

KLBF IJ • Pharmaceuticals

# Kalbe Farma

## Solid results, maintain Trading Buy

(Maintain)  
**Trading Buy**

Target price  
**IDR1,760**

Upside  
**13.5%**

Current price (6/5/24)  
**IDR1,550**

JCI Index	6,948	Market cap (IDRbn)	72,656	Shares outstanding (mn)	46,875	Free Float (%)	40.4
-----------	-------	--------------------	--------	-------------------------	--------	----------------	------

### Report summary

#### In line 1Q24 results

KLBF printed a solid performance in 1Q24 as revenue, EBITDA and net profit reported positive QoQ and YoY growth. Additionally, the quarterly gross margin contraction that happened in the last four quarters ended in 1Q24. Revenue stood at IDR8.36tr (+6.3% YoY and +6% QoQ), representing 25% of our and street's projection. Net profit grew to IDR958bn (+11.9% YoY and +36.4% QoQ) which accounts for 30% of our and consensus estimates.

#### Recent corporate actions

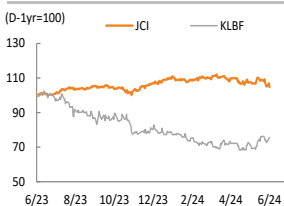
Kalbe International Pte. Ltd. (fully-owned subsidiary) purchased 49% of ownership in Alliance Pharma Co. Ltd. in order to expand pharmaceutical business in SEA, especially in Thailand. KLBF allocates IDR1tr for the share buyback with the maximum buyback price at IDR1,600. The buyback budget and maximum buyback price is relatively similar to the buyback program in 2022.

#### Valuation, recommendation, and risks

Given the in-line results, we maintain our projections. The rating and TP of the stock is unchanged, Trading Buy at IDR1,760. Our TP derived from unchanged P/E multiple valuation methodology and implying a 25.9x P/E for 2024F, an average of its 5-year mean P/E. The downside risks to our call are higher contribution of the unbranded products under the pharmaceutical segment, higher raw material prices, and a weaker IDR.

### Key data

#### Price performance



(%)	1M	6M	12M
Absolute	6.5	-7.2	-24.0
Relative	9.2	-4.6	-29.0

#### Earnings and valuation metrics

(FY Dec. 31)	2021	2022	2023	2024F	2025F
Revenue (IDRbn)	26,261	28,934	30,449	33,103	35,950
Operating profit (IDRbn)	4,021	4,231	3,694	4,074	4,552
Net profit (IDRbn)	3,184	3,382	2,767	3,148	3,514
EPS (IDR)	68	73	60	68	76
BPS (IDR)	418	441	463	497	537
P/E (x)	22.8	21.2	25.9	22.8	20.4
EV/EBITDA (x)	14.3	14.0	15.8	14.2	12.8
ROE (%)	16.3	16.9	13.2	14.2	14.7
Dividend yield (%)	1.8	2.3	2.4	2.0	2.3

Note: Net profit is attributable to owners of the parent

Source: Company data, Mirae Asset Sekuritas Indonesia Research estimates

## 1Q24 earnings result review and our take

### In line 1Q24 results

KLBF printed a solid performance in 1Q24 as revenue, EBITDA and net profit reported positive QoQ and YoY growth. Additionally, the quarterly gross margin contraction that happened in the last four quarters ended in 1Q24. All in all, we see that the performance met our expectations, hence, we maintain our projection. The rating and TP for the stock is unchanged of Trading Buy at IDR1,760.

Revenue stood at IDR8.36tr (+6.3% YoY and +6% QoQ) that representing 25% of our and street's projection. Net profit grew to IDR958bn (+11.9% YoY and +36.4% QoQ) which accounting for 30% of our and consensus estimates. As a comparison, the run rate range in the last five years is 23-26% for the top line and 23-31% for the bottom line.

We believe that strong revenue was driven by volume growth in the local market and annual ASP adjustments of 3-5% on selected products. The bottom line reported higher growth than the top line due to several factors, i.e., lower raw material prices which resulted in quarterly gross margin expansion to 39.7% (+2.7ppt QoQ), manageable SGA expenses, especially promotion costs, and lower other expenses compared to 1Q23 and 4Q23 on the back of inventory provisions and forex losses.

We estimate the positive trend to continue in the next couple of quarters driven by improvement in the health spending, positive regulatory setting on the Indonesian healthcare space including higher health budget and implementation of the Health Omnibus Law, and innovation in all line of business (product development for specialty category, catering to potential market of preventive category, expanding product line for affordable and specialty categories).

### Segmental analysis

The prescription pharmaceutical segment reported revenue of IDR2.2tr in 1Q24 (+12.7% YoY and +19.8% QoQ) with revenue contribution reaching 26.3% (-0.5ppt YoY but +3ppt QoQ). Revenue growth of this segment was mainly driven by the domestic market that grew by +7.6% YoY, and annual ASP adjustments on selected products. On the profitability level, gross profit margin decreased to 52.4% from 53.6% in 1Q23 due to product mix, but increased from 50.8% in 4Q23 due to regular price adjustments. It is worth noting that revenue contribution of the unbranded generic products, which have the lowest margin compared to other pharma products, hiked to 28% in 1Q24 (+4ppt YoY and +2ppt QoQ) as its revenue grew to IDR615bn (+31.5% YoY and +29% QoQ).

The consumer health segment showed positive performance with higher revenue and margin expansion on both on a yearly and quarterly basis. Revenue grew to IDR1.25tr (+0.9% YoY and +50.3% QoQ), accounting for 14.9% of 1Q24 revenue (-0.8ppt YoY but +4.4ppt QoQ). The main drivers of revenue growth were a solid domestic market, with revenue growing by +6.8% YoY, and annual ASP increments on selected products. In addition, purchasing power improvement in 1Q24 supported the segment's performance as the revenue of the health supplement products grew to IDR337bn (+4.7% YoY and +25% QoQ), and contributed 27% of the consumer health segment revenue (+1ppt YoY and -5ppt QoQ). Gross profit margin expanded to 63.6% (+0.4ppt YoY and +9.2ppt QoQ) on the back of lower raw material prices, however, its gross profit

contribution fell to 23.9% (-0.4ppt YoY).

The nutritional segment reported a positive performance as its revenue stood at IDR2.15tr (+1.9% YoY and +2.7% QoQ) and gross profit margin expanded to 51.2% from 50.3% in 1Q23 and 50.8% in 4Q23 due to lower raw material prices. Revenue contribution fell to 25.7% (-1.1ppt YoY and -0.8ppt QoQ), while gross profit contribution stood at 33.1% (+0.2ppt YoY but -1.4ppt QoQ). It is worth noting that KLBF nutritional's market size grew higher than industry that posted +0.6% YoY growth.

The distribution & logistic revenue stood at IDR2.77tr in 1Q24 (+14.9% YoY but -11.5% QoQ), and gross profit margin contracted to 10.1%, compared to 10.3% in 1Q23 and 10.9% in 4Q23. It is worth mentioning that management reallocated distribution fee starting in 1Q24 to reflect an end-to-end view.

SGA to revenue stood at 24%, slightly higher than 4Q23 of 23.8% but significantly lower than 1Q23 of 25.3%. The lower SGA/Revenue in this quarter was driven by manageable promotion costs that stood at IDR566bn (-8.1% YoY but +24.4% QoQ), resulting in promotion/revenue of 6.8% (-1ppt YoY but +1ppt QoQ). Below operating line figures supported net profit growth in this quarter, mainly driven by the absence of inventory provisions and forex loss. It is worth mentioning that KLBF booked IDR34bn and IDR2.82bn of inventory provisions in 1Q23 and 4Q23, while forex losses reached IDR34.5bn in 1Q23 and IDR14.8bn in 4Q23.

Balance sheet remains strong with net cash of IDR3.42tr, compared to net cash of IDR2.65tr in FY23 and IDR2.63tr in the same period last year. Inventory level has gradually moderated on track to normalization with days of inventory outstanding (DOI) decline to 117 days, compared to 131 days in FY23 and 143 days in 1Q23. This resulted the net operating cycle improved to 138 days, compared to 153 days in FY23 and 160 days in 1Q23.

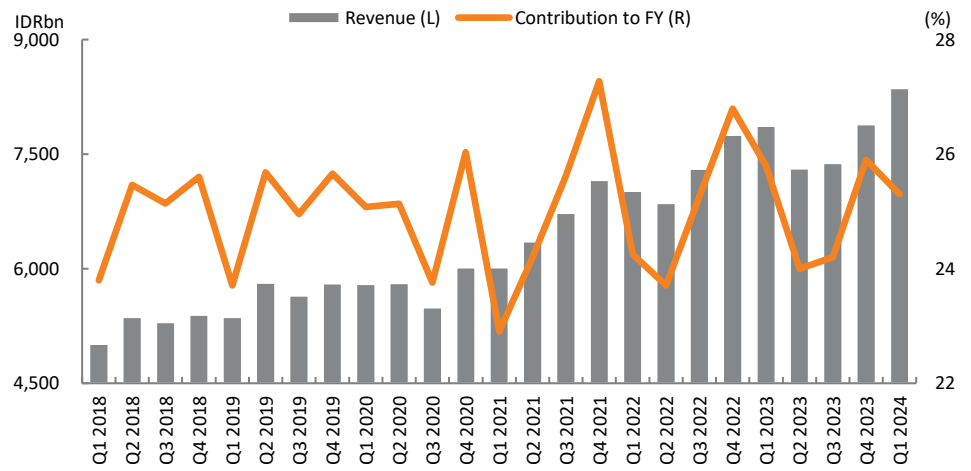
**Table 1. KLBF - earnings results 1Q24**

(IDRbn)

	1Q23	4Q23	1Q24	YoY (%)	QoQ (%)	Mirae Asset		Market	
						2024F	Run rate (%)	2024F	Run rate (%)
Revenue	7,869	7,888	8,363	6.3	6.0	33,103	25.3	32,742	25.5
Gross Profit	3,219	2,916	3,321	3.2	13.9				
Operating Income	1,150	979	1,220	6.1	24.6				
PATMI	856	702	958	11.9	36.4	3,148	30.4	3,210	29.8
EBITDA	1,323	1,140	1,401	5.9	22.9	4,837	29.0	4,909	28.5
	<b>1Q23</b>	<b>4Q23</b>	<b>1Q24</b>	<b>YoY (ppt)</b>	<b>QoQ (ppt)</b>				
GPM	40.9	37.0	39.7	-1.2	2.7				
OPM	14.61	12.41	14.6	0.0	2.2				
NPM	10.87	8.90	11.4	0.6	2.6				
EBITDAM	16.81	14.45	16.8	-0.1	2.3				

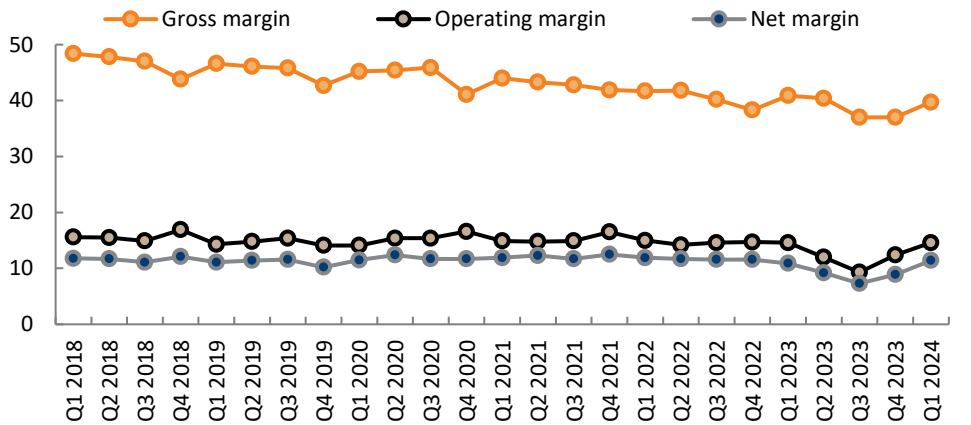
Source: Company data, Mirae Asset Sekuritas Indonesia Research

**Figure 1. Quarterly Revenue and Contribution**



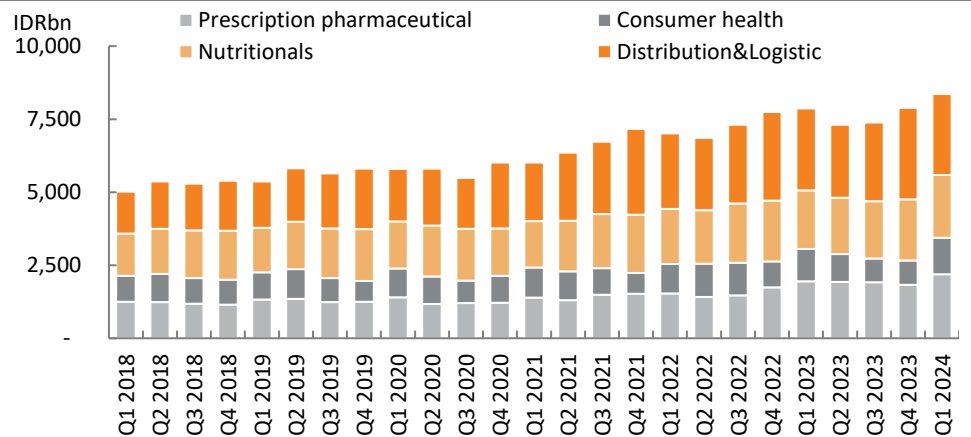
Source: Mirae Asset Sekuritas Indonesia Research

**Figure 2. Quarterly margins**



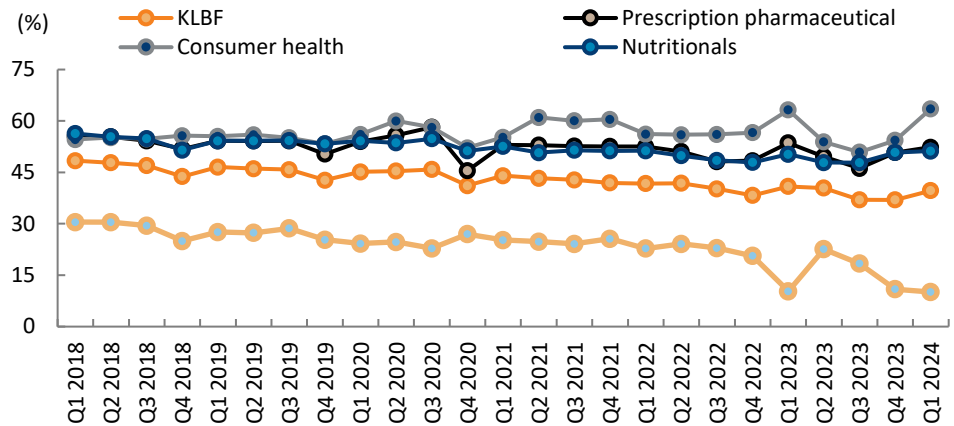
Source: Mirae Asset Sekuritas Indonesia Research

**Figure 3. Revenue per segment - quarterly**



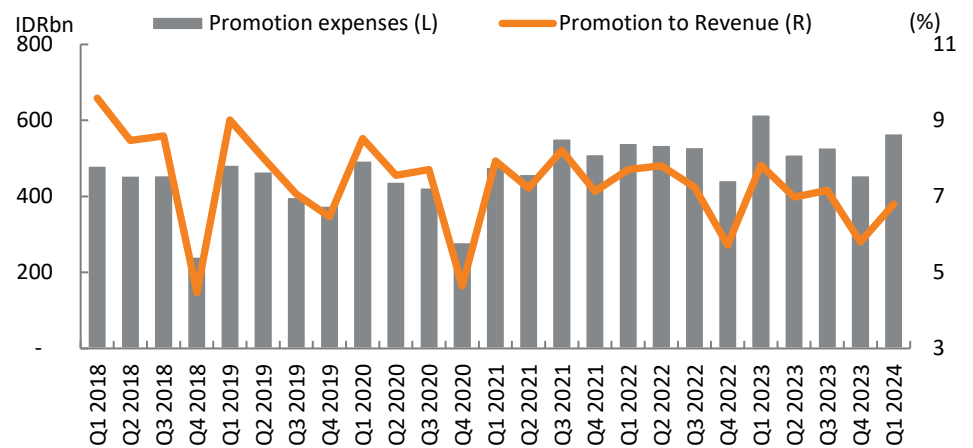
Source: Source: Mirae Asset Sekuritas Indonesia Research

**Figure 4. Gross profit margin per segment - quarterly**



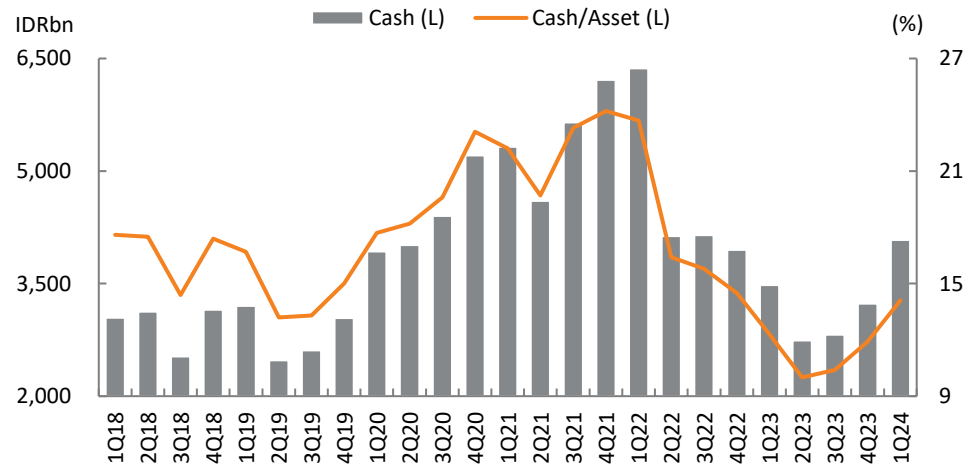
Source: Mirae Asset Sekuritas Indonesia Research

**Figure 5. Advertising and Promotion Expenses - Quarterly**



Source: Mirae Asset Sekuritas Indonesia Research

**Figure 6. Cash and cash to total assets**



Source: Mirae Asset Sekuritas Indonesia Research

## Recent corporate actions

### Acquired Alliance Pharma and IDR1tr of shares buyback

KLBF, through its fully-owned subsidiary called Kalbe International Pte. Ltd., purchased 49% of ownership in Alliance Pharma Co. Ltd (Alliance). The transaction is expected to expand pharmaceutical business in SEA, especially in Thailand. The transaction value remains undisclosed, as it is classified as a non-material transaction under the OJK regulations.

Alliance is a private company founded in 2006 as an extension of Bioscience Co., Ltd., the exclusive distributor of Dabur Pharma's quality oncology products in Thailand. Alliance imports and commercializes pharmaceutical and medical device products in Thailand, focusing on providing the highest quality products at competitive prices to ensure accessibility for all patient groups.

Alliance reported revenue of around USD15mn in FY21, with the key products commercialized & distributed by the company include anticancer products, psychiatric drugs, iron products both as injections and orals. The company also sells medical devices such as stents, balloon dilatation catheters, etc.

KLBF will classify its investment in Alliance as investment in associates, given the ownership is less than 50%, thus the revenue will not consolidate to KLBF. Additionally, we also think that the acquisition is to support the export revenue. The export revenue historically contributed around 6% of total revenue, however, the contribution fell to 4.5% in 1Q24 as export revenue declined by -22.7% YoY to IDR382bn.

Lastly, the AGMS approved the management proposal regarding the share buyback plan. KLBF allocates IDR1tr for the share buyback and the program will last until the end of May next year. Management sets the maximum buyback price at IDR1,600 per share, implying a maximum buyback of 625mn shares. The buyback budget is relatively similar to the most recent buyback program completed from February 2022 to August 2022, where KLBF bought 619.5mn shares with total cost of around IDR1tr. The realization of the previous share buyback program was notably high at 68.8% of the target.

Figure 7. Alliance product



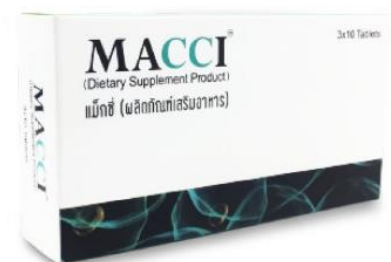
Source: Mirae Asset Sekuritas Indonesia Research

Figure 8. Alliance product



Source: Mirae Asset Sekuritas Indonesia Research

Figure 9. Alliance product



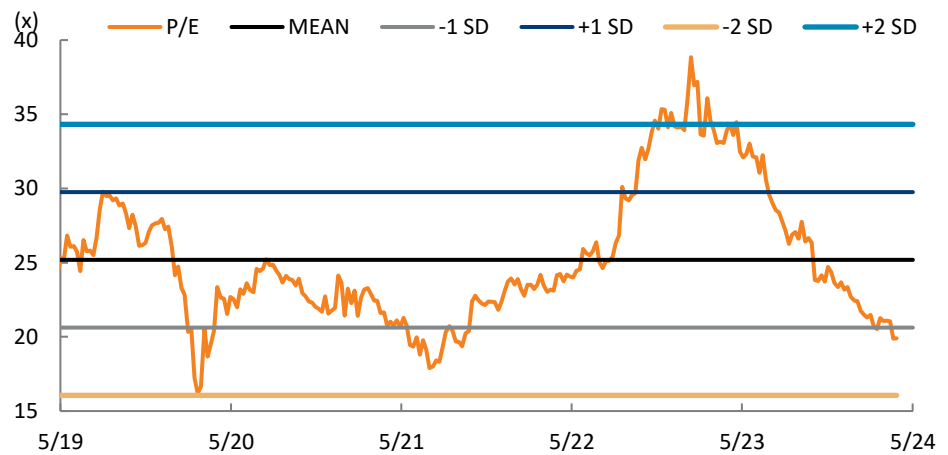
Source: Mirae Asset Sekuritas Indonesia Research

## Outlook, valuation and recommendations

### Maintain Trading Buy

Given the in-line results, we decide to maintain our projections. It is worth mentioning that our projections are relatively align with management’s guidance of 6-7% of revenue growth and 13-15% of EPS growth. Our valuation methodology remains consistent, with an unchanged P/E multiple target based on the five-year historical mean P/E of 25.9x. That being said, the rating and TP of the stock remains the same of Trading Buy at IDR1,760. Potential downside risks to our assessment include higher contribution of the unbranded products under the pharmaceutical segment, higher raw material prices, and a weaker IDR.

**Figure 10. P/E Band**



Source: Company data, Mirae Asset Sekuritas Indonesia Research

## Kalbe Farma (KLBF IJ)

## Income Statement (Summarized)

(IDRbn)	12/22	12/23	12/24F	12/25F
<b>Revenue</b>	<b>28,934</b>	<b>30,449</b>	<b>33,103</b>	<b>35,950</b>
COGS	-17,229	-18,626	-19,887	-21,612
<b>Gross profit</b>	<b>11,704</b>	<b>11,823</b>	<b>13,216</b>	<b>14,339</b>
Opex	-7,473	-8,130	-9,142	-9,787
<b>EBIT</b>	<b>4,231</b>	<b>3,694</b>	<b>4,074</b>	<b>4,552</b>
Other income / (expenses)	201	-81	25	30
Finance income	82	88	100	100
Finance cost	-55	-95	-55	-55
<b>Profit before income tax</b>	<b>4,459</b>	<b>3,606</b>	<b>4,144</b>	<b>4,627</b>
Income tax expenses	-1,009	-828	-932	-1,041
Non-controlling interest	68	12	64	72
<b>Net profit</b>	<b>3,382</b>	<b>2,767</b>	<b>3,148</b>	<b>3,514</b>
<b>EBITDA</b>	<b>4,914</b>	<b>4,379</b>	<b>4,837</b>	<b>5,365</b>
<b>Margin (%)</b>	<b>12/22</b>	<b>12/23</b>	<b>12/24F</b>	<b>12/25F</b>
Gross profit	40.5	38.8	39.9	39.9
Operating profit	14.6	12.1	12.3	12.7
Net profit	11.7	9.1	9.5	9.8
EBITDA	17.0	14.4	14.6	14.9
<b>Growth (% YoY)</b>	<b>12/22</b>	<b>12/23</b>	<b>12/24F</b>	<b>12/25F</b>
Revenue	10.2	5.2	8.7	8.6
Operating profit	5.2	-12.7	10.3	11.7
EPS	7.7	-18.2	13.8	11.6
EBITDA	5.1	-10.9	10.5	10.9

## Cash Flows (Summarized)

(IDRbn)	12/22	12/23	12/24F	12/25F
<b>Cash Flows from Op. Activities</b>	<b>979</b>	<b>2,756</b>	<b>3,626</b>	<b>3,464</b>
Net profit	3,382	2,767	3,148	3,514
Depreciation & amortization	724	551	763	813
Change in working capital	-2,794	-109	-276	-866
Others	-334	-453	-9	3
<b>Cash Flows from Inv. Activities</b>	<b>-1,250</b>	<b>-1,190</b>	<b>-1,649</b>	<b>-2,166</b>
Capex	-686	-573	-993	-1,438
Others	-564	-617	-656	-728
<b>Cash Flows from Fin. Activities</b>	<b>-1,994</b>	<b>-2,284</b>	<b>-1,189</b>	<b>-1,205</b>
Change in liabilities	556	-540	298	431
Change in equity	-919	14	-49	0
Dividends paid	-1,687	-1,758	-1,439	-1,637
Others	56	0	0	0
<b>Increase (decrease) in cash</b>	<b>-2,266</b>	<b>-717</b>	<b>788</b>	<b>93</b>
Beginning balance	6,216	3,950	3,232	4,020
<b>Ending balance</b>	<b>3,950</b>	<b>3,232</b>	<b>4,020</b>	<b>4,113</b>

Note: Net profit refers to net profit attributable to controlling interests

Source: Company data, Mirae Asset Sekuritas Indonesia Research estimates

## Balance sheet (Summarized)

(IDRbn)	12/22	12/23	12/24F	12/25F
<b>Current assets</b>				
Cash & equivalents	3,950	3,232	4,020	4,113
Receivables	4,614	4,652	5,333	5,792
Inventories	7,027	6,792	6,905	7,504
Others	1,119	1,241	1,390	1,543
<b>Total current assets</b>	<b>16,710</b>	<b>15,918</b>	<b>17,649</b>	<b>18,952</b>
<b>Non-current assets</b>				
Fixed assets - net	7,957	7,978	8,208	8,833
Others	2,574	3,162	3,857	4,629
<b>Total non-current assets</b>	<b>10,531</b>	<b>11,140</b>	<b>12,066</b>	<b>13,462</b>
<b>Total assets</b>	<b>27,241</b>	<b>27,058</b>	<b>29,715</b>	<b>32,414</b>
<b>Current liabilities</b>				
ST bank loans	1,997	1,691	2,210	2,401
Account payables	829	278	422	630
Other current liabilities	1,605	1,274	1,414	1,570
<b>Total current liabilities</b>	<b>4,431</b>	<b>3,243</b>	<b>4,046</b>	<b>4,601</b>
<b>Non-current liabilities</b>				
Long-term financial liabilities	287	298	452	676
Others non-current liabilities	426	396	436	479
Total non-current liabilities	713	694	888	1,155
<b>Total liabilities</b>	<b>5,144</b>	<b>3,938</b>	<b>4,934</b>	<b>5,756</b>
Shareholders' equity	1,997	1,691	2,210	2,401
Non-controlling interests	1,712	1,701	1,790	1,830
<b>Total liabilities and equity</b>	<b>27,241</b>	<b>27,058</b>	<b>29,715</b>	<b>32,414</b>

## Forecasts/Valuations (Summarized)

	12/22	12/23	12/24F	12/25F
P/E (x)	21.2	25.9	22.8	20.4
P/B (x)	3.5	3.3	3.1	2.9
EV/EBITDA (x)	14.0	15.8	14.2	12.8
EPS (IDR)	73	59.8	68.0	76
BPS (IDR)	441	463	497	537
DPS (IDR)	36	38	31	35
Payout ratio (%)	52.0	52.0	52.0	52.0
Dividend yield (%)	2.4	2.5	2.0	2.3
Accounts receivable turnover (x)	7.2	6.6	6.6	6.5
Inventory turnover (x)	2.8	2.7	2.9	3.0
Accounts payable turnover (x)	9.4	10.1	10.2	9.4
ROA (%)	12.8	10.2	11.1	11.3
ROE (%)	16.9	13.2	14.2	14.7
Current ratio (x)	377	491	436	412
Net gearing (x)	net cash	net cash	net cash	net cash
Interest coverage ratio (x)	77	39	74	83

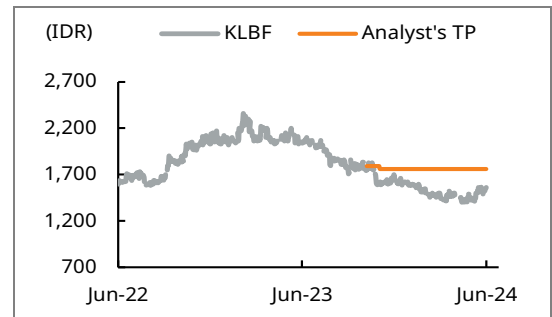


# Appendix 1

## Important disclosures and disclaimers

### Two-year rating and TP history

Company	Date	Rating	TP (IDR)
Kalbe Farma (KLBFIJ)	6/6/2024	Trading Buy	1,760
	1/12/2024	Trading Buy	1,760
	11/8/2023	Hold	1,760
	10/13/2023	Hold	1,790
	11/28/2022	Trading Buy	2,400
	8/18/2022	Buy	1,980
	7/18/2022	Buy	2,100



### Stock ratings

Buy	Expected 12-month performance: +20% or greater
Trading Buy	Expected 12-month performance: +10% to +20%
Hold	Expected 12-month performance: -10% to +10%
Sell	Expected 12-month performance: -10% or worse

### Sector ratings

Overweight	Expected to outperform the market over 12 months
Neutral	Expected to perform in line with the market over 12 months
Underweight	Expected to underperform the market over 12 months

Rating and TP history: Share price (—), TP (—), Not Rated (■), Buy (▲), Trading Buy (■), Hold (●), Sell (◆)

\* Our investment rating is a guide to the expected return of the stock over the next 12 months.

\* Outside of the official ratings of PT Mirae Asset Sekuritas Indonesia, analysts may call trading opportunities should technical or short-term material developments arise.

\* The TP was determined by the research analyst through valuation methods discussed in this report, in part based on estimates of future earnings.

\* TP achievement may be impeded by risks related to the subject securities and companies, as well as general market and economic conditions.

### Disclosures

As of the publication date, PT Mirae Asset Sekuritas Indonesia ("MASID") and/or its affiliates do not have any special interest in the subject company and do not own 1% or more of the subject company's shares outstanding.

### Analyst certification

The research analysts who prepared this report (the "Analysts") are certified to the Indonesia Financial Services Authority and are subject to Indonesian Capital Market regulations. They are neither registered as research analysts in any other jurisdiction nor subject to the laws or regulations thereof. Each Analyst responsible for the preparation of this report certifies that (i) all views expressed in this report accurately reflect the personal views of the Analyst about any and all of the issuers and securities named in this report; (ii) no part of the compensation of the Analyst was, is, or will be directly or indirectly related to the specific recommendations or views contained in this report; and (iii) The report does not contain any material non-public information. Except as otherwise specified herein, the Analysts have not received any compensation or any other benefits from the subject companies in the past 12 months and have not been promised the same in connection with this report. Like all employees of MASID, the Analysts receive compensation that is determined by overall firm profitability, which includes revenues from, among other business units, the institutional equities, investment banking, proprietary trading, and etc. At the time of publication of this report, the Analysts do not know or have reason to know of any actual, material conflict of interest of the Analyst or MASID except as otherwise stated herein.

### Disclaimers

This report was prepared by MASID, a broker-dealer registered in the Republic of Indonesia and a member of the Indonesia Stock Exchange; on behalf of MASID and its affiliated companies and is provided for information purposes only. Information and opinions contained herein have been compiled in good faith and from sources believed to be reliable, but such information has not been independently verified and MASID (including but not limited to the Analyst, respective employees who owns the expertise) makes no guarantee, representation or warranty, express or implied, as to the fairness, accuracy, completeness, or correctness of the information and opinions contained herein or of any translation into English from the Indonesia language or as to any information contained in this report or any other such information or opinions remaining unchanged after the issue thereof. In case of an English translation of a report prepared in the Indonesia language, the original Indonesian language report may have been made available to investors in advance of this report. The intended recipients of this report are sophisticated institutional investors who have substantial knowledge of the local business environment, its common practices, laws, and accounting principles, and no person whose receipt or use of this report would violate any laws or regulations or subject MASID or any of its affiliates to registration or licensing requirements in any jurisdiction shall receive or make any use hereof.

This report is for general information purposes only and is not and shall not be construed as an offer or a solicitation of an offer to effect transactions in any securities or other financial instruments. The report does not constitute investment advice to any person, and such person shall not be treated as a client of MASID by virtue of receiving this report. This report does not take into account the particular investment objectives, financial situations, or needs of individual clients. The report is not to be relied upon in substitution for the exercise of independent judgment. Information and opinions contained herein are as of the date hereof and are subject to change without notice. The price and value of the investments referred to in this report and the income from them may depreciate or appreciate, and investors may incur losses on investments. Past performance is not a guide to future performance. Future returns are not guaranteed, and a loss of original capital may occur. Please note that the graphs, charts, formulae, or other devices set out or referred to in this document cannot, in and of itself, be used to determine in deciding which securities to buy or sell, or when to buy or sell a securities. MASID, its affiliates, and their directors, officers, employees, and agents do not accept any liability (express or implied) for any loss arising out of the use hereof and howsoever arising (including, but not limited to any claims, proceeding, action, suits, losses, expenses, damages or costs) which may be brought against or suffered by any person as a result of acting in reliance upon the whole or any part of the contents of this report.

MASID may have issued other reports that are inconsistent with, and reach different conclusions from, the opinions presented in this report. The reports may reflect different assumptions, views, and analytical methods of the analysts who prepared them. MASID may make investment decisions that are inconsistent with the opinions and views expressed in this research report. MASID, its affiliates, and their directors, officers, employees, and agents may

have long or short positions in any of the subject securities at any time and may make a purchase or sale, or offer to make a purchase or sale, of any such securities or other financial instruments from time to time in the open market or otherwise, in each case either as principals or agents. MASID and its affiliates may have had, or may be expecting to enter into, business relationships with the subject companies to provide investment banking, market-making, or other financial services as are permitted under the applicable laws and regulations. In considering any investments you should make your own independent assessment and seek your own professional financial and legal advisors. Should you choose not to seek such advice, you should consider carefully whether the securities is suitable for you.

No part of this document may be copied or reproduced in any manner or form or redistributed or published, in whole or in part, without the prior written consent of MASID. The media is not allowed to quote this report in any article whether in full or in parts without permission from MASID. For further information regarding company-specific information as it pertains to the representations and disclosures in this Appendix 1, please contact [researchteam@miraeasset.co.id](mailto:researchteam@miraeasset.co.id) or +62 (21) 5088-7000.

#### **Distribution**

**United Kingdom:** This report is being distributed by Mirae Asset Securities (UK) Ltd. in the United Kingdom only to (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order"), and (ii) high net worth companies and other persons to whom it may lawfully be communicated, falling within Article 49(2)(A) to (E) of the Order (all such persons together being referred to as "Relevant Persons"). This report is directed only at Relevant Persons. Any person who is not a Relevant Person should not act or rely on this report or any of its contents.

**United States:** MASID is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This report is distributed in the U.S. by Mirae Asset Securities (USA) Inc., a member of FINRA/SIPC, to "major U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6(b)(4) under the U.S. Securities Exchange Act of 1934, as amended. All U.S. persons that receive this document by their acceptance hereof represent and warrant that they are a major U.S. institutional investor and have not received this report under any express or implied understanding that they will direct commission income to MASID or its affiliates. Any U.S. recipient of this document wishing to effect a transaction in any securities discussed herein should contact and place orders with Mirae Asset Securities (USA) Inc. Mirae Asset Securities (USA) Inc. accepts responsibility for the contents of this report in the U.S., subject to the terms hereof, to the extent that it is delivered to a U.S. person other than a major U.S. institutional investor. Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through MASID. The securities described in this report may not have been registered under the U.S. Securities Act of 1933, as amended, and, in such case, may not be offered or sold in the U.S. or to U.S. persons absent registration or an applicable exemption from the registration requirements.

**Hong Kong:** This report is distributed in Hong Kong by Mirae Asset Securities (HK) Limited, which is regulated by the Hong Kong Securities and Futures Commission. The contents of this report have not been reviewed by any regulatory authority in Hong Kong. This report is for distribution only to professional investors within the meaning of Part I of Schedule 1 to the Securities and Futures Ordinance of Hong Kong (Cap. 571, Laws of Hong Kong) and any rules made thereunder and may not be redistributed in whole or in part in Hong Kong to any person.

**India:** This report is being distributed by Mirae Asset Capital Markets (India) Private Limited ("MACM") in India to the customers based in India and is personal information only for those authorised recipient(s). MACM is inter alia a Securities and Exchange Board of India ("SEBI") registered Research Analyst in India and is not registered outside India. MACM and Mirae Asset, Korea are group entities. MACM makes no guarantee, representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information and opinions contained herein. The user assumes the entire risk of any use made of this information. This report has been provided for assistance only and is not intended to be and must not alone be taken as the basis for an investment decision. Recipient must read the entire Appendix 1 to the report carefully for Important Disclosures & Disclaimers.

**All other jurisdictions:** Customers in all other countries who wish to effect a transaction in any securities referenced in this report should contact MASID or its affiliates only if distribution to or use by such customer of this report would not violate applicable laws and regulations and not subject MASID and its affiliates to any registration or licensing requirement within such jurisdiction.

## Mirae Asset Securities International Network

---

### Mirae Asset Securities Co., Ltd. (Seoul)

One-Asia Equity Sales Team  
Mirae Asset Center 1 Building  
26 Eulji-ro 5-gil, Jung-gu, Seoul 04539  
Korea

Tel: 82-2-3774-2124

---

### Mirae Asset Securities (USA) Inc.

810 Seventh Avenue, 37th Floor  
New York, NY 10019  
USA

Tel: 1-212-407-1000

---

### Mirae Asset Securities (Singapore) Pte. Ltd.

6 Battery Road, #11-01  
Singapore 049909  
Republic of Singapore

Tel: 65-6671-9845

---

### Mirae Asset Investment Advisory (Beijing) Co., Ltd

2401B, 24th Floor, East Tower, Twin Towers  
B12 Jianguomenwai Avenue, Chaoyang District  
Beijing 100022  
China

Tel: 86-10-6567-9699

---

### Ho Chi Minh Representative Office

7F, Saigon Royal Building  
91 Pasteur St.  
District 1, Ben Nghe Ward, Ho Chi Minh City  
Vietnam

Tel: 84-8-3910-7715

---

### Mirae Asset Securities (HK) Ltd.

Units 8501, 8507-8508, 85/F  
International Commerce Centre  
1 Austin Road West  
Kowloon  
Hong Kong

Tel: 852-2845-6332

---

### Mirae Asset Wealth Management (Brazil) CCTVM

Rua Funchal, 418, 18th Floor, E-Tower Building  
Vila Olimpia  
Sao Paulo - SP  
04551-060  
Brazil

Tel: 55-11-2789-2100

---

### Mirae Asset Securities (Vietnam) LLC

7F, Saigon Royal Building  
91 Pasteur St.  
District 1, Ben Nghe Ward, Ho Chi Minh City  
Vietnam

Tel: 84-8-3911-0633 (ext.110)

---

### Beijing Representative Office

2401A, 24th Floor, East Tower, Twin Towers  
B12 Jianguomenwai Avenue, Chaoyang District  
Beijing 100022  
China

Tel: 86-10-6567-9699 (ext. 3300)

---

### Mirae Asset Capital Markets (India) Pvt Ltd

1st Floor, Tower 4, Equinox Business Park,  
LBS Marg, Off BKC, Kurla (West), Mumbai - 400 070  
India

Tel: 91-22-62661300 / 48821300

---

### Mirae Asset Securities (UK) Ltd.

41st Floor, Tower 42  
25 Old Broad Street,  
London EC2N 1HQ  
United Kingdom

Tel: 44-20-7982-8000

---

### PT. Mirae Asset Sekuritas Indonesia

District 8, Treasury Tower Building Lt. 50  
Sudirman Central Business District  
Jl. Jend. Sudirman, Kav. 52-54  
Jakarta Selatan 12190  
Indonesia

Tel: 62-21-5088-7000

---

### Mirae Asset Securities Mongolia UTsk LLC

#406, Blue Sky Tower, Peace Avenue 17  
1 Khoroov, Sukhbaatar District  
Ulaanbaatar 14240  
Mongolia

Tel: 976-7011-0806

---

### Shanghai Representative Office

38T31, 38F, Shanghai World Financial Center  
100 Century Avenue, Pudong New Area  
Shanghai 200120  
China

Tel: 86-21-5013-6392

---