.95%	39.34%	37.34%	38.89%	40.08%	41.95%	41.95%	41.95%	41.95%
NPAT Margin	10.77%	11.03%	11.57%	15.06%	15.54%	10.77%	10.77%	10.77%	10.77%
Return on Assets (ROA)	0.11	0.12	0.13	0.14	0.11	0.11	0.11	0.11	0.11
Return on Equity (ROE)	0.16	0.17	0.18	0.19	0.16	0.16	0.16	0.16	0.16
EPS Growth	10.99%	8.92%	-0.92%	10.47%	-0.55%	1.55%	-3.14%	20.40%	13.30%
<b>Dupont Analysis</b>									
Return on Equity (ROE)	0.16	0.17	0.18	0.19	0.16	0.16	0.16	0.16	0.16
Net Profit Margin	12.56%	12.13%	15.66%	16.29%	11.27%	11.27%	11.27%	11.27%	11.27%
Asset Turnover	0.82	1.04	0.90	0.85	0.82	0.82	0.82	0.82	0.82
Equity Multiplier	1.45	1.37	1.40	1.39	1.74	1.74	1.74	1.74	1.74

## APPENDIX A2: BALANCE SHEET

	2019A	2020A	2021A	2022A	2023A	2024F	2025F	2026F	2027F
<b>In Billion VND</b>									
<b>ASSETS</b>									
<b>A. SHORT-TERM ASSETS</b>	<b>1,028,808</b>	<b>835,846</b>	<b>948,197</b>	<b>1,247,789</b>	<b>1,260,686</b>	<b>1,452,476</b>	<b>2,199,768</b>	<b>1,901,041</b>	<b>3,319,455</b>
I. Cash and cash equivalents	138,162	108,729	69,271	55,562	87,837	290,631	698,655	372,267	833,154
II. Short-term financial investments	113,941	93,341	139,201	221,391	221,195	261,094	308,191	363,784	429,405
Available for sale securities	1	1	1	1	1	1	1	1	1
Held to maturity investments	113,940	93,340	139,200	221,389	221,193	261,093	308,190	363,783	429,404
III. Short-term receivables	445,148	412,702	478,909	509,593	452,186	636,907	599,488	796,622	1,127,818
Short-term trade accounts receivable	407,286	412,783	496,564	548,950	499,326	669,064	628,109	821,097	1,138,825
Short-term prepaid payment to suppliers	58,588	37,672	41,540	27,046	15,550	30,346	33,691	37,640	50,904
Other short-term receivables	5,992	3,253	4,040	4,983	6,689	6,876	7,067	7,264	7,467
Provision for short-term doubtful debts (*)	(26,718)	(41,006)	(63,236)	(71,386)	(69,379)	(69,379)	(69,379)	(69,379)	(69,379)
IV. Inventories	312,967	214,908	254,084	450,345	487,853	247,934	576,283	349,752	908,340
Inventories	312,967	214,908	254,084	450,345	498,363	255,291	581,433	353,357	910,863
Provision for decline in value of inventories	-	-	-	-	(10,510)	(7,357)	(5,150)	(3,605)	(2,523)
V. Other short-term assets	18,590	6,166	6,731	10,897	11,616	15,910	17,151	18,615	20,738
Short-term prepaid payment	3,300	4,453	3,570	6,737	9,542	11,316	12,338	13,544	14,799
Value added tax to be reclaimed	14,894	950	426	1,540	1,920	1,984	2,203	2,461	3,328
Taxes and other receivables from state authorities	396	763	2,736	2,620	154	2,610	2,610	2,610	2,610
<b>B. LONG-TERM ASSETS</b>	<b>591,745</b>	<b>601,564</b>	<b>611,321</b>	<b>647,928</b>	<b>728,223</b>	<b>969,086</b>	<b>1,016,935</b>	<b>1,077,324</b>	<b>1,135,465</b>
<b>I. Long-term receivables</b>	-	-	-	-	-	-	-	-	-
<b>II. Fixed assets</b>	<b>236,672</b>	<b>248,623</b>	<b>247,085</b>	<b>356,932</b>	<b>357,306</b>	<b>590,464</b>	<b>633,823</b>	<b>688,910</b>	<b>741,535</b>
Tangible fixed assets	502,085	186,891	186,674	296,811	299,106	512,833	550,587	598,823	644,600
- Cost	502,085	540,884	579,024	733,810	780,663	1,063,329	1,158,991	1,271,924	1,389,460
- Accumulated depreciation	(321,826)	(353,992)	(392,350)	(436,999)	(481,557)	(550,496)	(608,405)	(673,101)	(744,860)
Intangible fixed assets	56,414	61,731	60,411	60,121	58,200	77,631	83,236	90,087	96,935
- Cost	63,902	71,308	72,260	74,760	75,826	98,869	108,161	119,130	130,546
- Accumulated depreciation	(7,488)	(9,577)	(11,849)	(14,639)	(17,626)	(21,238)	(24,924)	(29,043)	(33,611)
<b>III. Long-term assets in progress</b>	<b>164,762</b>	<b>170,578</b>	<b>184,387</b>	<b>96,985</b>	<b>162,761</b>	<b>162,761</b>	<b>162,761</b>	<b>162,761</b>	<b>162,761</b>
Long-term production in progress	-	-	-	-	-	-	-	-	-
Construction in progress	164,762	170,578	184,387	96,985	162,761	162,761	162,761	162,761	162,761
<b>IV. Long-term financial investments</b>	<b>149,785</b>	<b>141,604</b>	<b>140,101</b>	<b>154,840</b>	<b>163,528</b>	<b>163,528</b>	<b>163,528</b>	<b>163,528</b>	<b>163,528</b>
Investments in subsidiaries	-	-	-	-	-	-	-	-	-
Investments in associates, joint-ventures	133,276	138,090	136,588	151,327	160,014	160,014	160,014	160,014	160,014
Investments in other entities	16,509	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514
<b>V. Other long-term assets</b>	<b>40,526</b>	<b>40,760</b>	<b>39,748</b>	<b>39,171</b>	<b>44,629</b>	<b>52,333</b>	<b>56,824</b>	<b>62,125</b>	<b>67,642</b>
Long-term prepaid	40,417	40,666	36,863	34,579	36,659	49,723	54,213	59,514	65,031
Deferred income tax assets	108	93	2,885	4,593	7,969	2,610	2,610	2,610	2,610
<b>VI. Goodwill</b>	-	-	-	-	-	-	-	-	-
<b>TOTAL ASSETS</b>	<b>1,620,553</b>	<b>1,437,409</b>	<b>1,559,518</b>	<b>1,895,717</b>	<b>1,988,909</b>	<b>2,421,562</b>	<b>2,993,204</b>	<b>2,978,365</b>	<b>4,454,920</b>

LIABILITIES & OWNER'S EQUITY	2019A	2020A	2021A	2022A	2023A	2024F	2025F	2026F	2027F	2028F
<b>A. LIABILITIES</b>	<b>688,045</b>	<b>448,784</b>	<b>418,969</b>	<b>540,580</b>	<b>556,068</b>	<b>719,543</b>	<b>854,130</b>	<b>1,093,796</b>	<b>1,580,632</b>	<b>1,542,510</b>
<b>I. Short -term liabilities</b>	<b>580,312</b>	<b>347,872</b>	<b>286,966</b>	<b>405,457</b>	<b>417,989</b>	<b>499,054</b>	<b>502,761</b>	<b>596,390</b>	<b>920,102</b>	<b>814,566</b>
1. Short-term trade accounts payable	211,396	102,652	96,813	163,447	125,404	179,239	158,983	218,880	292,145	281,409
2. Short-term advances from customers	5,153	28,952	10,608	8,824	9,407	17,617	19,682	26,618	29,875	34,655
3. Taxes and other payables to state authorities	27,985	18,476	15,447	14,081	29,006	20,883	15,662	10,442	5,221	-
4. Payable to employees	27,416	36,378	36,674	98,357	86,394	106,536	118,279	132,142	178,710	200,577
5. Short-term accrued expenses	7,040	14,264	39,851	17,772	33,519	32,721	36,328	40,585	54,888	61,604
6. Other short-term payables	85,378	80,972	6,326	8,343	13,401	12,401	13,768	15,382	165,663	23,348
7. Short-term borrowings and financial leases	176,391	20,095	21,029	16,000	35,267	35,267	35,267	35,267	35,267	35,267
9. Bonus and welfare fund	39,553	46,084	60,218	78,633	85,592	94,389	104,793	117,075	158,333	177,707
<b>II. Long-term liabilities</b>	<b>107,732</b>	<b>100,912</b>	<b>132,003</b>	<b>135,123</b>	<b>138,078</b>	<b>220,490</b>	<b>351,369</b>	<b>497,406</b>	<b>660,530</b>	<b>727,944</b>
1. Long-term borrowings and financial leases	65,453	62,726	76,000	60,000	44,000	109,000	219,000	340,000	473,100	504,510
2. Provision for long-term liabilities				6,912	7,726	6,652	6,652	6,652	6,652	6,652
3. Fund for technology development	42,280	38,186	49,092	67,397	87,426	104,838	125,717	150,754	180,778	216,782
<b>B. OWNER'S EQUITY</b>	<b>932,508</b>	<b>988,626</b>	<b>1,140,549</b>	<b>1,355,137</b>	<b>1,432,842</b>	<b>1,702,019</b>	<b>2,139,074</b>	<b>1,884,569</b>	<b>2,874,288</b>	<b>2,772,491</b>
<b>I. Owner's equity</b>	<b>913,639</b>	<b>972,329</b>	<b>1,131,680</b>	<b>1,348,954</b>	<b>1,428,562</b>	<b>1,697,739</b>	<b>2,134,794</b>	<b>1,880,289</b>	<b>2,870,008</b>	<b>2,768,211</b>
1. Owner's capital	523,790	523,790	576,124	748,836	748,836	1,023,603	1,148,603	1,273,603	1,448,603	1,448,603
- Common stock with voting right	523,790	523,790	576,124	748,836	748,836	1,023,603	1,148,603	1,273,603	1,448,603	1,448,603
- Preferred stock	-	-	-	-	-	-	-	-	-	-
2. Share premium	20,921	20,921	20,921	20,921	20,921	20,921	20,921	20,921	20,921	20,921
3. Treasury shares	(1)	(1,953)	(1,953)	(1,953)	(1,953)	(1,953)	(1,953)	(1,953)	(1,953)	(1,953)
4. Foreign exchange differences	(1,035)	(742)	(2,593)	7,079	8,196	8,196	8,196	8,196	8,196	8,196
5. Investment and development fund	88,209	103,995	122,908	147,263	174,169	219,848	254,416	344,482	390,634	590,500
6. Retained earnings after tax	281,755	326,317	416,272	426,808	478,393	422,844	700,330	230,759	999,327	697,665
- Accumulated retained earning at the end of the previous period	249,386	281,755	272,538	241,706	273,912	211,422	350,165	115,379	499,663	348,832
- Undistributed earnings in this period	32,369	44,562	143,734	185,102	204,482	211,422	350,165	115,379	499,663	348,832
<b>II. Other resources and funds</b>	<b>18,869</b>	<b>16,297</b>	<b>8,869</b>	<b>6,183</b>	<b>4,279</b>	<b>4,280</b>	<b>4,280</b>	<b>4,280</b>	<b>4,280</b>	<b>4,280</b>
1. Subsidized not-for-profit funds	15,324	12,468	3,162	1,966	989	989	989	989	989	989
2. Funds invested in fixed assets	3,545	3,828	5,707	4,217	3,291	3,291	3,291	3,291	3,291	3,291
<b>TOTAL OWNER'S EQUITY AND LIABILITIES</b>	<b>1,620,553</b>	<b>1,437,409</b>	<b>1,559,518</b>	<b>1,895,717</b>	<b>1,988,909</b>	<b>2,421,562</b>	<b>2,993,204</b>	<b>2,978,365</b>	<b>4,454,920</b>	<b>4,315,001</b>

## APPENDIX A3: INCOME STATEMENT

Unit: million VND	2019A	2020A	2021A	2022A	2023A	2024F	2025F	2026F	2027F	2028F
<b>Revenue</b>	<b>1,321,006</b>	<b>1,430,803</b>	<b>1,634,684</b>	<b>1,617,019</b>	<b>1,731,726</b>	<b>1,925,239</b>	<b>2,137,444</b>	<b>2,387,960</b>	<b>3,229,503</b>	<b>3,624,665</b>
Deduction from revenue	59,277	72,823	76,179	62,187	79,956	87,406	97,040	108,413	146,619	164,560
<b>Net revenue</b>	<b>1,261,729</b>	<b>1,256,952</b>	<b>1,558,504</b>	<b>1,554,821</b>	<b>1,651,770</b>	<b>1,837,833</b>	<b>2,040,404</b>	<b>2,279,547</b>	<b>3,082,884</b>	<b>3,460,105</b>
Cost of goods sold	846,933	765,813	935,939	787,170	853,250	942,905	1,046,834	1,169,527	1,581,681	1,775,215
<i>Of which: Depreciation and amortization</i>	11,268	16,183	18,837	24,564	31,155	45,785	49,660	54,234	58,994	53,833
<b>Gross profit</b>	<b>414,796</b>	<b>491,139</b>	<b>622,566</b>	<b>767,652</b>	<b>798,520</b>	<b>894,929</b>	<b>993,570</b>	<b>1,110,020</b>	<b>1,501,203</b>	<b>1,684,890</b>
<b>Financial income</b>	<b>13,251</b>	<b>7,752</b>	<b>6,320</b>	<b>12,519</b>	<b>14,240</b>	<b>18,935</b>	<b>34,555</b>	<b>25,261</b>	<b>43,331</b>	<b>59,509</b>
Interest Income	11,916	6,165	5,137	8,733	11,635	18,935	34,555	25,261	43,331	59,509
Income from currency differences	319	696	1,183	3,786	2,604	-	-	-	-	-
Others	1,016	891	-	-	-	-	-	-	-	-
<b>Financial expenses</b>	<b>14,623</b>	<b>14,326</b>	<b>8,647</b>	<b>11,970</b>	<b>17,892</b>	<b>12,235</b>	<b>16,389</b>	<b>22,952</b>	<b>32,607</b>	<b>40,944</b>
Interest Expense	10,314	6,589	1,325	1,916	6,998	3,953	7,195	12,680	18,715	25,352
Expenses from currency differences	583	1,972	450	3,431	3,087	-	-	-	-	-
Payment discounts	3,726	5,764	6,873	6,623	7,806	8,282	9,194	10,272	13,892	15,592
<b>Share of associates and joint ventures' result</b>	<b>14,439</b>	<b>15,238</b>	<b>16,083</b>	<b>24,786</b>	<b>28,704</b>	<b>24,382</b>	<b>27,070</b>	<b>30,242</b>	<b>40,900</b>	<b>45,905</b>
<b>Selling expenses</b>	<b>169,938</b>	<b>220,855</b>	<b>278,389</b>	<b>357,371</b>	<b>375,562</b>	<b>421,510</b>	<b>467,969</b>	<b>522,817</b>	<b>707,063</b>	<b>793,580</b>
<i>Of which: Depreciation and amortization</i>	5,261	5,757	4,702	3,884	2,950	5,686	6,167	6,736	7,327	6,686
<b>General and administrative expenses</b>	<b>84,109</b>	<b>88,501</b>	<b>127,048</b>	<b>136,941</b>	<b>125,976</b>	<b>139,466</b>	<b>154,838</b>	<b>172,986</b>	<b>233,948</b>	<b>262,573</b>
<i>Of which: Depreciation and amortization</i>	11,421	9,870	15,150	13,222	11,864	20,789	22,548	24,625	26,787	24,443
<b>Operating profit</b>	<b>173,817</b>	<b>190,448</b>	<b>230,885</b>	<b>298,674</b>	<b>322,034</b>	<b>365,036</b>	<b>415,998</b>	<b>446,769</b>	<b>611,817</b>	<b>693,206</b>
Other income	346	2,873	1,870	914	774	1,704	1,892	2,114	2,859	3,209
Other expenses	150	130	307	1,030	2,722	1,002	1,112	1,242	1,680	1,886
<b>Other profit</b>	<b>196</b>	<b>2,744</b>	<b>1,563</b>	<b>(116)</b>	<b>(1,947)</b>	<b>703</b>	<b>780</b>	<b>872</b>	<b>1,179</b>	<b>1,323</b>
<b>Profit before tax</b>	<b>174,013</b>	<b>193,191</b>	<b>232,448</b>	<b>298,558</b>	<b>320,086</b>	<b>365,739</b>	<b>416,779</b>	<b>447,640</b>	<b>612,995</b>	<b>694,529</b>
Current corporate income tax expenses	31,894	35,317	46,116	56,710	54,408	67,619	77,055	82,761	113,332	128,406
Deferred income tax expenses (*)	(108)	15	(2,792)	(1,708)	(3,377)	(15,662)	(10,442)	(5,221)	-	-
<b>Net profit after tax</b>	<b>142,227</b>	<b>157,860</b>	<b>189,124</b>	<b>243,555</b>	<b>269,055</b>	<b>313,782</b>	<b>350,165</b>	<b>370,100</b>	<b>499,663</b>	<b>566,123</b>

## APPENDIX A4: CASH FLOW

	2019A	2020A	2021A	2022A	2023A	2024F	2025F	2026F	2027F	2028F
<b>I CASH FLOWS FROM OPERATING ACTIVITIES</b>										
<b>1 Profit before tax</b>	<b>174,013</b>	<b>193,191</b>	<b>232,448</b>	<b>298,558</b>	<b>320,086</b>	<b>313,782</b>	<b>350,165</b>	<b>370,100</b>	<b>499,663</b>	<b>566,123</b>
<b>2 Adjustments for:</b>										
Depreciation of fixed assets and properties investment	27,950	31,810	38,690	41,670	45,969	72,260	78,375	85,594	93,108	84,962
(Reversal of provisions)/provisions	14,548	14,288	29,141	8,965	7,429	(3,153)	(2,207)	(1,545)	(1,081)	(757)
Foreign exchange (gain)/loss from revaluation of monetary items denominated in foreign currencies	69	695	(91)	215	97	130	2,586	(418)	161	(0)
Loss/(profit) from investment activities	(27,371)	(24,247)	(5,488)	(13,801)	(28,704)	(24,382)	(27,070)	(30,242)	(40,900)	(45,905)
Interest expense	10,314	6,589	1,325	1,916	6,998	(5,657)	4,154	6,563	9,654	8,338
Other Adjustment	(1,502)	15	15,000	25,000	23,923	31,504	92,824	59,144	290,499	89,915

<b>3 Operating profit before changes in working capital</b>	<b>198,017</b>	<b>222,341</b>	<b>311,024</b>	<b>362,523</b>	<b>375,798</b>	<b>384,484</b>	<b>498,828</b>	<b>489,196</b>	<b>851,104</b>	<b>702,676</b>
(Increase)/decrease in receivables	(58,930)	29,325	(85,346)	(28,740)	72,231	(169,925)	40,763	(193,185)	(317,931)	77,704
(Increase)/decrease in inventories	(43,238)	98,059	(39,176)	(196,262)	(48,018)	239,919	(328,349)	226,530	(558,587)	402,059
Increase/(decrease) in payables	(20,185)	(71,593)	(5,683)	97,633	(28,608)	80,391	(1,475)	86,567	287,675	(119,689)
(Increase)/decrease in prepaid expenses	(14,511)	(1,402)	4,687	(883)	(4,886)	(27,860)	(7,835)	(9,250)	(18,782)	(3,585)
Changes in available for sale securities	-	-	-	-	-	0	0	0	0	0
Interest paid	(9,955)	(5,914)	(869)	(1,916)	(7,166)	(3,953)	(7,195)	(12,680)	(18,715)	(25,352)
Corporate income tax paid	(13,022)	(44,513)	(52,859)	(55,332)	(38,168)	(5,221)	(5,221)	(5,221)	(5,221)	0
Other receipts from operating activities	3,197	3,046	3,951	787	147	26	74	(3,884)	3,467	(3,299)
Other payments for operating activities	(42,409)	(16,441)	(18,161)	(12,794)	(27,339)	(12,369)	(4,369)	(134,938)	(10)	(82,037)
<b>Net cash flows from operating activities</b>	<b>(1,036)</b>	<b>212,908</b>	<b>117,568</b>	<b>165,012</b>	<b>293,991</b>	<b>485,492</b>	<b>185,221</b>	<b>443,137</b>	<b>223,001</b>	<b>948,477</b>

## II CASH FLOWS FROM INVESTING ACTIVITIES

1 Payment for fixed assets, constructions and other long-term assets	(33,408)	(59,734)	(54,636)	(82,828)	(133,694)	(333,625)	(347,251)	(363,337)	(380,079)	(189,320)
2 Receipts from disposal of fixed assets and other long-term assets	-	4,000	1	-	-	0	0	0	0	0
3 Loans, purchases of other entities' debt instruments	-	(49,022)	(139,201)	(221,391)	(167,730)	11	116,031	(208,480)	116,200	(51,248)
4 Receipts from loan repayments, sale of other entities' debt instruments	108,760	80,340	93,341	139,201	185,789	13,276	232,062	(138,987)	193,666	(128,121)
5 Payments for investment in other entities	-	-	-	-	-	0	0	0	0	0
6 Collections on investment in other entities	-	13,000	-	-	-	0	0	0	0	0
7 Dividends, interest and profit received	21,615	9,273	5,268	7,326	398	0	36,960	0	0	0

## III CASH FLOWS FROM FINANCING ACTIVITIES

1 Receipts from equity issue and owner's capital contribution	-	-	-	-	-	125,000	125,000	125,000	175,000	0
3 Deduction in development fund						(50,000)	(50,000)	(50,000)	0	0
2 Payment for share repurchases	-	(1,952)	-	-	-	0	0	0	0	0
3 Proceeds from borrowings	-	241,184	50,916	-	216,778	100,000	110,000	121,000	133,100	146,410
4 Principal repayments	507,755	(400,882)	(37,162)	(21,029)	(213,511)	(35,000)	0	0	0	(145,000)
5 Repayment of financial leases	(363,329)	-	-	-	-	0	0	0	0	30,000
6 Dividends paid, profits distributed to owners	(78,531)	(78,548)	(75,553)	-	(149,698)	(102,360)	0	(254,721)	0	(217,290)
<b>Net cash flows from financing activities</b>	<b>65,894</b>	<b>(240,198)</b>	<b>(61,799)</b>	<b>(21,029)</b>	<b>(146,431)</b>	<b>37,640</b>	<b>185,000</b>	<b>(58,721)</b>	<b>308,100</b>	<b>(185,880)</b>

## APPENDIX B1: PESTEL ANALYSIS

POLITICAL	ECONOMIC	SOCIAL
<ul style="list-style-type: none"> <li>The government provides high levels of incentives, support programs, and other incentives to the domestic production of medicinal raw materials.</li> <li>The government published a number of legal documents to help the pharmaceutical business, including Circular 06/2023/ TT-BYT and Decision No. 1165/QD-TTg</li> </ul>	<ul style="list-style-type: none"> <li>The Vietnamese Dong was one of the currencies that depreciated the least compared to the USD in January 2024.</li> <li>The majority of raw materials used in pharmaceutical production are imported from the European Union, the United States, and India, raising the cost of goods supplied</li> </ul>	<ul style="list-style-type: none"> <li>Consumption of medications per capita climbed by 56.4% in 2019 compared to the previous five years, according to GMP's report in 2022.</li> <li>Vietnamese consumers spent an average of over 1.7 million VND on medication in 2022 (Tu Anh, 2023).</li> </ul>
TECHNOLOGY	ENVIRONMENTAL	LEGAL
<ul style="list-style-type: none"> <li>EU GMP currently offers an automation program that uses technology to complete activities without human participation.</li> <li>Bidiphar is applying the AOP-KPI BSC systems into its operations while also implementing the DMS distribution channel management system for sales.</li> </ul>	<ul style="list-style-type: none"> <li>Vietnam offers a diversified environment with a high potential for medicinal plant resources.</li> <li>Despite Vietnam's abundant raw material resources, many pharmaceutical companies in Vietnam have advanced manufacturing lines but rely on foreign raw material sources.</li> </ul>	<ul style="list-style-type: none"> <li>The legal environment controlling the pharmaceutical business, particularly Bidiphar, is defined by strict regulations.</li> <li>Strictly regulates oriental medicine production activities</li> </ul>

## APPENDIX B2: PORTER'S FIVE FORCES

COMPETITIVE RIVALS	POTENTIAL FOR NEW ENTRANTS IN AN INDUSTRY	SUPPLIER POWER
<ul style="list-style-type: none"> <li>Vietnam's pharmaceutical business is expanding rapidly.</li> <li>DBD is predicted to deal with numerous other businesses to maintain a strong position in the market.</li> </ul>	<ul style="list-style-type: none"> <li>Businesses in the pharmaceutical sector engage in intense commercial competition in addition to intense research and development (R&amp;D) of pharmaceutical goods.</li> <li>Bidiphar's development approach still places a high priority on R&amp;D.</li> </ul>	<ul style="list-style-type: none"> <li>Vietnam mostly imports raw materials from China, India, and the United States.</li> <li>This puts pressure on rising production costs, which eventually raises market medicine prices.</li> </ul>
CUSTOMER POWER	THREAT OF SUBSTITUTES	
<ul style="list-style-type: none"> <li>Bidiphar has focused on developing and diversifying its customer network through 3 channels: OTC, ETC, export.</li> <li>Bidiphar also has big customers from the Department of Health, Medical Equipment Companies</li> </ul>	<ul style="list-style-type: none"> <li>Bidiphar has made a significant impact as the first company in Vietnam to produce cancer treatments.</li> <li>As the largest supplier of cancer treatment drugs with quality equivalent to imported products, Bidiphar is well-positioned to effectively compete in the Vietnamese market and fairly with foreign markets.</li> </ul>	

## APPENDIX B3: COMPETITORS LISTS

Code	Company Name
DBD	Binh Dinh Pharmaceutical and Medical Equipment Joint Stock Company
IMP	Imexpharm Pharmaceutical Joint Stock Company
OPC	OPC Pharmaceutical Joint Stock Company
DCL	Cuu Long Pharmaceutical JSC
DMC	Domesco Medical Import Export Joint Stock Corporation
TRA	Traphaco Joint Stock Company
DHG	DHG Pharmaceutical Joint Stock Company
SPM	SPM Joint Stock Company
DBT	Ben Tre Pharmaceutical JSC
DVN	Vietnam Pharmaceutical Corporation - JSC
VMD	Vimedimex Medi - Pharma Joint Stock Company
VDP	Vidipharm Central Pharmaceutical Joint Stock Company
DHT	Ha Tay Pharmaceutical Joint Stock Company
PPP	Phong Phu Pharmaceutical JSC
PMC	Pharmedic Pharmaceutical Medicinal Joint Stock Company

## APPENDIX C1: CAPITAL ASSET PRICING MODEL AND WEIGHTED AVERAGE COST OF CAPITAL

Item	Rate	Sources
Risk-free rate	2.59%	Vietnam 10-year Bond Yield Historical Data by worldgovernmentbonds.com [A]
Beta	0.254	Historical data from DBD's stock price [B]
Market Risk Premium	8.5%	Based on the fluctuation of VN100's to derive the correlation between its return and its volatility [C]
Cost of Equity	4.75%	CAPM ([A] + [B]*[C]): Cost of Equity = Risk-free rate + Beta*Market risk premium
Pre-tax Cost of Debt	9%	Short-term interest rate of DBD
Tax rate	20%	VietNam corporate tax rate
After-tax Cost of Debt	7.06%	Pre-tax cost of Debt * (1 - Tax rate)
Weight of Debt	27.96%	Liabilities /Total resources
Weight of Equity	72.04%	Owner's equity /Total resources
WACC (annually)	5.40%	WACC = Cost of Debt* Weighted of Debt + Cost of equity * Weighted of Equity
Terminal growth rate	1%	Adjusted real Revenue growth of pharmaceutical sector in VietNam

## APPENDIX C2: REAL REVENUE GROWTH OF PHARMACEUTICAL SECTOR

DBD Terminal Growth rate	
Industry Revenue Growth	4.99%
Inflation rate	4.0%
Real Revenue Growth	0.95%

## APPENDIX C3: TERMINAL VALUE AND IMPLIED STOCK PRICE

Valuation Summary	
Total PV	(591,487)
Terminal Value	8,162,618
PV of Terminal Value	6,276,529
Enterprise Value	5,685,042
Plus: Cash	87,837
Less: Debt	556,068
Equity Value	5,216,811
Implied Stock Price	69,666

## APPENDIX C4: PRESENT VALUE OF FREE CASH FLOW TO THE FIRM

Year	2024F	2025F	2026F	2027F	2028F
Net Income	313,782	350,165	370,100	499,663	566,123
Plus: Interest exp. after tax	9,788	13,111	18,362	26,085	32,755
Plus: Total D&A	72,260	78,375	85,594	93,108	84,962
Less: WCInv	110,725	743,585	(392,356)	1,094,701	100,562
Less: CapEx	333,625	347,251	363,337	380,079	189,320
FCFF	-48,520	-649,185	503,075	-855,925	393,958
Discount period	1	2	3	4	5
Discount factor	0.9488	0.9002	0.8541	0.8104	0.7689
Present Value	(46,036)	(584,419)	429,701	(693,662)	302,928

## APPENDIX C5: EV/EBITDA OF PHARMACEUTICAL COMPANIES

Averaging EV/EBITDA	
DHG	13.75
DMC	10.26
IMP	10.15
DVN	24.2
DHG	13.75
DBT	14.1
SPM	12.65
Average	14.12

## APPENDIX C6: EQUITY AND MARKET STOCK PRICE BY EV/EBITDA MULTIPLE METHOD

Enterprise Value Multiple Method	
EBITDA	5,324,145
Equity Value	4,768,077
Implied Stock Price (EV/EBITDA)	63,673

## APPENDIX D1: ENVIRONMENT PILLAR

ENVIRONMENT PILLAR			
	Criteria	Score	Comment
<b>Climate Change</b>	Carbon Emission	4	Bidiphar always implements international and Vietnamese standards strictly, and the pharmaceutical industry does not rank among the top 10 industries with the highest environmental emissions.
	Product Carbon Footprint	3	This issue is not reported, but it is not listed among the top ten industries with the highest environmental emissions.
	Financing Environmental Impact	2	No reports of this issue are available.
<b>Natural Capital</b>	Water Stress	3	The wastewater treatment system has been built, but it does not clearly state the system's name. There is an active effort to coordinate with relevant parties before discharging wastewater.
	Biodiversity & Land Use	4	DBD's medicinal areas are greened and protected with 3 "no" and 3 "yes". Moreover Green area makes up 15% of Nhon Hoi A's industrial park.
	Raw Material Sourcing	4	Medicinal plants and herbs are used as input materials, which are used at a very high level of efficiency at 100%
<b>Pollution &amp; Waste</b>	Toxic Emission & Waste	4	Treat waste strictly in accordance with regulations and have a waste collection and management system that meets legal standards.
	Packaging Material & Waste	1	No reports of this issue are available.
	Electronic Waste	4	Ensure compliance with state regulations; Reduce product loss in production lines by 5-10% annually; Save 10% of energy and water costs.
<b>Environment Opportunities</b>	Clean Tech		
	Green Building	1	No reports of this issue are available.
	Renewable Energy		
<b>Environment Score</b>		2.9	

## APPENDIX D2: SOCIAL PILLAR

SOCIAL PILLAR			
	Criteria	Score	Comment
<b>Human Capital</b>	Labor Management	3	The 3P salary system (based on position, capacity, and efficiency); A bonus regime includes: 13th month's salary, bonuses on holidays, New Year, overtime, incentives, and for technical improvements.
	Health & Safety	3	There is social insurance and health insurance for employees.
	Human Capital Development	4	Our company's top priority is to maintain safe working conditions, provide protective uniforms, and ensure the health of our employees Invest in training the Sales department: It includes training for communication, sales, sales strategy, bidding process, and corporate culture to improve sales and marketing skills; A typical employee receives 40 hours of training per year; Provide elearning support to employees
<b>Product Liability</b>	Product Safety & Quality	2	The majority of DBD's ingredients are medicinal herbs. The company's products are health-related, making them more rigorously tested. A DBD product has been recalled from the market for violating state regulations regarding GMP-compliant pharmaceutical exports.
	Privacy & Data Security	2	No reports of this issue are available.
	Responsible Investment	4	Social activities cost 4.2 billion VND in total. Volunteer projects include: <ul style="list-style-type: none"><li>Contribute to study promotion, gratitude, and National Defense and Security funds.</li><li>Organize the voluntary blood donation program "Bidiphar - every drop counts"</li></ul>
<b>Social Opportunities</b>	Chemical Safety	3	The main ingredients are mostly medicinal herbs
	Access to Finance		
	Access to Healthcare		
	Opportunities in Nutrition & Health	3	Organize examinations and medicine distribution for policy beneficiaries, poor children, and places affected by natural disasters and floods. This needs to be reported in greater detail.
	<b>Social Score</b>	3	

## APPENDIX D3: GOVERNANCE PILLAR

	Score
<b>A. RIGHTS AND EQUITABLE TREATMENT OF SHAREHOLDERS</b>	
Basic shareholder rights	4
Right to participate in decisions concerning fundamental corporate changes	4
Right to participate effectively in and vote in general shareholder meetings and should be informed of the rules, including voting procedures, that govern general shareholder meetings.	4
Markets for corporate control should be allowed to function in an efficient and transparent manner.	4
The exercise of ownership rights by all shareholders, including institutional investors, should be facilitated.	4
<b>B. EQUITABLE TREATMENT OF SHAREHOLDERS</b>	
Shares and Voting Rights	4
Notice of AGM	4
Insider trading and abusive self-dealing should be prohibited.	4
Related party transactions by directors and key executives.	3
Protecting minority shareholders from abusive actions	3
<b>C. ROLE OF STAKEHOLDERS</b>	
The rights of stakeholders that are established by law or through mutual agreements are to be respected.	3
Where stakeholder interests are protected by law, stakeholders should have the opportunity to obtain effective redress for violation of their rights.	2
Mechanisms for employee participation should be permitted to develop.	3
Stakeholders including individual employee and their representative bodies, should be able to freely communicate their concerns about illegal or unethical practices to the board and their rights should not be compromised for doing this.	2
<b>D. DISCLOSURE AND TRANSPARENCY</b>	
Transparent Ownership Structure	3
Quality of Annual Report	3
Disclosure of Related Party Transactions (RPTs)	3
Directors and Commissioners dealings in the shares of the company	4
External Auditor and Auditor Report	4
Medium of Communications	3
Timely filing/release of annual/financial reports	4
Company Website	3
Investor Relations	3
<b>E. ROLES &amp; RESPONSIBILITIES OF BOARD</b>	
Board Duties and Responsibilities	4
Board Structure	3
Board Processes	3
People on the Board	3
Board Performance	3
<b>Corporate Governance Score</b>	<b>3.4</b>

## APPENDIX D4: BOARD OF MANAGEMENT

Board Of Management				
Name	Position	Qualifications	Appointment year	Experiences
Pham Thi Thanh Huong	CEO	Master of Pharmacy	2019	<ul style="list-style-type: none"> <li>• 2001 - 2007: Deputy Director of Binh Dinh Department of Health.</li> <li>• 2007 - 2009: Deputy Director of the Department of Home Affairs of Binh Dinh province.</li> <li>• 2010 - 2014: Vice Chairman of Bidiphar Members Council, Vice President of Bidiphar, Director of Bidiphar I Joint Stock Company.</li> <li>• 2014 - 2019: Vice Chairman, Vice President of Bidiphar Joint Stock Company.</li> <li>• 2019: Cheif Executive Officer of Bidiphar Joint Stock Company.</li> <li>• 2021 - present: Member of the Board of Directors, Cheif Executive Officer of Bidiphar Joint Stock Company.</li> </ul>
Banh Thi Ngoc Quynh	Vice President	Master of Pharmacy	2021	<ul style="list-style-type: none"> <li>• 2008 - 2015: Vice President at Bidiphar I Joint Stock Company.</li> <li>• 2015 - 2021: Director of Research and Development Center of Bidiphar.</li> <li>• 2021 - present: Vice President of Bidiphar.</li> </ul>
Huynh Ngoc Oanh	Vice President	Bachelor of Pharmacy	2021	<ul style="list-style-type: none"> <li>• 1997 - 2010: Branch Director of Bidiphar in Ho Chi Minh City.</li> <li>• 2010 - 2011: Southern Regional Director and Branch Director of Bidiphar in Ho Chi Minh City.</li> <li>• 2011 - 2014: Member of the Board of Directors and Vice President of Bidiphar.</li> <li>• 2014 - 2021: Member of the Board of Directors and Vice President of Bidiphar.</li> <li>• 2021 - present: Vice President of Bidiphar.</li> </ul>
Nguyen Ngoc Dung	Vice President	Bachelor of Specialist Pharmacy	2019	<ul style="list-style-type: none"> <li>• 2000- 2002: Head of pharmacy at Tuy Phuoc Branch - Bidiphar</li> <li>• 2002- 2006: Studied undergraduate pharmacist class at Hue University of Medicine</li> <li>• 2006 - 2009: Head of Tuy Phuoc branch - Bidiphar.</li> <li>• 2009 - 2015: Deputy Sales Department of Bidiphar.</li> <li>• 2015 - 2019: Head of Marketing Department of Bidiphar.</li> <li>• 2019 - present: Vice President of Bidiphar.</li> </ul>
Do Huy Phuong	Chief Accountant	Bachelor of Business Administration	2022	<ul style="list-style-type: none"> <li>• 2005-2006: Accountant at Thinh Phat Production and Trading Company Limited</li> <li>• 2006 - 2011: Accountant at Binh Dinh Medical Equipment Pharmaceutical Company</li> <li>• 2010 - 2011: Head of Internal Control Team at Binh Dinh Medical Equipment Pharmaceutical Company</li> <li>• 2011 - 2014: Chief Accountant of Bidiphar Pharmaceutical Joint Stock Company 1</li> <li>• 2015 - 2022: Deputy Accounting Department, Binh Dinh Medical Equipment Pharmaceutical Joint Stock Company</li> <li>• 2022 - present: Chief Accountant of Bidiphar.</li> </ul>

## ADDITIONAL NOTE

- In terms of errors occurring in the excel file and then results in invalid final outcome, please kindly access through the google sheet with the link below:
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- All the materials has been opened and ensured to freely access. If further issues happen, please kindly contact to the information below:
  - Name: Tran Thi Hoai Lam
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