



Current Economic Environment and its Impact on BI and Stock Loss Calculations

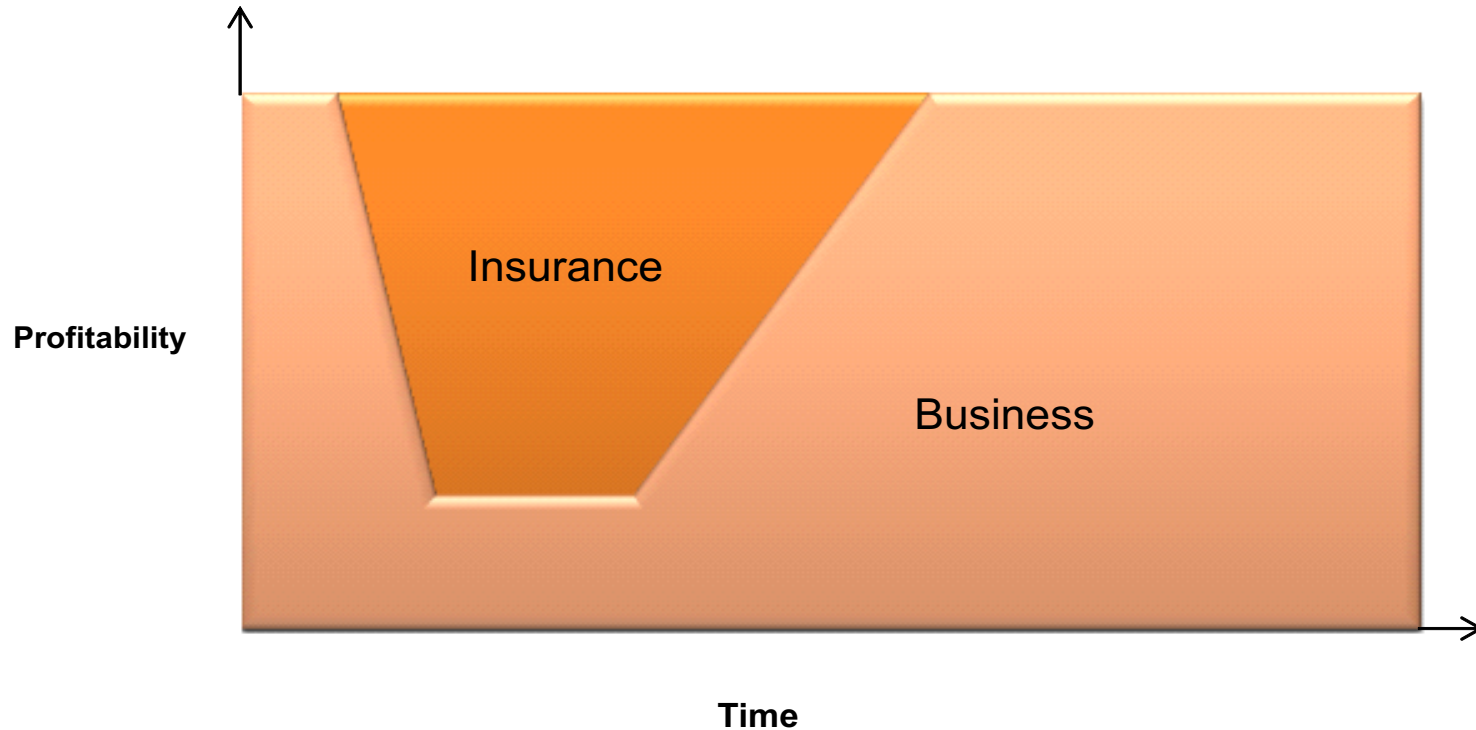
Friday, 21 April 2017

Presenter

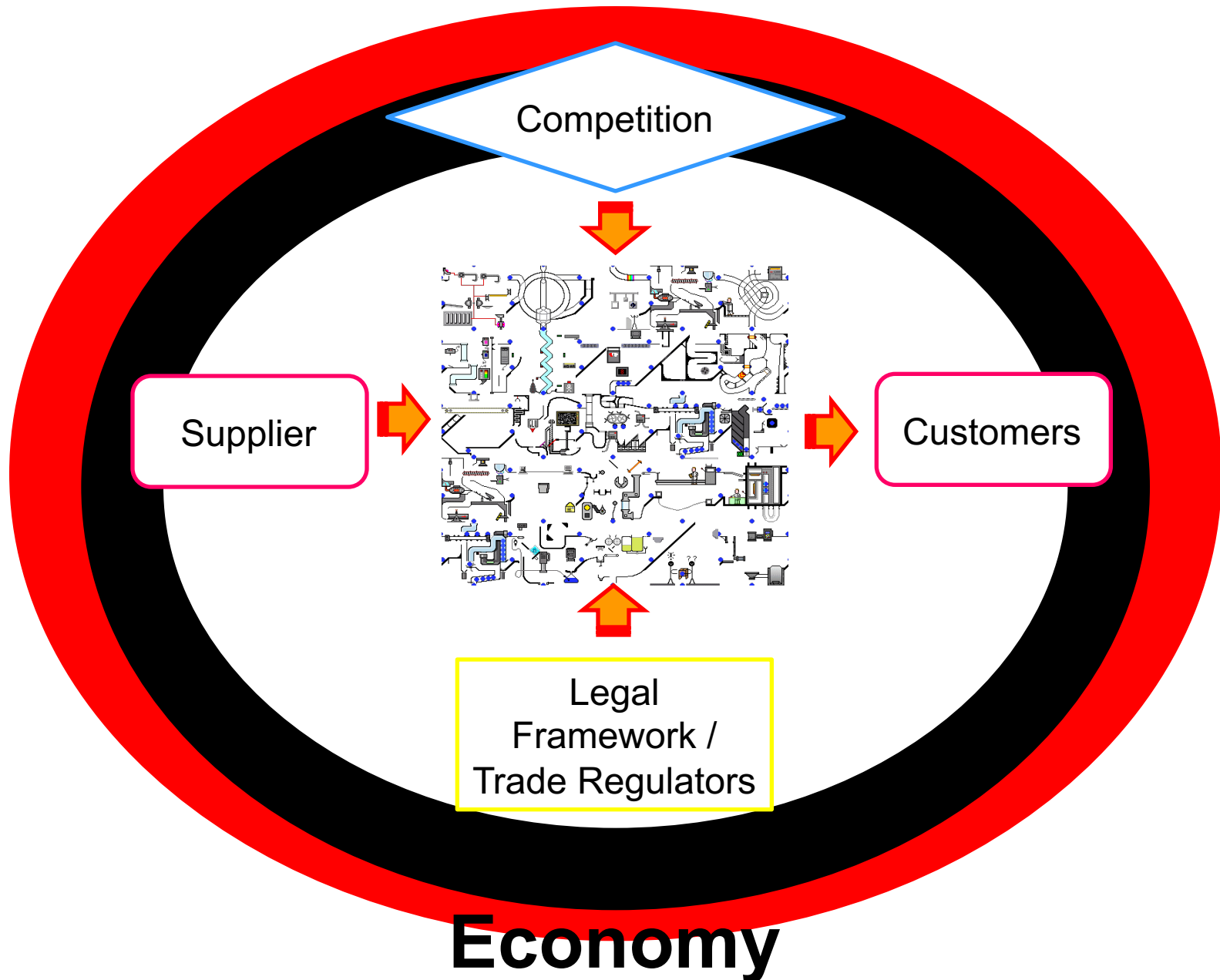
Jeff Wong, Manager | jwong@mdd.com

Dan De Silva, Supervisor | ddesilva@mdd.com

FORENSIC ACCOUNTANTS



The objective of Business Interruption insurance is to put the company in the same position that it would have been in, but for the loss of that incident



- > Characterised by volatility
- > Imbalance in supply and demand
 - Fluctuations in commodity prices
 - Slow down of the Chinese economy
 - Significant fluctuations in currencies

Results in:

- > Increase in political influence
- > Price volatility which is driven by imbalance, results in an increase in market expectations and speculation
- > Companies may not be able to quickly react to the environment

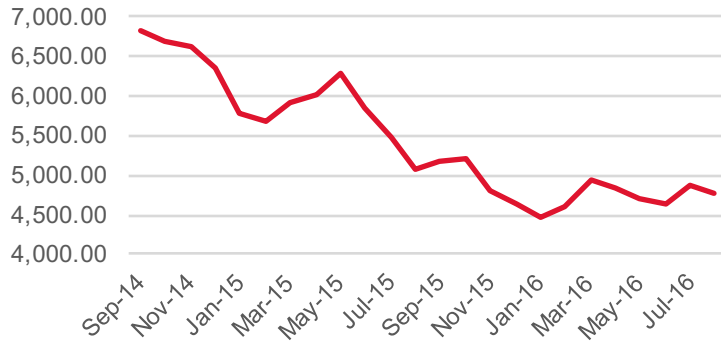
Oil Price Volatility



Price Volatility



Copper Price Trend



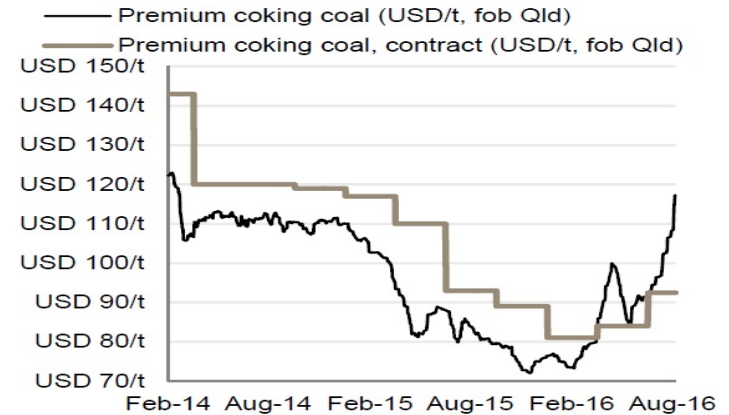
Aluminium Price Trend



Nickel Price Trend



Chart of the Day: Premium coking coal prices – spot and quarterly contract prices

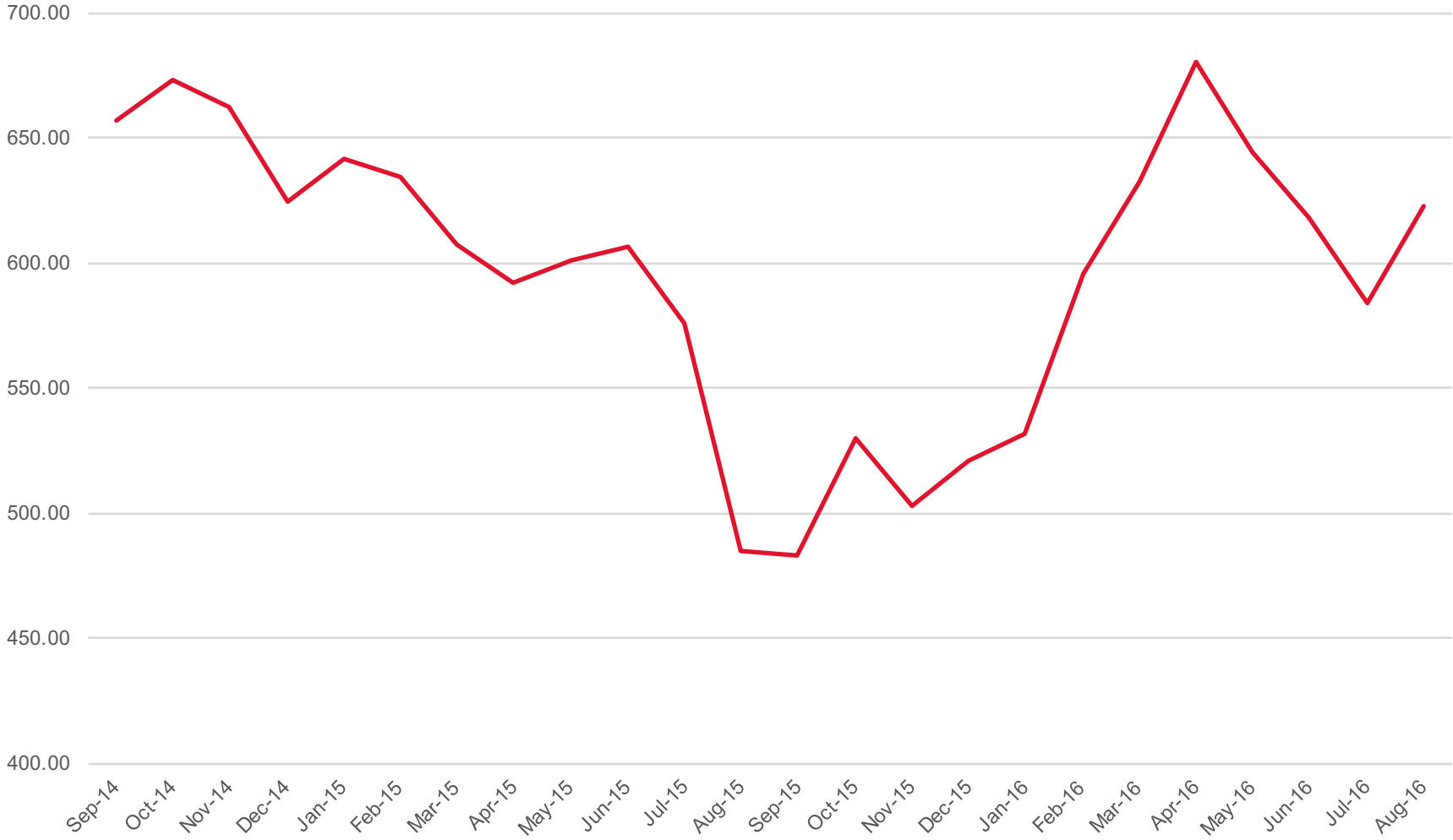


Source: Platts, CBA estimates

Palm Oil Price Volatility



Palm Oil Price Trend (Sep-14 to Aug-16)



- > Topic high on agenda of multi-national companies for many years
- > The world is getting smaller - international trade
- > Exchange rates subject to diverse influences – economic uncertainty, terrorism threat etc.

Exchange Rate Movements



RUB/USD



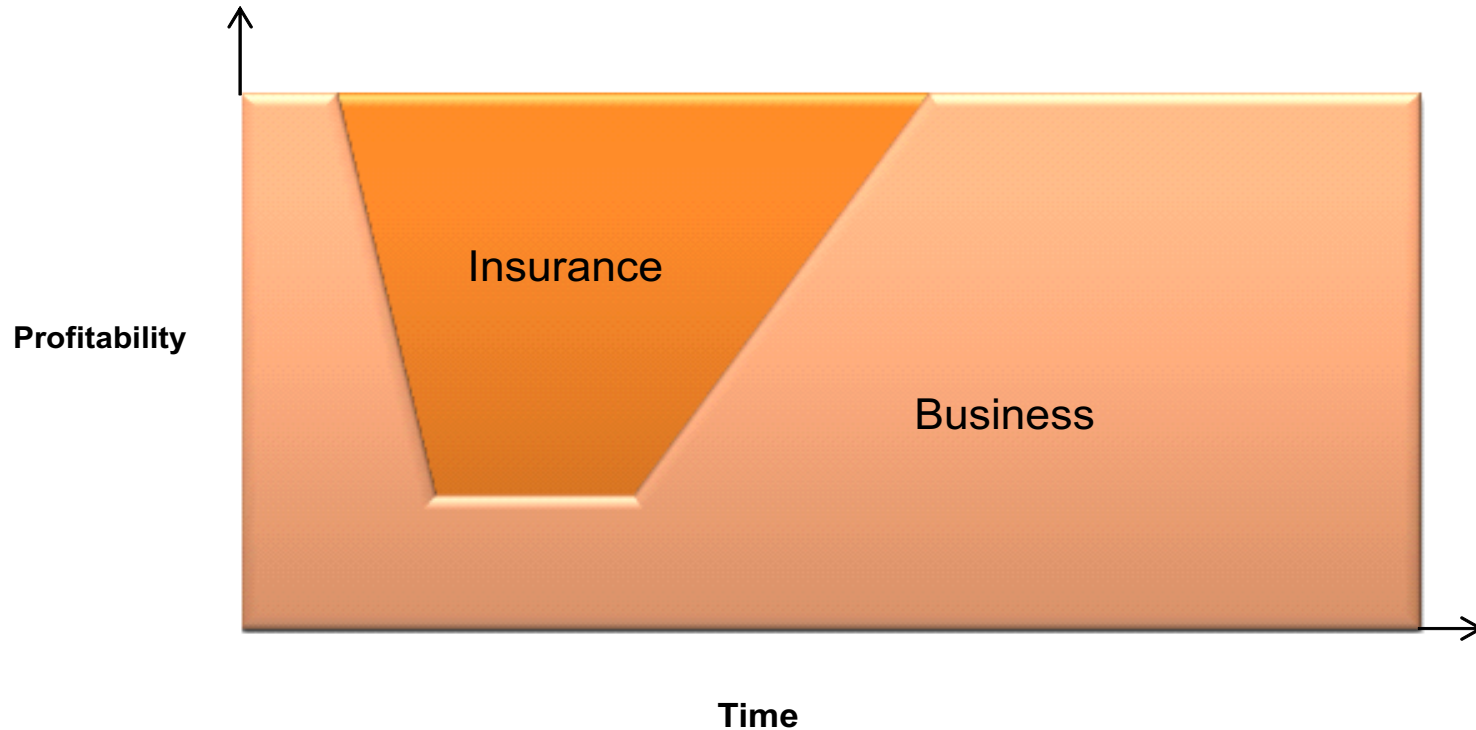
Exchange Rate Movements



MYR/USD



Impact on BI Calculations



The objective of Business Interruption insurance is to put the company in the same position that it would have been in, but for the loss of that incident

BI Coverage: Key Components

Calculation of Standard Turnover
(or projected turnover)



Actual Turnover



Rate of Gross Profit



Savings in Fixed Costs

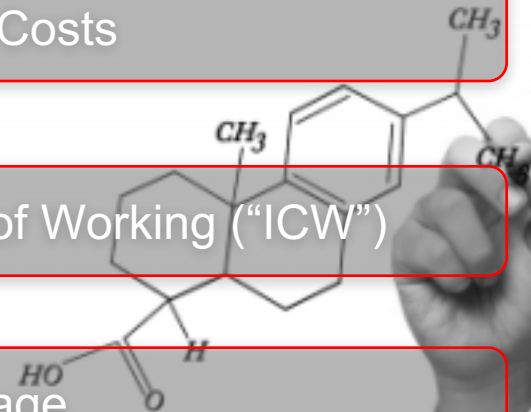
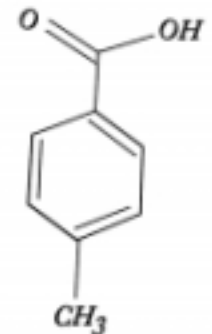


“Economic” Increase in Cost of Working (“ICW”)

If applicable:

Adjust for Average

Add “uneconomic” Additional Increase
in Cost of Working (“AICW”)



“Other Circumstances” Clause

Standard Turnover:

“The Turnover during the period corresponding with the Indemnity Period in the twelve months immediately before the date of the Damage appropriately adjusted where the Indemnity Period exceeds twelve months...”

to which such adjustments shall be made as may be necessary to provide for the trend of the Business and for variations in or special circumstances affecting the Business either before or after the Damage or which would have affected the Business had the Damage not occurred, so that the figures thus adjusted shall represent as nearly as may be reasonably practicable the results which but for the Damage would have been obtained during the relative period after the Damage.

Impact on BI calculations

- > “Other circumstances” or trend clause requires projecting performance “but for the damage”
- > Take into account economic conditions
- > Fast-moving world that we are in
- > Speed of change effectively renders historical performance irrelevant as a benchmark
- > Look at industry trends, how similar firms are performing

“Other Circumstances” Clause

WE CAN CONSIDER:

Budgets Adjusted for Normal Variations to Budgets

Sales By Product / Client

Forecasts / Rolling Forecasts

Market Share, Industry Statistics

Strategic Plans

Order Book Analysis

Sales Projection via Regression Analysis, Market Analysis



- > If the loss period is long, the calculation needs to be detailed enough to take into account:
 - selling price fluctuations
 - raw material cost fluctuations
 - exchange rate volatility

- > Oil, for example, is a major input for many industrial businesses and oil price volatility will impact the margins

- > Selling prices, purchase prices and exchange rates determine profit margins

Commodity prices and exchange rates affecting profitability

Description	Units	Measurement based on Historical Data
Lost Volumes	<i>MT</i>	72,775
Selling Prices	<i>M YR/MT</i>	8,620
Loss of Revenue	<i>M YR</i>	627,322,876
Cost of Direct Materials per MT	<i>M YR/MT</i>	3,520
Direct Materials as % of Selling Price	%	40.8%
Other Variable Costs as % of Revenue	%	29.8%
Rate of Gross Profit	%	29.4%
Loss of Gross Profit in MYR	<i>M YR</i>	184,459,316
MYR/USD exchange rate	<i>M YR/USD</i>	3.21
Loss of Gross Profit in USD	<i>USD</i>	57,546,427

- > Consider how volatile margins will influence the Insured's production plans:
 - High Margin – higher production
 - Low Margin – reduction in production or even stop production

- > The nature of business is important – for some, adjusting production is easy while for others, not even possible

Profit margins influence production

Month	Average Refining Margin	Daily CPO Feed	Average Daily Production				Refinery Utilisation	
			RPO	PFAD	RBD Olein	RBD Stearin		
			<i>kg</i>	<i>kg</i>	<i>kg</i>	<i>kg</i>		
	<i>Curr / MT</i>	<i>kg</i>	<i>kg</i>	<i>kg</i>	<i>kg</i>	<i>kg</i>	%	
	<i>Sch 2a</i>	<i>Sch 2a</i>	<i>Sch 2a</i>	<i>Sch 2a</i>	<i>Sch 2a</i>	<i>Sch 2a</i>		
Jan-15	(3.43)	79,938	15,701	3,774	47,801	12,347	26.6%	
Feb-15	(4.32)	172,827	65,347	9,320	70,390	26,704	57.6%	
Mar-15	(8.06)	150,731	3,689	7,256	109,539	29,565	50.2%	
Apr-15	(4.30)	173,013	49,474	7,776	92,437	22,473	57.7%	
May-15	0.24	203,912	52,692	8,046	109,361	32,892	68.0%	
Jun-15	2.74	215,470	4,248	9,627	162,782	37,822	71.8%	
Jul-15	9.03	240,882	67,344	10,809	128,796	32,877	80.3%	
Aug-15	7.10	261,583	78,545	11,624	132,151	38,054	87.2%	
Sep-15	12.44	51,974	19,349	2,385	23,647	6,352	17.3%	<i>Loss Period</i>
Oct-15	14.14	263,251	75,002	12,547	138,122	36,291	87.8%	
Nov-15	15.58	240,761	8,184	11,619	174,043	45,737	80.3%	
Dec-15	9.63	291,507	48,648	15,701	182,397	43,456	97.2%	
<u>Averages</u>								
Jan to Aug-15	(0.12)	187,294	42,130	8,529	106,657	29,092	62.4%	
May to Aug-15	4.78	230,462	50,708	10,027	133,272	35,411	76.8%	

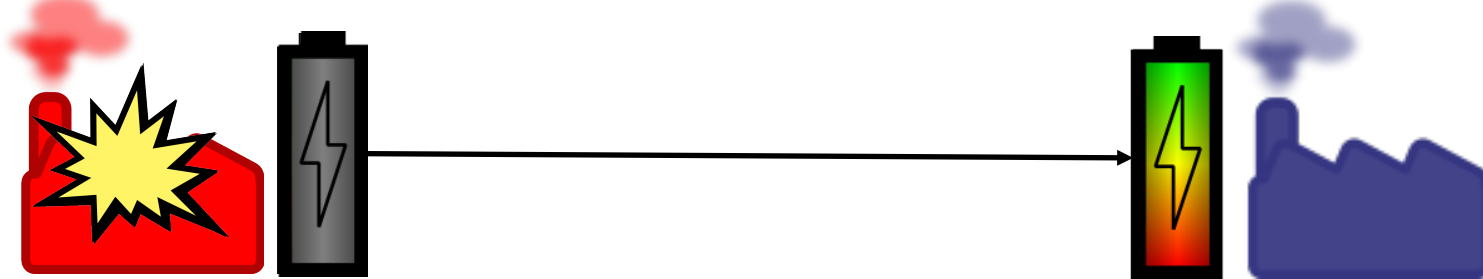
- > Consider if a business can sell all of its production?
- > Production may not equal Sales
- > Even if the Insured has been able to previously sell of the production, it does not mean it can in the future
- > Market environment very important
 - Competition
 - Fast-changing markets

Impact on BI Calculations

- > Impact on the Insured and on the Group (if spare capacity)
 - Potential windfall profit – depending on the policy
 - Different way of calculating the ICW

- > Adequacy of the sum insured
 - Expect less issues with adequacy of the sum insured, when commodity prices are low but the situation changes once the prices start increasing

BI Loss = USD 10M

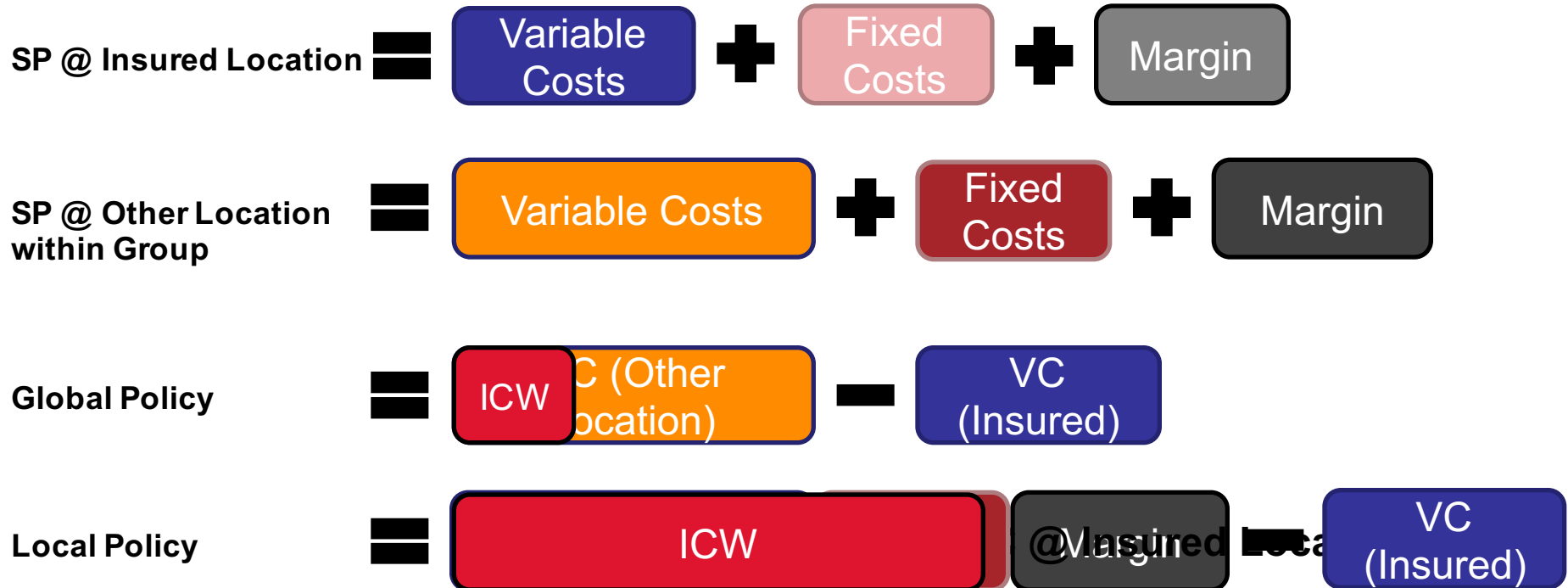


Insured Location

**Alternative
Location within
Group**

- > Local Policy: Potentially no make-up can be considered
- > Global Policy: Make-up at other locations within the Group will be considered

ICW Calculation Issues



- > Hedging commodity prices and currencies through entering into forward contracts or trading futures
- > But hedging arrangements can be complex and costly
- > Reduces uncertainty which means no benefit when the movement is in your favour
- > To mitigate exchange rate movements, consider adjusting price? But restricted by:
 - Competition – prices are set by the market
 - Contracts

Impact of the Economic Environment

Stock Loss Calculations

Impact of the economic environment on stock losses:

- > Past invoices vs Replacement invoices
 - *Historical prices and costs may not reflect current market prices*

- > Proportion of the stock that gets replaced after the loss
 - *Good indication of potential slow moving or obsolete stock*

- > Lower Selling price and Replacement Costs
 - *If possible verify this on a per SKU basis, to ensure the lowest is considered*

- > The types of losses might be different
 - *Keep an open eye for suspicious fires*
- > Do not forget exchange rate volatility
- > Even if prices have remained constant, replacement cost could change if the Insured buys in a different currency

Issues to consider in the current environment:

- > Historic assessment might not be appropriate due to the current market trends:
 - Selling price
 - Raw materials
 - Gross profit
 - Replacement cost for stock losses
- > Exchange rate trend over the loss period
- > If spare capacity available and mitigation within the Group:
 - Potential windfall profits;
 - Impact on the ICW calculation

Questions?

**10 Collyer Quay #05-10
Ocean Financial Centre
Singapore 049315
**+65 6327 3785 (T)
+65 6327 3784 (F)
www.mdd.com****

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