* same earnings, discount ↓ → valuation ↑ price ↑
bcs Fed int will go down in the future
↳ bond yield ↓ → bond price ↑

* Every asset classes ↑↑
* USD depreciates against JPY

Fed tries to reduce interest rate next year
= บอกมาตรวดว่า ดอบต่ำไป

CU - MSF

EQUITY ANALYSIS

- Fed maintain policy rate
- CPI → in line with market

*when benchmark

VALUE DRIVERS

Susheel Narula
December 2023

COMMON FINANCIAL TERMS

TERMS	ACCOUNTING ENTRY
Revenue	- Sales of goods - Sales of services
Cost of Goods Sold Cost of Service	- Cost of goods sold - cost of services rendered
Selling Administrative Expenses	- Selling expenses - Administrative expenses
Depreciation Amortization Lease Payments	- Depreciation of fixed assets, an item in cashflow statement - Amortization of non-tangible (software, patents, goodwill), an item in cashflow statement
Interest Income Investment Income Equity Income	- Interests earned from Cash & Securities (liquid assets) - Investment income from sales of Investments - Net profit attributed from a company held between 20%-50%
Tax	- Tax payable
Cash and Securities Long-term Investments	- Cash, Deposits, Money market, Short-Term Fixed income funds - Mostly associated with equity investments in other companies
Inventory A/C Receivables A/C Payables	- Stock (including raw materials, finished goods etc. available) - Account Receivable (related, non-related parties given) - Account Payable (related, non-related parties given)
Fixed Assets Goodwill Intangible Asset	- Plant, Property and Equipment - Surplus of acquisition costs over book value - Computer Softwares
Short-term Debt Current Portion of LT Debt Net LT Debt	- Overdraft, Short-term borrowing facilities - Portion of Long-Term Debt that is repayable within 1 year - Generally, Total Long-Term Debt net of Current Portion of LT debt
Equity Minorities Interests	- Shareholders Equity - Interests (ownership) of Equity consolidated but not owned by parent company

COMMON FINANCIAL RATIOS

gives reason behind fin ratios
e.g. sales up bcs ...
cash cycle change bcs...

TERMS	DESCRIPTION
Gross Profit Gross Margin Ratio	Revenue from Sale – Cost of Sales or Service Gross Profit / Revenue
Operating Profit Operating Margin Ratio	Gross Profit – Selling & Admin Expense Operating Profit Margin / Revenue
EBITDA	Earnings Before Interests and Taxes Before Depreciation and Amortization, or Operating Profit + Depreciation + Amortization
Asset Turnover Working Capital	Revenue / Total Asset Current Assets less Current Liability (excluding Cash and Debt items)
EPS ROE ROA	Earnings Per Share Net Profit / Average Total Equity Net Profit / Average Total Asset
NOPLAT Capital Employed ROCE	Net Operating Profit After Tax = Operating Profit – Tax Fixed Asset + AC Receivable + Inventory – AC Payable Return on Capital Employed = NOPLAT / Capital Employed
Receivable Days Inventory Days Payable Days Cash Cycle	Avg. number of days customers pay money after sale Avg. number of days stocks are held in the company Avg. number of days company pays its suppliers after purchase Cash Cycle = Receivable Days + Inventory Days – Payable Days
Risk Free Rate Risk Premium	LT returns without any risk of default (10Y Gov't Bond Yield) Required returns to be compensated over Risk Free Rate for investing in risky assets
Required Return on Equity Required Return of Debt WACC	Required returns for investing in risky assets = (Risk Free Rate + Risk Premium) Required returns for investing in bonds (debt) = (Risk Free Rate + Bond Risk Premium) Weighted Average Cost of Capital = Weighted Average of Rqd. RoE and Rqd. RoD
Market Capitalization → total value of equity Enterprise Value → value of equity + debt	Share Price x Shares Outstanding Market Cap. + Total Interest-Bearing Debt
Debt/Equity Net Debt/Equity	Total Interest-Bearing Debt / Total Equity Total Interest-Bearing Debt less Cash & Short-term investments / Total Equity
Operating Cashflows Free Cashflows	Operating Profit + Depreciation + Working Capital Change Operating Cashflow – Capital Expenditure

THE STORY OF ABC COFFEE SHOP

DAY	1	2
EVENT	ABC COMPANY OP	
ABC Daily Sales, Inventory and Borrowing		
Sales	100	105
- Cost of Sales	60	63
= Gross Profits	40	42
Gross Profit Margin	*40%*	*40%*
- Operating Expense	20	21
Operating Expense / Sales	*20%*	*20%*
- Interest Expenses	5	5
= Profit Before Tax	15	16
- Tax	4	4
Tax rate	*25%*	*25%*
= Net Profit	11.3	12.0
Net Profit Margin	*11%*	*11%*
Inventory	30	30
Borrowing	20	20

→ direct costs related to coffee

↳ increases bcs price↑ or cost or coffee↓

→ fixed in nature e.g. indirect wages, rent, utility

THE STORY OF ABC COFFEE SHOP

don't expand fin ratios / number → "expand business"
why the number is changing

DAY	1	2	3	4	5	6	7	8	9	10	11	12	Chart Trends
EVENT	ABC COMPANY OPENS A COFFEE SHOP								3	ABC EXPANDS MENU TOO			
			1	A COMPETITOR ENTERS MARKET									
						2	ANOTHER COMPETITOR ENTERS WITH BIGGER MENU						
ABC Daily Sales, Inventory and Borrowing													
Sales	100	105	80	90	95	80	75	72	75	80	90	105	
- Cost of Sales	60	63	48	54	57	48	45	43	47	49	54	62	
= Gross Profits	40	42	32	36	38	32	30	29	29	31	36	43	
Gross Profit Margin	*40%*	*40%*	*40%*	*40%*	*40%*	*40%*	*40%*	*40%*	*38%*	*39%*	*40%*	*41%*	
- Operating Expense	20	21	21	21	21	21	21	21	23	23	23	23	
Operating Expense / Sales	*20%*	*20%*	*26%*	*23%*	*22%*	*26%*	*28%*	*29%*	*30%*	*29%*	*26%*	*22%*	
- Interest Expenses	5	5	5	5	5	5	5	5	8	8	8	8	
= Profit Before Tax	15	16	6	10	12	6	4	3	(2)	1	5	12	
- Tax	4	4	2	3	3	2	1	1	(0)	0	1	3	
Tax rate	*25%*	*25%*	*25%*	*25%*	*25%*	*25%*	*25%*	*25%*	*25%*	*25%*	*25%*	*25%*	
= Net Profit	11.3	12.0	4.7	7.7	9.1	4.7	3.0	2.0	(1.1)	0.4	3.8	9.1	
Net Profit Margin	*11%*	*11%*	*6%*	*9%*	*10%*	*6%*	*4%*	*3%*	*-2%*	*0%*	*4%*	*9%*	
Inventory	30	30	30	30	30	30	30	30	40	40	40	40	
Borrowing	20	20	20	20	20	20	20	20	30	30	30	30	

cogs of new product higher <buy new materials>

too many coffee shops, mkt stars expanding

e.g. people come back to the shop
new customers due to rise in awareness of coffee shop due to entry of competitor

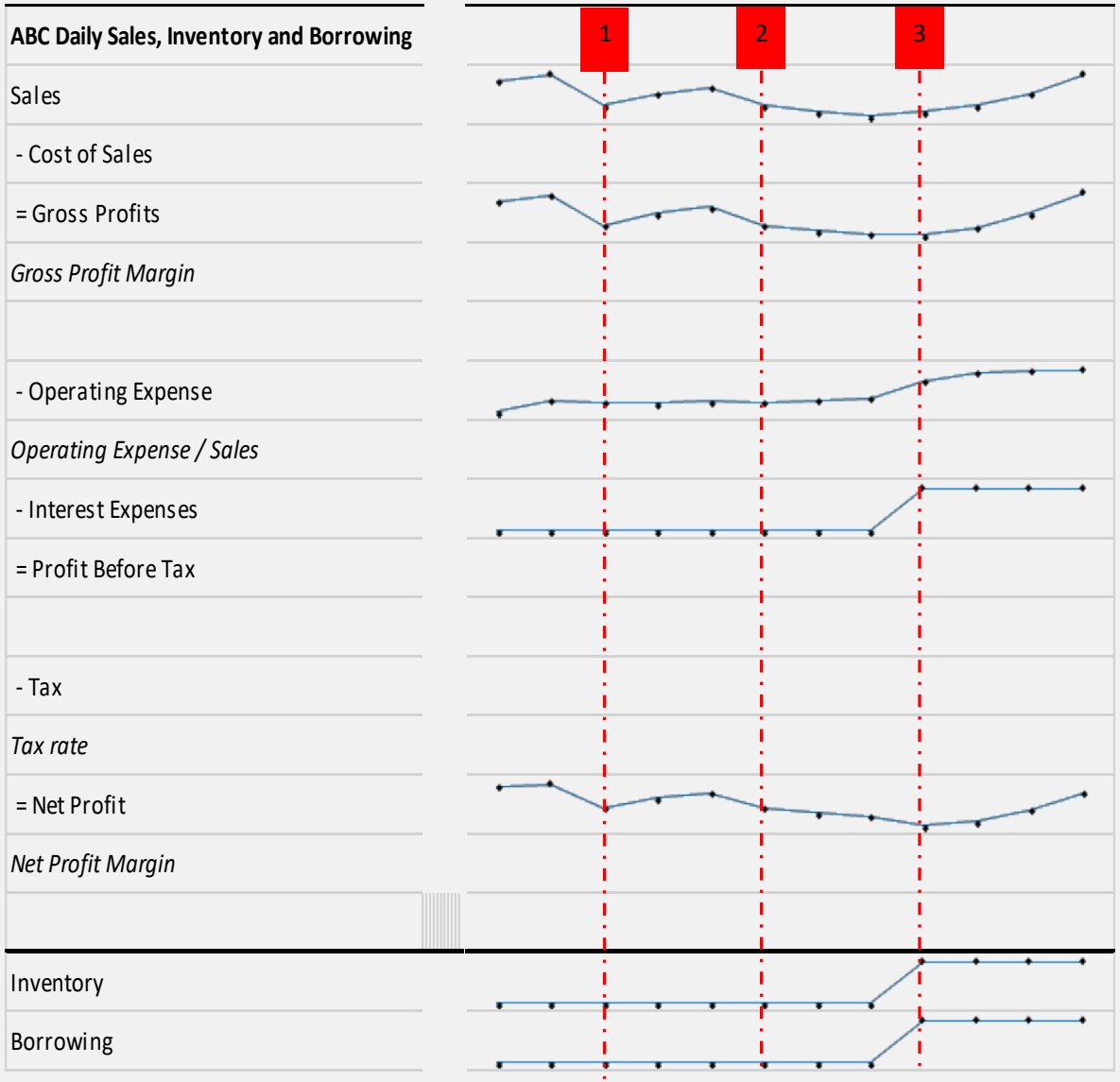
price remains the same, cogs% sales same

selling admin ↑, more employees

new borrowing

restoring back profit

FINANCIAL TRENDS TELL A STORY



What do changes in trends tell us?

shift in industry trend

- ..driven by industry
- ..driven by competitors
- ..driven by strategy

good strategy but bad execution

- ..driven by tactical moves

fin number manipulation

SHARE PRICE DRIVERS

SHARE PRICE DRIVERS

fundamental analysis

EXPECTATION OF EARNINGS GROWTH AND PROFITABILITY

macroeconomic

EXPECTATION ON REQUIRED RETURNS

e.g. Fed rate

GROWTH & PROFITABILITY

* Bottom up prospective

future make more money

Growth

- Profit ↘ same thing but may not equal in term of growth
- * EPS (Earnings Per Share) ← look at this because it takes # share into account

keep improving

Profitability

- Business
  - Capital structure

REIT has high debt compared to other businesses
↳ higher int rate → higher discount → stock priced on earnings

VALUE CREATION

RESOURCE

- FINANCIAL CAPITAL
- HUMAN CAPITAL
- TECHNOLOGY

How they use resource?
Manager has to decide

BUSINESS MODEL

- MANAGEMENT
- STRATEGY
- COMPETITIVENESS

Result

PERFORMANCE

- SALES
- GROWTH
- PROFITABILITY
- ST / LT KPI

SUSTAINING GROWTH

Resources, Management Decisions	Technology	Competitive-ness	Market Leadership	Innovation	ETC.	Economy of Scale	Sourcing	Offshoring	Management	ETC.
Operating Results	**Sales Growth**					**Cost Controls**				
Profitability To Business (ROCE) and to Equity (ROE)	**Capital Employed (Debt + Equity)**									
Valuation as reflected by investors	profitability **Profit Growth**									

EXPECTATIONS FROM CAPITAL PROVIDERS

investors have required hurdle return depends on risk profile

expects growth → raise valuation of asset with capitalized rate

have choice to exit / sell

FOUNDERS
- Control
- Dividends
- Sustainability & ESG

manager
→ fund engage actively with management to help direct company to better position

CAPITAL MARKET / INVESTORS
- Financial returns
- Option to invest / sell
- Comparison to others
- Market conditions
- Sustainability & ESG

EQUITY SHAREHOLDERS

EQUITY
- Profit Growth
- Profitability

EQUITY INVESTORS

VALUE GROWTH & PROFITABILITY RELATIVE TO MARKET CONDITIONS & PEERS

bank
DEBT OWNERS

Debt → risk premium
- Credit Spread
- Viability
- Size

High
• fixed cost of bank
↳ skilled labors, building, branches, computers, etc.

• credit spread for large corporate is lower

BOND INVESTORS

VALUE INCOME RELATIVE TO MARKET CONDITIONS & PEERS

OPERATING PROFITABILITY: ROCE

core NOPAT supported by capital employed

use this to measure profitability of "CORE BUSINESS"

NET OPERATING PROFITS AFTER TAX (NOPAT)

+ SALES

- COST OF SALES

- SELL. & ADMIN. EXP.

= OPERATING PROFITS

- LESS TAX

= NOPAT net operating profit after tax

CAPITAL EMPLOYED

+ A/C RECEIVABLE

+ INVENTORY

- A/C PAYABLE

+ FIXED ASSETS + INTANGIBLES + LT LEASE + GOODWILL

= CAPITAL EMPLOYED

branding element

premium when buying new company over book value

already have & selling something of premium to must

premium is reflected in sales

profitability of business

ROCE = NOPAT / AVERAGE CAPITAL EMPLOYED

return on capital employed

= Return on Capital Employed

ROCE is sometimes called ROIC (Return on Invested Capital)

OPERATING PROFITABILITY: ROC

EBIT AFTER TAX

+ SALES

+ OTHER INCOME

- COST OF SALES

- SELL. & ADMIN. EXP.

- OTHER EXPENSES

- LESS TAX

= EBIT (1-TAX)

CAPITAL

+ BOOK VALUE OF DEBT

+ BOOK VALUE OF EQUITY

- CASH

= CAPITAL

ROC = EBIT AFTER TAX / AVERAGE CAPITAL
= Return on Capital

ROE, ROC AND ROCE

mostly use this

	ROE Return on Equity	ROC Return on Capital	ROCE return on invested capital ROIC Return on Capital Employed
Numerator	Net Profit	EBIT Less Tax	NOPLAT (NOPAT) - Net Operating Profit Less Tax - Exclude non-core operations - Excludes one-off items
Denominator	Total Equity	Total Equity + Total Debt – Cash	Capital Employed - Assets used in the core business including Fixed Assets (+Intangibles) + Working capital
Capital Structure	Has Influence	No Influence	No Influence
Profitability Measure	Equity Holders	Business	Core Business

TWO HOSPITALS, TWO BUSINESS MODELS

all over country

holding company of 1 hospitals

YEAR 2022	BH	BDMS
Number of Companies Majority Owned (50%+ stake)	10	63
Number of Companies Held As Associates (20-50% stake)	2	10
Investment (Unconsolidated, BtMn)	1,699	63,312
Consolidated Sales (BtMn)	20,720	91,934
Unconsolidated Sales (BtMn)	19,589	14,432

subsidiaries are very small
↳ supporting activities

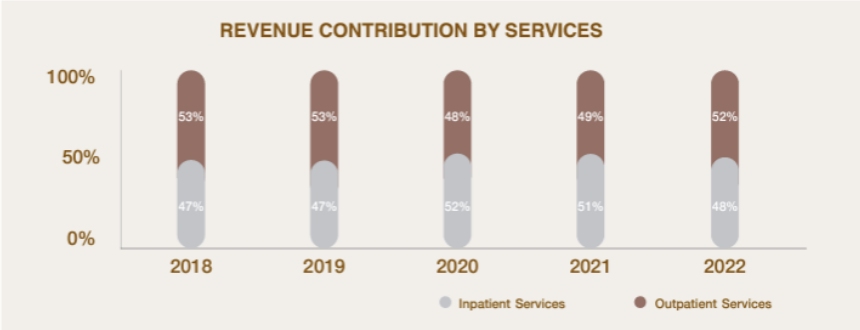
core business: a hospital

holding of hospitals

BUSINESS PROFILE: BH

SOURCE:
- THE ONE REPORT (ANNUAL REPORT)
- SUSTAINABILITY REPORT
- ANALYST BRIEFING (INVESTOR BRIEFING)
- MANAGEMENT DISCUSSION AND ANALYSIS

Inpatient vs. Outpatient (% of total revenue)



(3) Sources of Products and Services

Bumrungrad International Hospital, Bangkok

Capacity — As at 31 December

INPATIENTS	2022	2021	2020
Total number of licensed beds	580	580	580
Beds in operation	459	564	564
Weighted total capacity*	167,535	205,860	206,424
Occupied beds per year (beds)	125,595	101,874	96,247
Weighted capacity Utilization (percent) – Licensed	59.33	48.12	45.34
Weighted capacity Utilization (percent) – Operation	75.01	49.49	46.63

* Weighted total capacity is calculated by multiplying the number of beds in operation with the number of days of service

As at 31 December

OUTPATIENTS	2022	2021	2020
Capacity per day (persons)	5,500	5,500	5,500
Average outpatients per day (persons)	3,006	2,202	1,856
Weighted Capacity Utilization (percent)	54.66	40.04	33.75

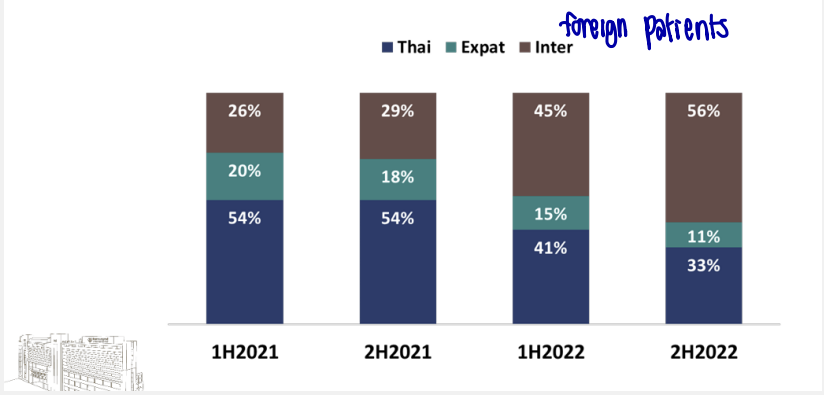
GREENHOUSE GAS (GHG) EMISSIONS

Bumrungrad is currently validating and standardizing GHG emissions reporting, as well as exploring and developing the possibilities in renewable energy sources in order to further develop its short-, medium- and long-term emissions reduction strategies, to continue making a positive, sustainable social and environmental impact and in supporting the achievement of the United Nations Sustainable Development Goals. In the year 2023, a GHG report and a particular goal emission reduction strategy will be released.

ENERGY CONSUMPTION

YEAR	2018	2019	2020	2021	2022
Energy Consumption (mWh)	47.923	47.272	45.600	45.423	49.436
Area (m^2) Building A, B, C	172,497	172,497	172,497	172,497	172,497
Energy Intensity (kWh/m^2)	0.27782	0.27405	0.26435	0.26333	0.2866
Number of episodes of care ('000)	1,150	1,143	826	944	1,248
Energy Intensity (kWh/1000 episodes of care)	0.00024	0.00024	0.00032	0.00028	0.00023

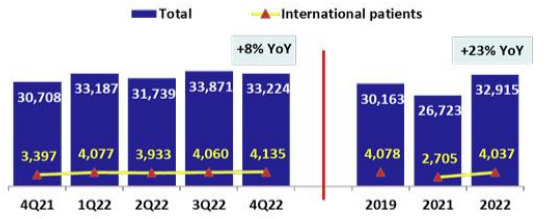
Revenue Proportion by Market Segment



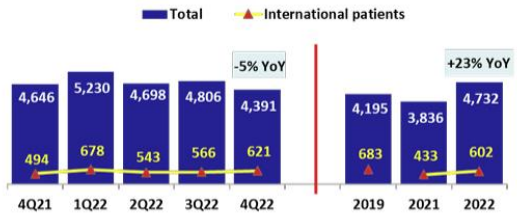
BUSINESS PROFILE: BDMS

Patient Volume and Occupancy Rate

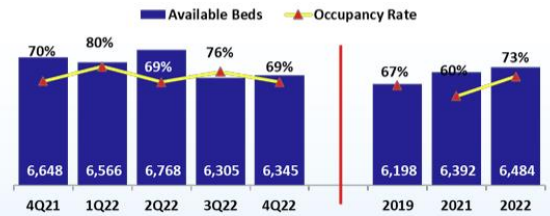
Number of OPD Visits per Day



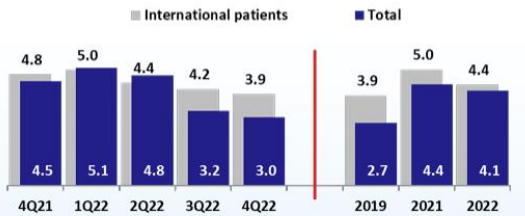
Average Daily Census (ADC)



Occupancy Rate Based on Available Beds



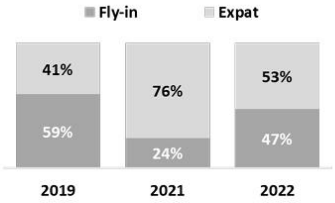
Average Length of Stay (days)



Remarks:- Excluding hospitels and field hospital
- Including social security patients while excluding new born patients

26

Breakdown of International Patients



Commentary

- In 4Q22, Thai patients revenues decreased by 4% YoY due to lower COVID-19 related revenue. However, Thai non COVID-19 increased 13% YoY. Inter patients revenues increased by 61% YoY mainly from Middle East, CLMV and Australia
- In 2022, Revenues from Thai patients increased by 14% YoY while revenue from inter patients increased by 69% YoY

25

2022 Operational and Financial Summary

2022 Highlights

	2022	
	% Chg	% to Revenue
Operating income	**23%** THB 92,968 mm	
Hospital revenue	**24%** THB 88,535 mm	
Breakdown by nationality		
▪ Thai	14%	76%
▪ International	69%	24%
Breakdown by location		
▪ Bangkok & Vicinity	24%	57%
▪ Outside Bangkok	23%	43%
Breakdown by type of patients		
▪ Outpatients	28%	47%
▪ Inpatients	18%	53%

Profitability and Ratio

(THB mm)	2022	2021	Chg. (yoy)
EBITDA	22,933	17,545	31%
EBITDA margin	24.7%	23.2%	
EBIT	17,113	11,322	51%
EBIT margin	18.4%	15.0%	
Net profit	12,606	7,936	59%
Net profit margin	13.6%	10.5%	

Commentary

- Hospital revenue increased 24% YoY mainly from
  - Increase in non COVID-19 revenue (+29% YoY) from recovery of both Thai and international patients especially from CLMV and Middle East
  - COVID-19 related revenue to hospital revenue decreased from 14% in 2021 to 10% in 2022
- EBITDA and NPAT increased YoY due to good operating income growth, continued cost saving program together with high occupancy rate to achieve economy of scale

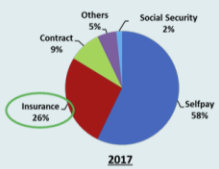
5

Increase Third Party Payors

CUSTOMERS

Strengthening Relationship with Third Party Payors to Diversify Patient Base and Increase Occupancy Rate

INSURANCE
Working closely with insurance and coporates



SOCIAL SECURITY
Increased to
700k+
registered members

9 Hospitals

1. Phyathai Sriracha
2. Paolo Chokchai 4
3. Paolo Kaset
4. Paolo Samutprakarn
5. Paolo Phrapradaeng
6. Phyathai Nawamin
7. Dibuk
8. Thepakorn
9. Bangkok Surat

17

HOSPITAL REVENUE MODEL

top-line

REVENUE

OUT-PATIENT

IN-PATIENT

Stay overnight

# of patients in database	Revenue / visit	Resources (speciality of doctors)	# of patients	Revenue / visit	Resources

BH: location is not key factor bcs their patients are mostly foreigners

Age / Location	General / Specialist → BDMS	LT or ST Trends	Income group	Pricing	Foreigners / Tourists	Staff / Doctors	Equipment	Reputation	Size / Capacity	Location	Demographics	Pricing	Competition	Case severity	General care / Specialist	Foreigners / Tourists	Staff / Doctors	Equipment

What management need to drive / employ

How to drive

- Market characteristics
- Demographics
- Resource available
- Competitors
- Technology
- ??

Gross profit margin < operating profit margin in Homepro bcs of rental income

→ core business

BH ROCE

NOPAT / Sales = NOPAT margin ×

Sales / Capital employed = Capital employed turnover

ROCE = NOPAT / Sales × Sales / Capital employed

COVID-19 → open country

BH - HOSPITAL	2018	2019	2020	2021	2022	CAGR 2015-19	Growth 2020-22
BTMN							
- SALES AND SERVICES	18,264	18,409	12,315	12,460	20,721	1%	30%
- RENTAL & SERVICES	62	65	-	-	-	2%	
- OTHERS	90	85	124	144	187	0%	23%
TOTAL REVENUE	**18,416**	**18,559**	**12,440**	**12,605**	**20,908**	1%	30%
- COST OF SALES & SERVICES	(10,046)	(10,285)	(7,677)	(7,731)	(11,099)	0%	20%
- ADMIN. EXPENSES	(3,288)	(3,751)	(3,394)	(3,296)	(3,798)	5%	6%
TOTAL OPERATING EXPENSES	(13,334)	(14,036)	(11,072)	(11,027)	(14,897)	1%	16%
OPERATING PROFIT (a)	5,081	4,523	1,368	1,578	6,010	2%	110%
- TAX RATE @ 20% (b)	(1,016)	(905)	(274)	(316)	(1,202)	2%	
NOPLAT (a+b)	**4,065**	**3,618**	**1,095**	**1,262**	**4,808**	2%	110%
ACCOUNT RECEIVABLES ('c)	2,561	2,748	2,206	1,461	2,658	4%	10%
INVENTORY (d)	392	330	309	328	326	2%	3%
ACCOUNT PAYABLES ('e)	(965)	(870)	(704)	(805)	(1,085)	1%	24%
FIXED ASSETS (INCL. PLANT, INTANGIBLE, LT LEASE) (f)	12,120	12,698	12,505	12,323	12,440	4%	0%
CAPITAL EMPLOYED (c+d+e+f)	**14,107**	**14,906**	**14,315**	**13,307**	**14,339**	4%	0%
ROCE	**29.3%**	**24.9%**	**7.5%**	**9.1%**	**34.8%**		

bcs contribution of foreign patients

low in LT

- RENTAL & SERVICES → supportive activities → managers cannot drive this → do it to inflate

e.g. helicopter service

↗ profit margin dropped a lot

- COST OF SALES & SERVICES (includes cost associated with rental & services)

volatility came from foreigner

BDMS ROCE

↳ hospital + holding

consolidated

BDMS	2018	2019	2020	2021	2022	CAGR 2015-19	Growth 2020-22
BTMN							
- SALES AND SERVICES	78,417	82,723	68,074	74,451	91,934	7%	16%
- OTHERS → if less than 5% → assume it is core business	915	1,051	983	1,263	1,034	7%	
TOTAL REVENUE , dividend, share of profit, sell / buy assets (hospitals)	79,333	83,774	69,057	75,714	92,968	7%	16%
- INVESTMENT INCOME - As Holding	1,764	8,761	2,707	26	50	55%	-86%
TOTAL REVENUE - As Holding	81,097	92,535	71,765	75,740	93,018	9%	
- COST OF SALES & SERVICES	(51,546)	(54,277)	(46,371)	(49,462)	(58,329)	7%	12%
- ADMIN. EXPENSES	(15,998)	(17,447)	(14,161)	(15,029)	(17,655)	8%	
TOTAL OPERATING EXPENSES	(67,544)	(71,723)	(60,532)	(64,491)	(75,984)	7%	12%
OPERATING PROFIT (a)	11,788	12,051	8,525	11,223	16,984	6%	
OPERATING PROFIT - As Holding (a)	13,552	20,811	11,232	11,249	17,034	17%	
Tax at 20% (b)							
NOPLAT - As Hospital (a-b)	**9,431**	**9,640**	**6,820**	**8,979**	**13,587**	6%	41%
NOPLAT - As Holding (a-b)	**10,842**	**16,649**	**8,986**	**8,999**	**13,627**	17%	23%
ACCOUNT RECEIVABLES ('c)	7,545	8,850	7,192	9,131	10,484	8%	21%
INVENTORY (d)	1,786	1,843	1,855	2,005	2,211	9%	8%
ACCOUNT PAYABLES ('e)	(5,192)	(5,990)	(4,450)	(5,035)	(6,176)	5%	13%
FIXED ASSETS (INCL. PLANT, INTANGIBLE, LT LEASE) (f)	94,209	98,345	103,523	101,379	110,688	8%	-2%
INVESTMENTS (g)	**23,490**	**18,358**	**1,302**	**1,285**	**1,344**	3%	-1%
CAPITAL EMPLOYED -As Hospital (c+d+e+f)	**98,348**	**103,048**	**108,119**	**107,480**	**117,208**	8%	-1%
CAPITAL EMPLOYED - As Holding (c+d+e+f+g)	**121,838**	**121,406**	**109,421**	**108,765**	**118,552**	7%	-1%
ROCE - As Hospital	**9.8%**	**9.6%**	**6.5%**	**8.3%**	**12.1%**		
ROCE - As Holding	**9.3%**	**13.7%**	**7.8%**	**8.2%**	**12.0%**		

DEFINING CORE BUSINESS

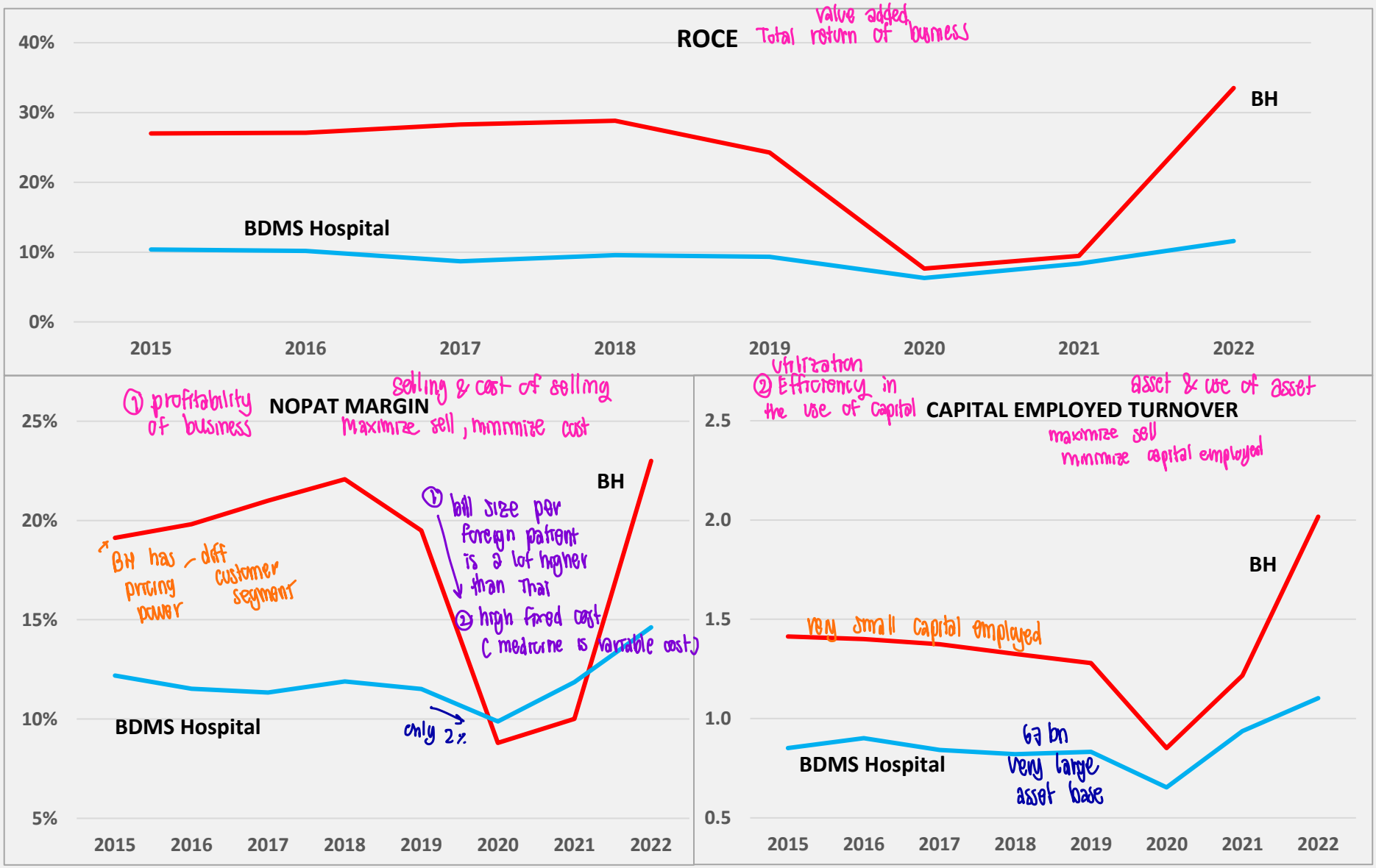
Income Statement	Balance Sheet	Consistency
Rental Income	Investments associated with Property	- If you believe Rental income is a part of core business (in NOPAT), then Capital Employed must also include Investments in Property. - "Like for Like"
Investment Gains	Investments	
Equity Income	Investments on associated companies	
Financial Income	Investments on financial assets	

What about?	
- FX Gains - Extra-Ordinary Items	- Goodwill - LT Lease - Software License (Intangibles)

should not recognized in NOPAT if management didn't plan it

in capital employed

DIFFERENT BUSINESS MODELS



DIFFERENT BUSINESS MODELS II

BH	2018	2019	2020	2021	2022
BH - Gross Margin	45.4%	44.6%	38.3%	38.7%	46.9%
BH - Admin Expense / Revenue	17.9%	20.2%	27.3%	26.1%	18.2%
BH - Operating Margin	27.6%	24.4%	11.0%	12.5%	28.7%
BH - Sales Growth	0%	1%	-33%	1%	66%
BH - Fixed Asset Growth	-2%	5%	-2%	-1%	1%
BH -Total Asset Growth	0.74	0.71	0.51	0.60	0.86
BH - Fixed Asset Turnover	1.52	1.46	0.99	1.02	1.68
BH - Capital Employed Turnover	1.31	1.25	0.87	0.95	1.46
BH - NOPLAT MARGIN	**22.1%**	**19.5%**	**8.8%**	**10.0%**	**23.0%**
BH - ROCE	**28.8%**	**24.3%**	**7.6%**	**9.5%**	**33.5%**

BDMS	2018	2019	2020	2021	2022
BDMS - Gross Margin	35.0%	35.2%	32.9%	34.7%	37.3%
BDMS - Admin Expense / Revenue	20.2%	20.8%	20.5%	19.8%	19.0%
BDMS -Operating Margin	14.9%	14.4%	12.3%	14.8%	18.3%
BDMS - Sales Growth	9%	5%	-18%	9%	23%
BDMS - Fixed Asset Growth	4%	4%	5%	-2%	9%
BDMS - Total Asset Growth	8.9%	0.1%	1.8%	-5.6%	10.2%
BDMS - Fixed Asset Turnover (Hospital)	0.86	0.87	0.68	0.74	0.88
BDMS - Total Asset Turnover (Holding)	0.61	0.69	0.53	0.59	0.66
BDMS - Cap. Empl. Turnover (Hospital)	0.81	0.81	0.64	0.70	0.79
BDMS - NOPLAT Margin (Hospital)	11.9%	11.5%	9.9%	11.9%	14.6%
ROCE - As Hospital	**9.6%**	**9.4%**	**6.3%**	**8.4%**	**11.6%**
ROCE - As Holding	**8.9%**	**13.7%**	**8.2%**	**8.3%**	**11.5%**

BUSINESS STRATEGY

BH

Premium segment

Local
- Upper Income segment
- Size constraints

Foreigners
- Volatile

High technical expertise
- Physicians
- Nurse / Lab tech.
- Equipment
- Expensive

BDMS

Size & Scale

Multi-Segments
- Upper Middle Class: But avoid Golden Card
- Upper Income: Selected locations
- Foreigners: Selected locations

Different brands for different segments

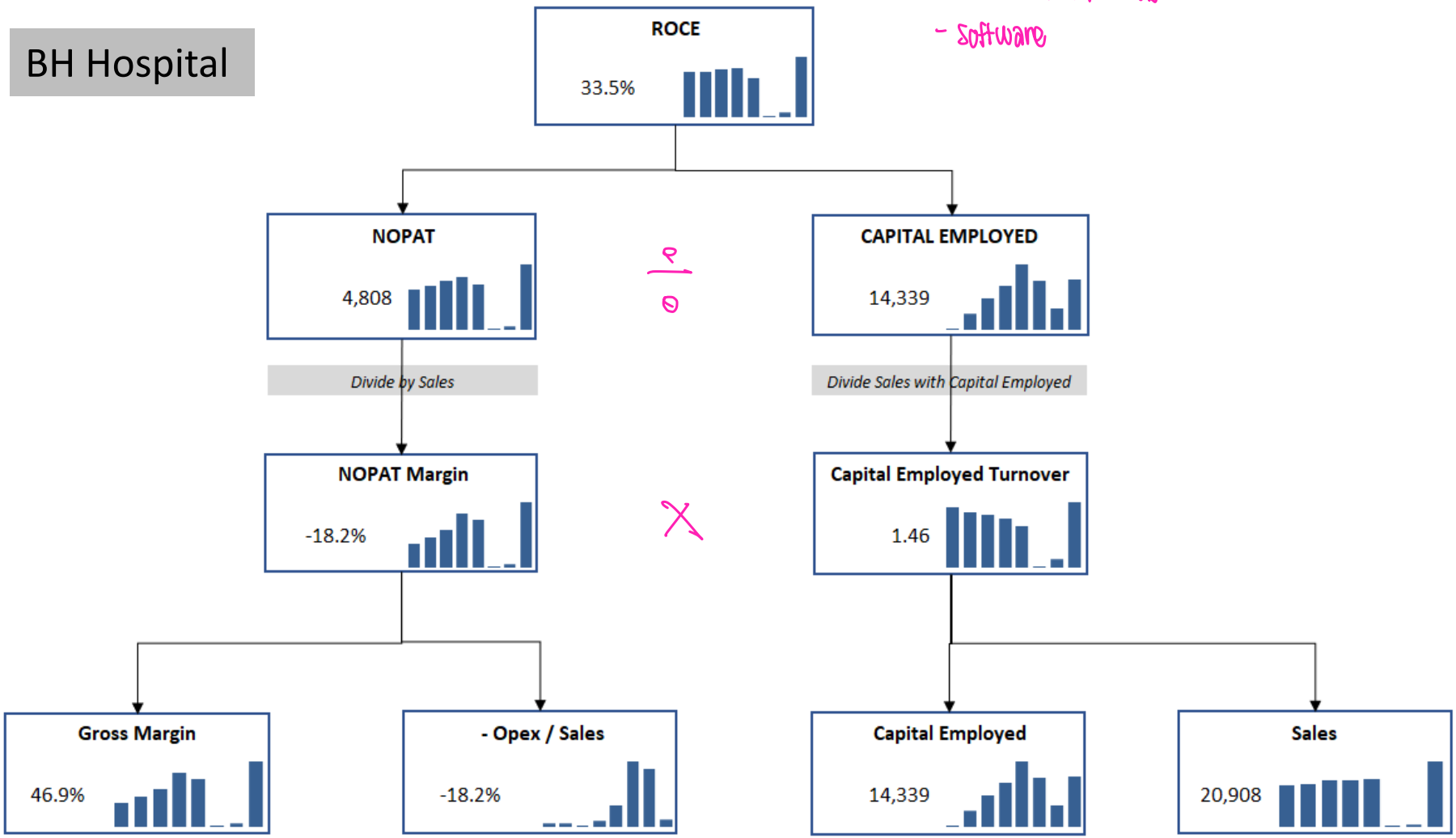
Economy of Scale
- Costs sharing
- Hub & spur and cross reference
- Bargaining power

Wide distribution

SALES, A CRITICAL FACTOR

Sales is huge contribution, high fixed cost
- Telecommunication
- Software

BH Hospital



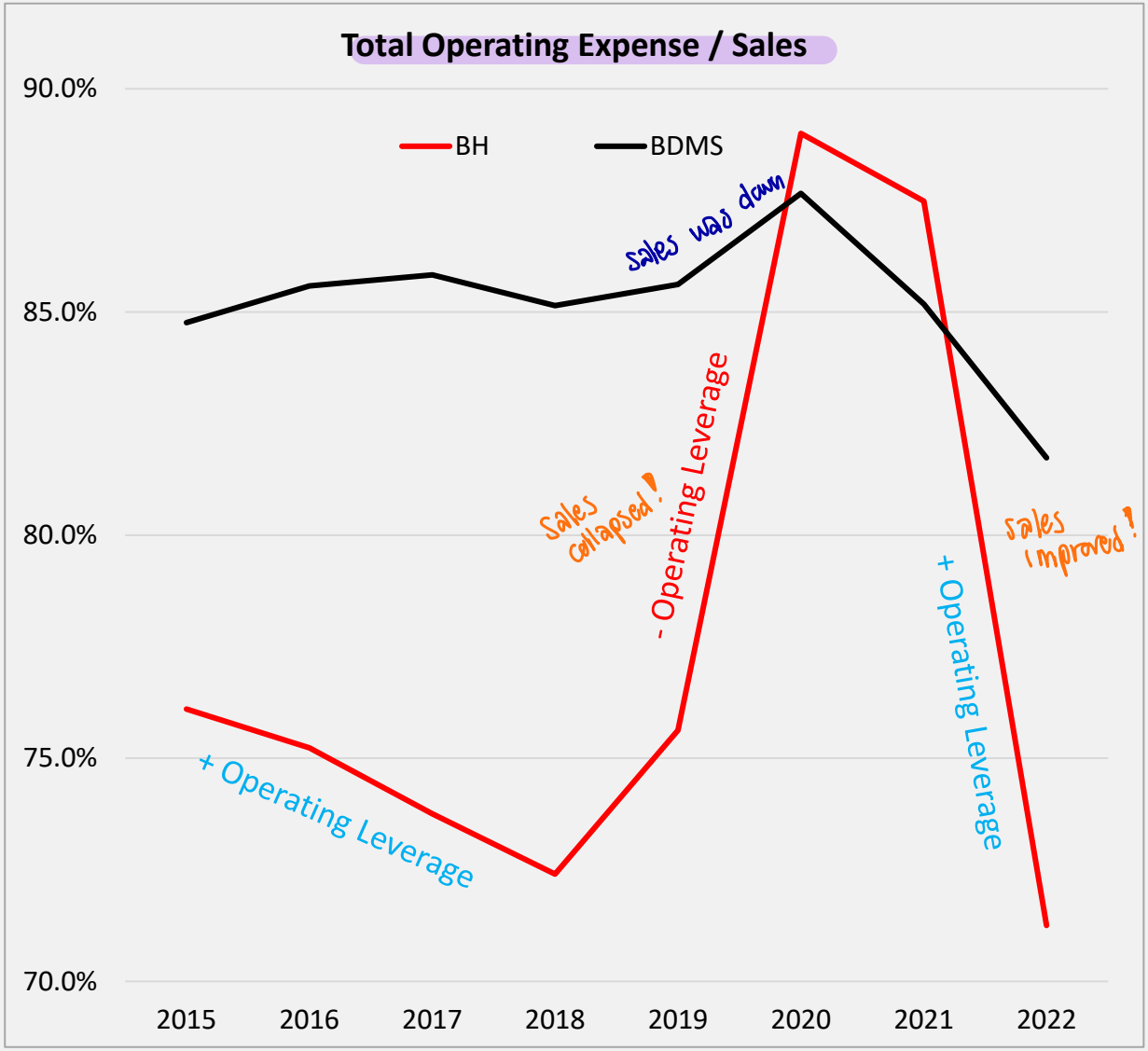
* *Ignoring Tax*

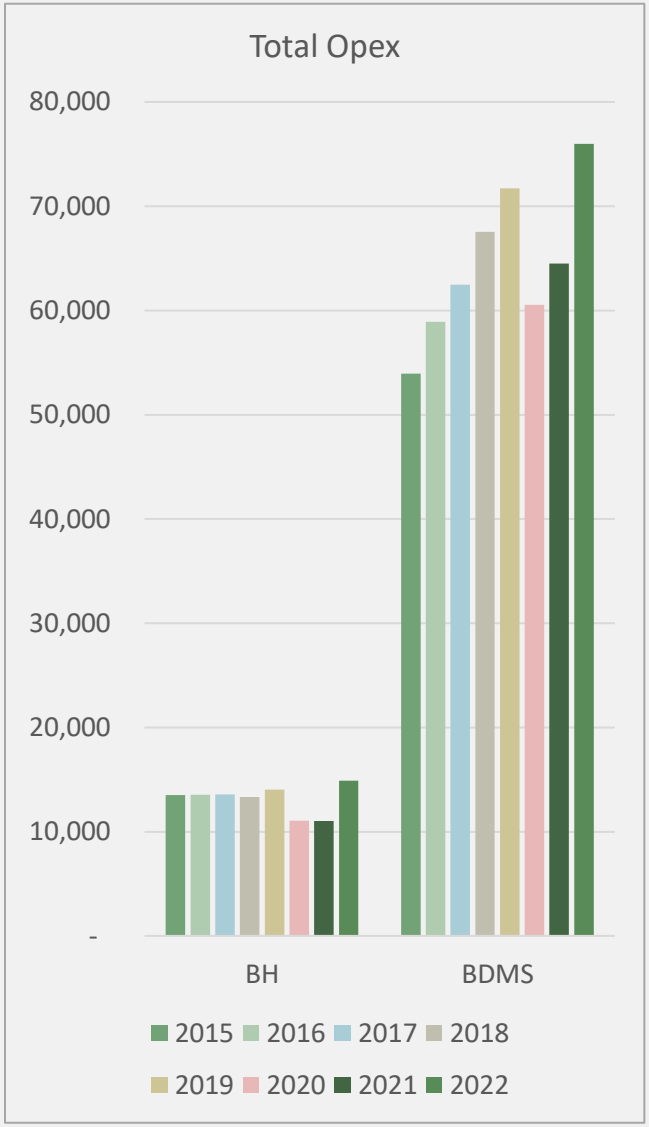
COST STRUCTURE

OPERATING COST STRUCTURE

% To Total Operating Costs (2022)	BH	BDMS
Salaries, Wages & Employee benefits	26.3%	31.3%
Physicians' fee	33.9%	28.1%
Rental & Maintenance	0.4%	0.6%
Advertising and public relation expenses	3.3%	1.1%
Depreciation, Amortization & Maintenance	11.0%	8.8%
Medicine, medical supply and other supply consumptions	25.2%	30.2%

OPERATING LEVERAGE

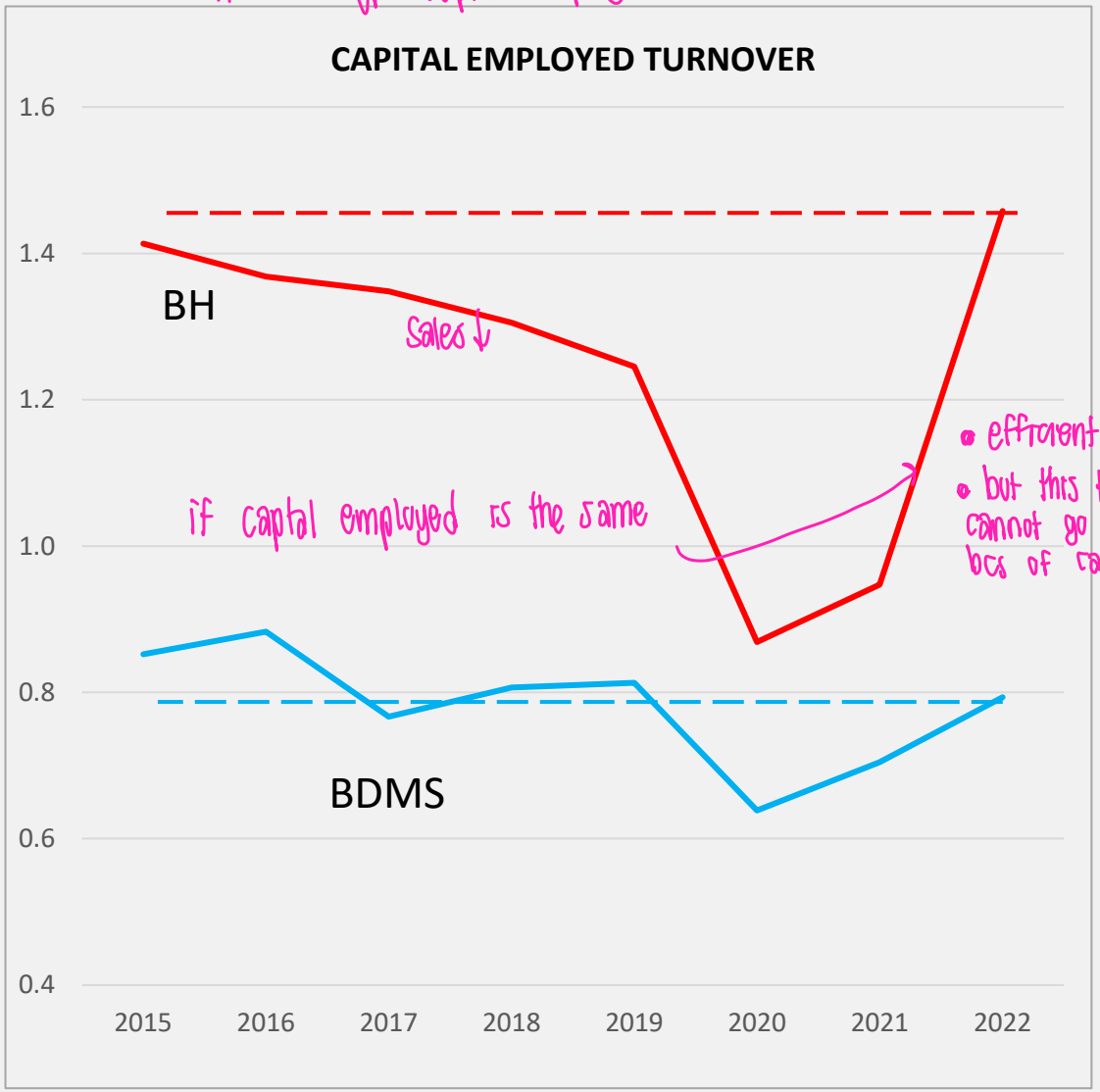




EFFICIENT USE OF RESOURCE

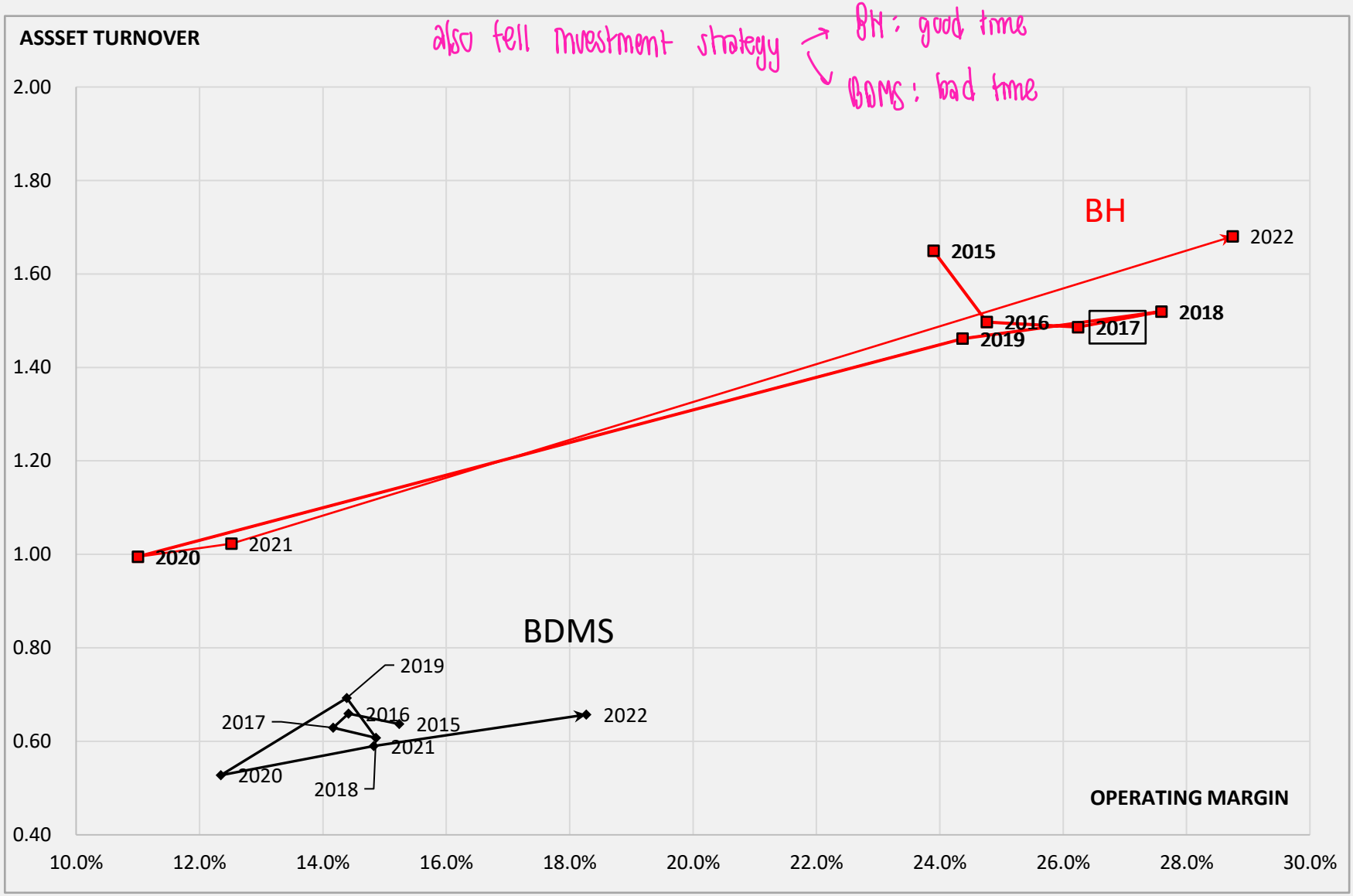
in DCF
terminal value
"terminal growth"
↑ rational

capital employed turnover ↓ bcs sales ↓
or capital employed ↑



- Asset Turnover reflects efficiency of capital used
- Asset can be scoped (substituted) for
  - Capital Employed
  - Fixed Asset
  - Total Asset
- Levels of turnover can suggest utilization compared to past periods

SCALABILITY / OPERATING LEVERAGE



FOLLOW THE MONEY – WALK THE TALK

see how company invests in fixed assets

PLANT PROPERTY & EQUIPMENT AT COST – BEFORE ACCUMULATED DEPRECIATION

	BH → quality (vertically)				BDMS (horizontally)			
	2015	2022	INCREASE	% CHANGE	2015	2022	INCREASE	% CHANGE
Land	3,656	5,350	1,695	24%	18,859	43,561	**24,702**	43%
Buildings	6,384	8,024	1,640	23%	36,147	51,741	15,593	27%
Medical Equipment & Facilities	6,345	9,703	3,358	47%	19,107	27,119	8,012	14%
to have technology								
Equipment and Furniture	588	652	64	1%	10,685	19,187	8,503	15%
Motors	44	48	4	0%	856	1,602	746	1%
Under Construction	556	965	410	6%	2,663	2,153	-510	-1%
Total	**17,572**	**24,742**	**7,170**	**100%**	**88,317**	**145,363**	**57,047**	**100%**

	2015	2016	2017	2018	2019	2020	2021	2022
ROE								
BH	26%	26%	25%	23%	19%	6%	7%	26%
BDMS	15%	15%	17%	14%	20%	9%	9%	15%
NET D/E								
BH	4%	-7%	11%	3%	6%	12%	-4%	-6%
BDMS	46%	51%	55%	51%	28%	11%	15%	18%

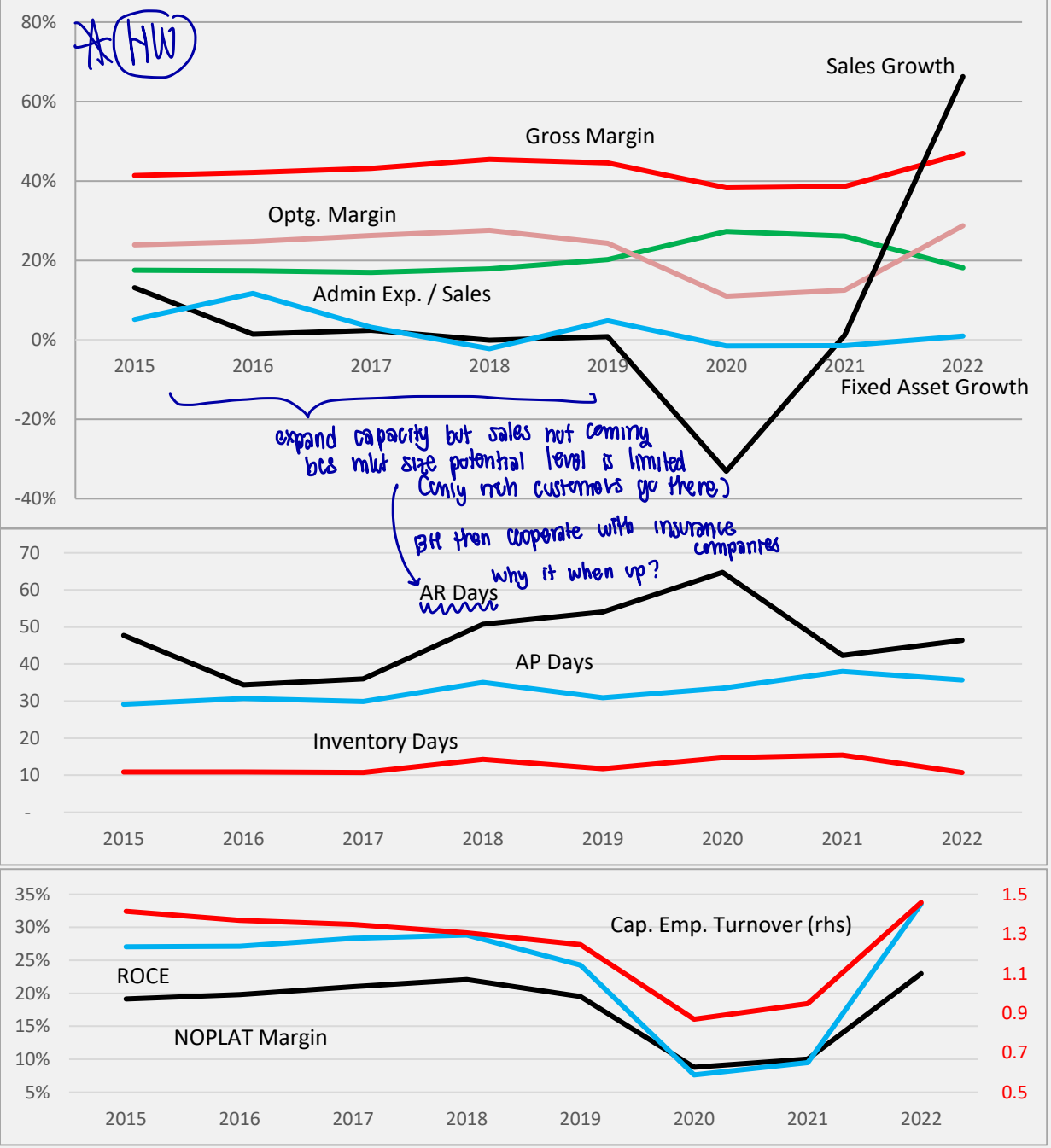
Why?

→ they will probably increase D/E as per their strategy of holding company

BDMS sold assets to repay debt
change D/E to minimize risk bcs of COVID-19

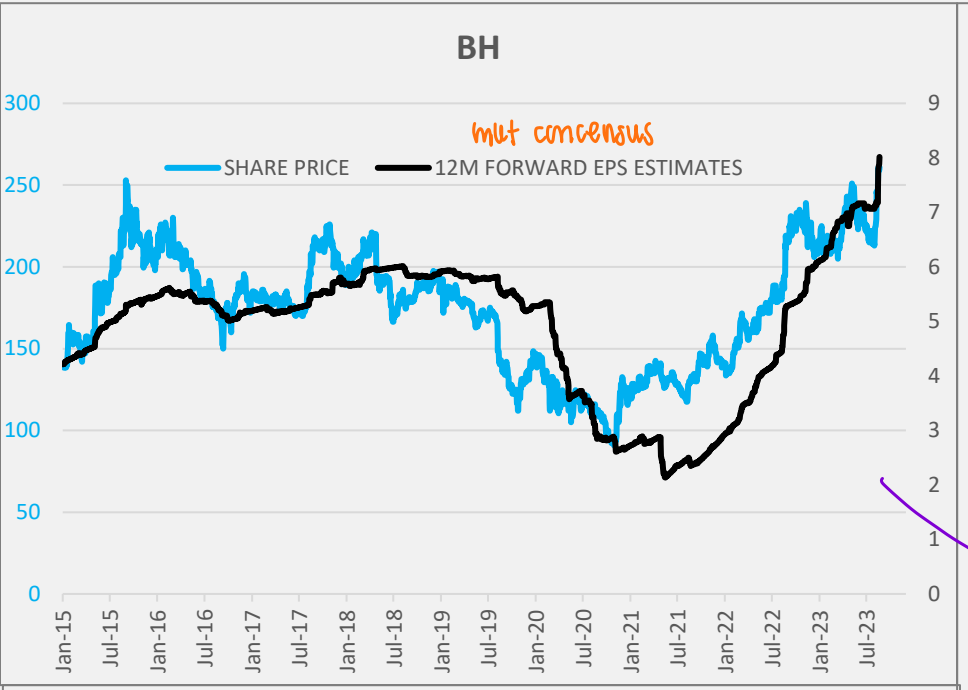
WHAT'S THE STORY?

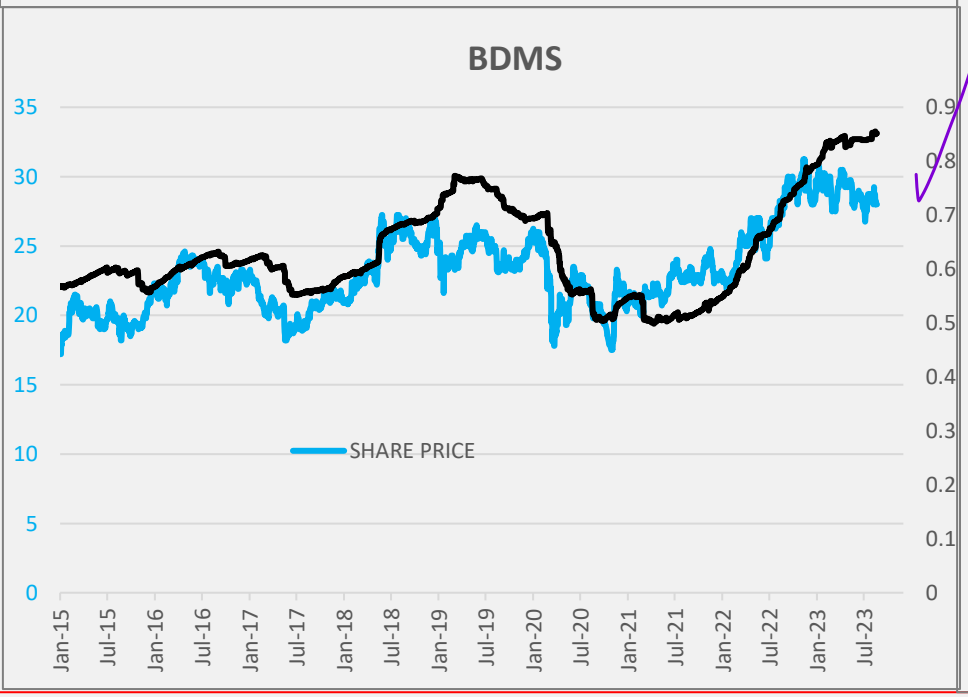
* explain what drive in ROCE

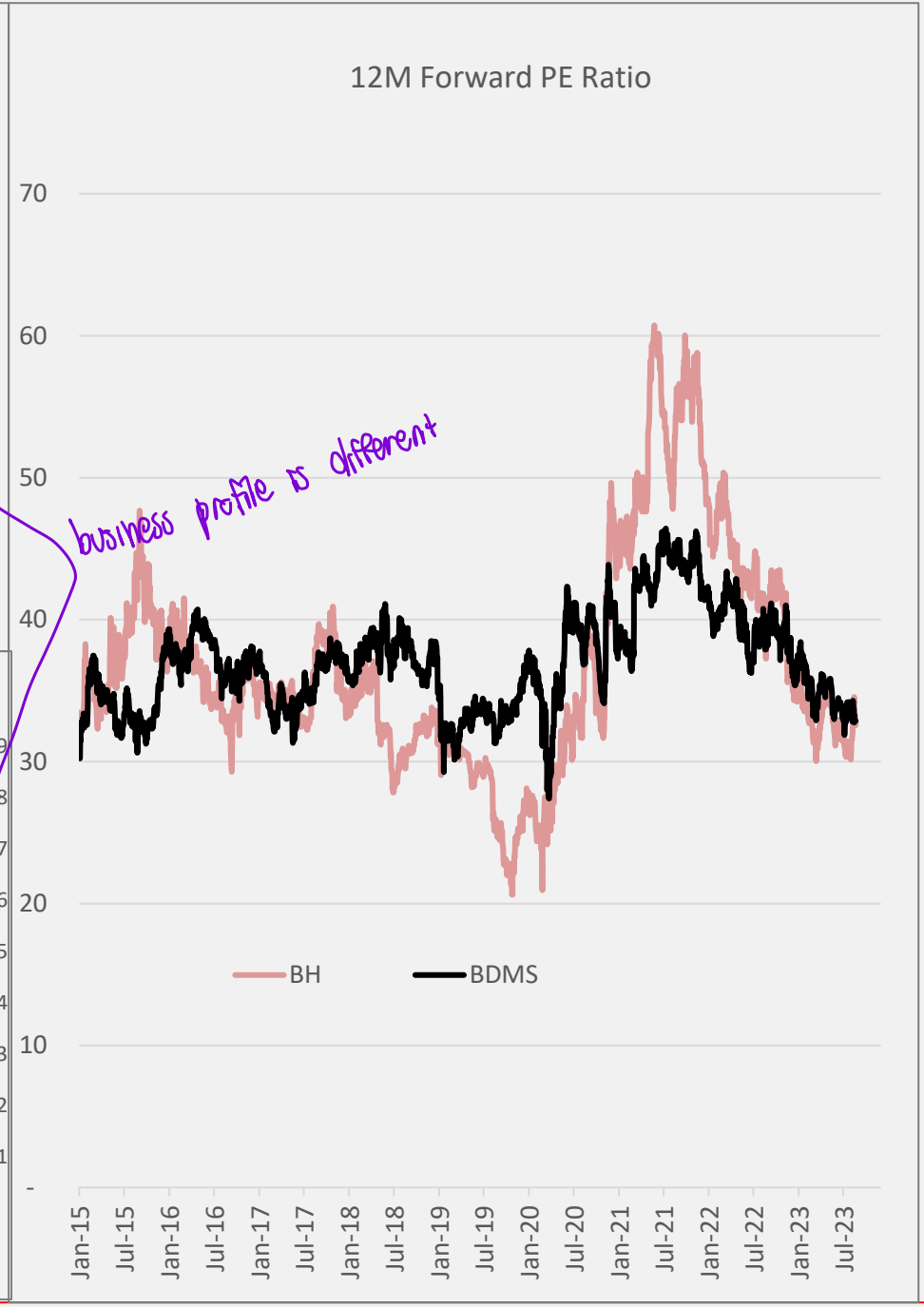


1. BH expanded capacity in 2015-2016…Evidence?
2. Sales growth declined through 2020 and rose in 2021-2022. Reasons?
3. Gross Margin climbed slowly till 2019, dropped, and rose. Reasons?
4. Admin. Expense / Sales held steady till 2018, rose through 2021 and dropped. Reason?
5. AR Days rose from 2016 through 2020, dropped and climbing back less slowly than sales? Why?
6. Changes in Capital Employed Turnover, NOPAT Margin and ROCE are the results.

- **What can we say its outlook?**


BH
mut concensus
SHARE PRICE
12M FORWARD EPS ESTIMATES
300
250
200
150
100
50
0
9
8
7
6
5
4
3
2
1
0
Jan-15
Jul-15
Jan-16
Jul-16
Jan-17
Jul-17
Jan-18
Jul-18
Jan-19
Jul-19
Jan-20
Jul-20
Jan-21
Jul-21
Jan-22
Jul-22
Jan-23
Jul-23


BDMS
SHARE PRICE
35
30
25
20
15
10
5
0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Jan-15
Jul-15
Jan-16
Jul-16
Jan-17
Jul-17
Jan-18
Jul-18
Jan-19
Jul-19
Jan-20
Jul-20
Jan-21
Jul-21
Jan-22
Jul-22
Jan-23
Jul-23


12M Forward PE Ratio
business profile is different
BH
BDMS
70
60
50
40
30
20
10
-
Jan-15
Jul-15
Jan-16
Jul-16
Jan-17
Jul-17
Jan-18
Jul-18
Jan-19
Jul-19
Jan-20
Jul-20
Jan-21
Jul-21
Jan-22
Jul-22
Jan-23
Jul-23

TELL A STORY

"STORY TELLING" DESCRIBES

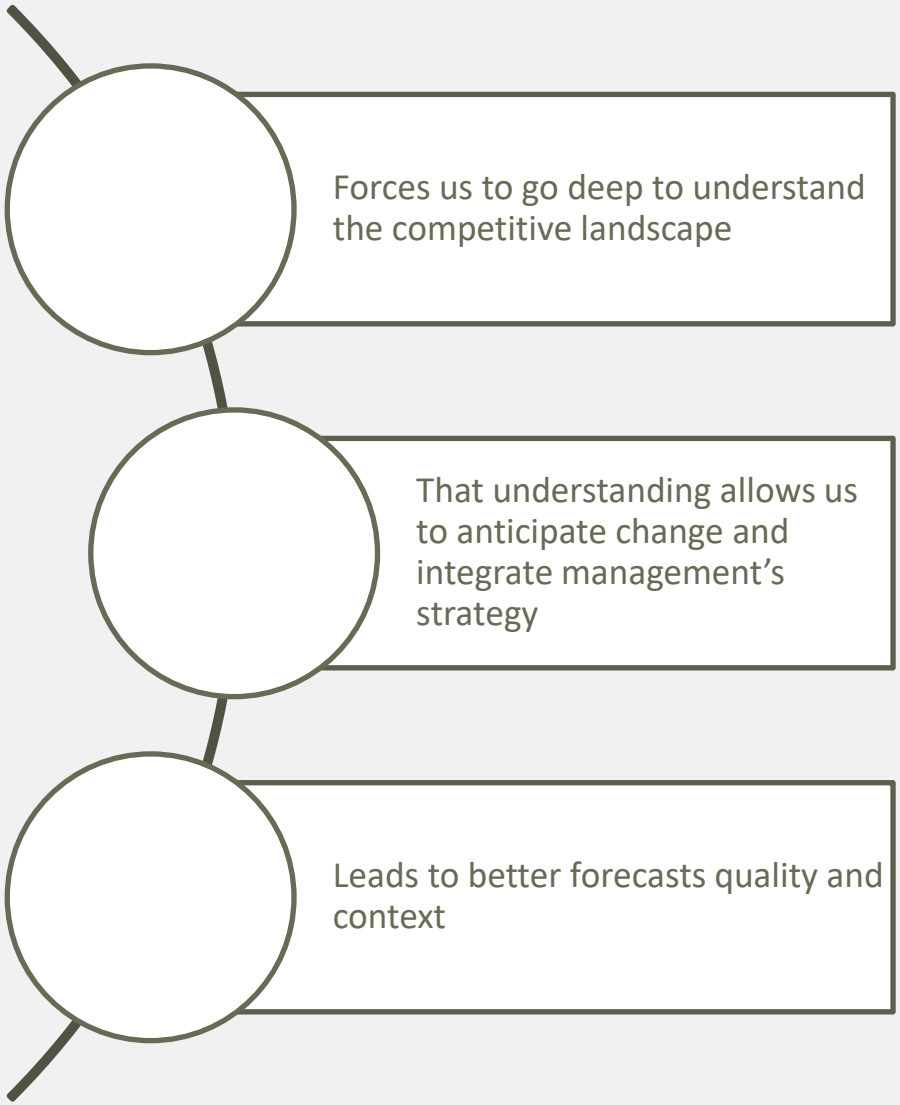
FINANCIAL RESULTS IN THE

LANGUAGE OF OPERATION

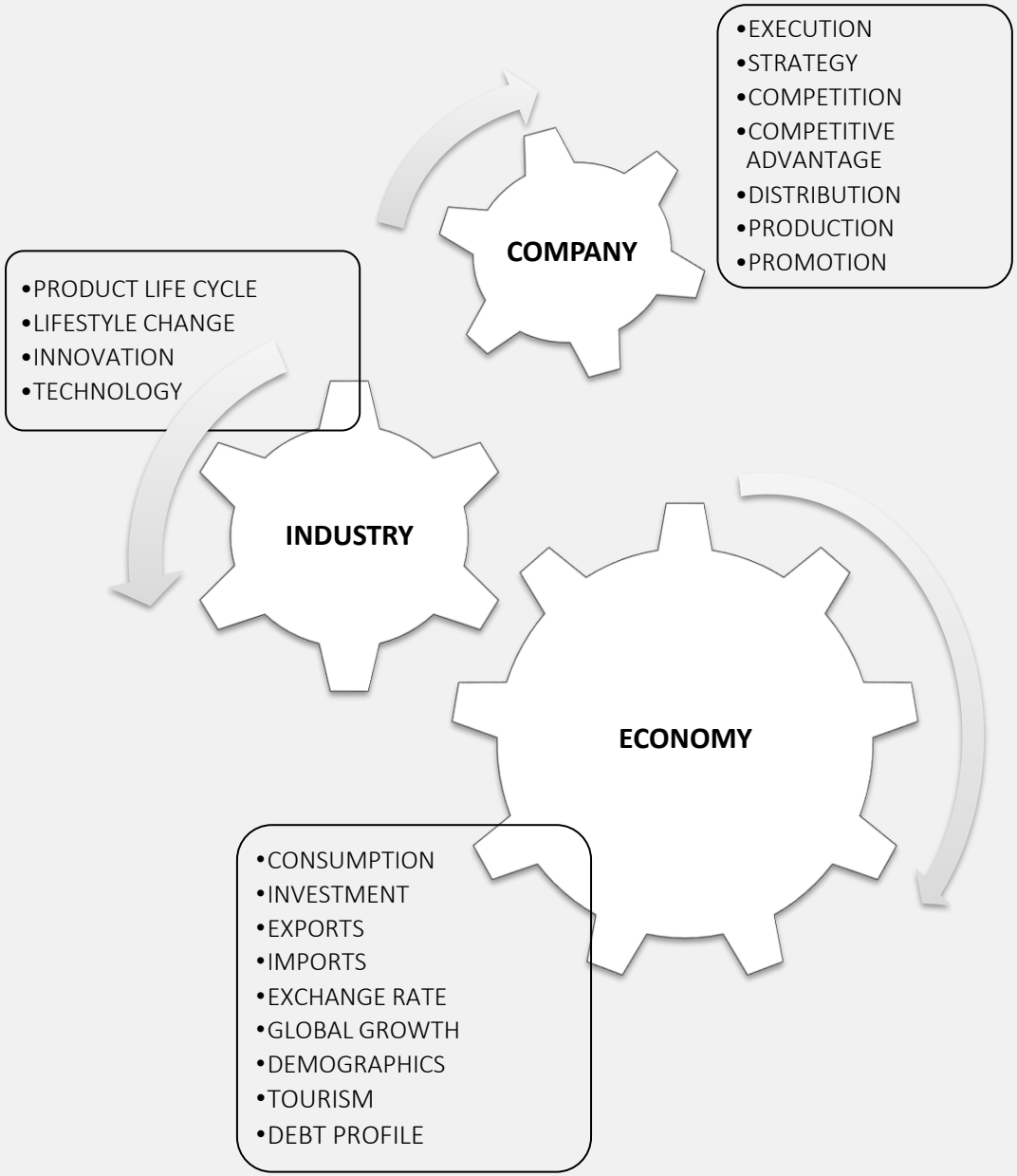
AND WITHIN THE CONTEXT

OF CHANGING MARKET

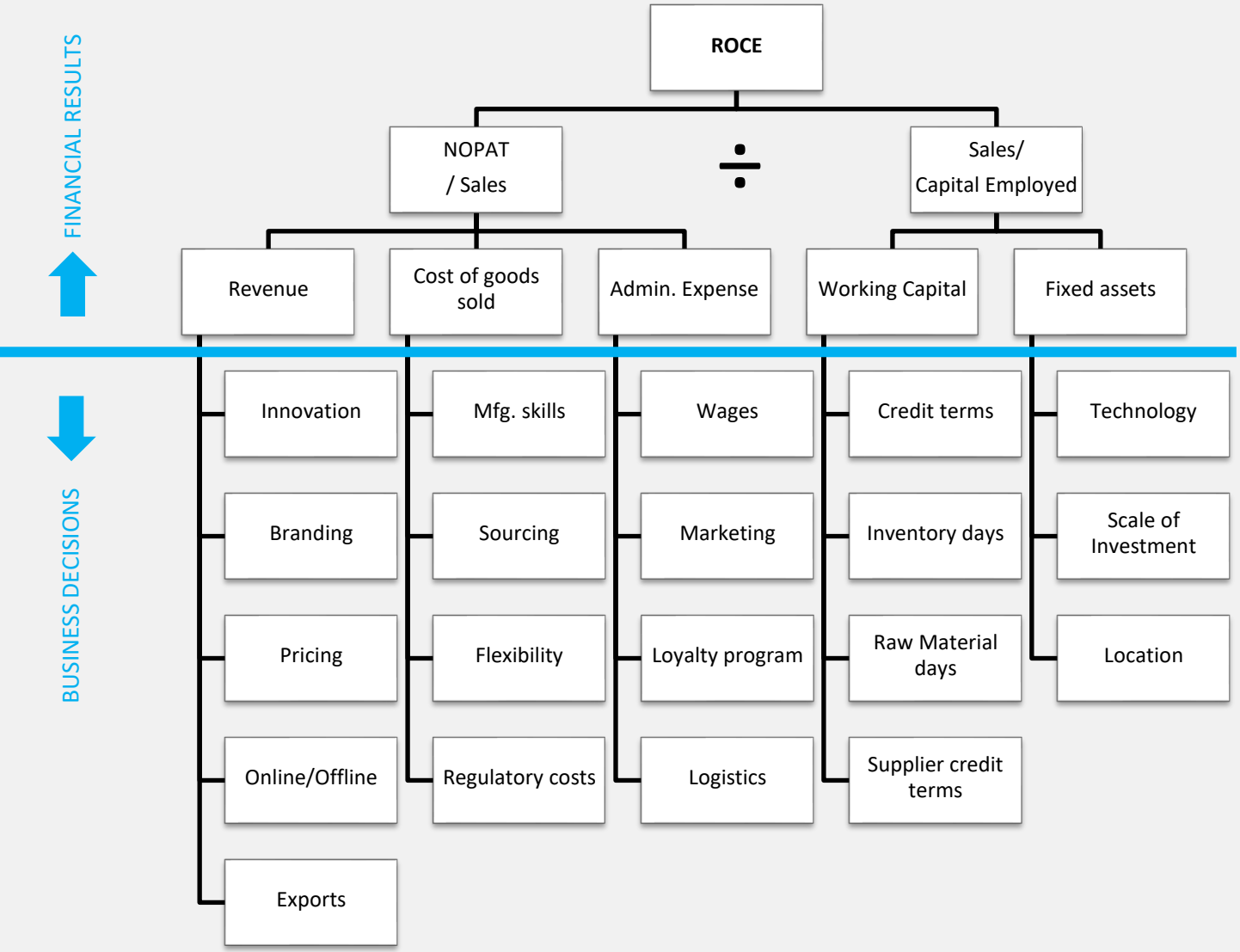
LANDSCAPE



CORRECT UNDERSTANDING OF CHANGES IN THE PAST LEADS TO BETTER DECISIONS IN THE FUTURE



BUSINESS DECISIONS



Strategic Objectives
- Growth
- Profitability
- Dominance
- Resilience
- ?

Considerations
- Positioning
- Target segments
- Product life cycle
- Business cycle
- Capital structure
- Business model
- Distribution
- Online/Offline
- Technology

MUCH OF PROFITABILITY IS INFLUENCED BY INDUSTRY

	INDUSTRY	AVERAGE (2018-2022)
ROCE		
CPF	Agro-Industrial	5.0%
PTTGC	Chemical	5.0%
GULF	Energy	7.5%
ADVANC	ICT	12.8%
BH	Healthcare	20.8%
NOPAT Margin		
CPF	Agro-Industrial	3.5%
PTTGC	Chemical	3.6%
GULF	Energy	19.1%
ADVANC	ICT	18.5%
BH	Healthcare	16.7%
Working Capital / Capital Employed		
CPF	Agro-Industrial	15.8%
PTTGC	Chemical	8.6%
GULF	Energy	-1.3%
ADVANC	ICT	-7.4%
BH	Healthcare	12.4%
Capital Employed / Total Assets		
CPF	Agro-Industrial	53.9%
PTTGC	Chemical	65.2%
GULF	Energy	47.7%
ADVANC	ICT	80.0%
BH	Healthcare	59.2%

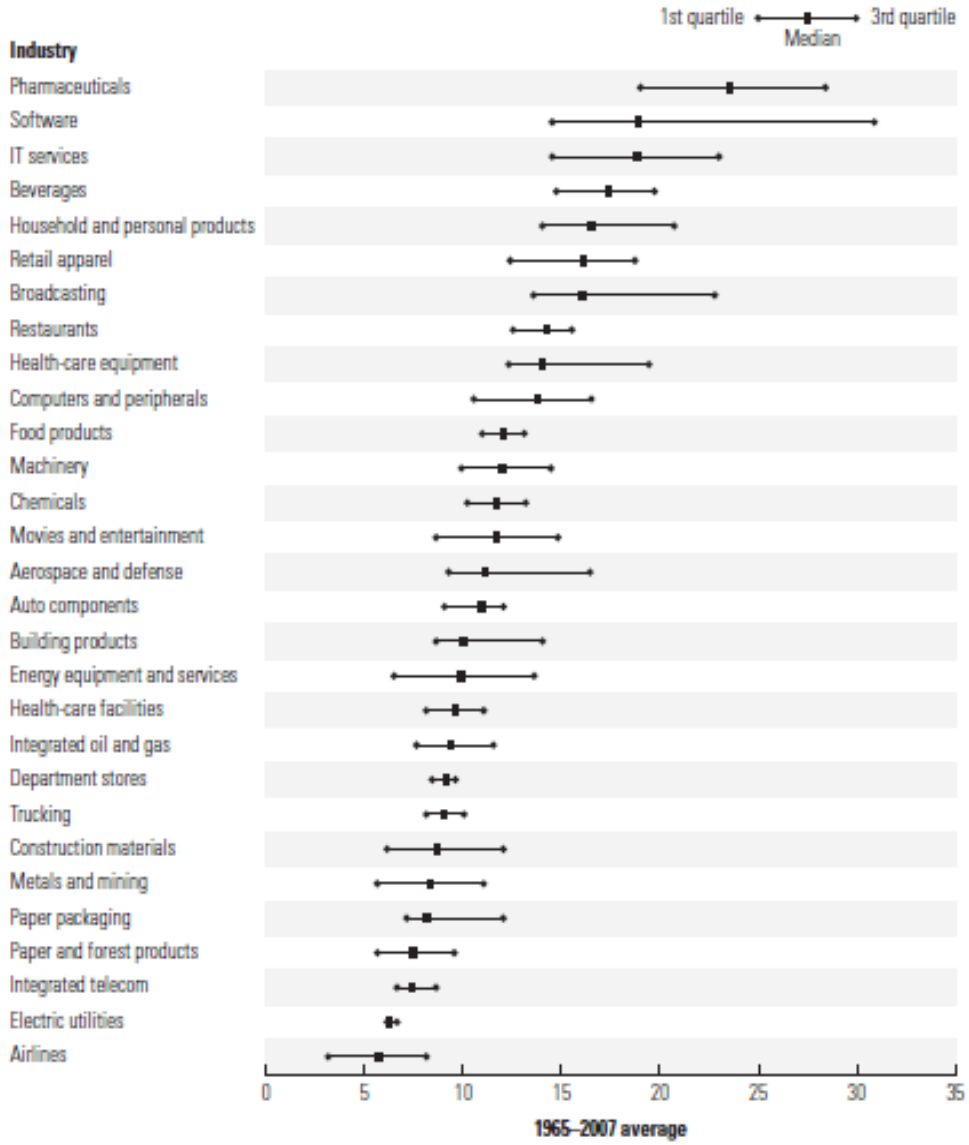
RELATIONSHIP OF ROIC WITH INDUSTRY

ROCE

- Industry cycle is a powerful factor!

EXHIBIT 4.6 **ROIC Variations across and within Industries**

Industry median ROIC, without goodwill (percent)

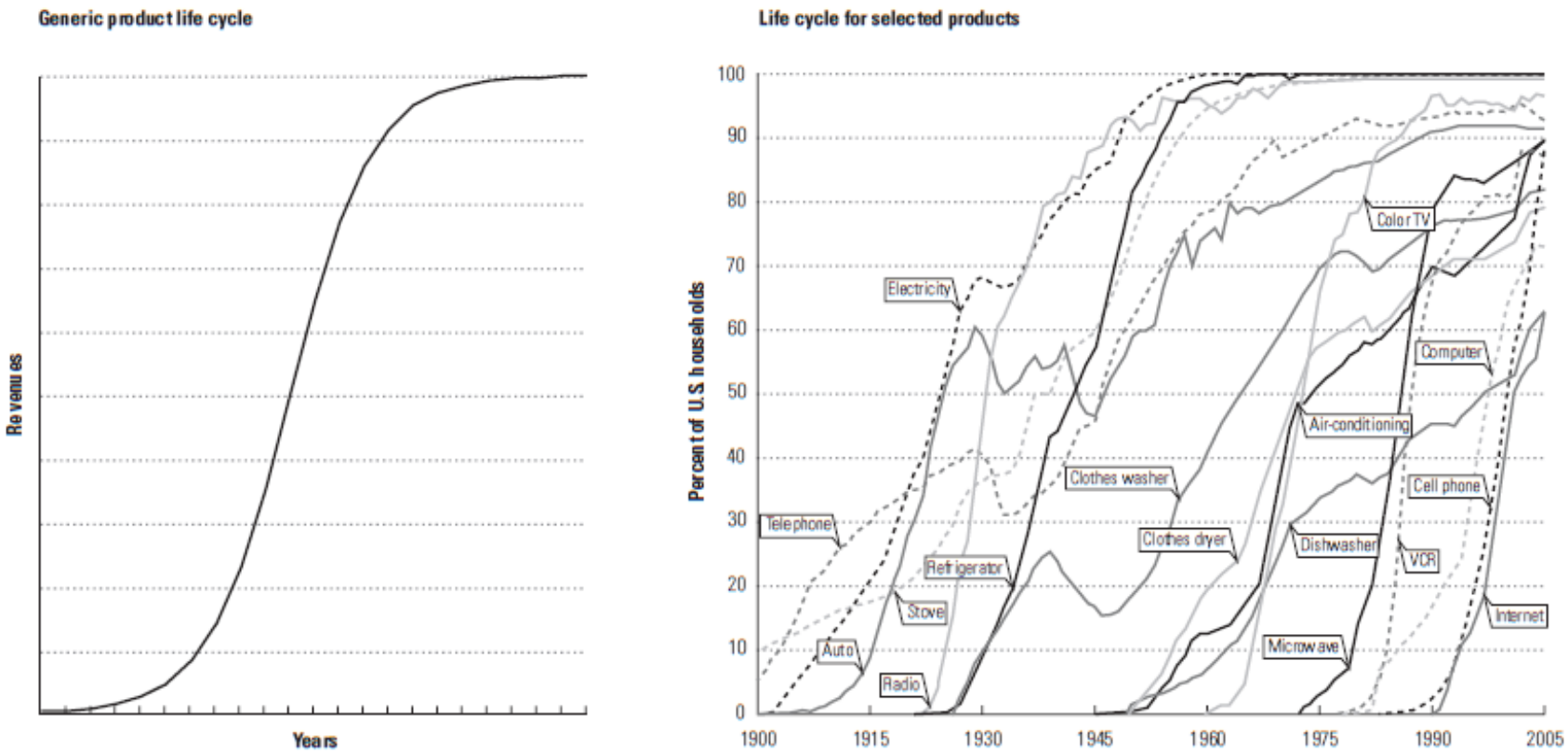


Source: Compustat, McKinsey Corporate Performance Center analysis.

Reproduced from book: VALUATION MEASURING AND MANAGING THE VALUE OF COMPANIES
FIFTH EDITION, McKinsey & Company
Page 74

GROWTH PHASE GETS SHORTER AND SHORTER

EXHIBIT 5.4 **Variation in Growth over Product Life Cycle**



Source: W. Cox and R. Alm, "You Are What You Spend," *New York Times*, February 10, 2008.

Reproduced from book: VALUATION MEASURING AND MANAGING THE VALUE OF COMPANIES
FIFTH EDITION, McKinsey & Company
Page 90

ROCE SIGNIFICANCE

A company's performance on fundamentals is more important than its performance versus consensus estimates.

	Median excess return vs sector return,[1] 2005–11, %			
	High growth + high ROIC[3]	High growth + low ROIC[3]	Low growth + high ROIC[3]	Low growth + low ROIC[3]
	high valuation			
Consistently beating[2]	4	3	0	–2
Inconsistent[2]	2	0	0	–3
Consistently missing[2]	0	–5	–5	–6

[1]Company's total returns to shareholders (TRS) minus median TRS of the sector. Sample size is 243 nonfinancial S&P 500 companies with December fiscal year-end.

[2]Difference between actual earnings per share and consensus estimate 30 days prior to earnings announcement. "Consistently beating" defined as beating expectations by >2% at least 4 out of 7 years, 2005–11. "Consistently missing" defined as missing expectations by >2% at least 4 out of 7 years. Companies consistently meeting expectations (by +/– 2% at least 4 out of 7 years) are not shown due to small sample size.

[3]ROIC = return on invested capital (2005–11); growth = compound annual growth rate of revenue (2004–11). Companies categorized as high ROIC or high growth exceeded the absolute reference points of 15% for ROIC and 7% for growth or the median of the respective sector in the sample.

Source: Standard & Poor's Capital IQ; McKinsey analysis

INVESTOR RELATION SOURCE

- The One Report (56-1)
- MD&A
- Quarterly Update
- Operating Statistics
- Annual Report
- Webcast and Presentation
- Opportunity Day
- Prospectus

ASIA AVIATION Public Company Limited

AAV 2.76 THB 0.00(0.00%) 22 MAY 2023 16:39 CONTACT | TH

ASIA AVIATION (AAV) THAI AIRASIA (TAA) INVESTOR RELATIONS NEWSROOM CORPORATE GOVERNANCE SUSTAINABILITY

INVESTOR RELATIONS

IR HOME

FACTSHEET

OPERATING STATISTICS

FINANCIAL INFORMATION

- Financial Highlights
- Financial Performance

STOCK INFORMATION

- Stock Quote
- Investment Calculator

INVESTOR INFORMATION

- Major Shareholders
- Shareholder Meetings
- Dividend Policy and Payment
- Right of Shareholder

PUBLICATIONS AND DOWNLOAD

- Form 56-1 One Report
- Resource Center
- Letter to the shareholders

PRESENTATIONS AND WEBCASTS

IR CALENDAR

ANALYST CONTACT

CODE OF CONDUCT FOR INVESTOR RELATIONS OFFICERS (IROS)

FAQ

IR CONTACT

IR BOOKING

NEWS SUBSCRIPTION

GLOSSARY

AIRLINE - AAV

Thai AirAsia	January – December		
	2022	2021	Change
Passenger carried[1]	9,949,564	2,928,140	+240%
Capacity[2]	11,901,770	4,308,176	+176%
Load factor[3] (%)	84	68	+16 ppts
Available Seat Kilometres[4] (ASK) (mil)	10,308	3,002	+243%
Revenue Passenger Kilometres[5] (RPK) (mil)	8,627	2,083	+314%
Number of stages[6]	65,308	24,011	+172%
Average stage length (km)	864	688	+26%
Size of fleet at quarter end[7] (aircraft)	54	60	-6
Operating aircraft at quarter end (aircraft)	42	25	+17

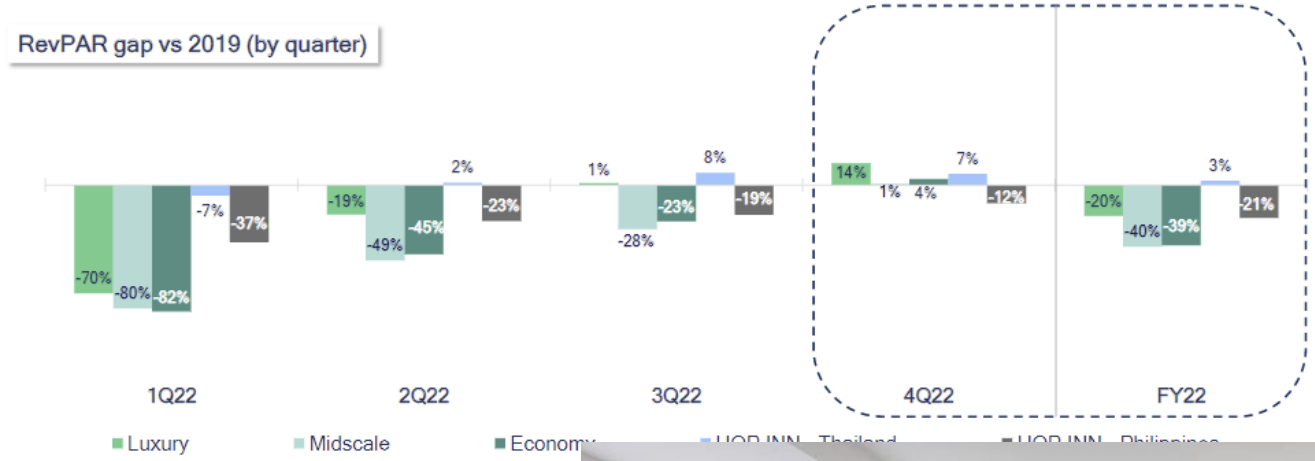
PROPERTY - LH

Bookings by Segmentation

Segment	2021	2022
< 3MB	5%	4%
3 – 7 MB	38%	30%
7 – 10 MB	11%	12%
10 – 20 MB	19%	20%
20 – 50 MB	20%	26%
> 50 MB	7%	8%
Average Price	7.6 MB	8.8 MB

RevPAR compared to Pre-COVID by Segment

All segments in Thailand already surpassed pre-covid level while the gap of the Philippines is narrowing in 4Q22



nark : Adjusted 2019 basis comparison

HOTEL - ERAWAN

2023 ERAWAN GUIDANCE

A strong outlook towards 2023 with expected turnaround in profitability

OCC	ARR	RevPAR	Revenue
75-80%	>20% YoY	>40% YoY	>45% YoY

Key supporting factors towards 2023 outlook

- China Re-opening
- Southeast Asia market will remain key contributor to our hotels business
- India will continue to grow as travel restrictions have been lifted in February 2023
- Recovery of airline capacities
- Continue growth of domestic market supported by "We Travel Together"

INDUSTRIAL - PTTGC

Committed Capex to support GC's sustainable growth

Projects	Total	Estimated Annual CAPEX (M.USD)				
	2023-2027	2023	2024	2025	2026	2027
1) Olefin 2 Modification Project	33	33	-	-	-	-
2) Other projects	269	225	27	16	-	-
total	**302**	**258**	**27**	**16**	**-**	**-**
3) allnex expansion & growth Capex	491	80	111	114	95	91
GC group Grand total	**793**	**338**	**139**	**130**	**95**	**91**

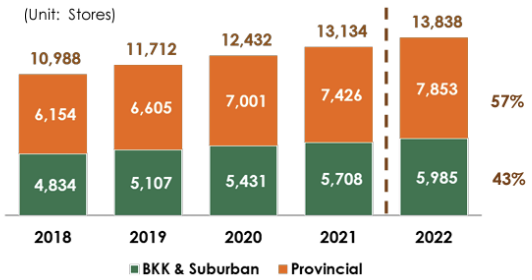
Notes: 1. Group annual maintenance ~ 400 M.USD (including allnex)
2. Other projects such as IT & digital, new office facility, upgrade/modify production unit etc

27

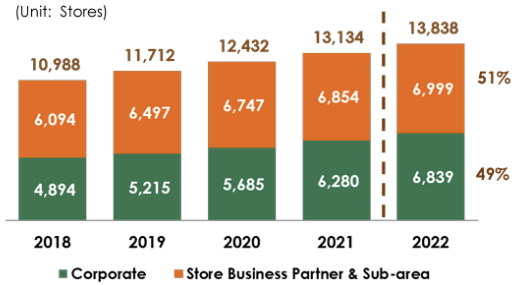
COMMERCE - CPALL

Store Types Breakdown
Ongoing store expansion

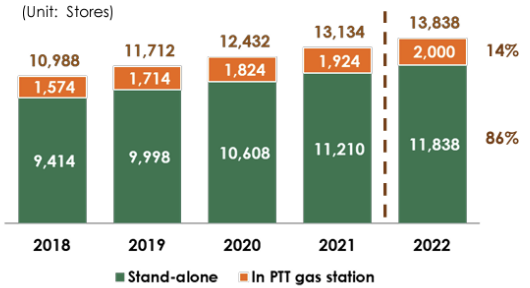
BKK & Suburban / Provincial



Corporate / Store Business Partner & Sub-area



Stand-alone / In PTT gas station



Store Expansion

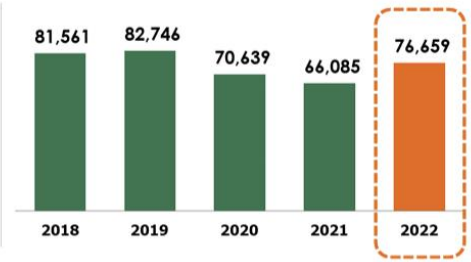
2018	2019	2020	2021	2022
+720	+72			

Same Store Sales Growth
Solid recovery through continued traffic improvement

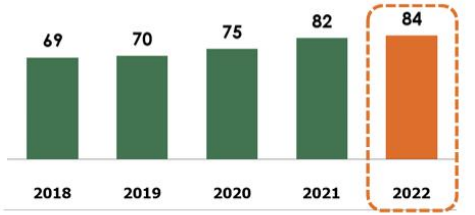
SSSG (%)

2018	2019	2020	2021	2022
+3.2%	+1.7%	-14.5%	-6.7%	+15.9%

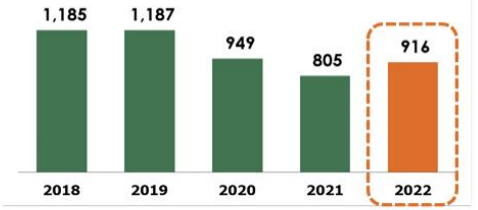
Average daily sales / store (Baht)



Spending per ticket (Baht)



No. of customer/store/day (customers)



6

MEDIA – VGI

VGI ECOSYSTEM

OUR PIONEERING PLATFORM-BASED ECOSYSTEM REDEFINNING BOUNDARIES ACROSS INDUSTRIES

ADVERTISING	PAYMENT	DISTRIBUTION	
O2O Advertising Mass and Target Audience Domestic and International target	Payment Life & Non-Life Insurance Digital Lending	Technology Gadget Distributor Omni-channel Commerce Direct to Customer	Most Valuable Commercial Spaces Promotion channel for variety Products and Services

AWARENESS, ENGAGEMENT AND ... → CONVERSION

5

DISTRIBUTION

THE NO. 1 PARCEL DELIVERY SERVICES IN THAILAND

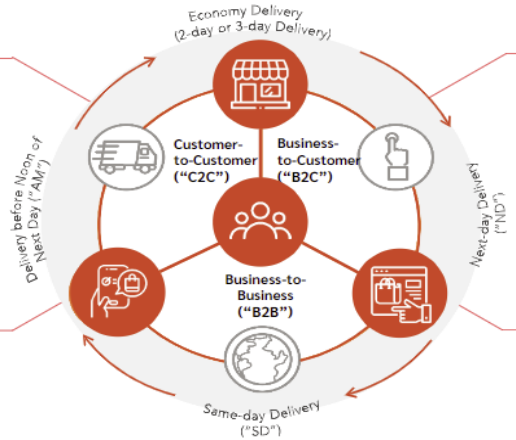
KERRY EXPRESS

FASTEST GROWTH

- **2.7mn** average daily parcel sorting capacity

STRONG NETWORK WITH NATIONWIDE COVERAGE

- **26,000** total service points
- **1,400** distribution centers
- **>22,000** vehicles
- **13** sorting hubs



LARGEST PAYMENT-ON-DELIVERY PRIVATE EXPRESS COMPANY

- **>THB 6.5bn** average monthly transaction value

VGI X KEX SYNERGIES

- **2.7mn** Smart Sampling, Parcel Stickers and Driver Handover
- **1,600** Truck Wrap

8

VGI

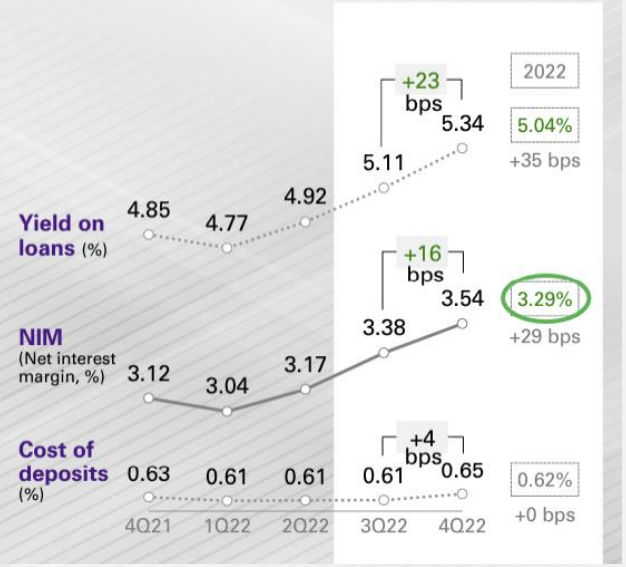
NIM continued to expand from the quality loan growth strategy and upward interest rate trend

Loans (Baht billion)

	4Q21	1Q22	2Q22	3Q22	4Q22	QoQ	YoY
Loans	2,302	2,326	2,360	2,347	2,377	1%	3%
Corporate	828	854	875	849	857	1%	4%
SME	403	408	414	411	407	-1%	1%
Retail	1,071	1,064	1,071	1,088	1,113	2%	4%

Loans by subsidiaries (Gen 2 & Gen 3) (Baht billion)

	4Q21	1Q22	2Q22	3Q22	4Q22	QoQ	YoY
Others	7	9	10	12	15	22%	101%
AutoX				3	7.5	151%	n.a.
CardX	117	105	106	109	115	5%	-2%



Note: Loan of CardX was reported as part of the Bank before the spin-off on 10 D

SCB X PCL | 2022 Analyst Meeting Presentation | 20 January 2023

BANKING - SCB

Fee remained under pressure from the slowdown in wealth management despite a rebound in non-wealth income during 2H22

Fee & others (Baht billion)

	2020	2021	2022	YoY
	42.0	47.1	44.9	-5%
Others	2.8	3.8	2.6	-32%
Bancassurance	13.9	15.2	15.1	n.m.
Wealth management	8.2	10.9	7.8	-28%
Lending related	5.5	5.3	5.6	7%
Transactional banking	11.7	12.0	13.7	14%

	4Q21	1Q22	2Q22	3Q22	4Q22	QoQ	YoY
	12.5	11.6	11.0	11.8	10.5	-11%	-16%
Others	1.7	0.9	0.7	0.6	0.4	-34%	-76%
Bancassurance	3.7	3.8	3.8	4.0	3.6	-11%	-5%
Wealth management	2.6	2.4	1.8	2.0	1.7	-18%	-37%
Lending related	1.4	1.3	1.3	1.5	1.4	-7%	1%
Transactional banking	3.0	3.2	3.5	3.6	3.4	-5%	14%

SCB X PCL | 2022 Analyst Meeting Presentation | 20 January 2023

Page 16 / 36

Muangthai Capital Public Company Limited and its Subsidiaries

Statement of financial position

		Consolidated financial statements 31 December	
Assets	*Note*	2020	2019
		(in Baht)	
Current assets			
Cash and cash equivalents	*7*	1,378,094,187	783,172,078
Current portion of loan receivables	*8*	39,345,736,617	34,902,345,203
Current portion of hire purchase receivables	*9*	126,428,691	26,999,843
Other receivables - related parties	*6*	-	-
Short-term loans		84,998,574	74,547,681
Short-term loans - related parties	*6*	37,500	18,000
Other current assets		139,715,825	135,131,138
Total current assets		**41,075,011,394**	**35,922,213,943**
Non-current assets			
Restricted bank deposits	*7*	11,000,000	10,000,000
Loan receivables	*8*	29,935,649,480	23,636,439,632
Hire purchase receivables	*9*	232,410,293	56,945,741
Investments in subsidiaries	*10*	-	-
Land, buildings and equipment	*11*	1,928,494,906	1,778,311,636
Right-of-use assets	*6, 12*	3,564,068,899	-
Intangible assets		24,817,264	25,822,823
Deferred tax assets	*21*	296,736,949	300,213,267
Other non-current assets		153,688,688	141,655,178
Total non-current assets		**36,146,866,479**	**25,949,388,277**
Total assets		**77,221,877,873**	**61,871,602,220**

Liabilities and equity	*Note*	2020	2019
		(in Baht)	
Current liabilities			
Short-term borrowings from financial institutions	*13*	2,396,526,081	1,897,232,693
Derivative liabilities		6,473,534	14,403,957
Other payables	*14*	1,074,552,902	890,730,642
Current portion of long-term borrowings financial institutions	*15*	3,959,328,592	4,038,162,484
Current portion of debentures	*16*	12,886,771,659	8,733,878,049
Current portion of lease liabilities *(2019: Current portion of finance lease liabilities)*	*6, 12*	838,091,289	19,240,871
Current income tax payable		699,762,410	607,158,253
Other current liabilities	*6*	88,560,003	111,120,906
Total current liabilities		**21,950,066,470**	**16,311,927,855**
Non-current liabilities			
Long-term borrowings from financial institutions	*15*	6,166,052,804	2,993,495,726
Debentures	*16*	25,566,069,462	26,473,470,400
Lease liabilities (2019: Finance lease liabilities)	*6, 12*	2,724,457,114	27,100,573
Provisions for employee benefits	*17*	133,098,358	93,893,858
Total non-current liabilities		**34,589,677,738**	**29,587,960,557**
Total liabilities		**56,539,744,208**	**45,899,888,412**
Total equity		**20,682,133,665**	**15,971,713,808**

Revenue			
Interest and fee income from loans receivables and hire purchase receivables		13,961,509,138	11,879,693,590
Fees and service income	*6*	726,427,794	723,213,883
Dividend income	*6*	-	-
Other income	*6*	44,652,536	85,022,030
Total revenue	*19*	**14,732,589,468**	**12,687,929,503**
Expenses			
Services and administrative expenses	*6, 20*	6,144,148,514	5,314,188,001
Total expenses		**6,144,148,514**	**5,314,188,001**
Profit from operating activities		**8,588,440,954**	**7,373,741,502**
Gain arising from derecognition of financial assets measured at amortised cost		36,140,399	-
Finance costs	*6*	(1,816,964,173)	(1,526,553,219)
Bad and doubtful debts expenses	*20*	-	(554,212,960)
Expected credit loss		(291,117,490)	-
Profit before income tax expense		**6,516,499,690**	**5,292,975,323**
Income tax expense	*21*	1,302,575,881	1,055,506,690
Profit for the year		**5,213,923,809**	**4,237,468,633**
Other comprehensive income			
Items that will be reclassified subsequently to profit or loss			
Gain on cash flow hedges		7,930,423	3,442,475
Income tax relating to items that will be reclassified subsequently to profit or loss	*21*	(1,586,085)	(688,495)
Total items that will be reclassified subsequently to profit or loss		**6,344,338**	**2,753,980**
Items that will not be reclassified to profit or loss			
Loss on remeasurements of defined benefit plans	*17*	(4,734,702)	(20,471,278)
Income tax relating to items that will not be reclassified to profit or loss	*21*	946,941	4,094,256
Total items that will not be reclassified to profit or loss		**(3,787,761)**	**(16,377,022)**
Other comprehensive income (expense) for the year, net of tax		**2,556,577**	**(13,623,042)**
Total comprehensive income for the year		**5,216,480,386**	**4,223,845,591**

MTC

FINANCIAL INSTITUTION (CONSUMER FINANCE)

KEY RATIOS & CALCULATION

BTMN	2020	2019	NOTE
Total Loans	69,281	58,539	Different products,
Total Hire Purchase	359	84	different margins
Total Loans	**69,640**	**58,623**	Pace of growth
Short Term Borrowing	2,403	1,897	
Current Portion of Long Term Debt	17,684	12,791	
Long Term Debt	34,457	29,494	
Total Funding	**54,544**	**44,183**	'Raw Materials'
Interest Revenue	13,962	11,880	"Sales"
Lending Yield	*21.8%*		"Unit Selling Price"
Interest Expenses (Funding expenses)	1,817		
Borrowing Cost	*5.7%*		"Unit Raw Mat Cost"
Interest Margin (Spread)	*16.1%*		Spread / Margins
Fees & Services	771		5.2% Fees / Total Income. A
Total Income	14,733		high margin service
Operating Costs	6,144		Cost of Operation
Cost Income Ratio	*41.7%*		Operating costs
Expected Credit Loss (ECL) / Provisions	291		Expected loss of bad debt
Credit Cost	*0.5%*		% to Loans
Allowance for ECL (Accumulated Provision)	*1,326*		Accumulated ECL in BS
NPL (>90 days overdue+ Litigated)	747		From Footnotes
Allowance / NPL	178%		Higher, the better
Equity Base	**20,682**	**15,972**	
Equity	20,682	15,972	
Debt	54,544	44,183	
Net Debt	53,166	43,399	
Net Debt / Equity	2.57	2.72	Covenant, Regulatory
Liquidity	1.9	2.2	Regulatory
Cash / Earning Assets	16%	11%	
Current portion of Loans	40,098		Liquidity
Current portion of Funding Base	16,845		Liquidity

INDUSTRY INFORMATION

1. Market leaders' analysts’ presentation (TESLA / GOOGLE / MICROSOFT / ALIBABA / INTEL / APPLE / TOYOTA / SAMSUNG / ETC.)
2. BOT / MOC / MOF
3. International Industry Associations
4. Trade Journals
5. Bloomberg Industry Data
6. UNCTAD / IMF / WTO

ASSIGNMENT

- INDIVIDUAL ASSIGNMENT
- CHOOSE A PUBLICLY LISTED COMPANY (NO "CBG" NO "OSP") big company
- TOPIC: ROCE
  - PAGE 31: TELL A STORY

From 2015
<at least 3-4 yrs before covid>

IMPORTANT SOURCES OF MACRO ECONOMIC DATA

Economic and Industry

- Local: BOT, NESDB, OIE, OAE, MOF, FPO, MOC, NSO, ATTA, Customs Department
- Foreign: WORLDBANK, TRADEMAP, IMF, FRED, BLS, ECB, ITU, FAO

Market data

- Morning Star-Mutual fund database | In Thai, Finnomena Wealth Mayix
- ETFdb.com, ETF-ETF database
- SETTRADE, TFEX, CBOT, NYSE, NASDAQ, SET, SEC-Stock exchanges
- asianbondsonline.adb.org, TBDC-Asia Bond Yields, Thai Bond Yields
- WSJ-Market activity

Proprietary

- Thompson Reuters -Wide universe
- Bloomberg-Wide universe
- SETSMART-SET listed financials, corporate actions
- McKinsey

READING

1. REVIEW EXCEL SPREAD SHEET; FINANCIAL MODELING

2. INVESTMENT VALUATION, Tools and Techniques for Determining the Value of Any Asset by Aswath Damodaran (University Edition, 3rd Edition)
   1. **Understanding Financial Performance, Chapter 3**

3. VALUATION, MEASURING AND MANAGING THE VALUE OF COMPANIES, Fifth Edition. McKinsey & Company , Tim Koller, Marc Goedhart and David Wessels
   - **Forecasting Performance, Chapter 9, Page 187**
   - **Chapter 4, Return on Invested Capital Page 59**

QUIZ