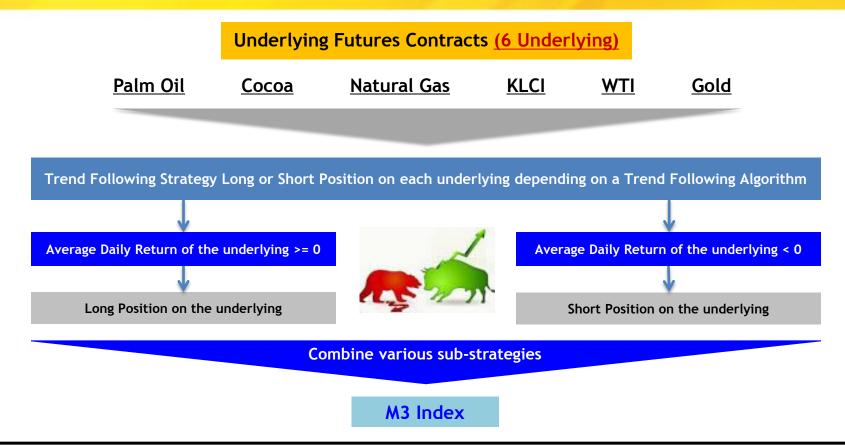


# **Structured Product Final Performance Report**

Maybank 1Malaysia Momentum Structured Deposit M3

21 January 2015

Overview of M3





### Overview of M3

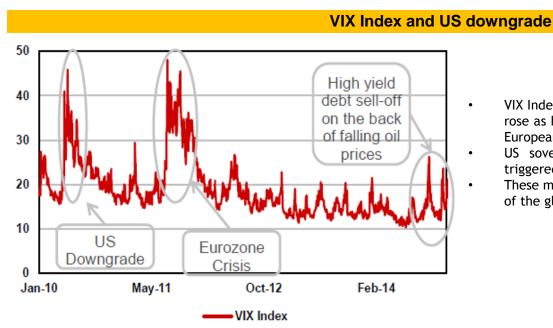
Summary of Terms and Condition	Summary of Terms and Conditions					
Product Structure	Index-linked to 1Malaysia Momentum (M3) Index					
Tenor	5 Years, subject to Autocall Event					
Autocall Observation	Weekly					
Autocall Event	M3 Index / M3 Initial Index >= Autocall Trigger Level					
Autocall Trigger Level	107% x M <sup>3</sup> <sub>Initial</sub> for all observations in Year 1 114% x M <sup>3</sup> <sub>Initial</sub> for all observations in Year 2 121% x M <sup>3</sup> <sub>Initial</sub> for all observations in Year 3 128% x M <sup>3</sup> <sub>Initial</sub> for all observations in Year 4 135% x M <sup>3</sup> <sub>Initial</sub> for all observations in Year 5					
Autocall Coupon	7.00% p.a. (1.75% for every quarter investor has invested in the investment)					
Bonus Coupon Observation	Quarterly					
Bonus Coupon Event	M3 Index > M3 Initial Index					
Bonus Coupon	0.50% (i.e. 2.00% p.a.)					
Maturity Amount	If Autocall does not occur till maturity:-  = Max (M3 Final / M3 Initial - 1, 0) x Participation  where: Participation is 115%					



## **Performance Analysis**

## Unpredictable market conditions during last 5 years

Tough market conditions on the back of slower Eurozone crisis, Change in monetary policy, Weaker demand



- VIX Index, which is a measure of uncertainty in the market, rose as high as 48 in May 2010 on the back of concern over European debt crisis
- US sovereign rating cut by S&P in Aug 2011 further triggered the VIX Index to jump to 45
- These market shocks worried investors a lot about the state of the global economy in general



## **Performance Analysis**

## Unpredictable market conditions during last 5 years

Tough market conditions on the back of slower Eurozone crisis, Change in monetary policy, Weaker demand



Weak economic conditions in Greece led the sovereign Yield to rise in the 2011. Implied CDS levels showed

significant risk of Greece default on sovereign bonds

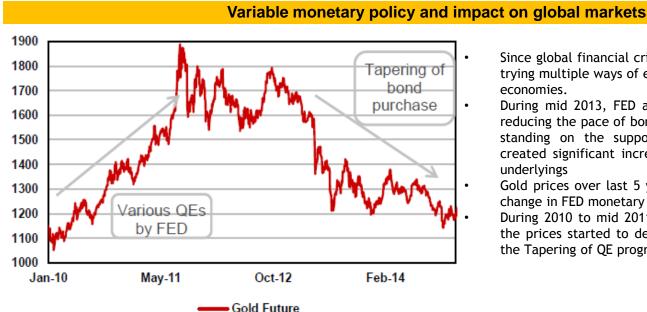
- It further raised concern about overall economic state of Eurozone countries due to similar nature of Debt-to-GDP ratio of other member countries
- This contagion risk spread to Spain, Portugal & Spain as well which pushed Eurozone into recession
- Risk in the global economic markets increased significantly with implied volatilities going higher and credit spreads widening
- ECB had to extend financial supports to ailing countries to avoid catastrophic effect of default due to intertwined debt structure
- Europe still needs to get over the recession



## **Performance Analysis**

## Unpredictable market conditions during last 5 years

Tough economic environment on the back of slower than expected US recovery, Eurozone crisis, Weaker demand for energy



Since global financial crisis global central banks have been trying multiple ways of easing to stimulate their respective

economies.

- During mid 2013, FED announced that it's contemplating reducing the pace of bond purchases. In a market that was standing on the support from FED, such a statement created significant increase in risk for the global market underlyings
- Gold prices over last 5 years show a very clear picture of change in FED monetary policy.
  - During 2010 to mid 2011 Gold was in clear uptrend while the prices started to decline in 2013 as US Fed indicated the Tapering of QE program



## **Performance Analysis**

## Unpredictable market conditions during last 5 years

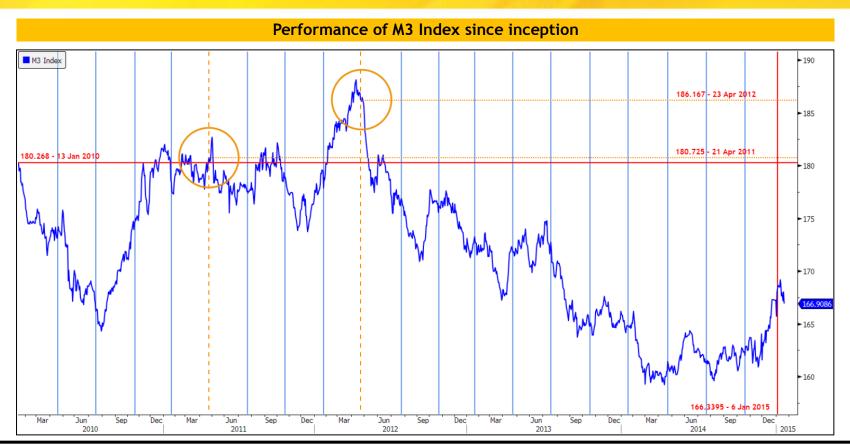
Tough economic environment on the back of slower than expected US recovery, Eurozone crisis, Weaker demand for energy



- Crude Oil prices remained range bound for most of the time in last 5 years
- Prices rose in 2014 amidst the unrest in middle east and rising tension between Russia and other countries over annexation on Ukraine.
- However oil prices have tumbled by ~ 50% from its peak as higher supply from US has created the downward pressure

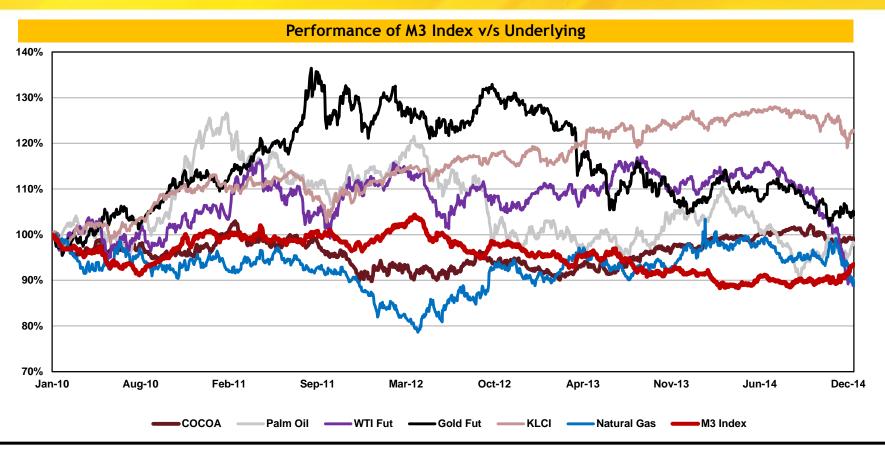


## **Performance Analysis**



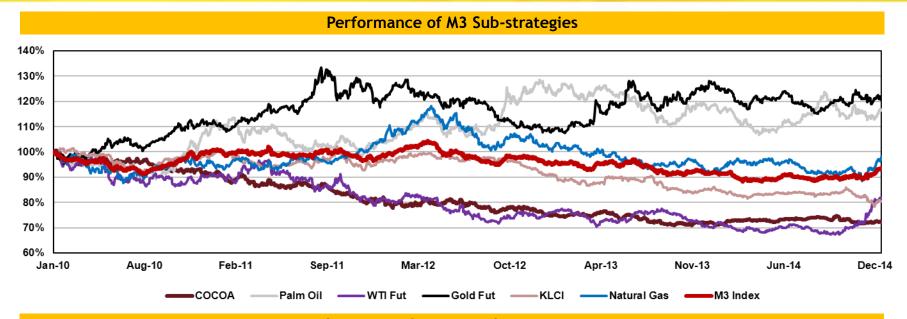


## **Performance Analysis**





## **Performance Analysis**

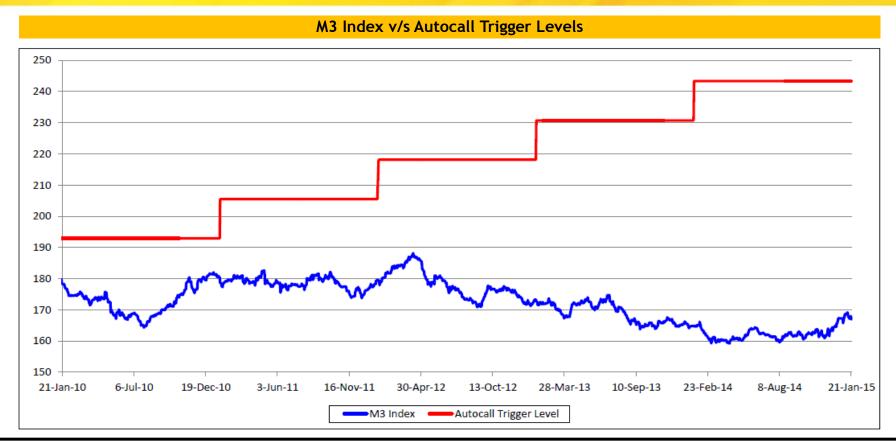


### Overview of various sub-strategies

- Gold future performed well throughout contributing positively to Index performance
- Palm Oil performance was also positive especially during the 2nd half of the investment
- However, Index performance was dragged down due to underperformance by WTI and Cocoa. WTI and Cocoa, for the large part of the investment remained range bound producing significant negative impact on the performance.



## **Performance Analysis**





## **Performance Analysis**

### Historical Price Movement (quarterly)

Year	Quarter	Dates	Cocoa Futures	Palm Oil Futures	WTI Futures	Gold Futures	KLCI Futures	Natural Gas Futures	M3 Index	Quarterly Returns
	Initial	13-Jan-10	3,415.00	2,510.00	79.39	1,138.20	1,291.50	5.704	180.268	
Year 1	Q1	21-Apr-10	3,087.00	2,471.00	83.68	1,148.80	1,334.00	4.040	174.187	0.00%
	Q2	21-Jul-10	2,960.00	2,457.00	76.56	1,193.70	1,344.50	4.500	166.177	0.00%
	Q3	21-Oct-10	2,845.00	2,990.00	80.56	1,325.60	1,495.00	3.750	174.959	0.00%
	Q4	21-Jan-11	3,173.00	3,748.00	89.11	1,342.60	1,543.50	4.743	178.677	0.00%
Year 2	Q5	21-Apr-11	3,088.00	3,312.00	112.29	1,503.80	1,528.50	4.466	180.725	0.50%
	Q6	21-Jul-11	3,194.00	3,130.00	99.13	1,588.10	1,563.00	4.362	177.577	0.00%
Teal 2	Q7	21-Oct-11	2,611.00	2,883.00	87.40	1,636.10	1,435.50	3.826	178.826	0.00%
	Q8	23-Jan-12	2,291.00	3,165.00	99.58	1,681.10	1,525.00	2.580	179.455	0.00%
	Q9	23-Apr-12	2,204.00	3,475.00	103.11	1,362.60	1,574.50	2.096	186.167	0.50%
Year 3	Q10	23-Jul-12	2,254.00	2,990.00	88.14	1,579.70	1,634.00	3.111	176.728	0.00%
Teal 3	Q11	22-Oct-12	2,523.00	2,577.00	88.73	1,726.30	1,664.00	3.768	175.566	0.00%
	Q12	21-Jan-13	2,294.00	2,420.00	95.56	1,689.20	1,624.50	3.565	173.254	0.00%
Year 4	Q13	22-Apr-13	2,310.00	2,255.00	88.76	1,421.20	1,699.50	4.298	171.804	0.00%
	Q14	22-Jul-13	2,353.00	2,272.00	106.91	1,336.60	1,801.50	3.679	170.810	0.00%
	Q15	21-Oct-13	2,728.00	2,437.00	99.22	1,315.80	1,806.00	3.793	165.055	0.00%
	Q16	21-Jan-14	2,687.00	2,587.00	94.99	1,242.00	1,813.50	4.358	164.813	0.00%
	Q17	21-Apr-14	3,004.00	2,642.00	104.37	1,288.50	1,861.00	4.715	160.518	0.00%
Year 5	Q18	21-Jul-14	3,106.00	2,296.00	14.59	1,314.70	1,866.00	3.862	161.421	0.00%
Teal o	Q19	21-Oct-14	3,089.00	2,135.00	82.81	1,251.70	1,793.00	3.800	161.981	0.00%
	Q20	21-Jan-15	2,851.00	2,273.00	47.78	1,294.70	1,771.00	2.940	166.909	0.00%



## **Performance Analysis**

### **Final Payout**

<u>Particulars</u>	<u>Returns</u>			
Early Termination Payment	0.00%			
Total Quarterly Bonus Coupons	1.00%			
Maturity Payout	0.00%			
Capital Protected Deposit	100.00%			
Total Returns (Investment Tenure)	1.00% (5 Years)			
Annualized Returns	0.20% p.a.			

### Maturity Payout

= Max ( ${\rm M^3_{Final}}$  /  ${\rm M^3_{Initial}}$  - 1, 0) x Participation

where:

 ${\rm M^3}_{\rm Initial}$  - M3 Index 10 Business Days prior to the Maturity Date  ${\rm M^3}_{\rm Initial}$  - M3 Index on the Index Fixing Date

Participation is 115%

= Max ( 168.3395 / 180.268 - 1, 0) x 115%

= 0

### Early Termination Payment

If the M3 index is above the Autocall Trigger level on any Weekly Observation date, investors get back 100% the principal amount and a coupon of 1.75%, paid at the quarter-end for every quarter that the investor has held the deposit. Thus 1.75% per quarter gives a return of 7.00% p.a.

<u>Outcome</u>: The M3 index had never been above the Autocall Trigger level since inception (please refer to the chart on page 11).

### Quarterly Bonus Coupons

Bonus coupon of 0.50% is paid every quarter if the M3 index at the end of the quarterly period is greater than 100% of the Initial Index Fixing level, but lower than the Autocall Trigger level.

<u>Outcome</u>: The M3 index had been above the Initial Index Fixing level but lower than the Autocall Trigger level on 2 occasions i.e. at 180.725 on 21 April 2011 and at 186.167 on 23 April 2012 (please refer to the chart on page 8).

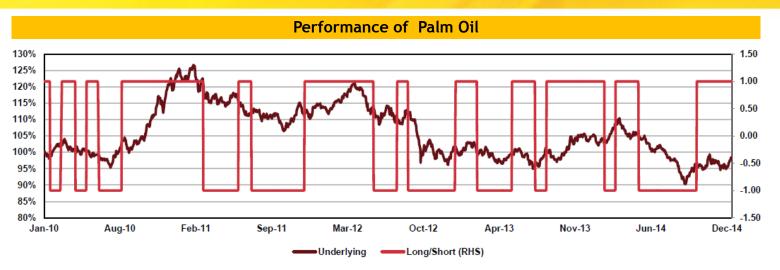
### Maturity Payout

If there is no Early Termination due to the Autocall Termination event, investors will receive 100% of the invested capital plus 115% participation in the final positive performance, if applicable, of the M3 Index since inception.

Outcome: Since the M3 index is lower than the M3 Initial Index Fixing level, investors will only receive 100% of their principal at maturity (please refer to the table on page 8).



### **Performance Analysis**



 During the tenor of the investment, Palm oil sub-strategy has outperformed the long position on Palm Oil.

### Jan 2010 - Oct 2012 (period of good performance)

- After first few months of range bound prices, Palm oil started to show an upward trend during June 2010 to Feb 2011. This was the time when the supply concerns caused by rains damaged oil-palm harvests in Indonesia & Malaysia caused the Palm Oil prices to go up.
- This implies that after suffering some initial losses because of range bound market, Palm Oil sub-strategy was able to pick up

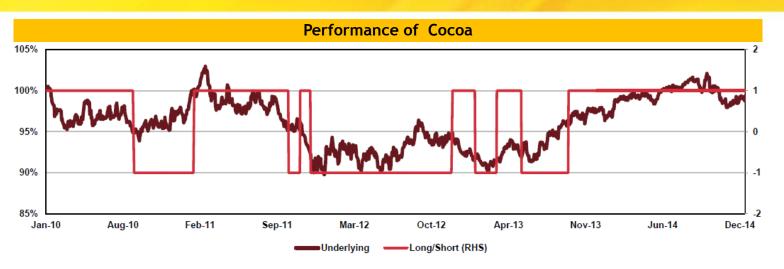
- the upward momentum in Palm Oil prices and was up ~11% till Jan 2011
- A sharp reversal in Feb 2011 caused some loss to the Pal Oil sub-strategy but a continued downtrend thereafter helped the sub-strategy to show good performance till Oct 2012

### Oct 2012 - Jan 2015 (~flat performance during the period)

 During this period the underlying prices didn't show any clear upward or downward trend. This could have caused the Palm Oil sub-strategy to underperform but there were short periods of upward and downward momentum that were captured by the Palm Oil sub-strategy to avoid these potential losses.



## **Performance Analysis**



#### Jan 2010 - Jan 2011

 Price of Cocoa futures remained range bound from start of the investment in Jan'10 until Jan'11. This meant that the Cocoa substrategy was not able to pick a clear trend in the market.

#### Early 2011

 It started with upward bias in early 2011. This resulted in a long signal generated by the Cocoa sub-strategy. However it failed to continue the momentum on the back of better than expected supplies from West Africa. The prices of Cocoa futures fell sharply in Feb-March 2011. This reversal in momentum caused the long position in Cocoa to suffer loss as Cocoa sub-strategy was not able to catch the reversal in momentum.

### Oct 2011 - Aug 2013 (significant underperformance)

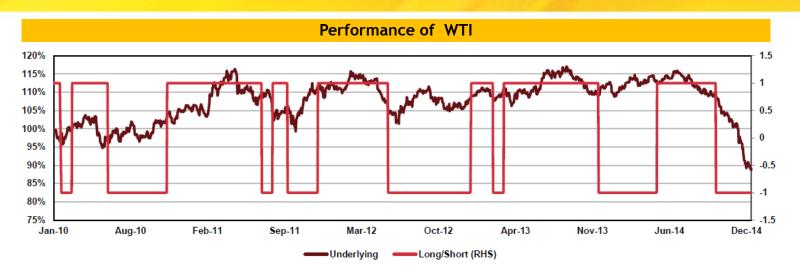
- Oct 2011 to Aug 2013 was a long period of direction-less price movement in Cocoa.
- Unfortunately, this trendless market on Cocoa led to a significant downfall period for a momentum strategy on Cocoa.

#### Aug 2013 - Jan 2015 (marginal recovery)

 The prices of Cocoa started to recover. Cocoa sub-strategy was able to pick this trend and showed decent return during this period but the returns were insufficient to recover the losses that happened before this period



## **Performance Analysis**



- Apart from the big drop during H2 2014 and early 2015, WTI prices have been range bound for most of the period during last 5 years
- After touching a high of USD 113 per barrel in April 2011, WTI prices traded in a small range till H2 2014. During the last 6 months, WTI prices have shown a huge drop caused by over-supply of crude oil by OPEC.

### Jan 2010 - September 2014

 For most part of last 5 years (till mid 2014), WTI prices failed to show a clear uptrend or downtrend. This caused the WTI substrategy to underperform during most of the period.

#### September 2014 - Jan 2015

- During the later part of 2014, due to demand supply mismatch WTI prices started going down. Market was expecting a decision from OPEC to reduce the supply to help oil prices recover but, due to lack of consensus, OPEC decided against it. That exacerbated the fall in oil prices making the WTI prices to finally show a momentum in the price.
- WTI sub-strategy was able to capture this momentum and recovered a portion of the loses incurred during first 4.5 years



## **Performance Analysis**



 During the first half of the investment, Gold priced showed clear uptrend due to a combination of FED monetary easing and European crisis. While during the last 1.5 years, it has been on a major downtrend because of improving market conditions and reduction of FED bond purchases ("Tapering")

#### Jan 2010 - June 2012

Strategy generated long signal in inception which continued till
mid 2012. This was the period of European Crisis and FED QE that
was pushing Gold prices higher. As a result, gold sub-strategy
showed significant positive returns during this time.

### June 2012 - May 2013

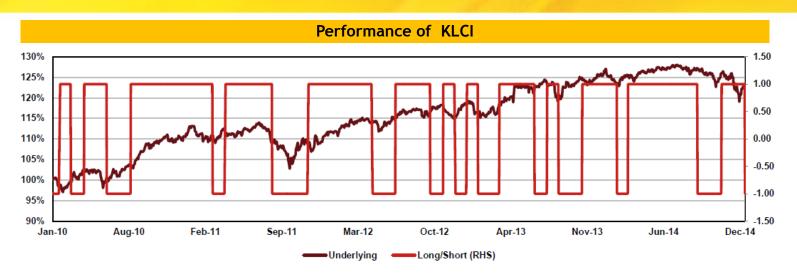
Gold prices showed high volatility at this time with no clear trend.
 This led to an underperformance of the strategy

### May 2013 - Jan 2015

- FED's announcement to consider a reduction in pace of bond purchase in QE3 caused a major drop in gold prices. This is the time when US market data also started showing major recovery help improve the market sentiment and hence the safe-haven gold saw a major downtrend in price.
- Gold sub-strategy was able to capture this trend and recovered most of the losses that happened during June 2012 to May 2013.



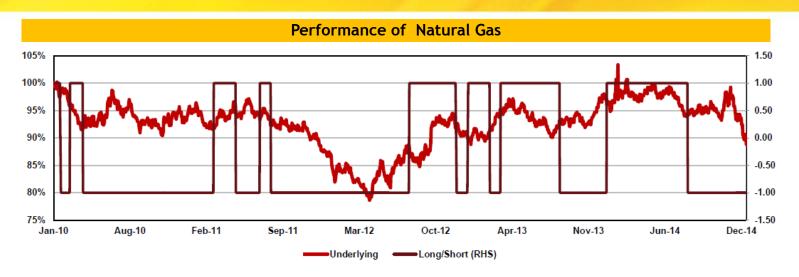
## **Performance Analysis**



 KLCI has remained in the upward trend for most of the time in the last 5 year. However, subs-strategy was unable to capture the actual trend due to shorter Moving Average period which resulted in whipsaws.



## **Performance Analysis**



 For the initial One and half years of investment, Natural Gas traded largely in range with slightly downward bias. However substrategy performed well when price spiraled down in Oct 2011and outperformed the underlying till Oct 2013 after which price remained range about.

#### Jan 2010 - May 2011

 Strategy generated short signal at inception but the performance was not as per expectation due to range bound price movement

### Oct 2011 - Aug 2013 (significant underperformance)

- Oct 2011 to Aug 2013 was a long period of direction-less price movement in Cocoa.
- Unfortunately, this trendless market on Cocoa led to a significant downfall period for a momentum strategy on Cocoa.

### Aug 2013 - Jan 2015 (marginal recovery)

 The prices of Cocoa started to recover. Cocoa sub-strategy was able to pick this trend and showed decent return during this period but the returns were insufficient to recover the losses that happened before this period



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