

\* Sales & Gross margin < spend 95% of time on this >

# CU - MSF

# EQUITY ANALYSIS AND VALUATION

## Financial Modeling

Susheel Narula  
January 2024

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# FINANCIAL FORECASTS

- **BUSINESS VIEW:** Have a good grasp of how business evolved to reach the present status
- **AVOID TEMPLATE:** Every business is unique, a template only serves as a very general guide
- **WEIGH YOUR EFFORTS:** Focus on issues that have big impact
- **WWW:** Make use of public data source
- **ACCEPT MISTAKES:** When facts / beliefs change, views change, forecasts change

# CONTEXT: ECONOMY, INDUSTRY, STRATEGY

- ▶ How firm has been doing in the past
  - ↳ as a base to forecast
- <for start-up, study industry>

## WHAT HAPPENED IN THE PAST

- UNDERSTAND WHAT HAPPENED TO THE COMPANY IN RELATION TO INDUSTRY / COMPETITORS
- ASSESS ITS COMPETITIVENESS WITH RESPECT TO SIZE, GROWTH, MARGINS, EFFICIENCY, PROFITABILITY AND STRATEGIC DIRECTION
- >>> "VALUE DRIVERS"

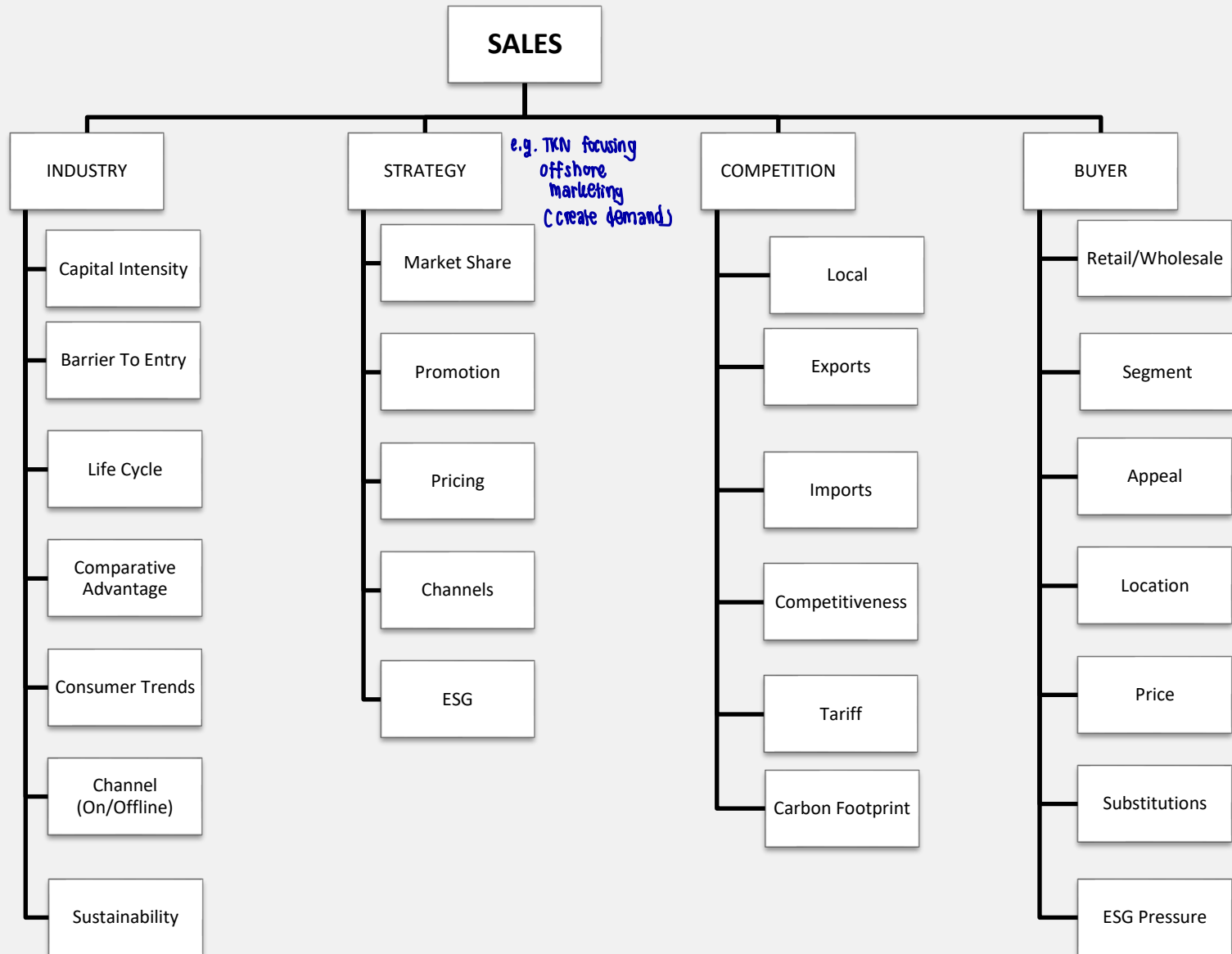
## HAVE A VIEW ON INDUSTRY

- UNDERSTAND INDUSTRY TRENDS
- HOW COMPANY BUSINESS PLANS / STRATEGY FIT / CAN CAPITALIZE ON INDUSTRY TRENDS
- PROVIDE EVIDENCE FOR YOUR VIEWS. ANALYZE AND SYNTHESIZE TO PROVIDE SUPPORT

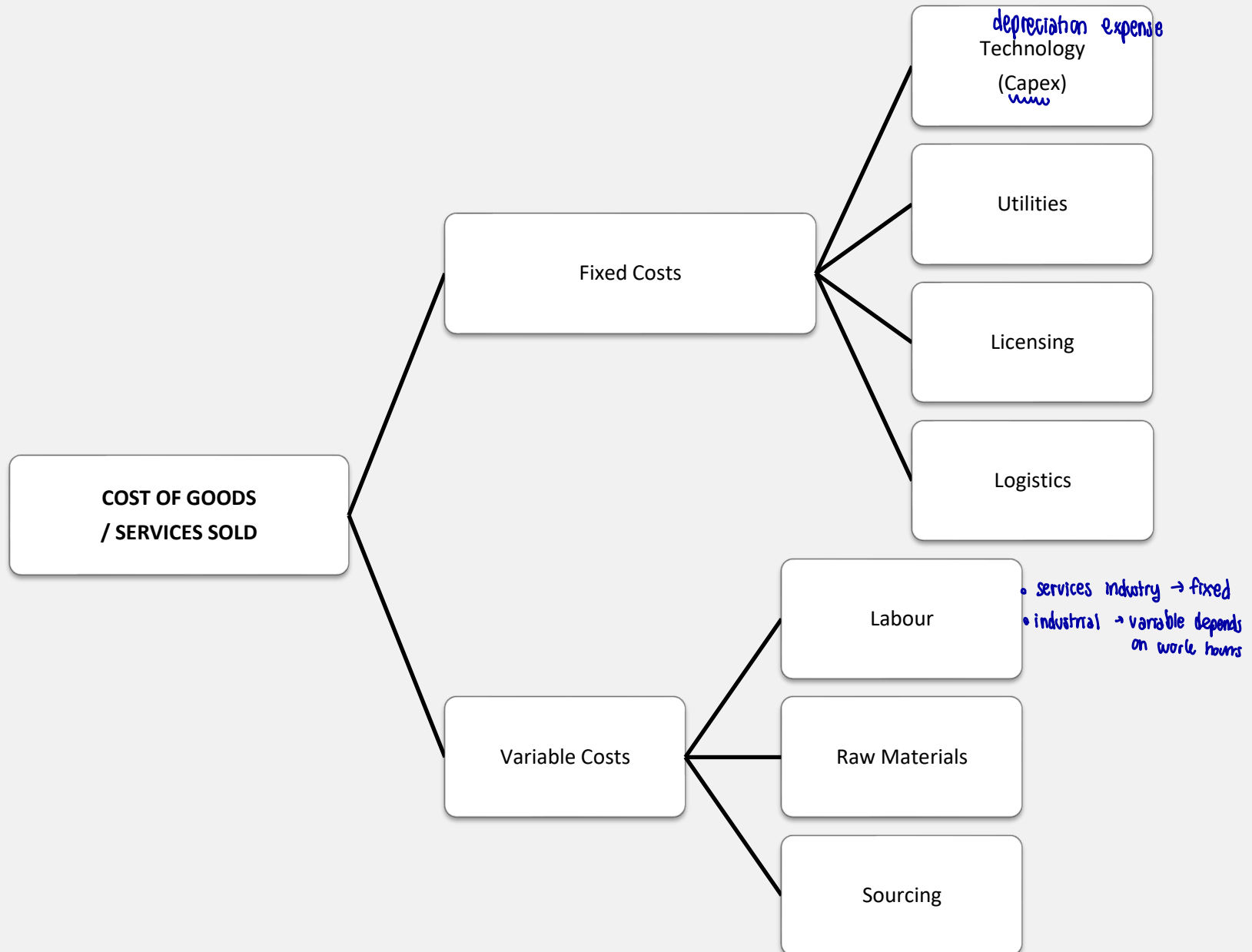
## FORECASTS

- MAKE REALISTIC ASSUMPTIONS
- $\text{PERFORMANCE} = \text{INDUSTRY} + \text{STRATEGY} + \text{COMPETITIVENESS}$
- VALIDATE ASSUMPTIONS
- FOCUS ON BIG ISSUES, SENSITIVE PARAMETERS

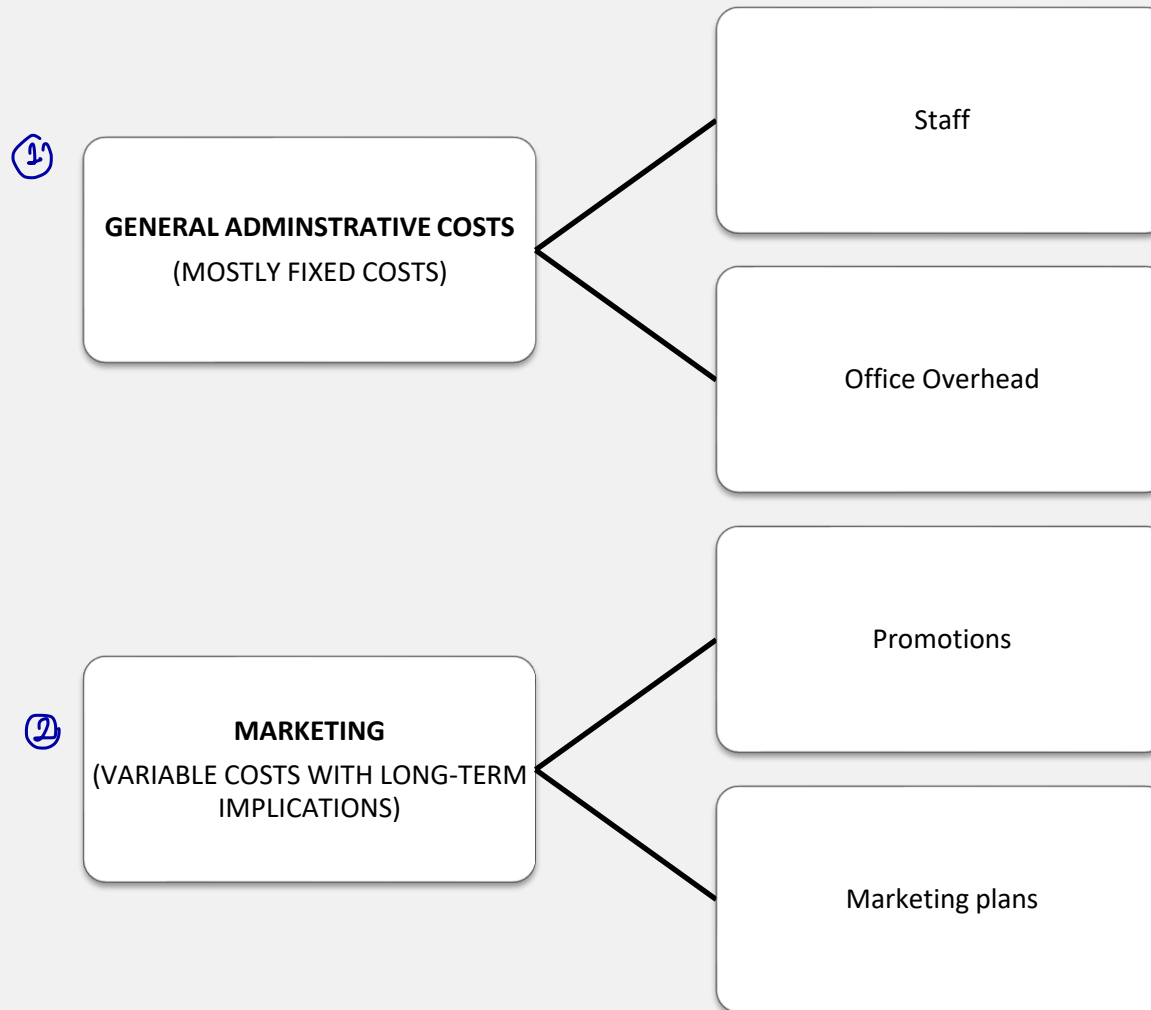
# <sup>What drives</sup> 'SALES' IS THE MOST IMPORTANT LINE



# COST OF GOODS



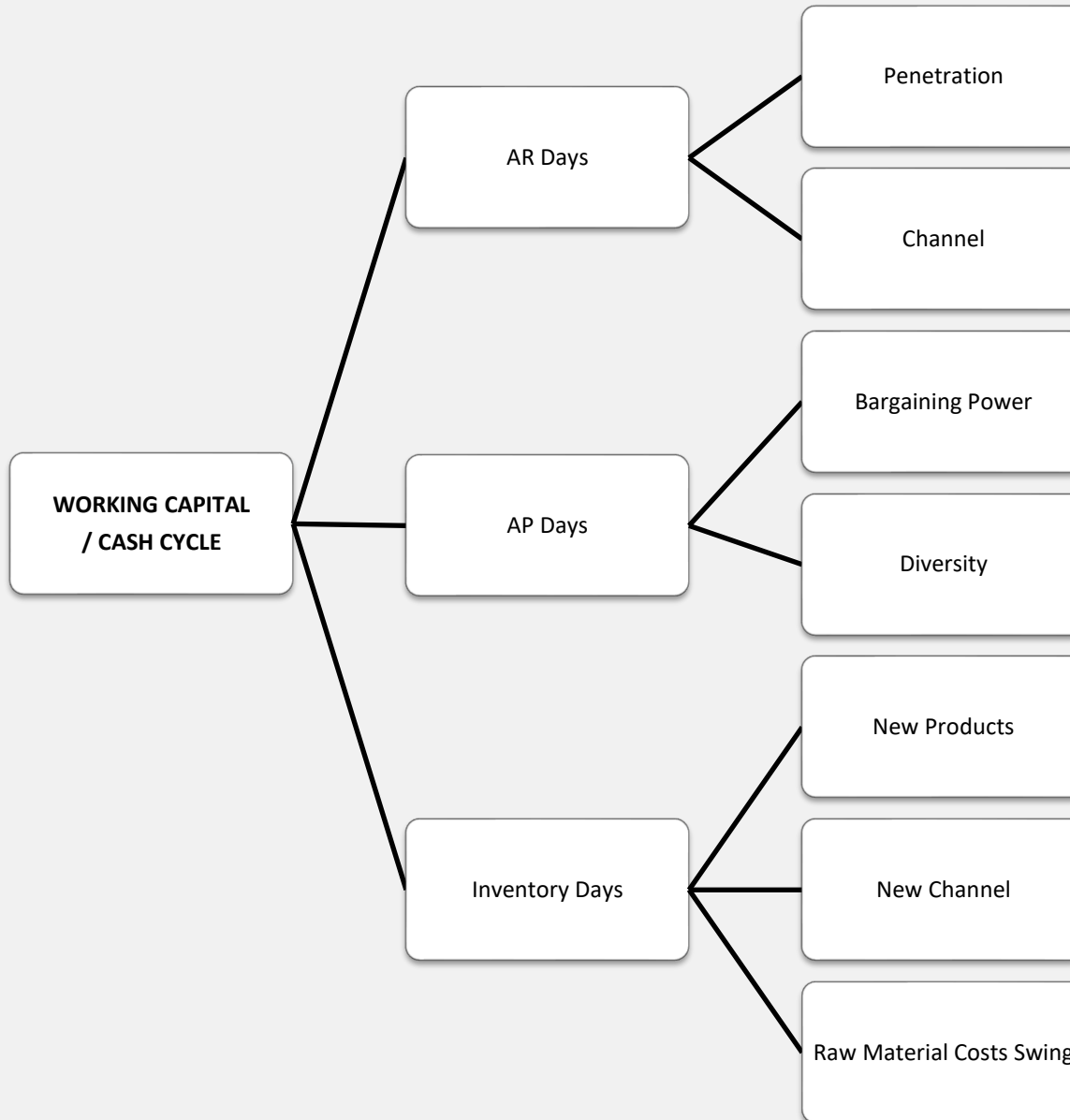
# SELLING & GENERAL ADMINISTRATIVE COSTS



# WORKING CAPITAL

→ may be underprojected especially high growth business

• Company with new product → increase in inventory



- Cash Cycle generally under-estimated during rapid expansion phase
- What happens when
  - New product is launched
  - New channel is explored
  - Online channel becomes stronger
  - New competitors enter

# READ FOOTNOTES

## PTTGC

### *Geographical segments*

In presenting information on the basis of geographical segments, segment revenue from sale of goods and rendering of services for the years ended December 31, 2020 and 2019 are based on the geographical location of customers. Segment non-current assets (exclude derivatives and deferred tax assets) as at December 31, 2020 and 2019 are based on the geographical location of the assets.

### *Geographical information*

	Unit: Million Baht	
	Revenues	
	<u>2020</u>	<u>2019</u>
Thailand	209,335	260,869
The People's Republic of China	36,270	42,994
Singapore	8,480	20,021
Vietnam	15,094	17,278
Malaysia	9,858	13,517
Indonesia	6,294	6,052
India	4,196	5,108
Japan	3,344	4,481
United States of America	2,392	2,786
Other countries	34,028	39,704
<b>Total</b>	<b><u>329,291</u></b>	<b><u>412,810</u></b>



# SEGMENTAL BREAKDOWN

Information about reporting segments for the year ended December 31, 2020

PTTGC	Unit : Million Baht								
	<u>Refinery</u>	<u>Aromatics</u>	<u>Olefins and Derivatives</u>	<u>Green Chemicals</u>	<u>Performance Materials and Chemicals</u>	<u>Service and Others</u>	<u>Investments in Other Joint Ventures and Associates</u>	<u>Elimination</u>	<u>Total</u>
External revenues	136,155	34,218	106,253	16,592	34,112	1,961	-	-	329,291
Inter-segment revenues	13,938	42,777	9,534	1,610	-	6,494	-	(74,353)	-
Total revenues	150,093	76,995	115,787	18,202	34,112	8,455	-	(74,353)	329,291
Cost of sales and rendering of services	(154,007)	(74,977)	(94,066)	(16,217)	(26,256)	(6,066)	-	73,303	(298,286)
Selling, distribution and administrative expenses	(637)	(1,170)	(7,292)	(782)	(2,078)	(1,913)	-	761	(13,111)
Profit (loss) before finance costs, income tax, depreciation, amortisation and others	(4,072)	1,563	15,065	1,244	6,019	1,737	-	(1,265)	20,291
Investment income	54	30	110	19	25	3,204	-	(3,080)	362
Finance costs	(750)	(267)	(680)	(77)	(321)	(1,588)	-	172	(3,511)
Depreciation and amortisation	(2,911)	(3,336)	(10,451)	(717)	(3,133)	(329)	-	500	(20,377)
Reversal of (loss on) impairment of assets	(47)	(15)	359	(130)	(30)	(56)	-	31	112
Share of profit of investments in joint ventures and associates	-	-	36	53	-	-	3,241	(7)	3,323
Others	28	(32)	53	17	(186)	(55)	-	518	343
Profit (loss) before income tax	(7,698)	(2,057)	4,492	409	2,374	2,913	3,241	(3,131)	543
Profit (loss) for reportable segment Owners of the parent	(7,541)	(1,883)	4,796	245	2,485	1,985	3,241	(3,128)	200

	<u>Refinery</u>	<u>Aromatics</u>	<u>Olefins and Derivatives</u>	<u>Green Chemicals</u>	<u>Performance Materials and Chemicals</u>	<u>Service and Others</u>	<u>Investments in Other Joint Ventures and Associates</u>	<u>Elimination</u>	<u>Total</u>
<b>As at December 31, 2020</b>									
Segment assets	66,100	71,592	186,823	13,671	76,391	95,398	62,213	(82,805)	489,383
Investment in joint ventures and associates	-	-	574	1,623	-	-	62,213	-	64,410
Change in non-current assets (excluding deferred tax assets and derivatives)	(1,625)	(2,066)	7,269	1,044	7,394	5,007	1,309	(7,001)	11,331
<b>As at December 31, 2019</b>									
Segment assets	64,704	69,264	162,080	13,289	60,473	94,124	60,904	(72,324)	452,514
Investment in joint ventures and associates	-	-	244	1,125	-	-	60,904	-	62,273
Change in non-current assets (excluding deferred tax assets and derivatives)	1,293	(494)	6,057	(36)	6,142	(1,966)	15,534	(3,235)	23,295

BS → how much capital invested in different segments

# EXPENSES BY NATURE

## PTTGC

### 30. EXPENSES BY NATURE

*Breakdown of cost structure*

The statements of income include an analysis of expenses by function. Expenses by nature disclosed in accordance with the requirements of various TFRS were as follows:

	<u>Consolidated</u>		<u>Unit : Million Baht</u>	
	<u>financial statements</u>		<u>Separate</u>	
	<u>2020</u>	<u>2019</u>	<u>2020</u>	<u>2019</u>
<i>Included in cost of sales of goods</i>				
Changes in finished goods and work in progress	2,646	1,677	1,922	1,443
Raw materials used	246,588	324,740	182,412	254,546
Personnel expense	9,246	10,397	4,921	5,956
Depreciation of property, plant and equipment	17,567	17,352	12,225	12,258
Depreciation of right-of-use assets	620	-	486	-
Amortisation of intangible assets	364	393	288	280
<i>Included in selling and distribution and administrative expenses</i>				
Personnel expense	5,484	6,448	3,566	4,401
Depreciation of property, plant and equipment	692	839	437	537
Depreciation of right-of-use assets	513	-	610	-
Amortisation of intangible assets	382	372	259	235
Minimum lease payments recognised as an operating lease expense	307	667	119	317

*SG & A*

# CARABAO PLC. (CBG)

PRODUCER AND DISTRIBUTOR OF ENERGY DRINKS

Energy drinks & distribution of alcohol, vitamin drink

**CBG**

Agro & Food Industry / Food & Beverage

SET50/SETCLMV/SETESG/SETWB

CG Report: 

SET ESG Ratings: A

Data as of 04/01/2024

CAC Anti-Corruption Certification: -

CARABAO GROUP PUBLIC COMPANY LIMITED

Price (B.)	52 week High/Low	P/E (X)	P/BV (X)	Paid-up (MB.)	Market Cap (MB.)	EV (MB.)	EBITDA (MB.)	EV/EBITDA
83.00	106.00 / 61.25	49.31	7.65	1,000.00	83,000.00	90,811.07	2,217.41	31.08

News	
Date/Time	Subject
21/12/2023 17:02	Announcement of Public Holiday for the year 2024
10/11/2023 20:00	Management Discussion and Analysis Quarter 3 Ending 30 Sep 2023
10/11/2023 19:47	The resolution of the company's board of directors approves entering a joint venture contract
10/11/2023 18:15	Financial Statement Quarter 3/2023 (Reviewed)
10/11/2023 18:14	Resignation of an Independent Director
<a href="#">More</a>	

Company Profile	
Address	393 Silom Building, 393 7th - 10th floor, Silom Road, Bangrak Bangkok 10500
Telephone	0-2636-6111
Fax	0-2636-7949
URL	<a href="http://www.carabaogroup.com">http://www.carabaogroup.com</a>
	<a href="#">Annual Report 2022</a>
Establish Date	2001
IPO Price (Baht)	28.00 @ Par 1.00 Baht
IPO Financial Advisory	<ul style="list-style-type: none"> <li>KASIKORN SECURITIES PUBLIC COMPANY LIMITED</li> <li>CIMB THAI BANK PUBLIC COMPANY LIMITED</li> </ul>
Par	1.00 Baht
Last Par Change	N/A
<a href="#">More</a>	



SET SMART

# Company Overview

Carabao is the 2nd largest energy drink company in Thailand and a successful overseas business

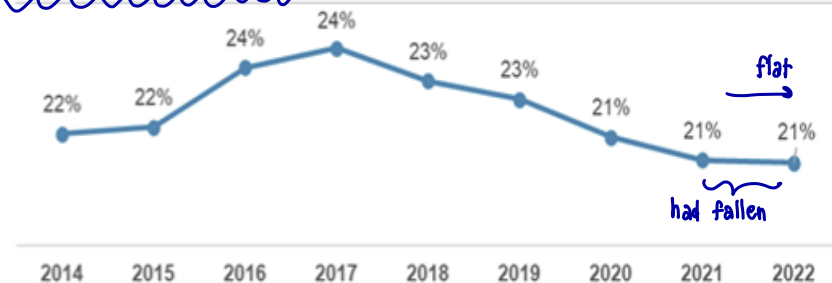
## Business overview

- Founded in 2001 as a partnership between 3 founders one of which is the leading singer of Carabao (Thai legendary folk band), the Carabao Group is in Thailand ranked with c.21% market share<sup>1</sup>
- Its main product, Carabao Energy Drink, is packaged into amber glass bottles or aluminum cans. Other branded products include bottled water, coffee, Carabao Sport electrolyte drink.
- Vertically integrated business model - CBG manufactures and distributes its own products, while excess distribution is maximized by distributing 3<sup>rd</sup> party products
- Carabao has strong in-house production capabilities of glass bottle and aluminum can (production commenced in late 4Q/18)
- to capture growing mkt  
Started to diversify product portfolio into functional drink segment by launching WOODY C+ Lock in March 2020 and new product in energy drink segment by launching Kanzou x2 in August 2022
- Strong local distribution channel with presence in both traditional and modern channels
  - Over 50 first tier agents
  - 31 distribution centers across Thailand
  - >300 cash vans (direct distribution) covering c.180,000 retailers
- Successfully tapped into global markets
  - Strong presence in international markets including Cambodia, Myanmar, Vietnam, Laos, China and other countries
  - Opportunities in new export markets thanks to the fame of Carabao Cup

## Product overview

Categories	Product Portfolio
Energy drink	
Coffee	<div>3-in-1 instant coffee</div> <div>RTD coffee drink</div>
Others branded products	<div>Carabao Sport electrolyte drink</div> <div>Drinking water</div> <div>WOODY C+ Lock Functional drink</div>

## Carabao's market share evolution<sup>1</sup>



Remark: 1. Nielsen energy drink market report, as of Dec 2022 ("Nielsen Report"), in terms of volume.

Note: Since 2018, the market has been driven by some niched players, combining herbal ingredients with energy drinks, which Nielsen categorizes these as energy drink segment.

Trendy product: growth shouldn't be last long → but vitamin drink sector has been growing in the past 8 years → establish as new category  
need to launch new products frequently



30

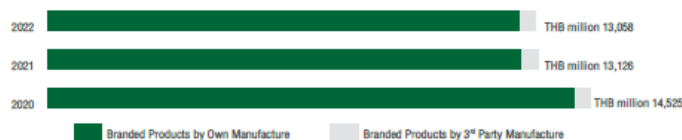


## Nature of Product or Services

The company offers 3 types of products as follows; Branded Products under Own Brand, The 3<sup>rd</sup> Party Products for Distribution, and Other Products. The products under the company's brand include those from own manufacture ("Branded Products by Own Manufacture") and those that the company outsourced the production to 3<sup>rd</sup> parties ("Branded Products by 3<sup>rd</sup> Party Manufacture"). The revenue structure could be summarized as follows;

Sales Breakdown	2020		2021		2022	
	THB million	%Sales	THB million	%Sales	THB million	%Sales
<b>The Company's Branded Products</b>						
Branded Products by Own Manufacture <i>energy drink, core product</i>	14,082	81.7	12,822	72.7	12,591	65.6
Branded Products by 3 <sup>rd</sup> Party Manufacture <i>1%</i>	443	2.6	504	2.9	467	2.4
<b>Total Branded Products</b> <i>non-energy drink</i>	<b>14,525</b>	<b>84.3</b>	<b>13,126</b>	<b>75.6</b>	<b>13,058</b>	<b>68.0</b>
<b>The Company 3<sup>rd</sup> Party Products for Distribution</b>						
General consumers' products <i>very small!</i>	260	1.5	219	1.2	290	1.5
Alcohol beverages <i>agency for alcohol company - bcs they have large resource for distribution</i>	2,153	12.5	3,349	19.3	5,060	26.3
<b>Total 3<sup>rd</sup> Party Products for Distribution</b>	<b>2,413</b>	<b>14.0</b>	<b>3,568</b>	<b>20.5</b>	<b>5,350</b>	<b>27.8</b>
<b>Others</b>						
<b>Total Other Sales</b>	<b>293</b>	<b>1.7</b>	<b>670</b>	<b>3.9</b>	<b>807</b>	<b>4.2</b>
<b>Total Sales Revenue</b>	<b>17,231</b>	<b>100.0</b>	<b>17,364</b>	<b>100.0</b>	<b>19,215</b>	<b>100.0</b>

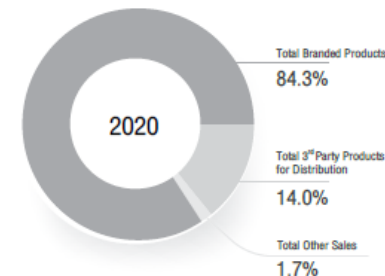
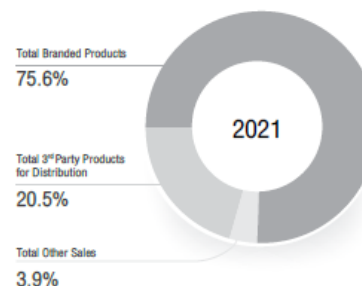
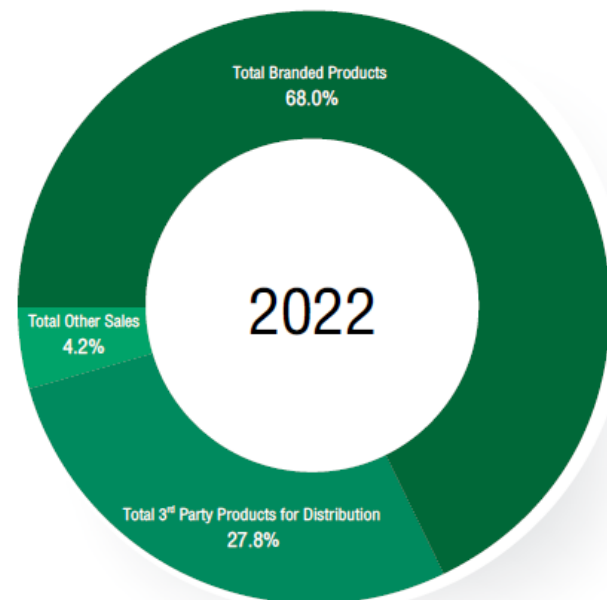
### The Company's Branded Products



### The Company 3<sup>rd</sup> Party Products for Distribution



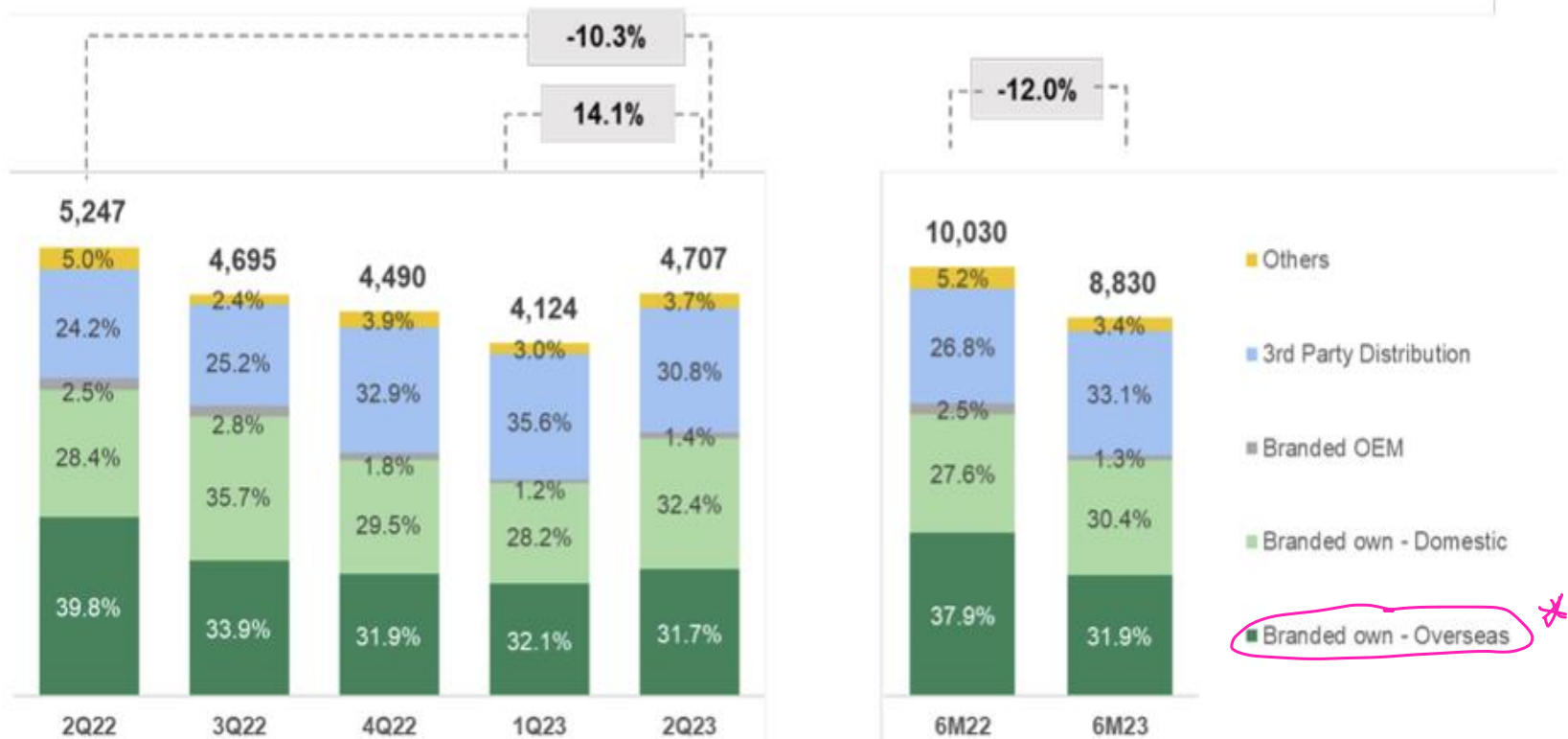
### Total Other Sales



# Performance

## CBG Revenue from Sales

Sales (THB mn) and Gross Profit Margin

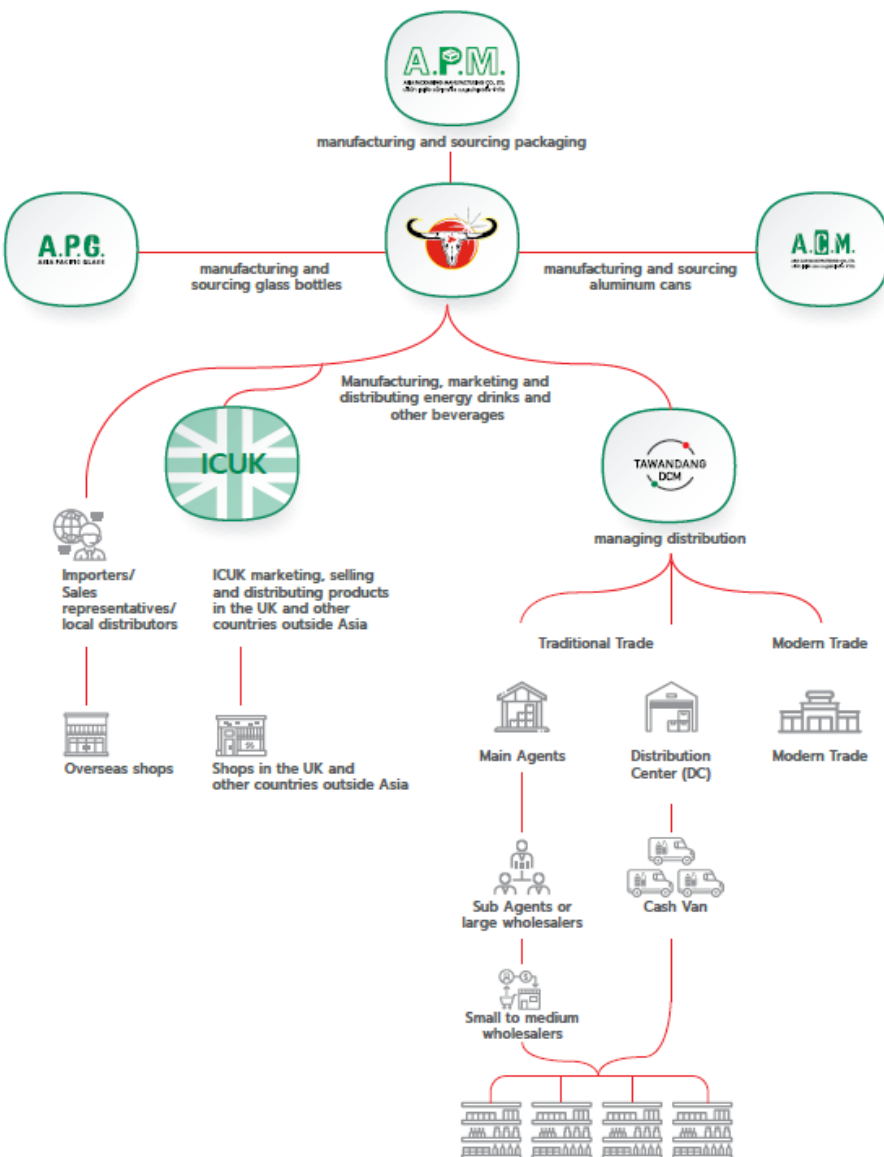


Source: <http://www.carabaogroup.com/en/home>



### 3. Distribution Channels

The company's distribution channels for domestic and overseas business are as follows:



37

### 4. Overview of the Energy Drink and Functional Drink Markets

#### Domestic Energy Drink Market

According to market survey data of Nielsen, the market volume in 2022 is over 19,000 bottles grew by 4%, while market volume in 2021 is over 18,000 bottles. The energy drinks in Thailand are distributed through 2 main trade channels, the volume is around 75% traditional trades and 25% of modern trades. However, the company remained the second-largest player possessing 21% in volume share in the Thai market.

The characteristics of energy drinks consumers in Thailand After the COVID-19 Situation. There is an expansion of employment resulting in more consumption of energy drinks compared to 2021. Most consumers are of working age. Age between 25 - 40 years who are popular with non-carbonated energy drinks. and has a sweet taste.

The company is considered to be the late-comer in Thai energy drink market when compared to other local market-dominated players. The company is the youngest company that entered the production and marketing of energy drinks in Thailand in 2002. Nevertheless, the company's trademark or brand received a warm welcome from the market rapidly and overwhelmingly which brings the company out as one of the leading brands in Thailand with market share ranked the second and the leading player of energy drink in Central region

good distribution

### Distribution Channels

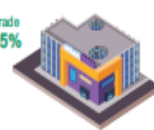
Domestic Energy Drink  
Market volume in 2022  
growth by  
4%



Traditional Trade  
75%



Modern Trade  
25%



### Domestic Energy Drink Market



Age  
25 - 40 yrs.



Popular with non-carbonated  
energy drinks and has  
a sweet taste



Prefer energy  
drinks in glass  
bottle to cans

### Competitor

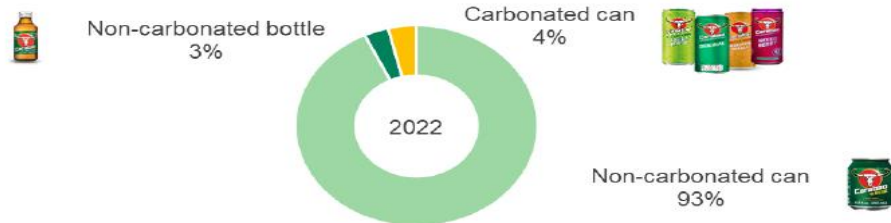
Market share ranked  
the second in Thailand



# Branded Own

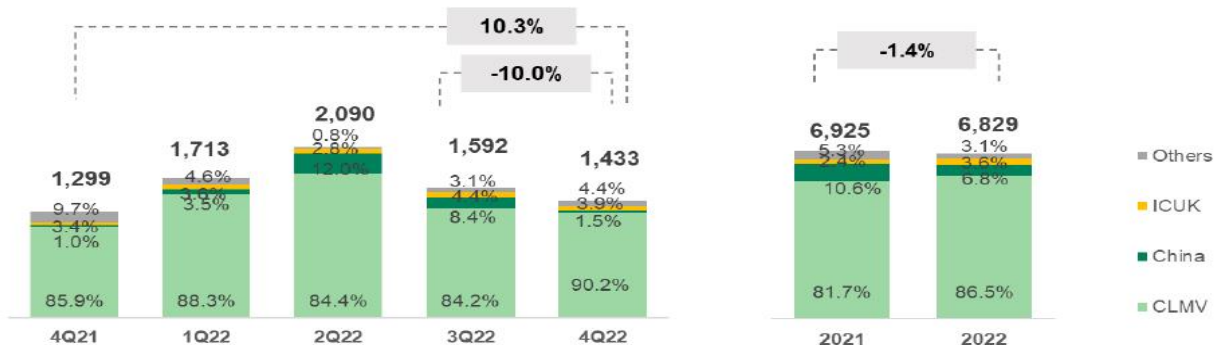
## Revenue breakdown (Overseas)

### Overseas Sales by Product



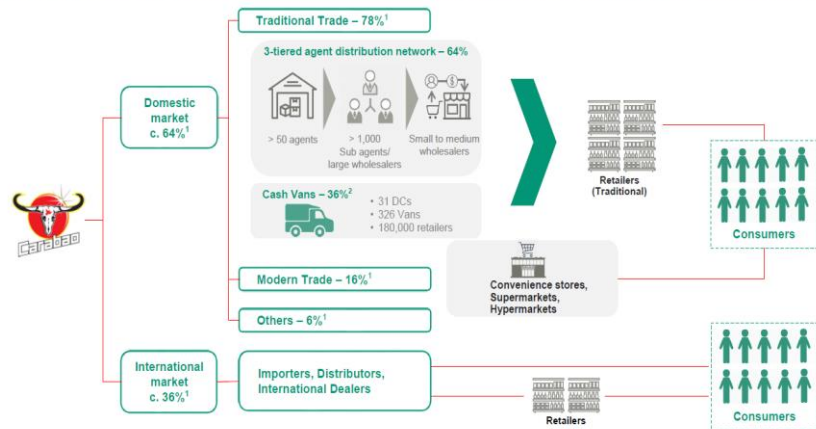
Country	4Q22	%YoY	%QoQ	2022	%YoY
CLMV	1,292	+15.8%	-3.6%	5,909	+4.4%
China	22	+69.8%	-83.8%	467	-36.2%
ICUK	56	+27.7%	-19.5%	245	+47.6%
Others	64	-49.8%	+28.9%	209	-43.4%

### Overseas Sales by Geography (THB mn)



## Distribution Channels

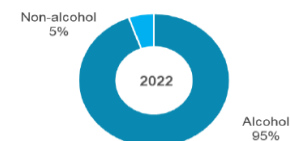
Strong distribution network covering both modern and traditional trade with unique cash van strategy



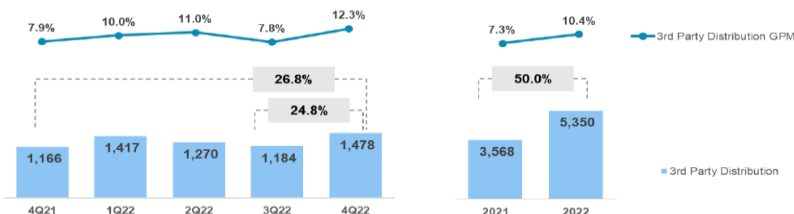
## Distribution for 3rd Party

### Revenue breakdown

### 3rd Party Distribution Sales by Product



### Sales (THB mn) and Gross Profit Margin



Source: <http://www.carabaogroup.com/en/home>



# MULTI PRODUCTS & multi market domestic oversea

SALES DISTRIBUTION (BTMN)	2017	2018	2019	2020	2021	2022	CAGR 2017-22	% YOY 2022
Total Sales <span>focus on this?</span>	12,846	14,364	14,822	17,232	17,364	19,215	8% <span>driving by distribution!!!</span>	10.7%
1. Branded - Owned & Produced	11,107	12,538	12,881	14,083	12,622	12,591	3%	-0.2%
>> Energy Drinks (Overseas) <span>on CLMV</span>	5,024	6,474	7,058	8,098	6,931	6,824	6%	-1.5%
>> Energy Drinks (Domestic)	6,083	6,064	5,823	5,985	5,697	5,767	-1% <span>domestic mkt has been flat</span>	1.2%
>> Functional Drinks + (Domestic)	-	-	-	-	-	-		
2. Branded - OEM/Owned & Outsourced (Domestic)	936	806	532	443	504	467	-13%	-7.3%
3. 3rd Party Distribution (Domestic)	803	1,020	1,409	2,413	3,568	5,350	46%	49.9%
>> Alcohol <span>hard to forecast: don't know how much they do</span>				2,148	3,354	5,083		51.5%
>> Others				265	214	268		25.0%
4. Others (Glass Packaging Materials, Domestic)	-	-	-	293	670	807		20.5%

% SALES MIX	2017	2018	2019	2020	2021	2022	Gross Profit Margin (2021)	Gross Profit Margin (2022)
1. Branded - Owned & Produced	86%	87%	87%	82%	73%	66%	44.2%	37.4%
2. Branded - OEM/Owned & Outsourced (Domestic)	7%	6%	4%	3%	3%	2%	14.3%	11.6%
3. 3rd Party Distribution (Domestic)	6%	7%	10%	14%	21%	28%	7.3%	10.4%
4. Others	0%	0%	0%	2%	4%	4%	41.0%	38.7%
Total	100%	100%	100%	100%	100%	100%		

CBG: high fixed cost → use remaining capacity of distribution resource to do distribution business → reduce overhead per unit  
no need for new investment

# MULTI-MARKETS

1. Branded - Owned & Produced (ENERGY DRINKS)	2017	2018	2019	2020	2021	2022	CAGR 2017-22	% YOY 2022
<b>Total Overseas</b>	<b>5,024</b>	<b>6,474</b>	<b>7,058</b>	<b>8,098</b>	<b>6,931</b>	<b>6,824</b>	6%	-2%
CLMV	3,293	5,498	5,901	6,875	5,660	5,909	12%	4%
CHINA	1,019	590	494	385	731	467	-14%	-36%
ICUK	-	-	-	95	166	245	-	48%
Asia	487	229	579	-	-	-	-	-
Others	224	157	84	742	375	209	-1%	-44%

oversea performance was better than domestic

# SWITCH TO EXCEL

1<sup>st</sup>: FINANCIALS sheet

# DOMESTIC SALES FORECASTS

Energy drink: - energy boost

- need to stay awake

↓  
consumers: domestic: - low-income  
- truck driver / construction worker  
- blue collar worker (daily wage worker)  
- students

} consume more → - more work  
↳ more economic activities  
little to economic growth ✗  
} not link to economic growth much

**ATTEMPT 1:**

call  
**YOUR MARKETING DEPARTMENT FORECASTS**

3] Understand consumers

Driver of energy drink → understand industry growth

# DOMESTIC SALES FORECASTS

2]

quarterly → monthly by divided by 3 and use moving monthly average

## ATTEMPT 2:

Then run multiple regression : monthly sales as Y and independent variables (economic data)

## ESTABLISH RELATIONSHIP BETWEEN SALES AND DRIVERS THROUGH REGRESSION ANALYSIS

SUMMARY OUTPUT				
Regression Statistics				
Multiple R	0.58044966			
R Square	0.33692181			
Adjusted R Square	0.23035567			
Standard Error	40.9050846			
Observations	66			
ANOVA				
	df	SS	MS	F
Regression	9	47610.96683	5290.11	3.16162168
Residual	56	93700.65287	1673.23	
Total	65	141311.6197		
	Coefficients	Standard Error	t Stat	P-value
Intercept	-2685.2669	856.3443844	-3.1357	0.00273024
Coincident Economic Index	16.1593592	4.854425853	3.32879	0.00154672
Foreign tourist spending index	-0.34034076	0.108895611	-3.1254	0.00281316
Mfg. Production Index	-3.98189928	1.824822985	-2.1821	0.03331587
Market Share	4610.18835	1575.807761	2.9256	0.00495733
FARM INCOME	0.01252827	0.034715424	0.36088	0.7195435
CCI (Consumer Confident Index)	-2.74216867	1.847520773	-1.4842	0.14335188
Leading Economic Index	6.57623379	4.251067496	1.54696	0.12750591
Construction Materials Index	2.62683383	1.332882206	1.97079	0.05369811
Export Volume Index	-1.20383196	0.774748438	-1.5538	0.12585738

only capture / explain sales for 23%  
very bad



SALES

= DEPENDENT VARIABLE

VARIABLES

= INDEPENDENT VARIABLES

> 5% not significant

# REGRESSION EXAMPLE

## SMALL CAP UPDATE

NOVEMBER 28, 2022



KTX

DOHOME  
DOHOME

Commerce

Fair Value (Bt)

15.69

Closing price: Bt13.60

Rating

Outperform

(Maintained)

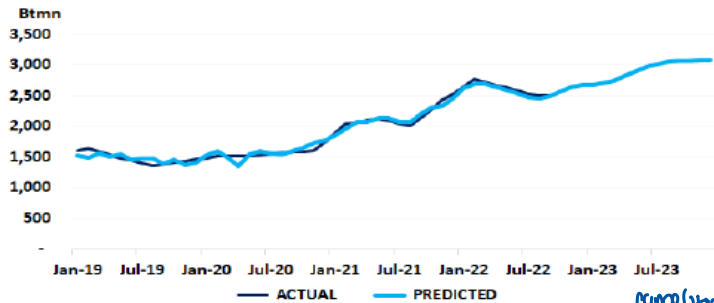
Valuation Matrix

Current valuation	Sell
Long-term growth	Strong
Tactical	Limited downside

### KEY EARNINGS DRIVERS

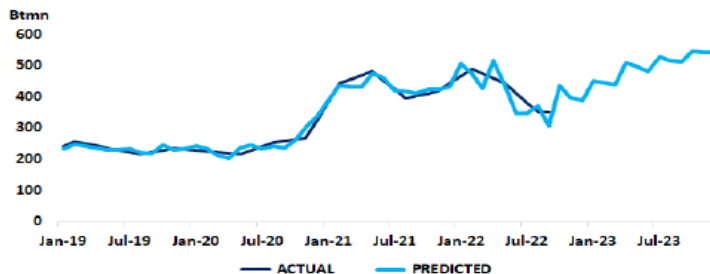
#### SALES

R2 95%



#### GROSS PROFIT

R2 91%



independent variable

Private consumption -  
furnishings, household and  
equipment

Private construction

Sales

FA

Consumer Confidence  
Index

PPI - manufacturing  
products

Import Price Index -  
consumer goods

Hot-rolled coil prices

FA turnover

Sales value - floor and wall  
tiles

Bt/USD

Independent  
Variables to  
Sales/Gross  
Profit Margin

fine for medium size company

L limited plan

Source: Krungthai XSpring Securities Co., Ltd.

# DOMESTIC SALES FORECASTS

widely use  
↑ (not technology)

CAGR  
Average } not too much diff  
<time frame depends on you>  
not too long → consumption behavior change  
(habitual pattern)

technology - no pattern  
↳ penetration of phone sales  
↳ how fast slope has been changing

## ATTEMPT 3

START WITH INDUSTRY SIZE > INDUSTRY GROWTH > COMPANY MARKET SHARE > COMPANY SALES

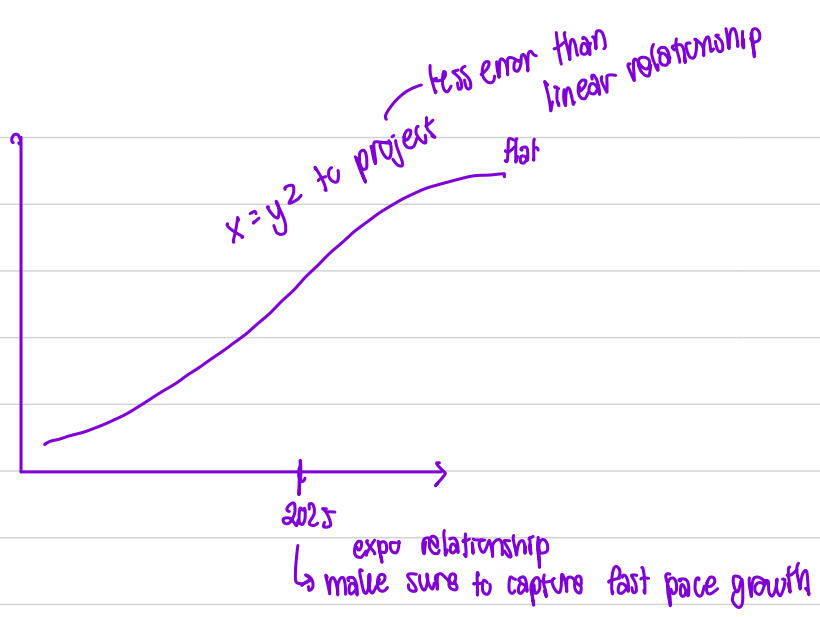
FY Dec	2014	2015	2016	2017	2018	2019	2020	2021	2022
Size of Industry (OSP and CBG sources)	22,303	22,612	23,117	22,816	22,520	23,826	22,206	20,540	21,362
Industry Growth		1.4%	2.2%	-1.3%	-1.3%	5.8%	-6.8%	-7.5%	4.0%
CBG Energy Drinks sales				6,083	6,064	5,823	5,985	5,697	5,767
- CBG Energy Sales Growth					-0.3%	-4.0%	2.8%	-4.8%	1.2%
Implied CBG Market Share from Industry Sales				26.7%	26.9%	24.4%	27.0%	27.7%	27.0%
Reported CBG Domestic Volume Share (%)	21.5%	21.7%	23.6%	24.2%	23.2%	22.6%	21.4%	20.7%	20.7%
Nominal GDP Size (BtBn)	13,230	13,743	14,590	15,489	16,373	16,889	15,661	16,167	17,367
Real GDP Growth	1.0%	3.1%	3.4%	4.2%	4.2%	2.1%	-6.2%	1.6%	2.6%
Nominal GDP Growth	2.4%	3.9%	6.2%	6.2%	5.7%	3.2%	-7.3%	3.2%	7.4%
Inflation	1.9%	-0.9%	0.2%	0.7%	1.1%	0.7%	-0.8%	1.2%	6.1%

fix to one source  
↑ in nominal

IMF  
forecast

"World economic outlook" every 6 months → download data (excel file)

get multiplier < ratio industry growth / nominal gdp growth





# DOMESTIC SALES FORECASTS

Human behavior is the same where ever you go

## ATTEMPT 4

inferior good

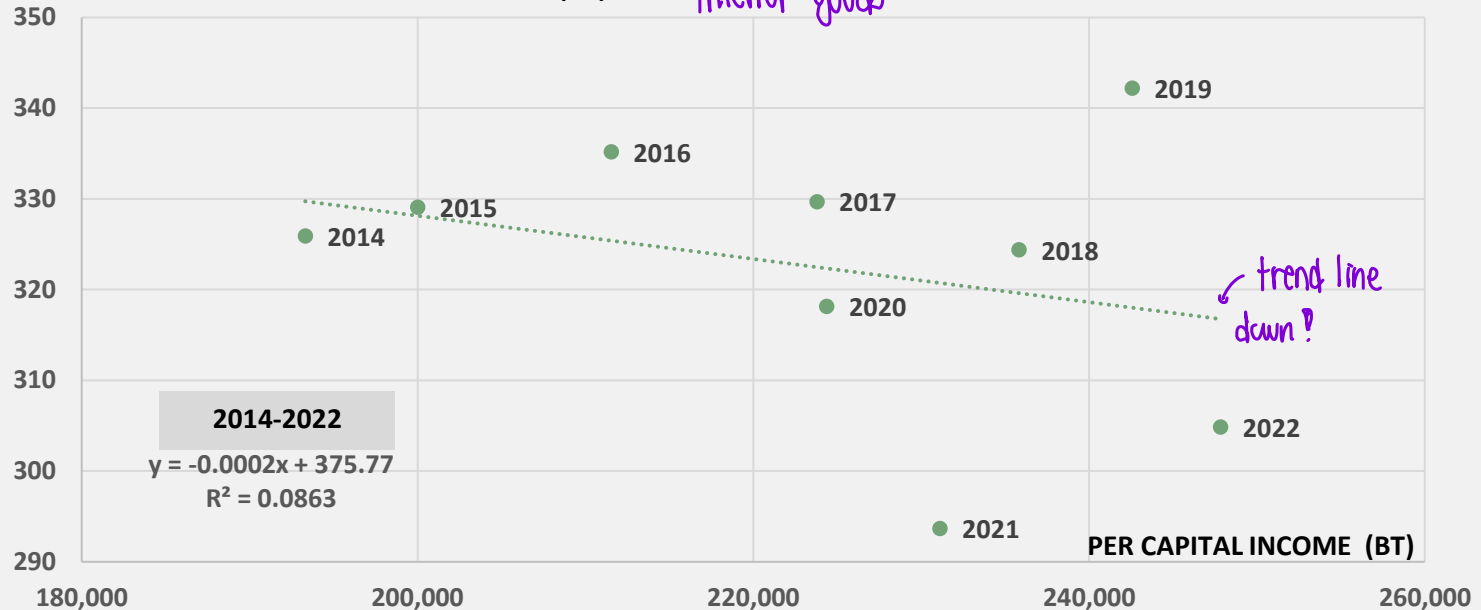
### RATIONALE: CONSUMPTION TENDS TO RISE WITH INCOME

FY Dec	2014	2015	2016	2017	2018	2019	2020	2021	2022
Population (Mn)	68.44	68.72	68.97	69.21	69.43	69.63	69.80	69.95	70.08
Per Capita Income (Bt)	193,315	200,007	211,543	223,792	235,832	242,570	224,372	231,113	247,828
Energy Drink Consumption per Capita (Bt)	326	329	335	330	324	342	318	294	305
Energy Drink Industry Size (BtMn)	22,303	22,612	23,117	22,816	22,520	23,826	22,206	20,540	21,362
- Growth		1.4%	2.2%	-1.3%	-1.3%	5.8%	-6.8%	-7.5%	4.0%

size of industry  
population

know  
GDP Forecast

### PER CAPITA ENERGY DRINKS CONSUMPTION (BT)



# CLMV MARKET SIZE

↓  
How much they import/export from Thailand  
minimum up-to-date ✓  
import + domestic  
Ignoring this CLMV have very low production  
assume this as consumption

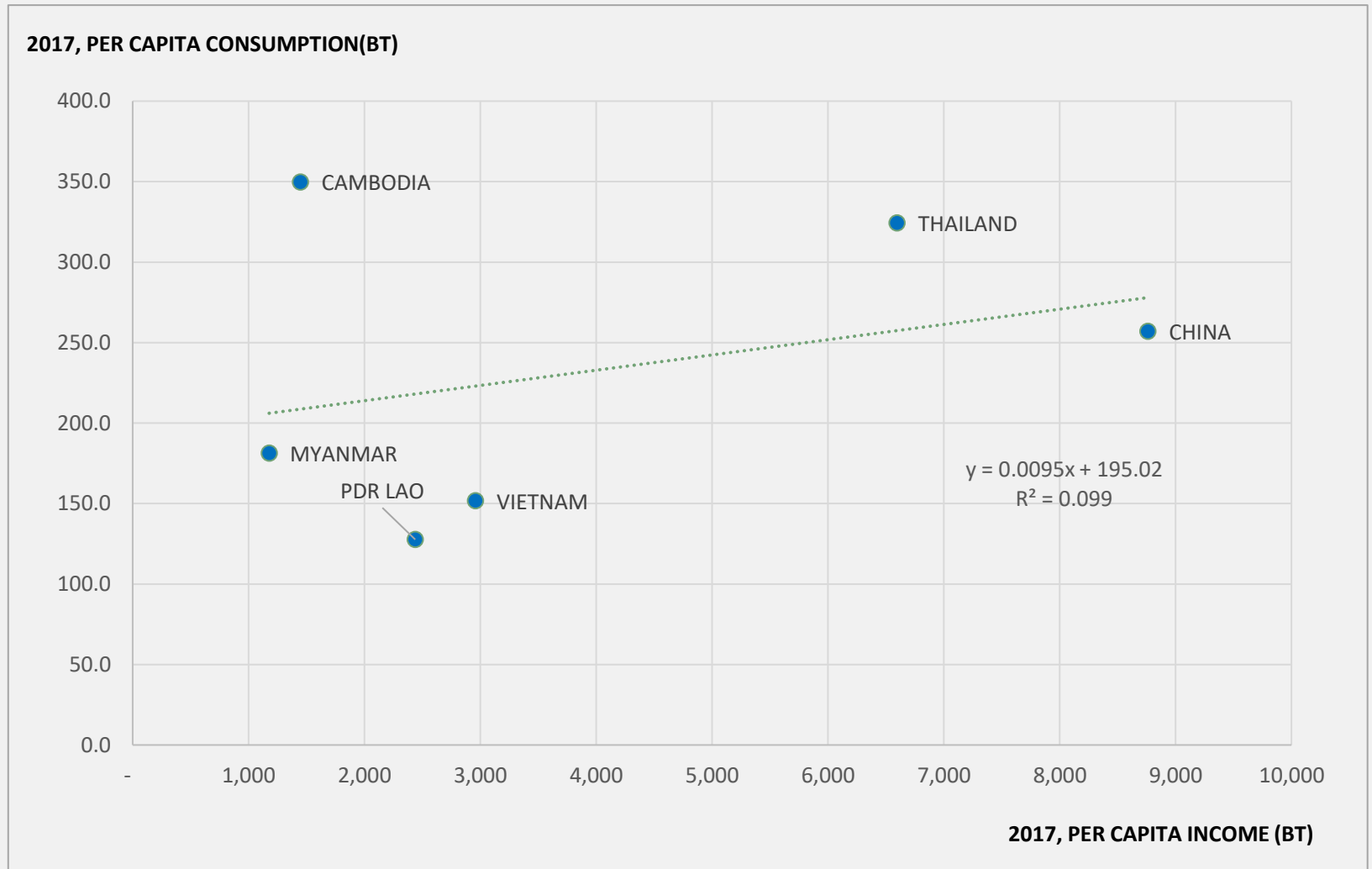
## ATTEMPT #1

- ESTABLISH POTENTIAL MARKET SIZE
- RATIONALE: CONSUMPTION BEHAVIOR TENDS TO BE SIMILAR ACROSS INCOME GROUPS

FORECASTS	PER CAPITA INCOME (USD)		POPULATION (MN)		PER CAPITA CONSUMPTION (BT)		MARKET SIZE (BTMN)			Theoretical Per Capita Consumption Calc. for 2017	Adjustments (Observed - Calc.)
	2017	2025F	2017	2025F	2017	2025F	2017	2025F	CARG (2021-25)		
CAMBODIA	1,448	2,156	15.3	16.5	349.6	342.9	5,362	5,650	1.3%	181.3	168
PDR LAO	2,437	1,888	7.0	7.8	127.6	132.8	893	1,034	3.7%	171.9	(44)
MYANMAR	1,177	1,292	52.1	54.8	181.3	180.2	9,436	9,873	1.1%	183.8	(3)
VIETNAM	2,958	5,396	93.7	102.0	151.7	128.5	14,209	13,111	-2.0%	166.9	(15)
THAILAND	6,596	9,290	69.2	70.3	324.4	298.8	22,449	21,012	-1.6%	132.4	192
CHINA	8,760	15,901	1,400.1	1,409.2	257.0	189.1	359,800	266,537	-7.2%	111.8	145

DATA IS TOO OLD

# CONSUMPTION VS. INCOME



SOURCE: IMF, Various

# PEOPLE HAVE SIMILAR LIFESTYLE TRENDS



SOURCE: WORLD BANK

# SHARE OF THAI EXPORTS

trademap

## ATTEMPT 2: IMPORT & EXPORT TRENDS

**PRODUCT:** Product: 2202 Waters, incl. mineral waters and aerated waters, containing added sugar or other sw

CLMV IMPORTS FROM WORLD (MIRROR DATA HAS BEEN USED, EXCEPT FOR CHINA)							
Importers (USD '000)	2016	2017	2018	2019	2020	2021	2022
World from World	17,759,198	18,725,865	21,023,109	21,257,677	21,995,720	25,397,656	26,591,524
Sum CLMV	1,220,214	1,419,065	1,635,942	1,791,636	1,644,992	1,622,875	1,455,510
% to World	6.9%	7.6%	7.8%	8.4%	7.5%	6.4%	5.5%
% YoY Growth		16.3%	15.3%	9.5%	-8.2%	-1.3%	-10.3%
Cambodia	331,982	383,704	511,282	612,515	554,784	507,526	479,634
Lao PDR	79,099	86,097	92,311	101,623	93,533	101,546	95,148
Myanmar	219,578	226,281	218,332	248,610	253,821	251,866	231,816
Viet Nam	589,555	722,983	814,017	828,888	742,854	761,937	648,912
China	351,970	441,054	567,116	685,316	805,594	943,289	780,573
EXPORTS FROM THAILAND							
USD '000	2016	2017	2018	2019	2020	2021	2022
To World	1,133,698	1,295,287	1,449,590	1,587,247	1,593,689	1,554,860	1,523,505
CLMV Aggregation	850,580	981,991	1,108,490	1,225,004	1,154,167	1,099,250	1,129,304
CLMV / World	75%	76%	76%	77%	72%	71%	74%
Cambodia	236,525	296,890	398,975	479,480	447,848	390,198	386,983
Lao People's Democratic	67,664	73,582	71,399	80,422	87,948	97,143	93,290
Myanmar	193,771	203,125	198,616	226,523	234,303	234,239	212,778
Viet Nam	352,620	408,394	439,500	438,579	384,068	377,670	436,253
China	20,583	57,494	53,707	58,437	170,157	164,521	65,534
AVERAGE USDTHB	35.28	33.92	32.31	31.03	31.3	32.0	35.0

- TOTAL IMPORTS
- THAILAND'S SHARE IN EXPORTS
- CBG'S SHARES IN THAI EXPORTS
- IMPLICIT ASSUMPTION, NO LOCAL MANUFACTURING

► Pre-covid & during covid are very different  
 ↳ assume somewhere b/w these

# MARGINS, WORKING CAPITAL, RETURNS

MARGINS	2014	2025	2016	2017	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F
GROSS MARGIN	34.8%	37.9%	36.8%	32.4%	32.8%	39.4%	41.5%	36.4%	30.2%	27.1%	31.3%	31.3%	31.3%
SELLING EXPENSE / REVENUE	12.8%	14.2%	14.7%	18.2%	17.5%	13.1%	11.0%	10.6%	10.8%	10.0%	10.5%	10.5%	10.5%
ADMIN EXPENSE / REVENUE	4.0%	4.6%	5.1%	5.7%	5.3%	5.2%	5.6%	6.2%	5.0%	4.5%	4.5%	4.5%	4.5%
OPERATING MARGIN	18.0%	19.1%	17.1%	8.5%	9.9%	21.1%	24.9%	19.6%	14.4%	13.5%	17.3%	17.3%	17.3%
OTHER INCOME / SALES AND SERVICES	1.7%	1.6%	1.5%	1.3%	0.9%	0.8%	0.9%	1.2%	1.2%	1.0%	1.0%	1.0%	1.0%
EFFECTIVE TAX RATE	19.1%	14.3%	16.5%	24.6%	27.7%	18.6%	15.8%	15.3%	16.2%	20.0%	20.0%	20.0%	20.0%
WORKING CAPITAL													
A/C RECEIVABLES	308	425	562	960	907	1,140	1,420	1,756	2,533	2,363	2,802	3,039	3,120
INVENTORY	318	249	434	656	887	992	1,489	2,337	2,718	2,462	2,117	2,078	2,133
A/C PAYABLES	797	802	1,302	1,897	1,810	1,447	1,573	1,769	1,853	1,976	2,016	2,078	2,133
WORKING CAPITAL	(171)	(128)	(307)	(281)	(16)	685	1,337	2,324	3,398	2,849	2,902	3,039	3,120
WORKING CAPITAL NEEDS		(43)	179	(26)	(265)	(701)	(652)	(987)	(1,074)	549	(53)	(136)	(81)
AC RECEIVABLE DAYS	15	17	18	22	24	25	27	33	41	45	50	50	50
INVENTORY DAYS	24	21	19	22	29	38	45	62	68	55	50	50	50
AC PAYABLE DAYS	59	60	60	66	69	65	54	55	49	50	50	50	50
CASH CYCLE	(20)	(21)	(23)	(22)	(17)	(3)	17	41	60	50	50	50	50

# FINANCIAL FORECATS

CARABAO - CBG	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566F	2567F	2568F	2569F
BAHT MILLION	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F
TOTAL SALES	7,448	7,753	9,965	12,904	14,463	14,933	17,231	17,364	19,215	20,121	21,528	22,182	22,773
TOTAL SALES (RECONCILE)				12,846	14,364	14,822	17,232	17,370	19,215				
- Sales Growth				29%	12%	3%	15%	1%	11%	5%	7%	3%	3%
OTHER INCOME	126	121	147	164	135	119	156	205	239	201	215	222	228
TOTAL REVENUE	7,575	7,874	10,112	13,068	14,597	15,052	17,386	17,569	19,454	20,323	21,743	22,404	23,001
COST OF SALES	4,939	4,893	6,388	8,840	9,813	9,123	10,173	11,181	13,582	14,623	14,719	15,166	15,570
GROSS PROFIT	2,636	2,981	3,724	4,228	4,784	5,929	7,213	6,388	5,872	5,499	6,809	7,016	7,203
SELLING AND ADMIN. EXPENSES	1,275	1,480	1,995	3,119	3,333	2,753	2,880	2,945	3,078	2,947	3,261	3,361	3,450
- Selling	973	1,120	1,484	2,379	2,561	1,968	1,915	1,863	2,100	2,032	2,283	2,352	2,415
- Admin	302	360	511	741	772	785	965	1,082	979	915	978	1,008	1,035
OTHER EXPENSES	-	35	42	-	16	12	-	-	-	-	-	-	-
EBIT	1,361	1,466	1,687	1,109	1,435	3,165	4,333	3,444	2,794	2,552	3,548	3,655	3,753
SHARE OF PROFITS EQUITY METHOD									5				
FINANCE INCOME		-	-	-	-	2	4	1	1	-	-	-	-
FINANCE COSTS	112	2	4	48	107	133	107	89	115	132	113	103	93
TAX	238	209	278	261	368	564	667	513	433	484	687	710	732
PROFIT	1,012	1,256	1,405	801	960	2,470	3,563	2,843	2,251	1,935	2,748	2,842	2,928
NON CONTROLLING INTERESTS	99	-	(85)	(445)	(198)	(38)	34	(38)	(35)	-	-	-	-
NET PROFIT TO EQUITY HOLDERS OF PARENT	913	1,256	1,490	1,246	1,159	2,508	3,529	2,881	2,286	1,935	2,748	2,842	2,928
NUMBER OF SHARES (MN)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
EARNINGS PER SHARE (BT)	0.91	1.26	1.49	1.25	1.16	2.51	3.53	2.88	2.29	1.94	2.75	2.84	2.93

# CASHFLOWS, EFFICIENCY AND LEVERAGE

MARGINS	2014	2025	2016	2017	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F
GROSS MARGIN	34.8%	37.9%	36.8%	32.4%	32.8%	39.4%	41.5%	36.4%	30.2%	27.1%	31.3%	31.3%	31.3%
SELLING EXPENSE / REVENUE	12.8%	14.2%	14.7%	18.2%	17.5%	13.1%	11.0%	10.6%	10.8%	10.0%	10.5%	10.5%	10.5%
ADMIN EXPENSE / REVENUE	4.0%	4.6%	5.1%	5.7%	5.3%	5.2%	5.6%	6.2%	5.0%	4.5%	4.5%	4.5%	4.5%
OPERATING MARGIN	18.0%	19.1%	17.1%	8.5%	9.9%	21.1%	24.9%	19.6%	14.4%	13.5%	17.3%	17.3%	17.3%
OTHER INCOME / SALES AND SERVICES	1.7%	1.6%	1.5%	1.3%	0.9%	0.8%	0.9%	1.2%	1.2%	1.0%	1.0%	1.0%	1.0%
EFFECTIVE TAX RATE	19.1%	14.3%	16.5%	24.6%	27.7%	18.6%	15.8%	15.3%	16.2%	20.0%	20.0%	20.0%	20.0%
WORKING CAPITAL													
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INVENTORY DAYS	24	21	19	22	29	38	45	62	68	55	50	50	50
AC PAYABLE DAYS	59	60	60	66	69	65	54	55	49	50	50	50	50
CASH CYCLE	(20)	(21)	(23)	(22)	(17)	(3)	17	41	60	50	50	50	50



# ESG

Sustainability Management Policy and Targets		Policy and Guideline on Environmental Aspect		Policy and Guideline on Social Aspect	
Corporate Sustainability Policy	✓	Environmental Policy and Practice	✓	Human Rights Policy	✓
URL of corporate sustainability policy	<a href="#">🔗</a>	URL of environmental policy and practice	<a href="#">🔗</a>	URL of human rights policy	<a href="#">🔗</a>
		Company environmental guideline		Company human right guideline	
		Electricity Management	✓	Employee Rights	✓
		Fuel Management	✗	Migrant Workers	✓
		Renewable/Clean Energy Management	✓	Child Labor	✓
		Water Management	✗	Consumer Rights	✓
		Waste Management	✓	Community and Environment Rights	✓
		Biodiversity Management	✗	Safety and Occupational Health at Work	✓
		Greenhouse Gas and Climate Change Management	✗	Non-discrimination	✓

Results with Respect to the Environmental Aspect	2020	2021	2022
Results with Respect to the Environmental Aspect			
Amount of electricity purchased (kWh)	88,369,649.00	83,273,572.03	80,148,181.00
Fuel consumption			
Jet fuel (Litre)	0.00	0.00	0.00
Diesel (Litre)	0.00	0.00	0.00
Gasoline (Litre)	0.00	0.00	0.00
Fuel oil (liters)	0.00	0.00	0.00
Crude oil (barrels)	0.00	0.00	0.00
Natural gas (Standard cubic feet)	0.00	0.00	0.00
LPG (Kilogram)	0.00	0.00	0.00
Steam (tonnes)	0.00	0.00	0.00
Coal (tonnes)	0.00	0.00	0.00
Water consumption			
Water consumption (cubic meters)	3,167,310,000.00	11,567,940,000.00	56,910,860.47
Waste from operations			
Non-hazardous waste (kg)	6,239,411.00	6,835,884.00	8,333,563.34
Hazardous waste (kg)	645,666.00	798,119.00	941,670.60

Results with Respect to the Social Aspect	2020	2021	2022
Information about employees			
Total number of employees			
Number of male employees (persons)	1,869	2,135	2,210
Number of female employees (persons)	938	1,097	1,115
Total (persons)	2,807	3,232	3,325
Employee remuneration			
Employee remuneration (baht)	1,054,543,983.00	1,279,062,803.00	1,302,727,885.00
Employee development and training			
Average training hours of employees (hour / person / year)	16.79	9.45	16.38
Employee development and training expenses (baht)	2,692,261.00	1,047,043.00	2,925,675.00
Health, safety and work environment			
Number of employee work injuries leading to employee absence (times)	9	10	16
Employee retention			
Percentage of employees who voluntarily resigned (%)	41.00	26.98	34.98
Significant labor dispute			
Significant labor dispute	✗	✗	✗

# GOOD DATA MAKES A DIFFERENCE

TRADE MAP  
Trade statistics for international business development  
Monthly, quarterly and yearly trade data, import & export values, volumes, growth rates, market shares, etc.

Home & Search Data Availability Reference Material Other ITC Tools More

Product: 2202 - Waters, incl. mineral waters and aerated water  
Country: Thailand  
Partner: All  
other criteria: Exports  
Yearly time series  
Direct data  
Values  
US Dollar

List of importing markets for a product exported by Thailand  
Product: 2202 Waters, incl. mineral waters and aerated waters, containing added sugar or other sweetening ...

Table Graphs Map Companies

Time Period (number of columns): 5 per page Rows per page: Default (25 per page)

Importer	Exported value in 2015	Exported value in 2016	Exported value in 2017	Exported value in 2018	Exported value in 2019
World	962,495	1,133,698	1,295,287	1,448,590	1,587,247
China	193,399	236,325	296,890	368,973	479,480
USA	315,888	352,820	406,384	436,590	436,579
Mexico	175,937	193,771	203,125	188,616	228,523
Laos People's Democratic Republic	57,627	67,664	73,562	71,399	80,422
China	15,345	20,583	27,494	33,717	38,417
Indonesia	33,762	39,665	45,590	50,103	55,265
Malaysia	41,756	38,545	36,637	42,990	43,480
Indonesia	28,888	43,125	25,535	26,729	30,379
Indonesia	14,443	13,162	12,840	16,621	17,785
China	9,322	10,360	10,871	14,877	16,344
United States of America	14,911	17,895	17,458	15,524	15,419
Korea, Republic of	1,095	1,089	5,640	11,389	12,838
Vietnam	5,276	6,474	9,384	6,295	9,617
India	4,492	5,512	6,441	8,206	9,454
United Arab Emirates	8,429	8,204	10,916	10,199	9,183
Singapore	5,989	1,707	1,745	2,189	9,927

Many good sources available nowadays

## Trademap.org

- All HS codes of trade and services from all countries to all countries
- All bilateral trade data available in value and volume
- Monthly, Quarterly and Annual data
- Lots more analytics available
- Needs to register
- Free of charge

## IMF / WORLD BANK

- Major macro economics data, by country with 5 years of forecasts
- Updated every 6 months
- Commodity prices
- Free of charge

Subject Descriptor	Subject Notes	Units	Scale	Country	2010	2011	2012
					20	20	20
Gross domestic product, current prices	Values are based upon GDP in national currency converted to U.S. U.S. dollars	U.S. dollars	Billions	See notes f	11.232	12.818	14.057
Population	For census purposes, the total population of the country consists of Persons	Persons	Millions	Source: Na	14.251	14.406	14.561
Gross domestic product, current prices	Values are based upon GDP in national currency converted to U.S. U.S. dollars	U.S. dollars	Billions	See notes f	6,033.81	7,492.26	8,539.47
Population	For census purposes, the total population of the country consists of Persons	Persons	Millions	Source: Na	1,340.91	1,347.35	1,354.04
Gross domestic product, current prices	Values are based upon GDP in national currency converted to U.S. U.S. dollars	U.S. dollars	Billions	See notes f	7.504	8.963	10.195
Population	For census purposes, the total population of the country consists of Persons	Persons	Millions	Source: Int	6.249	6.348	6.445
Gross domestic product, current prices	Values are based upon GDP in national currency converted to U.S. U.S. dollars	U.S. dollars	Billions	See notes f	38.084	53.916	59
Population	For census purposes, the total population of the country consists of Persons	Persons	Millions	Source: De	49.159	49.521	49.909
Gross domestic product, current prices	Values are based upon GDP in national currency converted to U.S. U.S. dollars	U.S. dollars	Billions	See notes f	340.928	370.929	397.722
Population	For census purposes, the total population of the country consists of Persons	Persons	Millions	Source: Na	67.195	67.518	67.836
Gross domestic product, current prices	Values are based upon GDP in national currency converted to U.S. U.S. dollars	U.S. dollars	Billions	See notes f	143.257	171.368	195.168
Population	For census purposes, the total population of the country consists of Persons	Persons	Millions	Source: Na	87.968	87.86	88.809

# SOURCES OF 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
- 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

## **Google search**

- New information is steadily becoming available

# COMMODITY

- **COMMODITIES**

- **PRIMARY (Eg. MINING, AGRICULTURE)**

- VOLATILE MARKET PRICES
    - DEMAND:
      - RESOURCE > ECONOMIC GROWTH DRIVEN
      - AGRICULTURE > STEADY BUT MANY SUPPLIERS GLOBALLY, EASILY SUBSTITUTED
    - SEASONALITY
    - WEATHER CONDITIONS
    - ENVIRONMENT
    - TARIFF, POLITICS
    - MAKE USE OF FUTURES PRICES

- **SECONDARY (Eg. REFINERY, PETROCHEMICALS, SOME INDUSTRIAL PRODUCTS)**

- VOLATILE INPUT PRICES (FEEDSTOCK)
    - DEMAND
      - TEND TO CHANGE MUCH MORE RAPIDLY THAN CHANGES IN ECONOMIC GROWTH
    - PROFITABILITY LIES IN SPREADS
    - INVENTORY MANAGEMENT
    - SHUTDOWNS, MAINTENANCE, UPGRADES

# PROPERTY

- REGULATORY CONTROLS
  - 2<sup>nd</sup> or 3<sup>rd</sup> MORTGAGE LIMITATIONS
  - STANDARD DEBT SERVICE RATIO
- BANKS LENDING STANDARD
  - LOANS TO VALUE (LTV)
- MARKET INTEREST RATES
- ECONOMIC GROWTH
- POLITICAL DISTURBANCES

EVENTS	TIMING		
	CONDO	LANDED PROPERTY	STOCK PRICE
Land Acquisition	T1	T1	
License for Construction	T1	T1	
Pre-Sales	T1 + 2M to 6M	T1 + 12M to 24M	Most sensitive
Development Credit	T1 + Presales Prospects	T1 + Presales Prospects	
Construction	T1 + 12M to 24M	T1 + 12M to 24M	
Unit Registration	End of T1 + 12M to 24M	End of T1 + 12M to 24M	
Sales Recognition	End of T1 + 12M to 24M	End of T1 + 12M to 24M	

# FINANCIAL INSTITUTIONS

- START WITH FORECASTING BALANCE SHEET
- LOANS AND DEPOSIT GROWTH, LOAN / DEPOSIT RATIO
- AVERAGE LENDING RATE AND AVERAGE COST OF FUNDS (SPREAD)
- SEGMENTS / PRODUCTS
- OPERATING COSTS
- QUALITY OF LOANS (NON-PERFORMANING LOANS)
- PROVISIONS AND BAD DEBT RESERVES
- NON-INTEREST INCOME
- CAPITAL ADEQUACY

# ASSIGNMENT #2

- SAME GROUP / SAME COMPANY
- MAKE FORECASTS
- KEY FIGURES AND RATIOS IN 'FINANCIALS' SHEET

# READING

1. GO THROUGH CBG FINANCIAL MODEL
2. 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 +)
3. Go through Bank of Thailand websites on economic statistics. Get a sense of their contents, their meanings.  
(<https://www.bot.or.th/English/Statistics/EconomicAndFinancial/Pages/default.aspx>)



# QUIZ