October, 2022

BINHDINH PHARMA & MEDICAL JSC (HSX: DBD)

Nhon Hoi factory achieving EU-GMP will raise DBD to a new level

BUY +34%

Market price (VND)	38.900
Target price (VND)	52.200

- **Nhon Hoi factory achieving EU – GMP standards will make DBD the first domestic company to participate in bidding for anti-cancer in tiers 1&2.**
- **Expanding the pharmacy sales channel to fuel growth.**

JSC is one of the few leading domestic companies in the production of anti-cancer drugs and dialysis solutions. DBD's Nhon Hoi anti-cancer factory is expected to be approved EU – GMP standards for injection and tablet lines in June 2023 and March 2024. This not only helps DBD become the first anti-cancer drug company in Vietnam to own a line that meets EU – GMP standards, but also improves the company's capacity to bid for ETC channels in tiers 1&2 for anti-cancer drug product groups, where the selling price is many times higher than for drugs with the same active ingredients in tiers 4&5. Currently, the kidney market in Vietnam has little competition. DBD with its lines of hemodialysis and peritoneal dialysis solutions currently dominates tiers 4&5. We expect the two groups of products to have many competitive advantages.Anti-cancer drugs and dialysis solutions will be the driving force for regvenue growth on the ETC channel. The ETC channel revenue in 2022F and 2023F is forecasted to reach VND 721 billion (+16%YoY) and VND 890 billion (+23% YoY), respectively.

For the OTC channel, we expect the company to strengthen the distribution system for pharmacies. The number of pharmacies selling DBD products has increased from about 15,000 in 2021 to 17,500 in 6T2022. This figure can be raised to 18,7500 by the end of 2022 and is expected to reach 30,000 by 2025. We expect the OTC channel revenue in 2022 and 2023 to reach VND 532 billion (+19% YoY) and VND 606 billion (+14% YoY), respectively.

Therefore, we expect net revenue/NPAT for 2022 to reach VND 1,469 billion (-5.7%)/VND 215 billion (+16.8% YoY). For 2023, net revenue/NPAT reach VND 1,697 billion (+15.5% YoY)/VND 264 billion (+22.9% YoY). We forecast that NPAT will be at a CAGR of 23% for 2022F – 2026F.

Using the FCFF cash flow discount method (50%) and the target P/E factor of 20x (50%), we arrive at a **target price of 52.200 VND/share, equivalent to an expected return of +34%**, based on the closing price on October 28th, 2022. We recommend to **BUY** the stock.

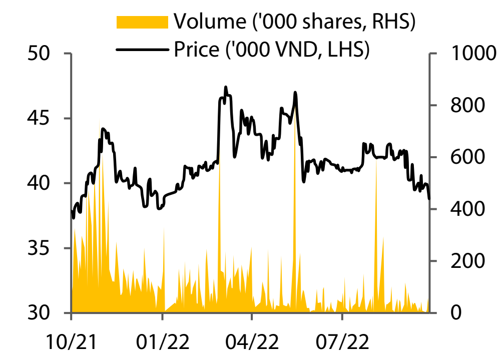
Key financials

End year (VND bn)	FY2020	FY2021	FY2022F	FY2023F
Net revenue	1,257	1,559	1,469	1,697
% growth	*-0.4*	*24.0*	*-5.7*	*15.5*
PAT	158	184	215	264
% growth	*11.0*	*16.6*	*16.8*	*22.9*
Net profit margin (%)	12.5	11.8	14.6	15.5
ROA (%)	11.0	11.8	12.6	12.9
ROE (%)	16.2	16.2	16.2	16.9
EPS (VND)	2,712	2,807	2,864	2,933
BV (VND)	18,563	19,643	17,689	17,381
Cash dividend (VND)	1,500	0	0	0
P/E (x)	18.0	18.5	13.5	13.2
P/BV (x)	2.6	2.6	2.2	2.2

Source: DBD, RongViet Securities. Based on the closing price on 28/10/2022

Stock Info

Sector	Pharmaceutical
Market Cap (VND Bn)	2,911
Current shares OS (Million)	75
Beta	0.53
Free Float (%)	100
52 weeks high	47,400
52 weeks low	36,300
Average trading volume (20 sessions)	37



Performance (%)

	3M	1Y	2Y
DBD	-5.12	3.2	23.9
VN30 Index	-16.7	-32.7	15.8
VN-Index	-15.0	-28.6	11.5

Major shareholders (%)

Binh Dinh Development Investment Fund	13,35
Foreigner investor room (%)	*92,49*

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Investment thesis

The approval of the EU-GMP standards by Nhon Hoi anti-cancer factory will help DBD step into the premium drug segment

Nhon Hoi anti-cancer factory with a total investment of more than VND 400 billion, including two production lines of injectables and tablets. The design capacity is 3.5 million products/year and 65 million products/year, respectively. Since March 2022, the injection line at Nhon Hoi anti-cancer drug factory has been approved by WHO – GMP standards and put into operation. The capacity has reached about 50% by the company moving production from the lines at the Bidiphar Nguyen Thai Hoc factory. For the tablet production line, DBD is in the process of commissioning and awaiting the approval of the WHO – GMP standards, which is expected to be officially operational in November 2022.

The above two drug production lines are all built according to EU – GMP standards and should be approved in 2022. However, the approval of the EU – GMP standard for overseas factories is not yet a priority for European health organizations, although the COVID – 19 epidemic has gradually been controlled and travel restrictions have also been lifted. As a result, the plan approved by the factory to meet the EU – GMP standards continues to be slowed down. **The company expects two lines of injectables and tablets to be able to be approved according to EU – GMP standards in June 2023 and March 2024, respectively.**

Extensive growth potential for participation in the premium drug segment.

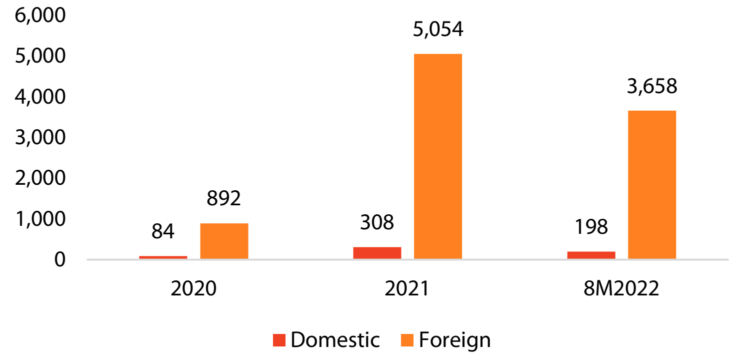
DBD is the first company to manufacture anti-cancer drugs in Vietnam with over 12 years of experience in research and development. Production of anti-cancer drugs poses a high entry barrier for pharmaceutical companies because the process of researching generic formulations is more complicated than other generic drugs such as antibiotics, digestion and so. Plus the process of inspecting and registering drugs is more rigorous because these are drugs with strong active ingredients that have a direct impact on the health of patients.

According to Circular 15/2019/TT-BYT issued by the Ministry of Health (MOH) in 2019, drugs manufactured on the EU – GMP standards will participate in bidding tiers 1&2 and drugs manufactured on the WHO – GMP standards line will participate in bidding tiers 4&5 (Table 8 - Appendix). Currently, the number of companies in Vietnam producing anti-cancer drugs is not much with WHO – GMP standards. **Therefore, the market for anti-cancer drugs in tiers 1&2 is still a playground for foreign companies.**

Based on the winning bid results (WBR) published by the Drug Administration Vietnam (DAV), we can see that the value of domestic produced anti-cancer drugs is only 5 – 10% of the value of foreign drugs (Figure 1) because the majority of foreign drugs are currently generic and drugs manufactured on the line meet EU – GMP standards. Anti-cancer drugs with the same active ingredients are tendered in tiers 1&2 and selling at a much higher price than tiers 4&5.

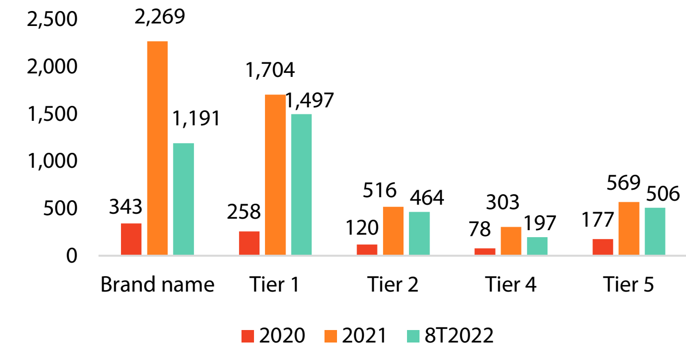
In summary, **Nhon Hoi anti-cancer factory is approved according to EU – GMP standards, which will help DBD become the first anti-cancer drug company in Vietnam to own an EU – GMP standards line** and be able to participate in tiers 1&2 drug bidding with the total value of packages being 2.5 times higher than tiers 4&5 (Figure 2).

Figure 1: WBR for anti-cancer drugs by country (VND Bn)



Source: DAV, RongViet Securities

Figure 2: WBR for anti-cancer drugs by group (VND Bn)



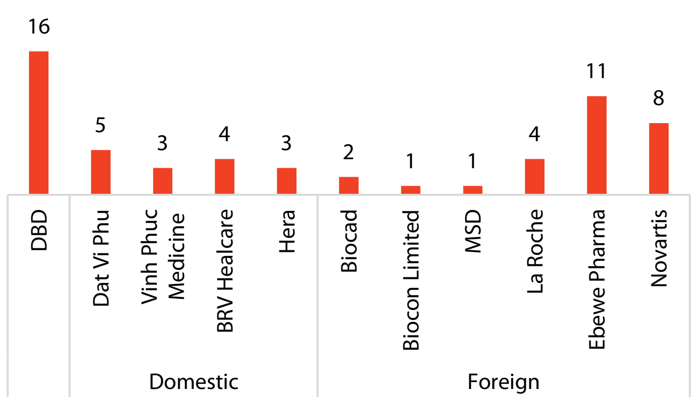
Source: DAV, RongViet Securities

Tiers 4&5 anti-cancer drug market is no longer attractive enough for DBD

According to Globocan's research in 2020, Vietnam had 182,563 new cases of cancer. This number is 17,892 cases higher than reported in 2018. People with hepatoma, lung cancer, breast cancer, stomach cancer, and rectal cancer are the five groups that account for the highest percentage of cancer patients in Vietnam (Figure 4). DBD is capable of researching 16 active ingredients with 36 anti-cancer drug products to treat the five common cancers mentioned above with a revenue contribution rate of more than 60% of total anti-cancer drug sales.

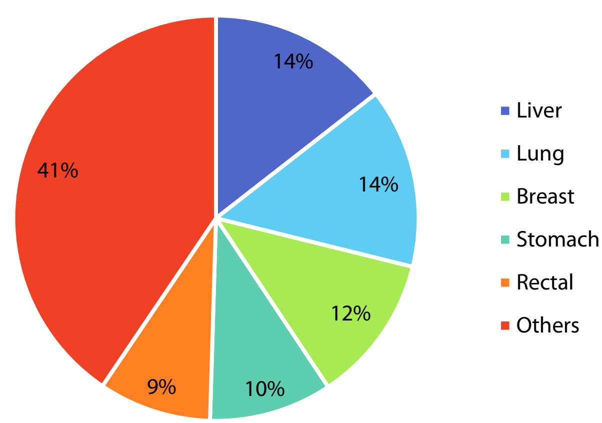
Compared with other companies in the same industry, the number of active ingredients of DBD that can be researched, prepared and present in hospitals is much higher than that of domestic and foreign drug companies (Figure 3).

Figure 3: Number of active ingredients is superior to other companies



Source: DAV, RongViet Securities, RongViet Securities

Figure 4: Rate of new patients by cancer types in Vietnam in 2020

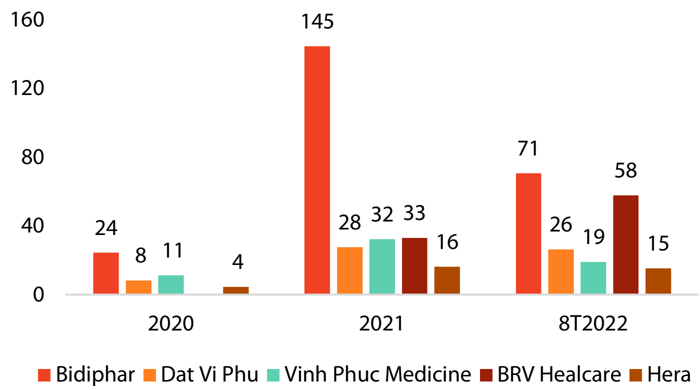


Source: Globocan, RongViet Securities

Compared to domestic enterprises, DBD's total winning value accounted for about 50% of the total value of the domestic anti-cancer drug package in the last three years (Figure 5).

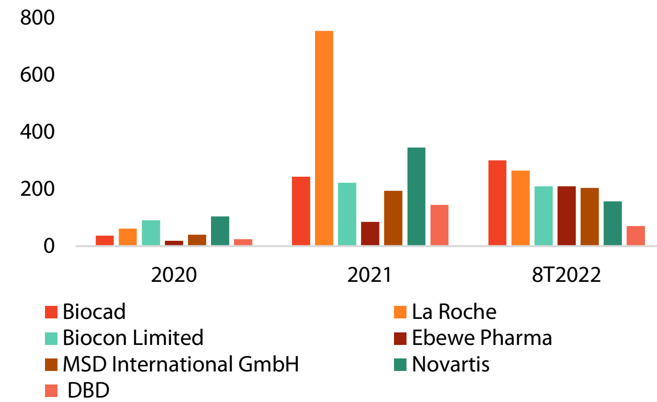
Roche, Novartis, Biocon, are companies with a good reputation in the production of anti-cancer drugs in the world, are holding a relatively large market share (the total winning value of the three companies above accounts for 25% of the total winning value of anti-cancer drugs in tiers 1&2) (Figure 6). In our opinion, these will be direct competitors to DBD when the company participates in bidding for tiers 1&2 drugs.

Figure 5: WBR for anti-cancer drugs of domestic manufacturers



Source: DAV, RongViet Securities

Figure 6: WBR for anti-cancer drugs of leading companies



Source: DAV, RongViet Securities

When participating in the bidding segment for tiers 1&2 drugs, the policies of the Ministry of Health regarding the use of drugs in hospitals will support DBD in directly competing with foreign enterprises which have strong advantages in facilities, science and technology. Specifically:

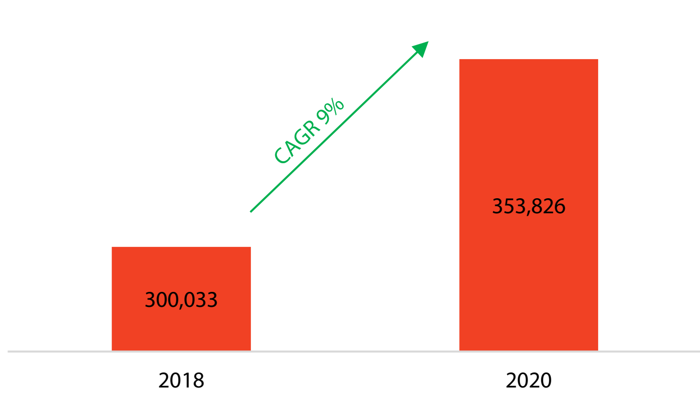
- Pharmaceutical Law 2016 No.105/2016/QH13. For drugs purchased from the state budget, generic drugs or the first domestically produced similar biological products to be granted marketing authorization in Vietnam will prevail. Do not bid for imported drugs on the list promulgated by the Minister of Health based on technical criteria groups when domestic drugs meet the requirements for treatment, prices and supply capabilities.
- Decree 54/2017/ND-CP. Criteria for importing foreign drugs when those have a superior therapeutic effect compared to the drug currently circulating in Vietnam or there is no other alternative medicine. Imported drugs have circulated in the country producer or reference country which is an ICH member country or Australia.
- Brand-name anti-cancer drugs are on average 7-8 times higher than generic tier 1 drugs. The policy of the Ministry of Health will be to replace some brand-name anti-cancer drugs with generic tier 1 drugs if these can ensure the treatment regimen to reduce the burden on the Social Insurance Fund.

In our opinion, DBD's wide coverage in many types of anti-cancer drugs and its ability to research and prepare will be a competitive advantage when participating in bidding at drug tiers 1&2. In addition, DBD has cheaper manufacturing costs, so they have plenty of room to increase the selling price but still be reasonable to Vietnamese patients and ensure price competitiveness with foreign businesses.

According to research by Globocan in 2018 and 2020, the average number of cancer prevalence cases in years in Vietnam was 300,000 and 353,000 thousand patients respectively, with a CAGR of 9% (Figure 7). We expect that the pent-up demand for treatment in 2021 due to the epidemic preventing patients from going to the hospital could be a springboard for rapid growth in anti-cancer drug consumption in 2022 before stabilizing in the following years. Revenue from injectable anti-cancer drugs is forecasted to reach VND 227 billion and VND 576 billion in 2022 and 2026, respectively, equivalent to a 4-year CAGR of 26% (Figure 8).

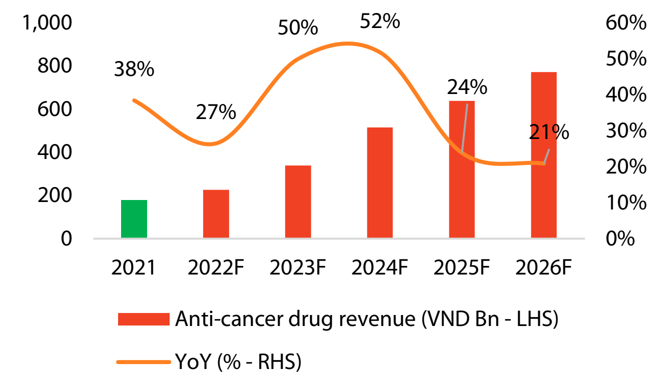
Concurrently, the cancer tablets drugs production factory has been built completely and is in the process of testing and waiting for approval of WHO - GMP standards before being officially put into operation in November 2022. The anti-cancer drug in tablets product is expected to launch in 2023. The new product is expected to contribute VND 50 billion in revenue in 2023 and VND 196 billion in 2026, equivalent to a 3-year CAGR of 60% (Figure 8).

Figure 7: Average number of cancer prevalence cases



Source: Globocan, RongViet Securities

Figure 8: Revenue forecast of anti-cancer drugs



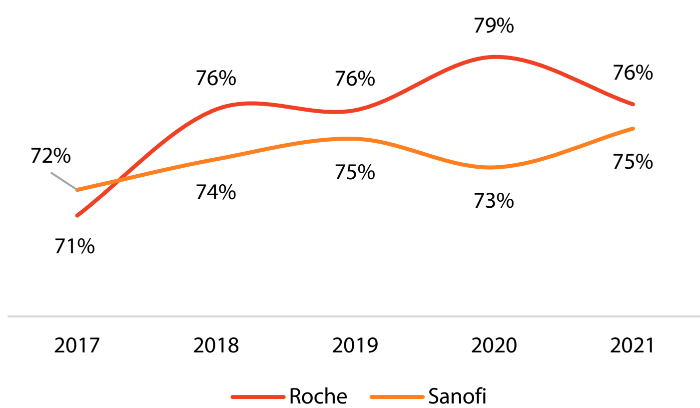
Source: RongViet Securities

The profit margin of anti-cancer drugs will significantly improve when the Nhon Hoi factory meets EU - GMP standards

Sanofi and Roche are two of the largest anti-cancer drug manufacturers in the world, with high expertise in research, drug formulation and top-notch manufacturing facilities. They have a high GPM of oncology products at about 75% with products being bid in the premium segment 1&2 (Figure 9).

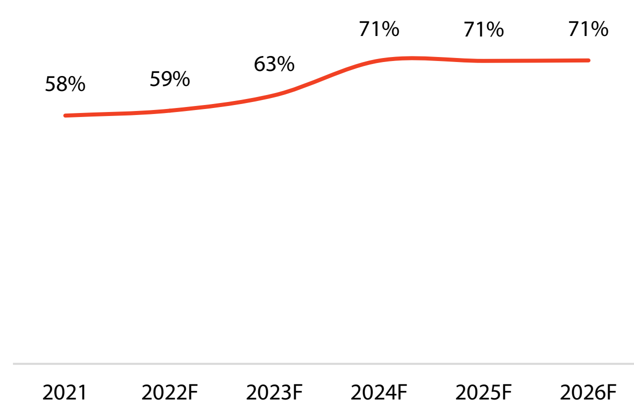
Conditions for the production line to meet EU - GMP standards is to have high requirements of facilities, production environment, pharmacist qualifications and product quality. Currently, the active ingredients for the production of DBD's anti-cancer drugs are imported from Europe with high-quality standards. Therefore, we believe that meeting EU - GMP standards will not create a big change in the cost structure of DBD.There is still a lot of room to increase prices for medicinal products when stepping into bidding in group 1&2 instead of group 4 as current. This will be the premise for the DBD's anti-cancer drugs GPM to expand to about 70% by 2024 (Figure 10).

Figure 9: GPM of Roche and Sanofi



Source: Roche, Sanofi, RongViet Securities

Figure 10: GPM estimate of DBD's anti-cancer drugs



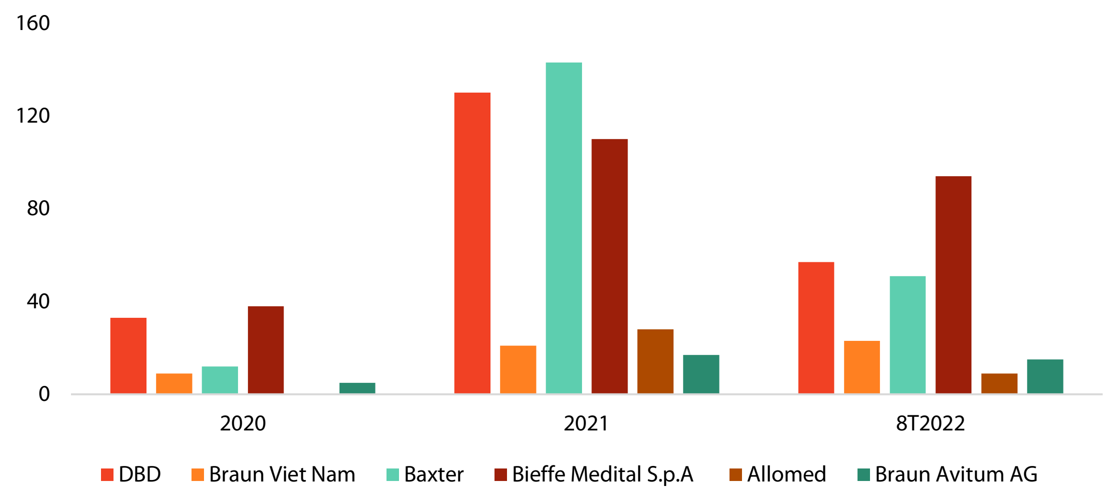
Source: DBD, RongViet Securities

Dialysis solutions with high growth potential will boost ETC channel revenue

DBD's dialysis solution products have a large market share in the ETC channel

The dialysis and artificial kidney market in Vietnam has low competition due to complex production requirements (high purity environment and near-zero solute concentration) and relatively small market size compared with other drugs. DBD, with the product lines of hemodialysis solution and peritoneal dialysis solution, is currently dominating the market in the product segment of tiers 4&5 with the winning value accounting for 80% on average in the last three years (Figure 11).

Figure 11: Winning bid results of dialysis solutions



Source: DAV, RongViet Securities

The growth potential of the dialysis solution market is still enormous

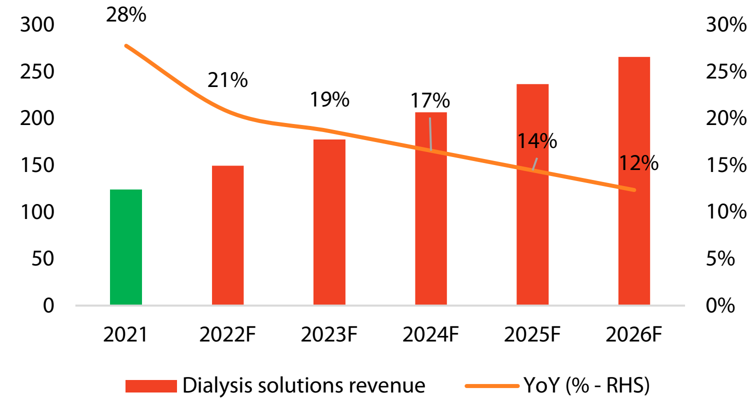
According to the International Society of Nephrology's statistics in 2020, there were more than 843 million people in the world who have gotten kidney diseases and this number is expected to increase every year. Meanwhile, in Vietnam, about five million people are suffering from kidney failure, of which about 800,000 people are having final-stage chronic kidney disease requiring hemodialysis. The Vietnam Dialysis Association announced in 2020 that the country had 5,126 hemodialysis machines and currently only meets 30% of the need for peritoneal dialysis treatment.

Based on the report given by Health authorities, we expect that DBD's dialysis solution products still have a lot of room to grow due to 1) The size of the dialysis solution market can expand based that each year there are about 8,000 new cases of kidney disease and our facilities still do not meet current demand 2) Major competitors are all foreign companies and the shrinking of social insurance fund will lead to a shift in demand to domestic manufacturers. Dialysis solution revenue in 2022 and 2026 is forecasted to reach VND 149 billion and VND 266 billion, respectively, equivalent to a 4-year CAGR of 15% (Figure 12).

In summary, the ETC channel's projected revenue in 2022 and 2026 will reach VND 721 billion and VND 1,507 billion, respectively, equivalent to a 4-year CAGR of 20% (Figure 13).

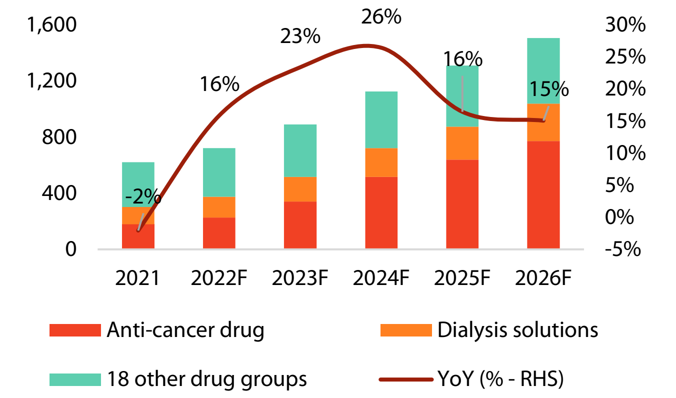
According to the Q3/2022 report by Fitch Solutions, the spending per capita on pharmaceuticals in Vietnam was VND 1.5 million in 2021 and the number is forecasted to increase to VND 2.1 million in 2026, equivalent to a CAGR of 7.7%. The 18 other drug bidding types on the ETC channel are all highly competitive products, so we assume that the revenue of these drugs will grow steadily at around 8% per year.

Figure 12: Revenue forecast of dialysis solutions (VND Bn)



Source: DBD, RongViet Securities

Figure 13: Revenue forecast of the ETC channel (VND Bn)

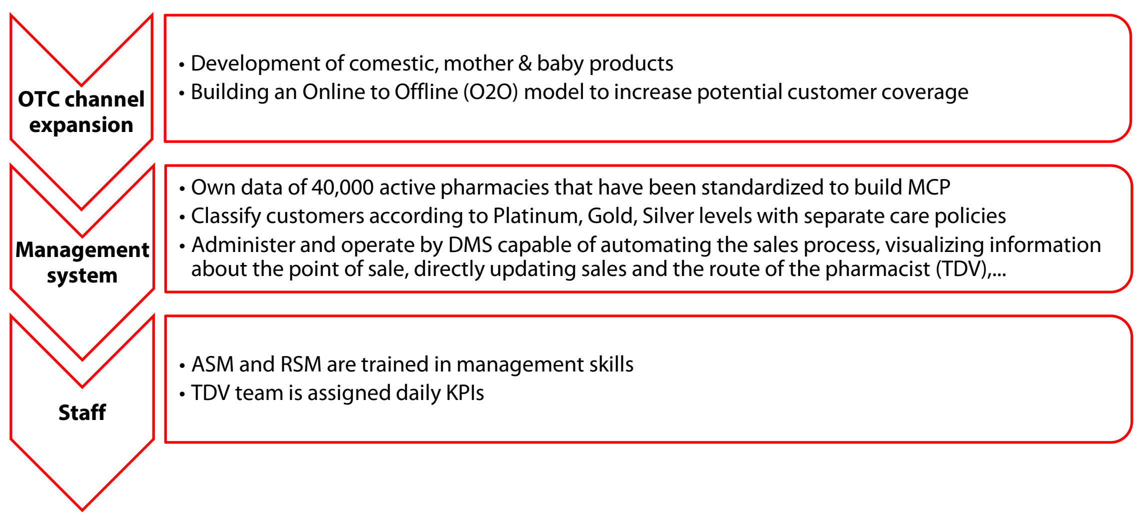


Source: DBD, RongViet Securities

DBD continues to push the expansion of its pharmacy market (OTC)

DBD has been increasing its presence in number of drug retailers, instead of focusing on the largest pharmacies. The company currently owns master data with about 40,000 customers that have been standardized to build a Master Coverage Plan (MCP) for the medical representative team. From there, the company will have specific instructions for that team, including target customers and daily routes. The company expects the number of retailers to increase from about 15,000 in 2021 to 17,500 in 1H2022. This number can be raised to 18,750 by the end of 2022 and is expected to reach 30,000 by 2025 (Figure 15).

Figure 14: OTC channel business strategy

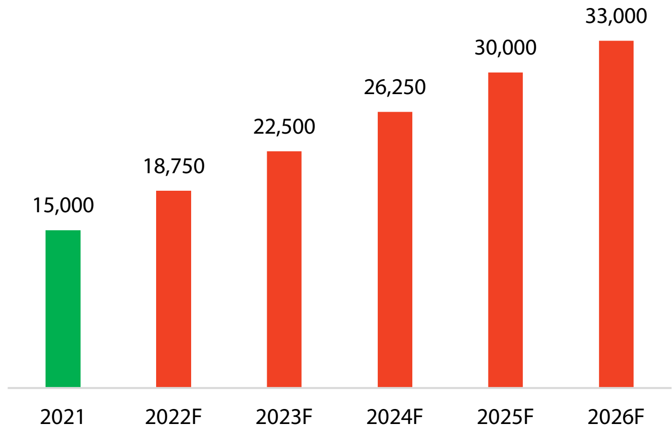


Source: DBD, RongViet Securities

We estimate that each pharmacy customer currently contributes about VND 30 million in annual revenue for DBD. This number is pretty low compared to the industry average of VND 40-60 million/pharmacy/year. Some leading enterprises in the OTC channel such as DHG or Sanofi have revenue of VND 100 - 150 million/pharmacy/year.

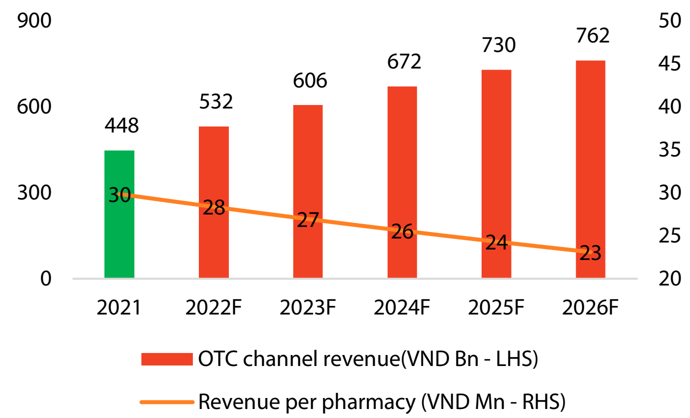
Currently, DBD is competing with about 180 manufacturers on the OTC channel. In such a highly competitive market, we believe that the company will slightly reduce the current price policy to expand the pharmacy customer to follow long-term goals. Based on that, we forecast OTC channel's revenue to reach VND 532 billion and VND 762 billion in 2022 and 2026, respectively, equivalent to a 4-year CAGR of 9% (Figure 16).

Figure 15: Number of pharmacies



Source: DBD, RongViet Securities

Figure 16: Revenue forecast of the OTC channel (VND Bn)



Source: DBD, RongViet Securities

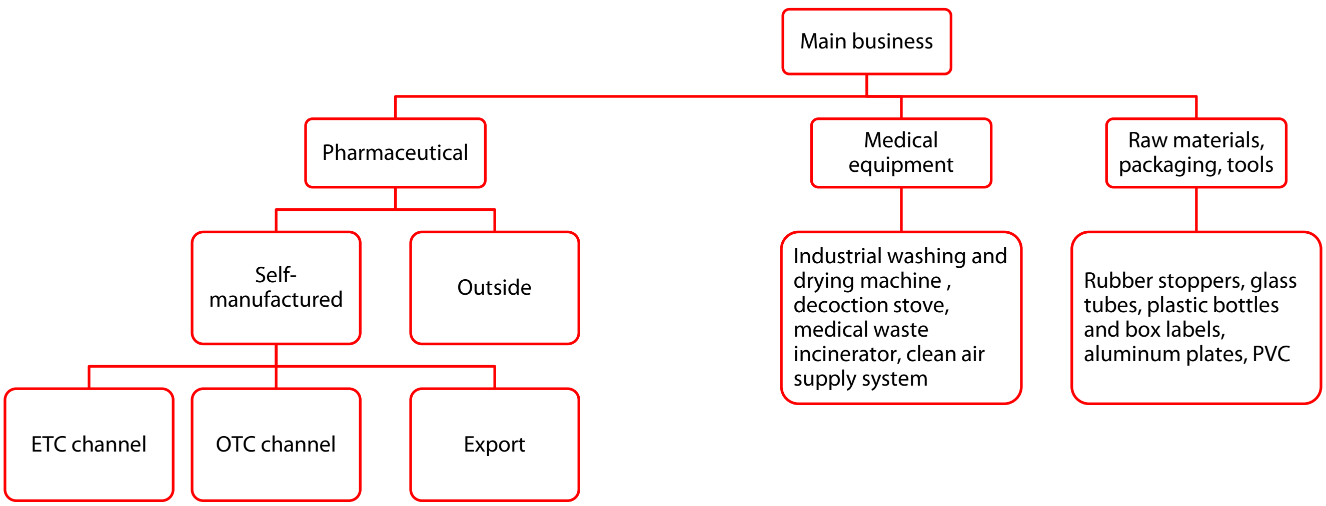
Overview of the business

Binh Dinh Pharmaceutical - Medical Equipment Joint Stock Company was established in 1995 after merging Binh Dinh pharmaceutical and medical supplies company with Nghia Binh II pharmaceutical factory. The company started producing hemodialysis solutions and injectable anti-cancer drugs in 2006 and 2010 respectively. In 2021, the production process of tablet anti-cancer drugs was officially approved by the Department of Science and Technology of Binh Dinh province. During its operation, DBD has affirmed its position as one of the leading domestic companies in the production of anti-cancer drugs and hemodialysis solutions.

Main business line

DBD's main business is the production and distribution of pharmaceuticals. In addition, the company also has commercial activities in medical equipment & supplies and raw materials, as well as packaging, tools.

Figure 17: Main business line



Source: DBD, RongViet Securities

(1) Pharmaceutical production and distribution

DBD is manufacturing more than 200 products divided into 20 drug groups, of which the main ones are antibiotics, anti-cancer drugs and hemodialysis solutions. In 2021, net pharmaceutical revenue reached VND 1,179 billion (+3% YoY), accounting for 76% of total revenue.

In addition, the company also has commercial activities of drug products purchased outside. The medicine trade business segment contributed more than 20% of DBD's consolidated net revenue in the period 2016 - 2019. In 2020, DBD decided to raise the foreign ownership limits to 100%. Consequently, according to WTO regulations, DBD will only be able to supply pharmaceutical products manufactured by the company itself. To deal with this problem, DBD approved its subsidiary, Bidiphar Trading One Member to supply the drugs purchased from outside. However, this business segment provides low profit, with a GPM of only about 10%. DBD, consequently, does not focus too many resources on its development. In 2020 and 2021, the proportion of drugs purchased from outside accounted for only about 8% of consolidated net revenue.

(2) Distribution of medical equipment and supplies

DBD is an intermediary providing medical equipment and supplies (industrial washing and drying machines, decoction stoves, medical waste incinerators, clean gas supply systems ...) to hospitals, medical facilities or other third parties. In 2021, revenue from the distribution of medical equipment and supplies reached VND 365 billion (+297% YoY). This sudden growth comes from the need to purchase medical equipment and supplies for hospitals and medical facilities to prevent the COVID-19 outbreak in Vietnam in 2021.

(3) Supply of raw materials, packaging and tools

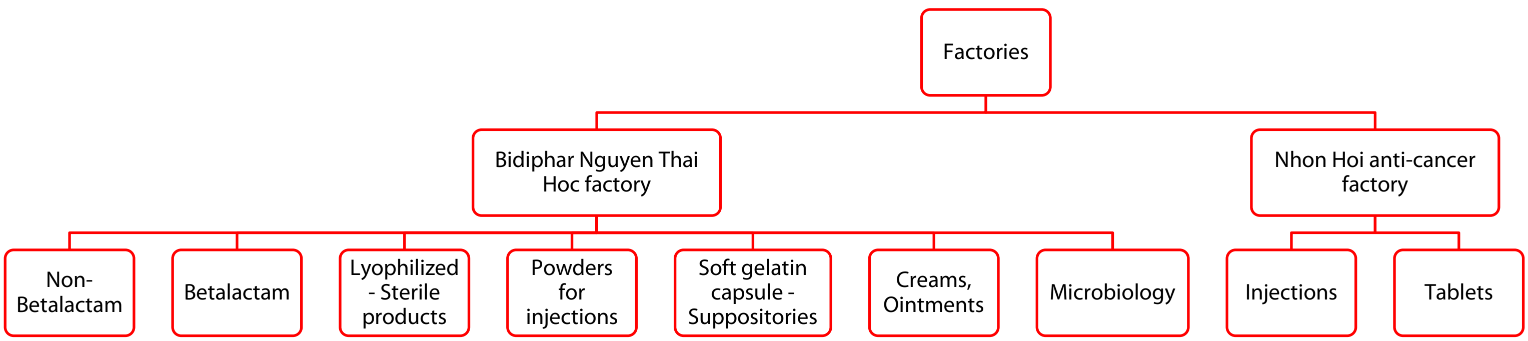
Remaining input materials after the production process will be resold by DBD to other businesses. Revenue from supplying materials, packaging and tools in 2021 reached VND 14 billion (+1% YoY), contributing a tiny proportion of about 1% to consolidated net revenue.

Manufacturing ability

DBD owns two pharmaceutical factories:

- Bidiphar Nguyen Thai Hoc factory has 7 workshops with 16 production lines that all meet WHO - GMP standards (Figure 18).
- Nhon Hoi anti-cancer drug factory had been completed after many years of construction. The factory consists of two production lines, injectables and tablets, with a designed capacity of 3.5 million vials/year and 65 million tablets/year, respectively. The injection drug line has been approved by WHO - GMP standards and put into operation in March 2022. The tablet production line is in the process of testing and waiting for the Ministry of Health to approve WHO - GMP standards before being officially put into operation in November 2022.

Figure 18: Pharmaceutical production factories - workshops of DBD



Source: DBD, RongViet Securities

After completing the Nhon Hoi anti-cancer drug factory, DBD will continue to build two new factories meeting EU - GMP standards with a total investment capital of more than VND 1,000 billion. Specifically:

- Non-Betalactam drug factory with a total initial investment of 375 billion VND, planned to begin construction in November 2022 with the progress of construction and equipment installation for the factory expected within 16 months. The factory will include four production lines: 1) compressed tablet production line (665 million tablets/year); 2) sugar-coated tablet line (345 million tablets/year); 3) capsule drug line (300 million tablets/year); 4) drug packaging line (10 million tablets/year).

- The sterile drug factory has a total initial investment of VND 678 billion, expected to begin construction in September 2023. The factory includes four production lines: 1) glass ampoules (90 million ampoules/year); 2) freeze-dried powder injection and vials of solution for injection (30 million vials/year); 3) bag dialysis solution (3 million bags of 2 liter capacity/year); 4) dialysis solution (2.5 million can/year).

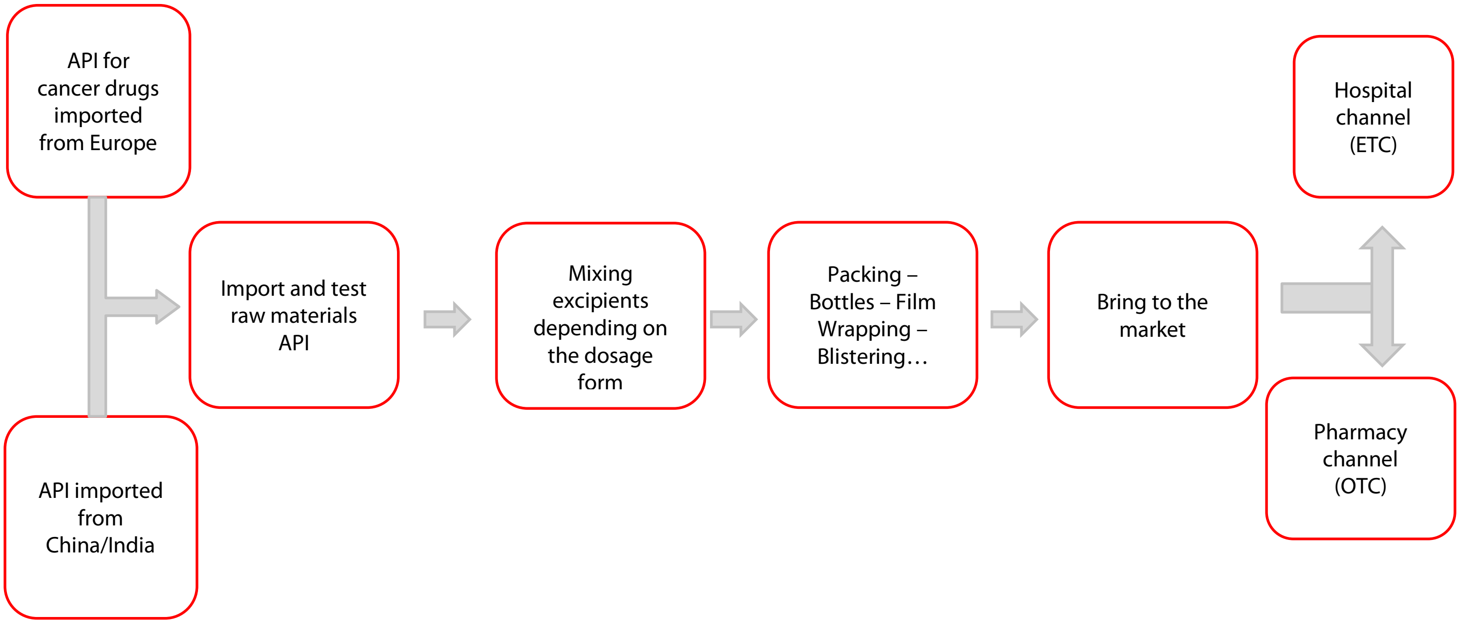
We evaluate the two factories with EU - GMP standards as hard evidence of the strategy towards high-end product lines with high selling prices, creating a growth engine in the long term. We believe that DBD is fully capable of implementing the project without too much pressure on cash flow: 1) The accumulated undistributed profit by the end of 2021 is over VND 400 billion and the annual profit of over VND 200 billion is fully retained until the project is completed; 2) Debt/equity ratio is low (Figure 40). The company has plenty of room to borrow if necessary.

Pharmaceutical manufacturing and distribution process

API(*) imported from abroad is inspected and evaluated by DBD, then mixed with excipients and then put into preparation, packaged and launched on the market.

(*) Active Pharmaceutical Ingredient (API) is the main raw material used in drug production. This ingredient has pharmacological activity or other direct effects on the diagnosis, symptom relief, treatment or prevention of disease, or may affect the function or structure of the body.

Figure 19: The process of pharmaceutical production and distribution

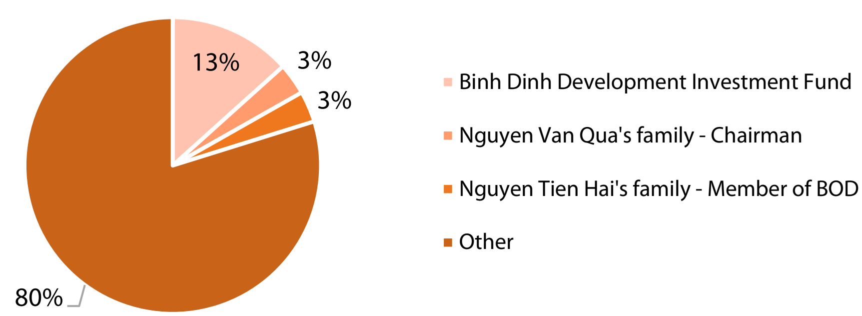


Source: RongViet Securities

Shareholder structure

Binh Dinh Investment & Development Fund is the sole major organization shareholder, owning 13.35% of the shares. According to the latest capital divestment plan of the Provincial People's Committee, Binh Dinh Investment & Development Fund has postponed the time to divest all capital in DBD from 2020 to the period from 2021 to 2025 and is waiting for the direction of the Prime Minister.

Figure 20: Shareholders of DBD



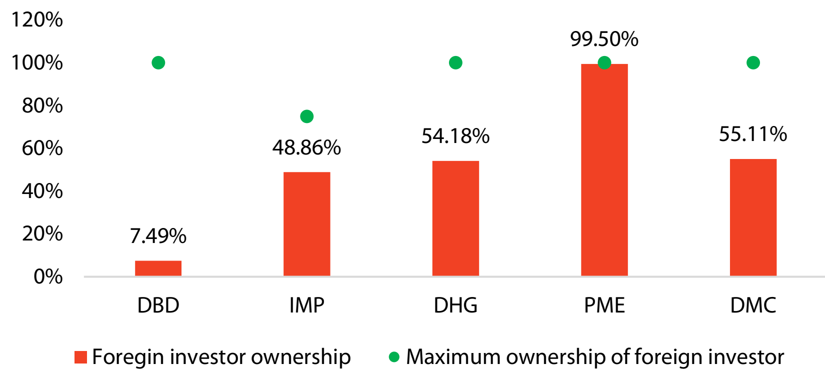
Source: DBD, RongViet Securities

Potential for an M&A deal in the future

Vietnam's pharmaceutical industry has significant attractiveness to foreign investors when it is possible to own up to 100%. Many foreign organizations have had strategic cooperation with listed companies such as SK Investment with IMP, Taisho Pharmaceutical with DHG, Abbot Laboratories with DMC.IStada Service Holding owns 99%. of PME. Currently, the foreign ownership of DBD is relatively low at only 7.49% (Figure 21). There has not been any presence of a large organization to cooperate as a strategic shareholder.

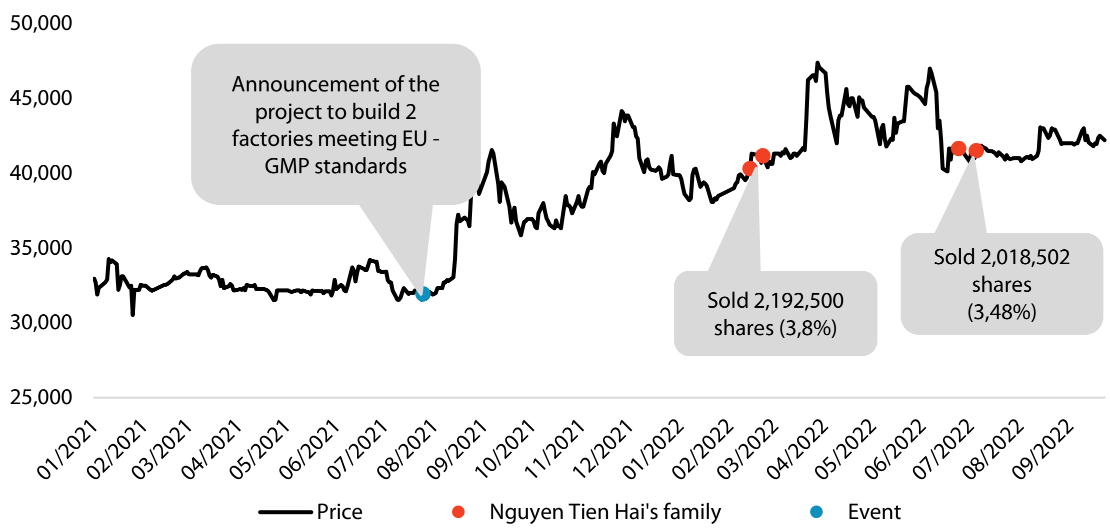
Besides having this huge foreign remaining room, DBD also has strong advantages of long experience, diverse research and production capacity. We believe that DBD can be an ideal company for foreign strategic investors as there are very few options in the pharmaceutical industry in Vietnam. This could be a catalyst for future upside of the stock price.

Figure 21: Foreign ownership rate of some listed companies



Source: VSD, RongViet Securities

Figure 22: Stock price movements and some notable events



Source: Fiinpro, RongViet Securities

Subsidiaries and joint ventures

DBD owns 100% of Bidiphar Trading One Member. The company was established to distribute drugs purchased from outside after DBD raised the foreign ownership limits rate to 100% from 49% in 2020.

DBD owns 33.58% of shares in Bidiphar Rubber. This company operates in the field of planting, exploiting, processing and trading rubber latex with an area of up to 5,000 hectares. The company has a stable business with annual revenue and PBT of VND 180 billion and VND 46 billion, respectively.

Table 1: Subsidiaries and joint venture companies

Company	Ownership rate	Voting right rate	Business
Bidiphar Trading One Member Ltd. Co.	100%	100%	Trade in modern medicines, medical supplies
Bidiphar Rubber Joint Stock Company	33,58%	33,58%	Growing, exploiting, processing and trading rubber latex

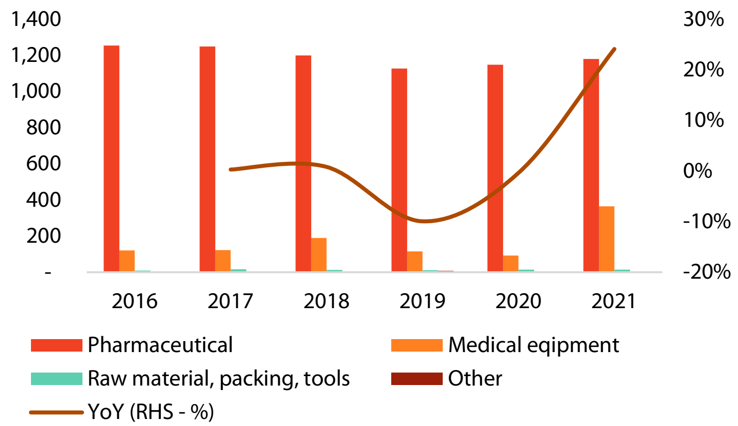
Source: DBD, RongViet Securities

Financial analysis

Strong revenue growth due to the outbreak of the COVID-19 epidemic

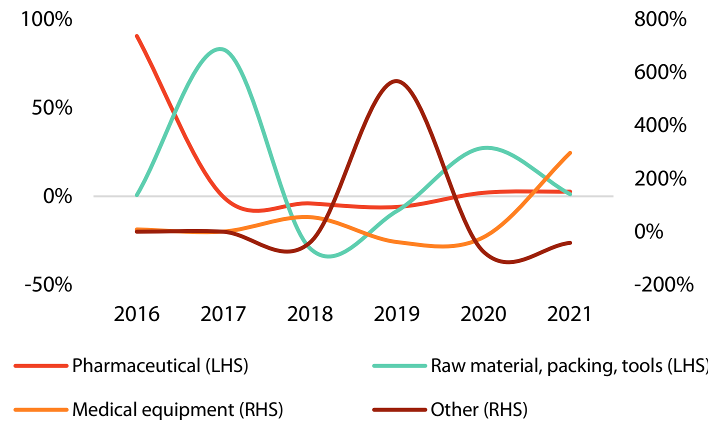
In 2021, DBD recorded net revenue of VND 1,559 billion (+24% YoY), DBD's main business segments all witnessed growth, especially in the field of medical equipment distribution with a growth of 297% YoY.

Figure 23: Revenue by business (LHS – VND Bn)



Source: DBD, RongViet Securities

Figure 24: Growth rate of revenue by business

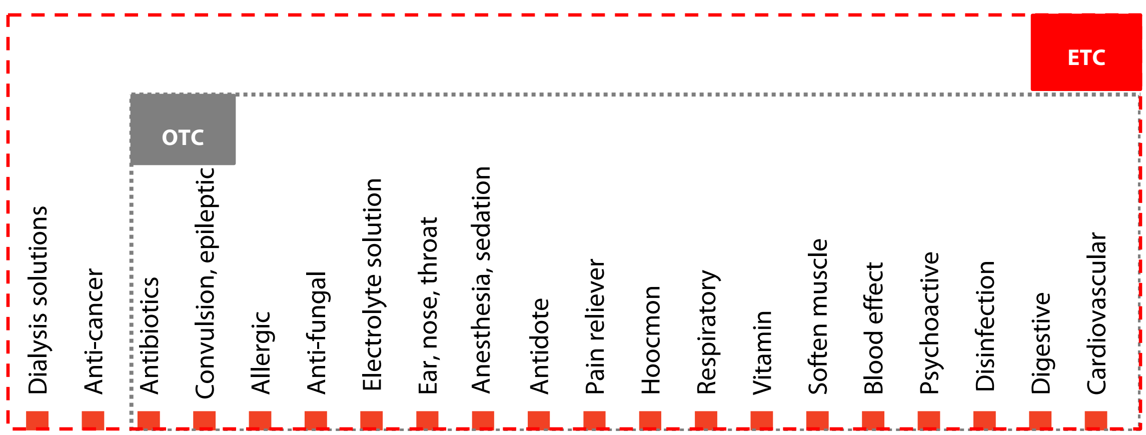


Source: DBD, RongViet Securities

The outbreak had opposite effects on ETC and OTC distribution channels

DBD's self-manufactured drug list is divided into 20 drug groups. In which, anti-cancer drugs and hemodialysis solutions are two groups of drugs that are only used in hospitals, while the remaining 18 groups of drugs are distributed on both ETC and OTC channels (Figure 24).

Figure 25: Distribution channel of self-produced drugs

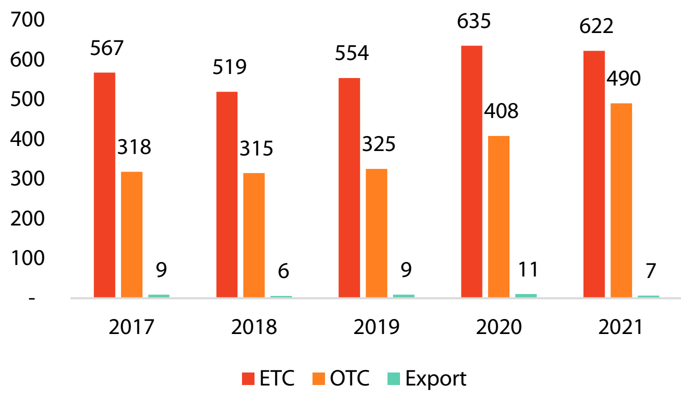


Source: DBD, RongViet Securities

The revenue growth rate of these two sales channels saw the opposite trends in 2021 due to the outbreak of the COVID-19 epidemic in Vietnam. Specifically:

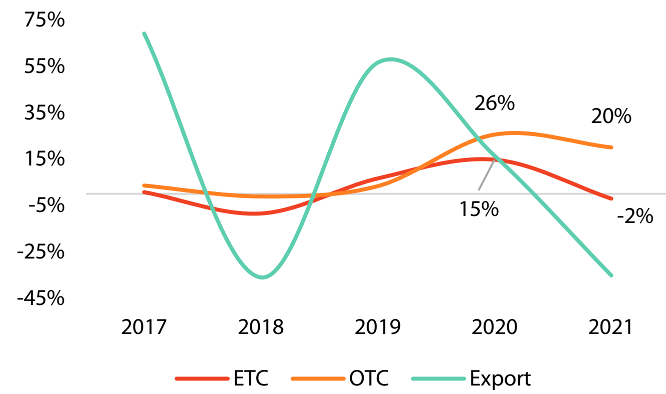
- ETC channel revenue recorded VND 622 billion (-2% YoY), equivalent to a proportion of 56%. The epidemic prevented most of the patients from going to the hospital for medical examination and treatment, making the revenue of the ETC channel decrease over the same period. The positive point is that the key product groups of DBD still all grew well: anti-cancer drugs, kidney dialysis solutions and injectable antibiotics witnessed an increase of 38%, 28% and 11% respectively over the same period.
- By contrast, the OTC channel still recorded double-digit growth thanks to the increase in demand for drugs to treat symptoms caused by COVID and functional foods, vitamins & minerals to recover health, helping the OTC channel reach 490 billion (+20% YoY), equivalent to 44%.

Figure 26: Revenue by sale channels (VND Bn)



Source: DBD, RongViet Securities

Figure 27: Growth rate of revenue by sale channels (%)



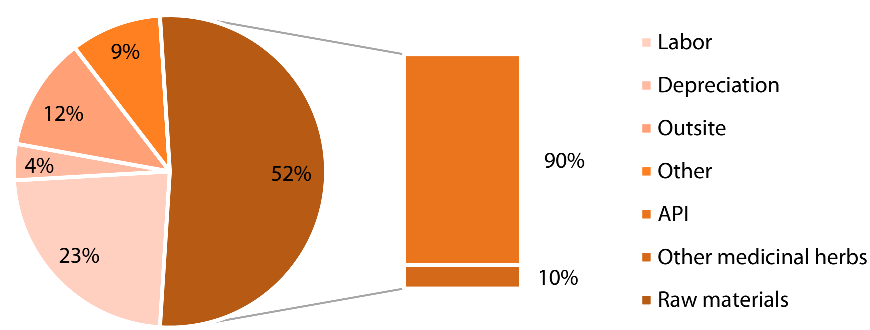
Source: DBD, RongViet Securities

COGS structure

Raw materials account for an average of 52% of the pharmaceutical production cost of DBD, of which APIs account for 90% of the cost of it and the remaining 10% are other medicinal ingredients (Figure 28).

- The input API active ingredient for the production process of DBD's anti-cancer drugs and powerful antibiotics is imported from Europe with a proportion of about 25%. DBD currently has 1-2 suppliers for each type of active ingredient, but there are almost no suppliers from countries with cheaper production costs such as China or India.
- Other API active ingredients imported from China and India account for 75%. Since 2017, after China started shutting down raw materials factories that had the quality substandard production process, which caused environmental impacts, then API prices tend to increase at an average rate of 8.4% annually.

Figure 28: COGS by factors



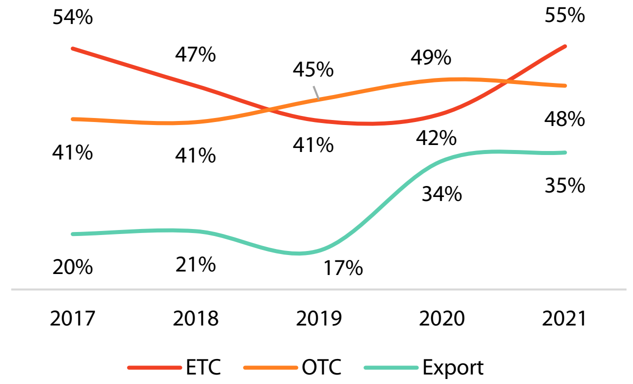
Source: DBD, RongViet Securities

The GPM of the drug business increased noticeably…

The outbreak of the COVID-19 epidemic caused a disruption in the global supply chain, leading to an increase in the cost of DBD's input materials. DBD has taken measures to save production costs combined with a serious shortage of drugs in many hospitals, causing rapid growth in the price of key products. As a result, the GPM of the ETC channel expanded significantly, from 42% in 2020 to 55% (Figure 29).

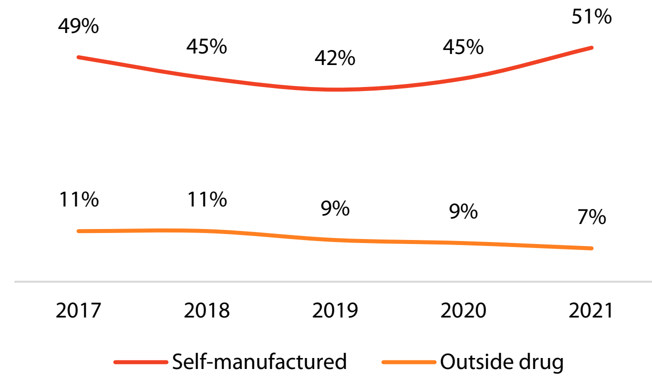
In the period of 2018 – 2020, when DBD began to focus on developing the OTC channel, the GPM improved significantly from 41% to 49% (Figure 29), based on: 1) The price of medicines sold in OTC channels are often 30% - 250% higher (depending on each drug); 2) The company focuses on promoting products with high GPM such as vitamins & minerals, digestive, cardiovascular, disinfectants and antiseptics. However, DBD's OTC products are facing keen competition from about 180 drug manufacturers in Vietnam. Therefore, the GPM of the OTC channel stayed almost the same in 2021 after a period of rapid growth.

Figure 29: GPM by sale channels



Source: DBD, RongViet Securities

Figure 30: GPM by type of pharmaceuticals business



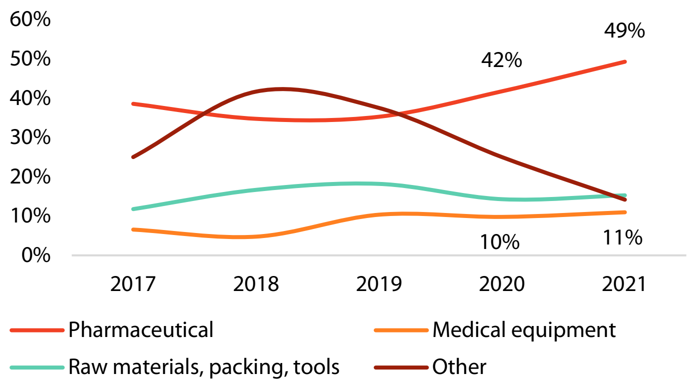
Source: DBD, RongViet Securities

But the overall GPM is relatively stable

Based on the strong improvement in the GPM of the ETC channel, the gross margin of the self-manufactured drug segment increased from 45% to 51% (Figure 30). At the same time, DBD reduced the proportion of outside drug distribution with a low GPM, helping to improve the GPM of the pharmaceutical sector considerably from 42% in 2020 to 49% (Figure 31).

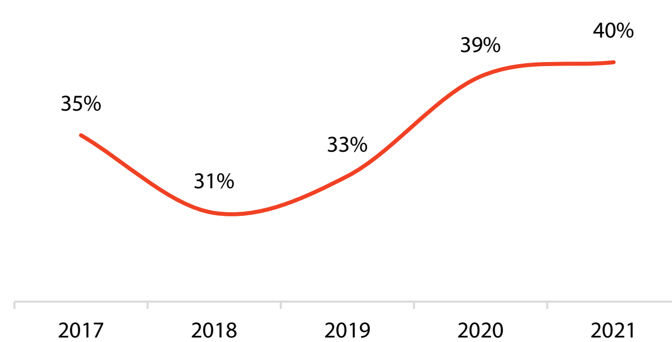
However, the significant change in the revenue structure of the medical equipment and supplies segment with a GPM of about 10% (the proportion increased from 7% in 2020 to 23%) has led to the total GPM of DBD being almost stable (Figure 32).

Figure 31: GPM by type the field of business



Source: DBD, RongViet Securities

Figure 32: Overall GPM



Source: DBD, RongViet Securities

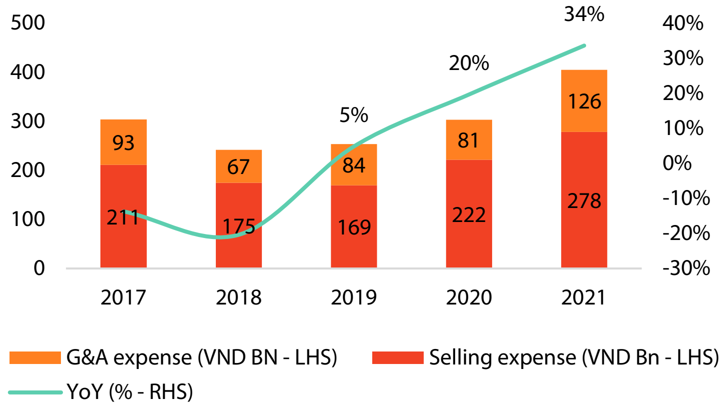
NPM remained stable despite the rapid increase in selling and administrative expenses

In 2019, DBD initially changed its business strategy on the OTC channel, instead of focusing on the largest pharmacies, the company now strengthens its presence in a large number of retail pharmacies. Pursuing this strategy, DBD focuses on expanding the sales team trained according to specific guidelines and investing in advertising. Therefore, selling expenses increased rapidly in the last two years with a CAGR of 28%.

DBD's administrative expenses also saw a significant increase with a CAGR of 23% in the period 2019 - 2021. During these three years, the company made provision for bad receivables from customers purchasing the company's medical equipment and supplies with a total value of VND 58 billion. Currently, DBD no longer has a policy of selling medical equipment to distributors but will directly sell to end customers who are public healthcare facilities. Therefore, we believe that DBD's possibility of bad debts arising in the future is relatively low.

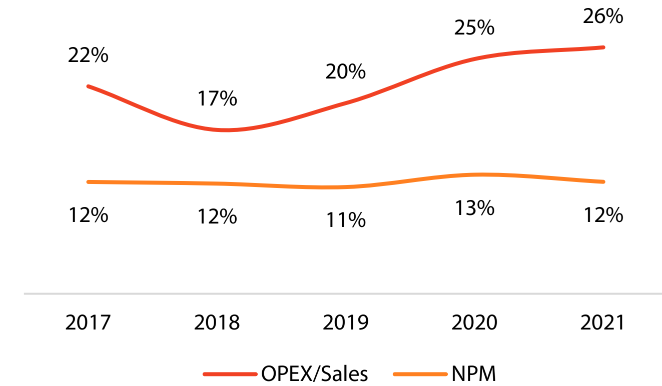
Although operating expenses have been increasing rapidly in recent years, the operating expense/net sales ratio has remained at 25%, helping to stabilize the NPAT margin at around 12%/year.

Figure 33: SG&A expenses



Source: DBD, RongViet Securities

Figure 34: OPEX/Sales and NPM (%)



Source: DBD, RongViet Securities

Shorter cash conversion cycle

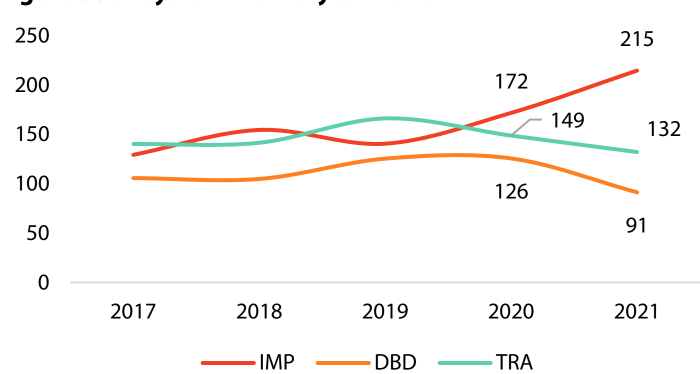
DBD's inventory is mostly medicinal ingredients with a storage life of 3-4 months. In 2021, due to the concern that the COVID-19 epidemic might disrupt the production and distribution of drugs, causing a backlog of raw materials, the company decided to reduce the inventory days on hand by 35 days compared to 2020 (Figure 35).

The characteristic for customers is that hospitals will have longer receivable days than pharmacy customers because hospitals will need more time to complete payment procedures with Social Insurance. The change in business strategy towards expanding the OTC channel led to reducing the days of receivables. The trend of DBD is the opposite to IMP when the company is having a strategy to expand the ETC channel (Figure 36).

The number of days to payables to suppliers is reduced by 36 days compared to 2020 as the company pays off debts to suppliers such as Truking Technology and Fresenius Kabi (Figure 37).

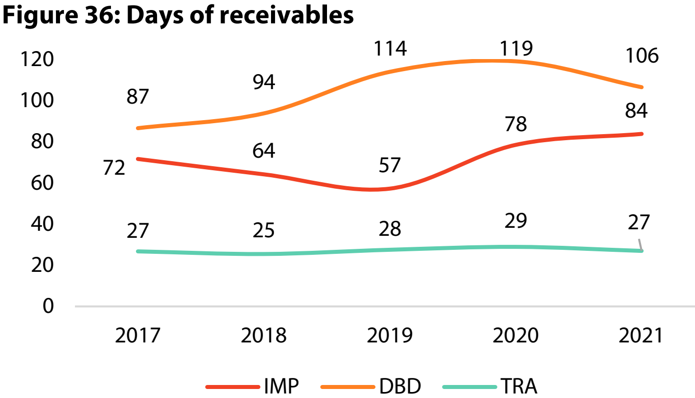
Overall, based on changes in management and business strategy, DBD's cash conversion cycle has improved in 2021 (Figure 38).

Figure 35: Days of inventory on hand



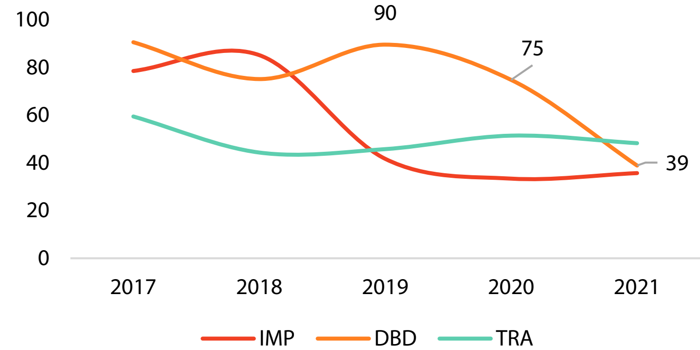
Source: DBD, IMP, TRA, RongViet Securities

Figure 36: Days of receivables



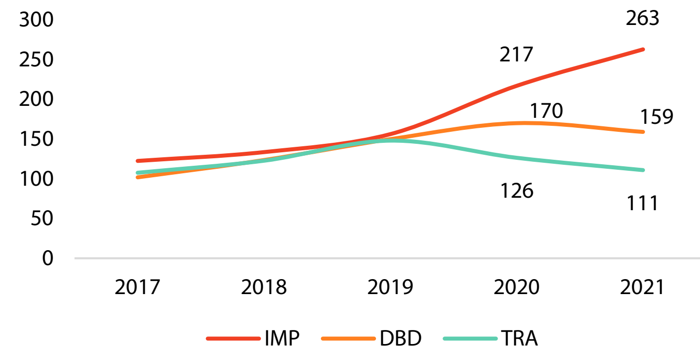
Source: DBD, IMP, TRA, RongViet Securities

Figure 37: Days of payables



Source: DBD, IMP, TRA, RongViet Securities

Figure 38: Cash conversion cycle

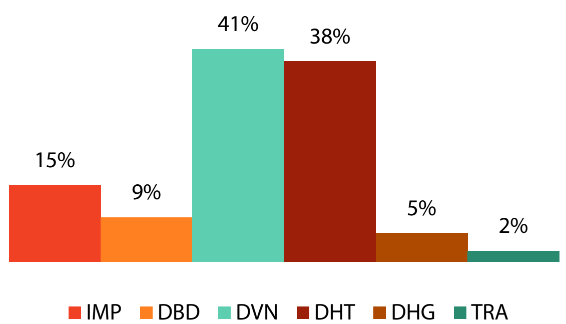


Source: DBD, IMP, TRA, RongViet Securities

Debt/equity ratio is at a safe level

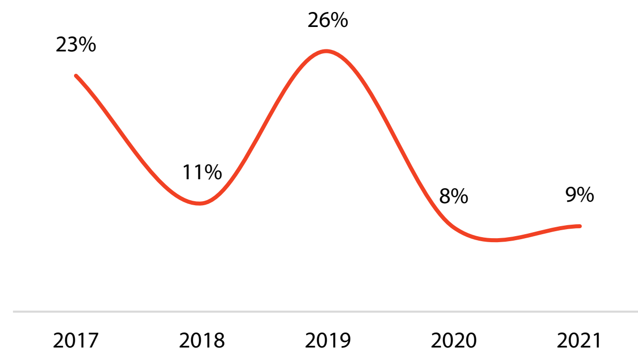
DBD is one of the pharmaceutical companies which has a capital structure that does not contain too much debt (Figure 39). In the last 5 years, DBD's debt/equity ratio reached the highest peak of 26% in 2019 (Figure 40) because the company raised short-term debt in that year to fund the investment in drug production lines, purchase machinery and equipment. In addition, due to increased inventories of raw materials and receivables, but less increase in liabilities, the company needs to supplement working capital for business activities. We assess DBD's debt/equity ratio at a safe level and do not bear much pressure on cash flow.

Figure 39: Debt/Equity ratio of some companies in 2021



Source: IMP, DBD, DVN, DHT, DHG, TRA, RongViet Securities

Figure 40: Debt/Equity ratio of DBD



Source: DBD, RongViet Securities

Investment risk

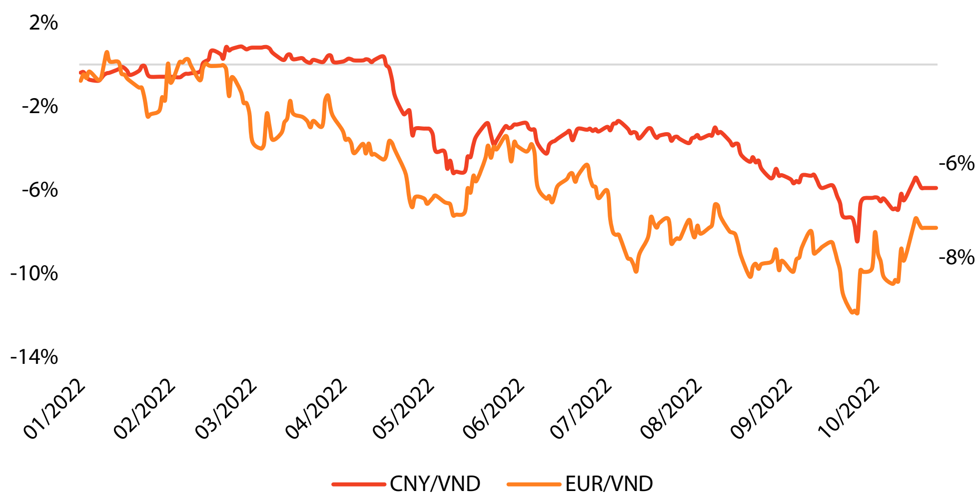
Nhon Hoi anti-cancer drug factory may be granted EU - GMP standards later than expected

The outbreak of the COVID-19 epidemic in Europe in 2021 made the approval of the EU - GMP standards of the Nhon Hoi anti-cancer drug factory delayed 2 years behind the original plan. We realize the risk that the EU – GMP standards approval process for the Nhon Hoi anti-cancer factory may take longer than expected: 1) This is the first time DBD has done the approval procedure for the factory to meet EU - GMP standards, so the company does not have much experience in documents and approval procedures; 2) Depends entirely on the working schedule of the European health authority.

Risk of raw material cost

DBD's API drugs are imported from the main markets of Europe, China and India. We are concerned that factors from the global macroeconomics may increase the price of DBD's imported materials, including: Disruption of energy and commodity supply chains in Europe, instability in the zero-Covid and ensuring environmental sanitation policies by the Chinese government will cause pharmaceutical factories to close, limiting the source of supply. However, for this year, the sharp decrease of EUR/VND and CNY/VND rates since the beginning of the year by -8% YTD and -6% YTD respectively, partially offset the high raw material costs during the period.

Figure 41: Exchange rate YTD (%)



Source: Bloomberg, RongViet Securities

Competitive risk in the sales process

Vietnam's pharmaceutical market as the potential to attract many foreign investors and multinational corporations. The level of competition in the pharmaceutical market is increasingly fierce due to the entry of foreign companies and domestic companies focusing on high-tech factories.

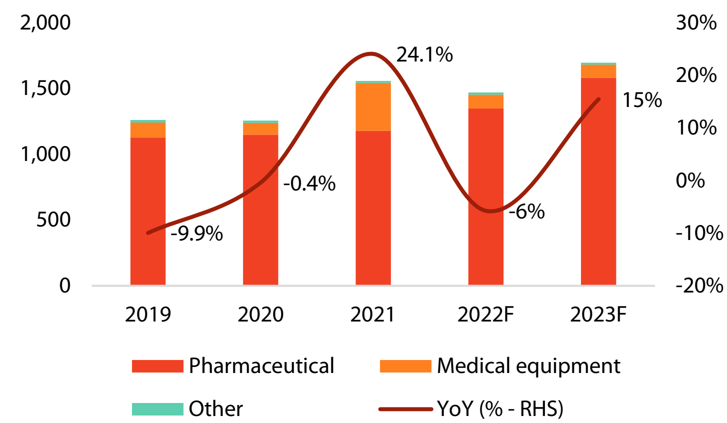
Forecast

Table 2: Forecast 2022F – 2023F

Unit: VNDbn		2022F	YoY%	2023F	YoY%	Assumptions
Total Revenue		**1,469**	**-6%**	**1,697**	**15%**	
I.	Pharmaceuticals	1,350	15%	1,583	17%	
1.	Self-produced medicines	1,302	16%	1,545	19%	
a.	*ETC Channel*	*721*	*16%*	*890*	*23%*	
b.	*OTC Channel*	*572*	*19%*	*648*	*14%*	
c.	*Export*	*9*	*27%*	*8*	*-11%*	*We assume that DBD's export drug business will generate stable revenue of about VND 8 billion per year.*
2.	Outside purchased medicines	47	-20%	38	-20%	Future business strategy is no longer focusing much of resources on outside-purchased drug products due to its relatively low gross margin. We assume that sales of outside-purchased drugs will grow by a negative 20% per year.
II.	Medical supplies	104	-71%	98	-6%	The outbreak of COVID-19 caused a sudden growth in medical supplies revenue in 2021. When the epidemic passes, we assume that medical supplies revenue will remain stable at VND 100 billion per year, equivalent to pre-pandemic levels.
III.	Materials, packaging and other services	15	-1%	15	0%	Revenue of raw materials, packaging and other services remained stable at VND 15 billion per year
Gross Profit		**666**	**7%**	**804**	**21%**	Gross profit increased sharply as the company focused its resources on selling self-manufactured drugs with high gross margin. At the same time, it is expected that injectable anti-cancer drugs that meet EU - GMP standards will help DBD to expand GPM in 2023.
SG&A Expenses		**413**	**2%**	**486**	**18%**	We assume selling expenses will account for about 28% of net sales.
EBIT		**253**	**16%**	**317**	**26%**	
Financial income		4	-33%	4	-10%	
Financial expenses		9	8%	12	33%	
Other incomes		-	-100%	-	0%	We assume that there are no extraordinary earnings in 2022F and 2023F.
Gain (loss) from joint venture		**16**	**0%**	**16**	**0%**	We assume Bidiphar Rubber Joint Stock Company will continue to operate stably and generate about VND 16 billion per year in NPAT.
PBT		**264**	**13%**	**325**	**23%**	
NPATMI		**215**	**17%**	**264**	**23%**	
EPS (VND)		**2,864**	**2%**	**2,934**	**2%**	

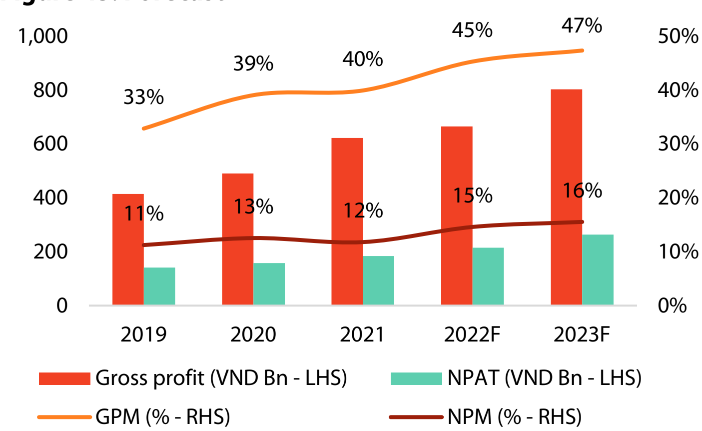
Source: RongViet Securities

Figure 42: Revenue forecast by business segment (VND Bn)



Source: DBD, RongViet Securities

Figure 43: Forecast



Source: DBD, RongViet Securities

Valuation

We use a combination of FCFF (50%) and P/E (50%) to determine our one-year target price. For the FCFF method, we apply a weighted average cost of capital of 9.7% and a growth rate of 3% to determine the value of perpetual cash flows.

For the P/E method, we apply a P/E with a target ratio of 20x and a forecast EPS of 2,916 VND/share by the end of Q3/2023. This P/E is 35% higher than the industry average, reflecting the company's position with the prospect of Nhon Hoi Factory getting EU - GMP standards approval.

Our assumption is 52,200 VND/share, equivalent to an expected return of 34%, based on the closing price on October 28th, 2022.

Table 3: Summary of valuation

Method	Valuation	Weighted	Contribution
FCFF (WACC: 9,7%, g: 3%)	45,927	50%	22,963
P/E (20x)	58,310	50%	29,155
Total		**100%**	**52,118**

Source: RongViet Securities

Table 4: FCFF forecasts

FCFF	2022F	2023F	2024F	2025F	2026F
Net income	215	264	358	427	493
+ Depreciation	46	57	85	104	117
+ Interest afer tax	3	5	8	6	3
- Financial income	4	4	4	7	10
- Change in working capital	(32)	79	60	41	55
- Capex	234	40	415	287	287
FCFF	**57**	**203**	**(27)**	**201**	**260**

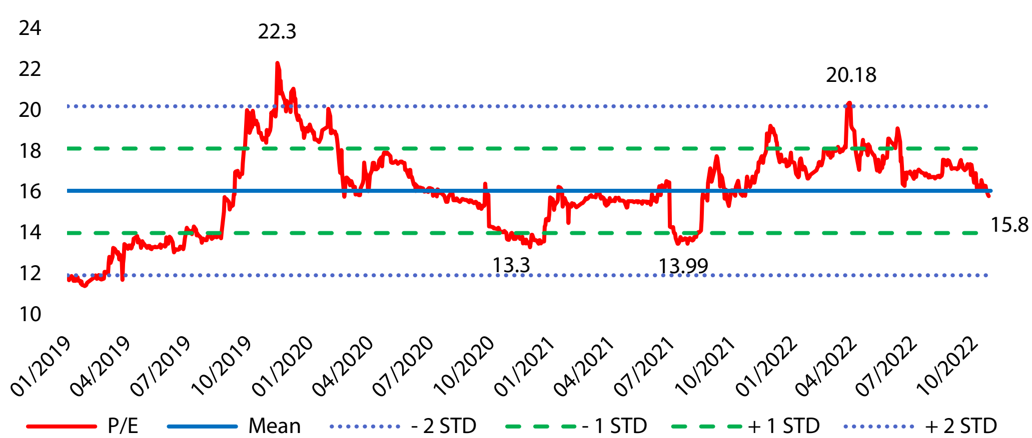
Source: RongViet Securities

Table 5: Assumptions about WACC

Weighted Average Cost of Capital		FCFF	VND Bn
Beta	0.53	Cummulative present value of FCFF	553
Risk-free rate	4.5%	PV of Terminal Value	2,742
Equity risk premium	11.5%	(+) Cash and cash equivalents	228
Cost of Equity	10.1%	(-) Debt	84
Cost of Debt	7%	**Implied Equity Value**	**3,296**
Tax rate	20%	Number of shares (Mn)	75
D/(D+E)	5%	**Price per share (VND/share)**	**45,924**
E/(D+E)	95%		
WACC	**9.7%**		

Source: Bloomberg, RongViet Securities

Figure 44: P/E Valuation History of DBD



Source: Bloomberg, RongViet Securities

Table 6: Compare companies in the industry

Company	Market cap (USD mn)	Revenue in 2021 (USD mn)	PBT in 2021 (USD mn)	ROA (%)	ROE (%)	Div. yield (%)	P/B trailing (x)	P/E trailing (x)
DHG	460.09	174.56	37.68	17.15	20.34	3.65	2.83	12.81
TRA	157.71	94.22	14.42	14.39	19.10	3.40	2.95	14.64
IMP	148.71	55.23	10.42	8.61	9.84	1.97	2.02	17.94
DMC	62.22	65.34	8.69	10.32	11.88	5.00	1.11	8.43
DHT	42.00	70.18	3.90	6.30	12.87	2.27	1.36	13.18
DVN	162.22	212.51	10.22	3.27	6.59	1.67	1.38	21.96
Median	**153.21**	**82.20**	**10.32**	**9.47**	**12.37**	**2.84**	**1.71**	**13.91**
Mean	**172.16**	**112.01**	**14.22**	**10.01**	**13.44**	**3.00**	**1.94**	**14.83**
DBD	**117.22**	**67.96**	**10.14**	**12.62**	**15.28**	**2.63**	**2.20**	**15.80**

Source: Bloomberg, RongViet Securities, Based on the closing price on 28/10/2022

Appendix

Table 7: Explanation of some terms

CONCEPT	DEFINITION
EU – GMP	The drug production line is certified by the competent administrative body of the European Medicines Agency's (EMA) participating country to meet EU - GMP principles and standards.
PIC/s – GMP	The drug production line is certified by the competent administrative body of the country participating in the Pharmaceutical Inspection Co-operation Scheme (PIC/s) to meet the PIC/s – GMP principles and standards.
WHO – GMP	Standard of Good Manufacturing Practice for Pharmaceuticals, recommended by the World Health Organization. Vietnamese enterprises can register this standard with the Drug Administration of Vietnam under the Ministry of Health
SRA	Stringent Regulatory Agency
ICH	International Conference on Harmonization
Reference Biologicals	Biological products are licensed for circulation in Vietnam through the complete presentation of information on quality, safety and effectiveness

Source: Circular 15/2019/TT-BYT, RongViet Securities

Table 8: Some highlights in Circular 15/2019/TT-BYT on drug bidding at hospitals

CRITERIA	REGULATIONS
Bidding package of Brand-name drugs	The drug meets the following 02 criteria simultaneously: • Belonging to the list of Brand-name drugs, having the same therapeutic effect as Brand-name drugs and reference biological products announced by the MOH; • • Produced entirely in the countries of the SRA list, or manufactured in one or more stages in Vietnam.
Bidding package of Generic drugs	**Tier 1 includes:** a. Drugs manufactured meet EU-GMP standards/equivalent to EU-GMP standards in SRA-listed countries; b. Medicines are manufactured entirely in Vietnam and must meet the following criteria simultaneously: - Production meets EU-GMP standards/equivalent to EU-GMP standards; - Licensed by the drug regulatory agency of the SRA-listed countries; - Drugs circulating in Vietnam have the same formulation, production process, quality standards, active ingredients, excipients... c. Drugs on the list of Brand-name drugs or reference biological products.
	Tier 2: a. The drug's production meets EU-GMP standards/equivalent to EU-GMP standards. b. Drug production meets PIC/s-GMP standards in a country that is both a PIC/s member and an ICH member.
	Tier 3: The manufactured drugs meet GMP standards and have bioequivalence published by the MOH.
	Tier 4: Medicines are manufactured entirely in Vietnam, approved by the Vietnam Drug Administration to meet WHO-GMP standards.
	Tier 5: The manufactured drugs are approved by the Vietnam Drug Administration to meet WHO-GMP standards and are not in tiers 1,2,3,4.
Building bid price	The formulation of planned prices of drugs with the same active ingredient, concentration - content and prepared form in the generic drug bidding package must ensure the following principles: **T5 ≤ T4 ≤ T3 , T2 ≤ T1 ≤ Brand-name**
Contract performance	• Perform at least 80% of the signed value. • Perform at least 50% for emergency drugs, antidotes, rare drugs, special control drugs and infusion solutions. • In case the medical facility fails to perform at least 80%, the head of the medical facility must report and explain the reason to the competent person.

Source: Circular 15/2019/TT-BYT, RongViet Securities

Unit: VND bn

P&L	2020A	2021A	2022F	2023F
Revenue	1,257	1,559	1,469	1,697
COGS	766	936	803	893
Gross profit	**491**	**623**	**666**	**804**
Selling expenses	221	276	317	371
G&A expenses	89	129	96	115
Financial income	8	6	4	4
Financial expense	14	9	9	12
Other income/loss	3	2	0	0
Gain/(loss) from JVs	15	16	16	16
PBT	**193**	**232**	**264**	**325**
Tax expense	35	49	49	61
Minority interests	0	0	0	0
PAT	**158**	**184**	**215**	**264**
EBIT	181	217	253	317
EBITDA	213	256	299	374

Unit: %

FINANCIAL RATIOS	2020A	2021A	2022F	2023F
Growth				
Revenue	-0.4	24.0	-5.7	15.5
EBITDA	12.8	20.1	16.9	25.1
EBIT	12.4	20.0	16.4	25.6
PAT	11.1	16.6	16.8	22.9
Total assets	-11.3	8.5	9.6	19.7
Total equity	6.4	16.4	17.1	17.9
Profitability				
Gross margin	39.1	39.9	45.3	47.4
EBITDA margin	16.9	16.4	20.4	22.1
EBIT margin	14.4	13.9	17.2	18.7
Net margin	12.5	11.8	14.6	15.5
ROA	11.0	11.8	12.6	12.9
ROCE	15.9	16.3	16.8	18.4
ROE	16.2	16.2	16.2	16.9
Efficiency (x)				
Receivables turnover	3.0	3.3	3.3	3.4
Inventories turnover	3.6	3.7	3.3	3.2
Payables turnover	2.7	4.5	4.1	4.3
Liquidity (x)				
Current	2.8	4.2	4.4	3.0
Quick	2.1	3.1	3.2	2.2
Finance Structure				
Total debt/equity	8.5	8.6	5.5	10.3
ST debt/equity	2.1	1.9	0.9	7.4
LT debt/equity	6.5	6.7	4.5	2.8

Unit: VND bn

BALANCE SHEET	2020A	2021A	2022F	2023F
Cash and cash equivalents	109	69	84	48
Short-term investments	93	139	139	139
Accounts receivable	413	479	446	504
Inventories	215	254	246	278
Other current assets (inc. non-trade	6	7	7	7
Property, plant & equipment	357	371	529	794
Acquired intangible assets (inc. Goodwill)	62	60	62	65
Long term investments	142	140	156	172
Other non current assets	41	40	40	40
Total assets	**1,437**	**1,560**	**1,710**	**2,046**
Accounts payable	282	206	196	207
Short-term borrowings	20	21	12	116
Long-term borrowings	63	76	60	44
Other non-current liabilities	0	7	7	7
Bonus and Welfare fund	46	60	60	60
Technology-science development fund	38	49	49	49
Total liabilities	**449**	**419**	**385**	**484**
Common stock and APIC	545	597	770	920
Treasury stock (enter as -)	-2	-2	-2	-2
Retained earnings / accumulated deficit	326	416	415	476
Other comprehensive income / (loss)	-1	-3	-3	-3
Investment and Development Fund	104	123	144	171
Total equity	**972**	**1,132**	**1,325**	**1,562**
Minority Interest	**0**	**0**	**0**	**0**

Unit: VND bn

CASH FLOW	2020A	2021A	2022F	2023F
Profit before tax	**193**	**232**	**264**	**325**
-Depreciation	34	41	46	57
-Adjustments	(218)	38	-	-
+/- Working capital	(9)	(193)	(18)	(140)
Net Operating CFs	**0**	**118**	**292**	**241**
+/- Fixed Asset	(42)	(35)	(209)	(325)
+/- Deposit, equity investment	25	(76)	(16)	(16)
Interest, dividend, cash profit received	15	16	-	-
Net Investing CFs	**(2)**	**(95)**	**(225)**	**(341)**
+/- Capital	(2)	52	-	-
+/- Debt	(159)	14	(25)	88
Dividend paid & other	(79)	(128)	(31)	(24)
Net Financing CFs	**(240)**	**(62)**	**(56)**	**63**
Beginning cash & equivalents	**138**	**109**	**72**	**84**
+/- cash & equivalents	(242)	(39)	12	(36)
Ending cash & equivalents	**111**	**72**	**84**	**48**

Company Report

This report is created for the purpose of providing investors with an insight into the discussed company that may assist them in the decision-making process. The report comprises analyses and projections that are based on the most up-to-date information with the objective that is to determine the reasonable value of the stock at the time such analyses are performed. Through this report, we strive to convey the complete assessment and opinions of the analyst relevant to the discussed company. To send us feedbacks and/or receive more information, investors may contact the assigned analyst or our client support department.

RATING GUIDANCE

Ratings	BUY	ACCUMULATE	REDUCE	SELL
Total Return including Dividends in 12-month horizon	>20%	5% to 20%	-20% to -5%	<-20%

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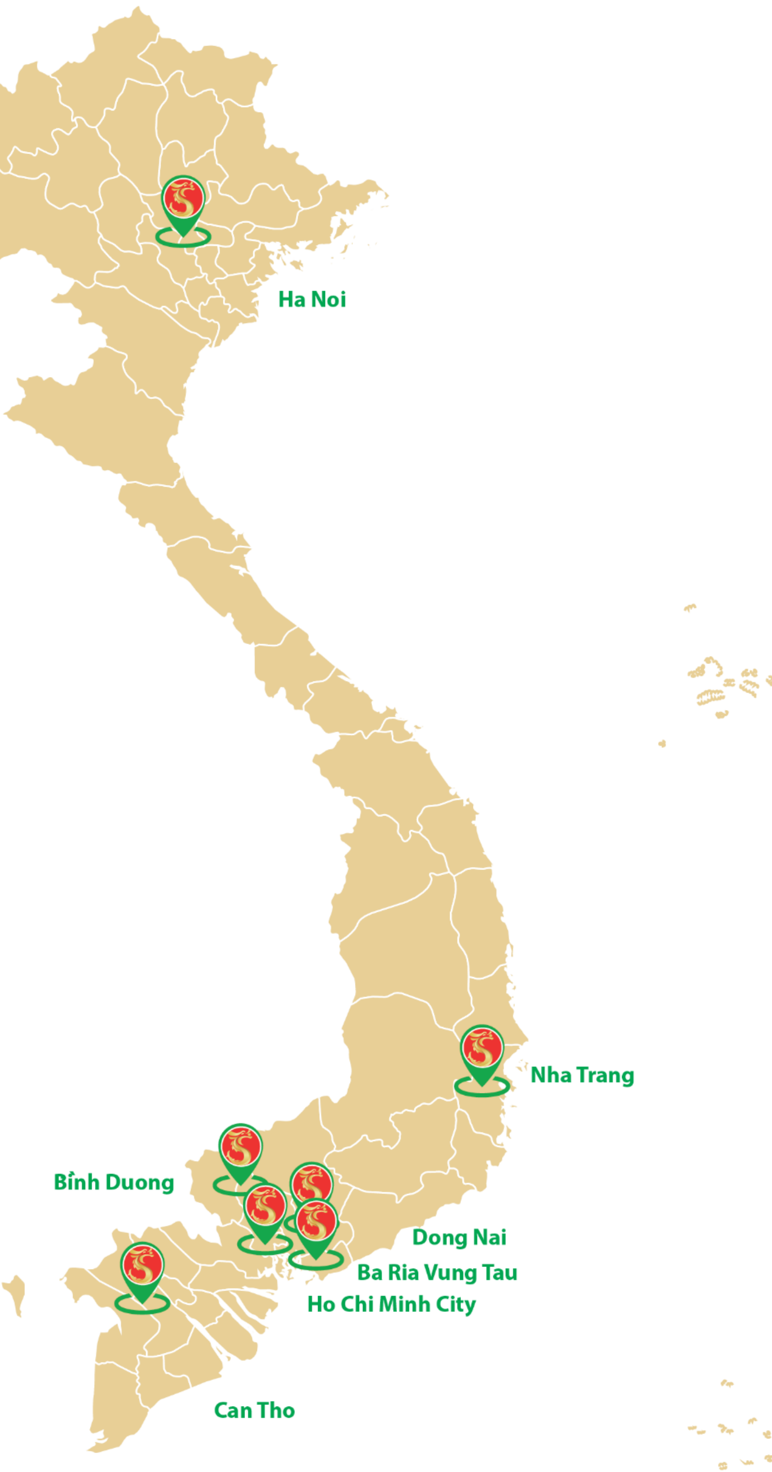

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