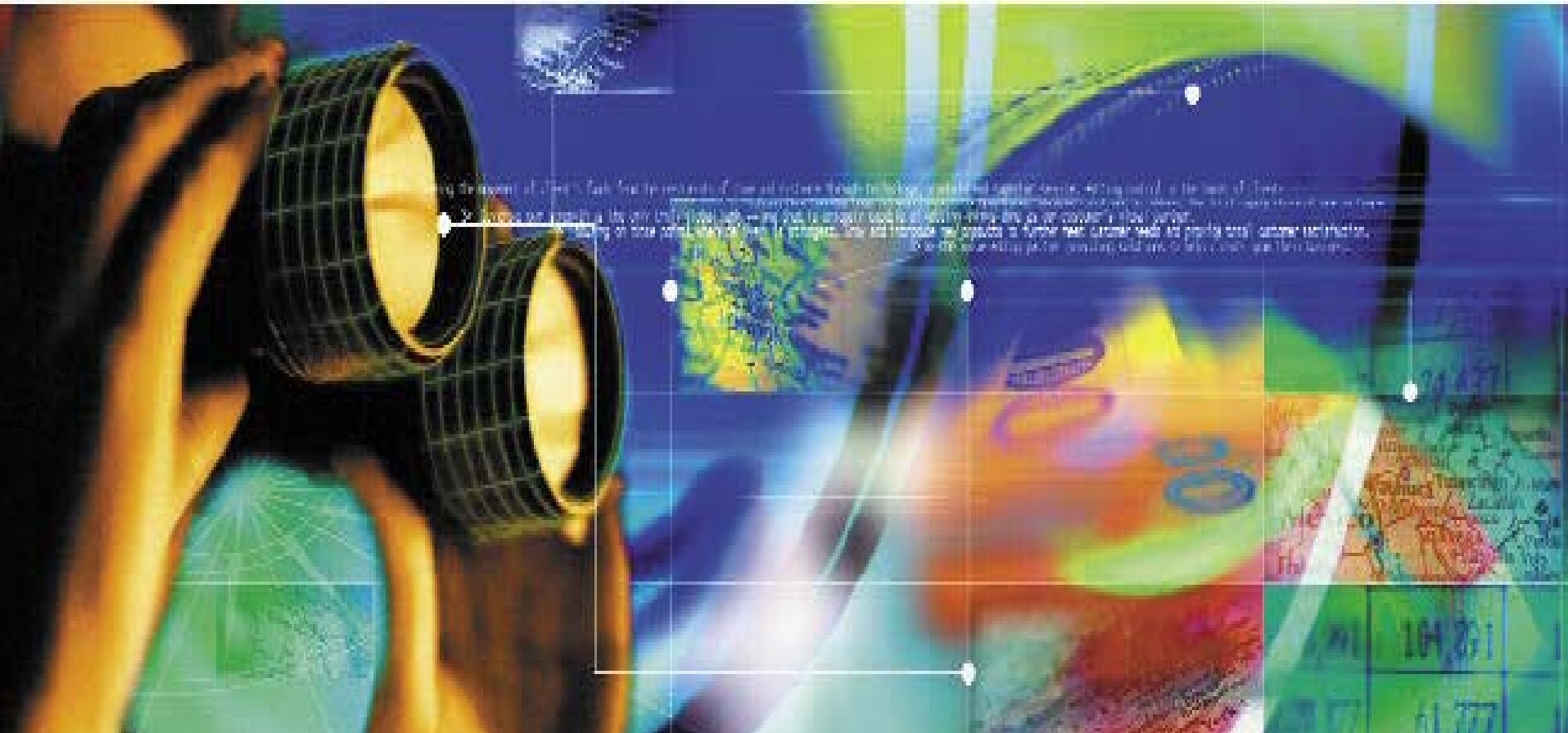


Innovative Investments in Malaysia



Agenda

- **Development of the Malaysian structured investments market**
- **The role of the Malaysian regulatory framework in the development of structured investments**
- **Why structured investments?**
- **What is available in Malaysia?**
- **What new products are coming on to the market?**

Development of the Malaysian structured investments market

■ A natural progression

- Stable and growing capital market
- Developing derivatives market

■ Key drivers of growth

- Ample liquidity in the financial system
- Low and stable interest rate environment
- Greater demand for yield enhancement structures
- Growing interest in longer investment horizons

Investors tend to lean towards principal protected structures due to past experience during the crisis.

Supportive Regulatory Framework

Sept 2002

**Investments Linked to Interest Rate Derivatives
issued by Bank Negara Malaysia (BNM)**

March 2003

**Guidelines on New Product Approval
Requirements (BNM)**

May 2003

Investments Linked to Derivatives (BNM)

Dec 2003

**Guidelines on the Offering of Structured Products
(SC)**

Why structured investments?

Investor's "wish list"

- Enhanced returns
- Portfolio diversification
- Principal protection

Create structured investments which combines their

- Views
- Risk tolerance
- Expected returns

Structured investments

- **Exposure.** Getting appropriate exposures in the financial markets via derivatives
- **View driven.** Specific market expectations, e.g. for interest rates to rise at a gradual pace
- **Rewarding.** Pays a higher rate of interest/return if your view is **CORRECT!**

What is available in Malaysia?

■ Interest rate linked structured investments

- MYR Callable Inverse Floater
- MYR Callable Daily Range Accrual

■ Equity linked structured investments

- KLCI linked Investment

Interest Rate Linked Structured Investments

Key Features

100% principal protected if held to maturity

**Incorporate specific views on the short term rate
(the 3-month KLIBOR or the 6-month KLIBOR)**

**Investment horizon typically > 1 year
(with call feature)**

MYR Callable Inverse Floater

- A principal protected structure which seeks to yield an enhanced return in an environment of low/stable short term interest rates.
- Investors will receive a return which is inversely related to the 6-Month KLIBOR rate.

Sample Terms

Investment Amount : MYR 100,000,000

Investment Tenure : 5 years

Current 6-month KLIBOR : 2.87%

Investment Returns (payable semi-annually)

Year 1 (Guaranteed) : 4.55%

Years 2 - 5 : 7.65% - 6-month KLIBOR, subject to a minimum of 0%

Call feature : Callable on every investment return payment date, commencing end of Year 1

MYR Callable Inverse Floater

Rationale

- Investors' view is that short term interest rates will remain low/stable or rise gradually during the investment horizon

Benefits

- Potentially higher returns vs. MYR time deposits.
- 100% principal protection if held to maturity or called back by the bank.

Features

- Investment returns are inversely related to the reference interest rate.
- Early termination is permitted.

Risks

- Short term rates drifts upwards
- Re-investment risk should the bank exercise the call option

MYR Callable Daily Range Accrual

- A principal protected investment which pays an enhanced return when the reference index, the 6-month KLIBOR, sets within the predetermined ranges each day.
- Should the 6-month KLIBOR set on or outside the range, investors will receive a lower return for that day.

Sample Terms	
Investment Amount :	MYR 100,000,000
Investment Tenure :	3 years
Reference index :	6-month KLIBOR
Current 6-month KLIBOR :	2.87%
Ranges	
Year 1 :	0% - 3.20%
Year 2 :	0% - 3.70%
Year 3 :	0% - 4.50%
Investment Returns (payable quarterly)	
Within the range :	4.50%
On or outside the range :	0%
Call feature :	Callable on every investment return payment date

MYR Callable Daily Range Accrual

Rationale

- Investors' view is that the reference index will remain within specified range for a specified period of time.

Benefits

- Potentially higher returns vs. MYR time deposits.
- 100% principal protection should the investment be held to maturity or called back by the bank.

Features

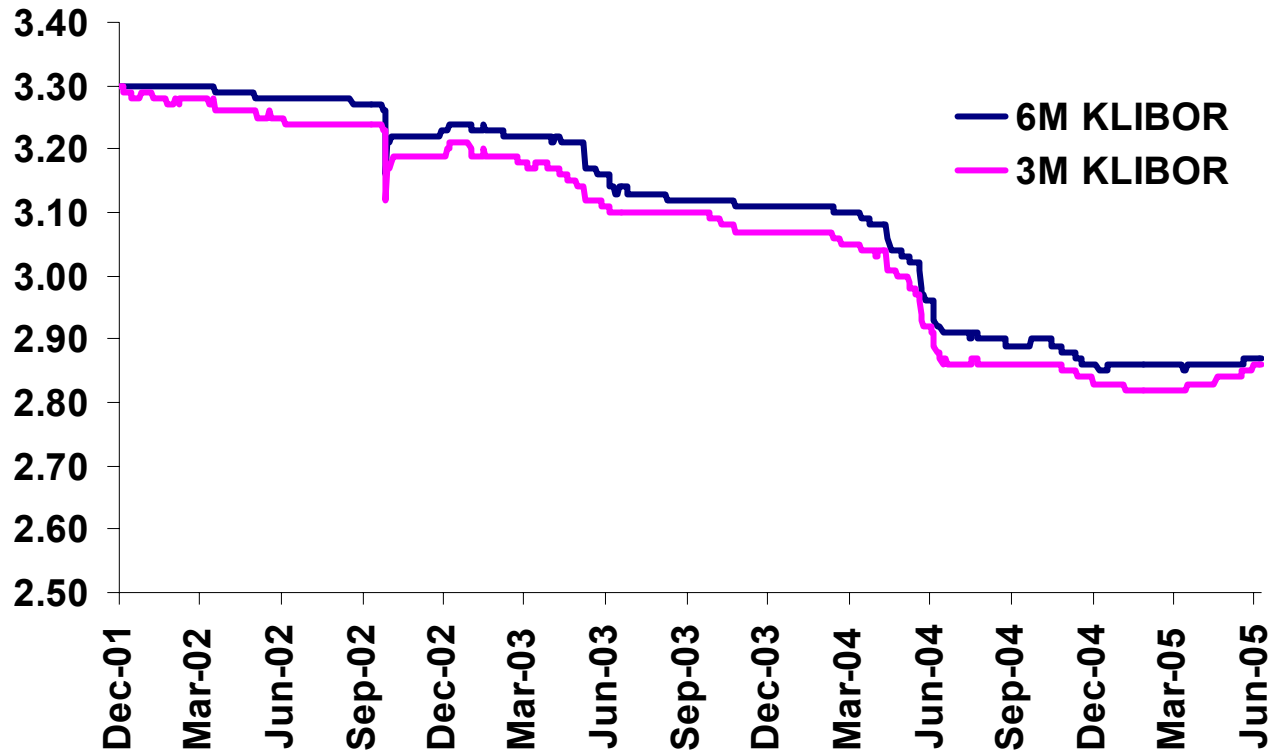
- 100% Principal protected.
- Yield enhancement.
- Early redemption.
- Possible to structure with minimum return.

Risks

- The reference index sets outside the range.

Historical MYR Short Term Rates

- Graph of 3-month KLIBOR and 6-month KLIBOR



Why invest in such products?

- Most interest rate linked structures takes a view against the forward rates
- Interest rates are rising
- Market has priced in higher short-end rates in the future.
- Why are investors still buying interest rate linked structures which will pay NO interest if rates go up ?
- Statistical analysis has shown that the market forward rates tend to anticipate higher future rates than observed rates in the future.

Historical Simulation

We used 4 to 15 years of data

Methodology:

- We computed the difference between each 3-year swap rate and the average of corresponding 3-month or 6-month rates

Result:

- We found that floating rates have, on average, been lower than fixed.
- **This indicates that floating rate rarely go as high as the implied forwards**

	No, of bps floating is lower than fixed on average	Percentage of time floating is lower	Period Coverage (Years)
KRW	10	73%	4
EUR	55	100%	4
JPY	40	93%	13
MYR	52	94%	4
SGD	159	100%	9
USD	82	98%	15

KLCI Linked Investments

- A principal protected investment which pays a return that is based on the average performance of the Kuala Lumpur Composite Index (KLCI) over the next 5 years.

Sample Terms
Investment Amount : MYR 100,000,000 Investment Tenure : 5 years
Investment Returns (payable semi-annually)
$\text{Investment Amount} \times \left(100\% + \text{Max} \left[0\%, \text{PR} \times \frac{1}{n} \sum_{t=1}^n \left(\frac{S(t)}{\text{Strike}} - 100\% \right) \right] \right)$

- PR = 80% (to be determined on trade date)
- Strike is the official closing level of the KLCI on trade date
- S(t) is the is the official closing level of the KLCI on the designated monthly valuation date
- This structure yields a higher participation rate as compared to other conventional principal protected KLCI linked funds offered in the market as the funds are invested in equity options instead of underlying stocks.

Regulatory Framework

Sept 2002

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issued by Bank Negara Malaysia (BNM)**

March 2003

**Guidelines on New Product Approval
Requirements (BNM)**

May 2003

Investments Linked to Derivatives (BNM)

Dec 2003

**Guidelines on the Offering of Structured Products
Securities Commission (SC)**

April 2005

**Foreign Exchange Administration Rules
Liberalization (BNM)**

Investments Linked to Derivatives (BNM)

Further changes and liberalization

- On 1 April 2005, BNM further liberalized the Foreign Exchange Administration Rules.

Description	Resident with NO domestic ringgit credit facilities	Resident with domestic ringgit credit facilities
Investment financed from conversion of MYR	No limit	Individual: Up to MYR100,000 equivalent per calendar year
		Companies: Up to MYR10 million per calendar year on corporate group basis
Investment financed from foreign currency funds placed onshore or offshore	No limit	No limit
Funds placed with resident fund managers	No limit	No limit Resident fund manager may invest abroad up to 30% of total fund placed
Investment financed from foreign currency borrowing	Investment abroad financed by foreign currency borrowing exceeding MYR10 million equivalent requires approval	Investment abroad financed by foreign currency borrowing exceeding MYR10 million equivalent requires approval

Along with the winds of change

On 6th April 2005, BNM revised the guidelines on “Investments linked to Derivatives”.

Key Changes

MYR and non-MYR structured investments may now be linked to onshore/offshore rates, indices and asset prices

Non-principal protected structures permitted

Looking ahead

A new generation of structured investments?

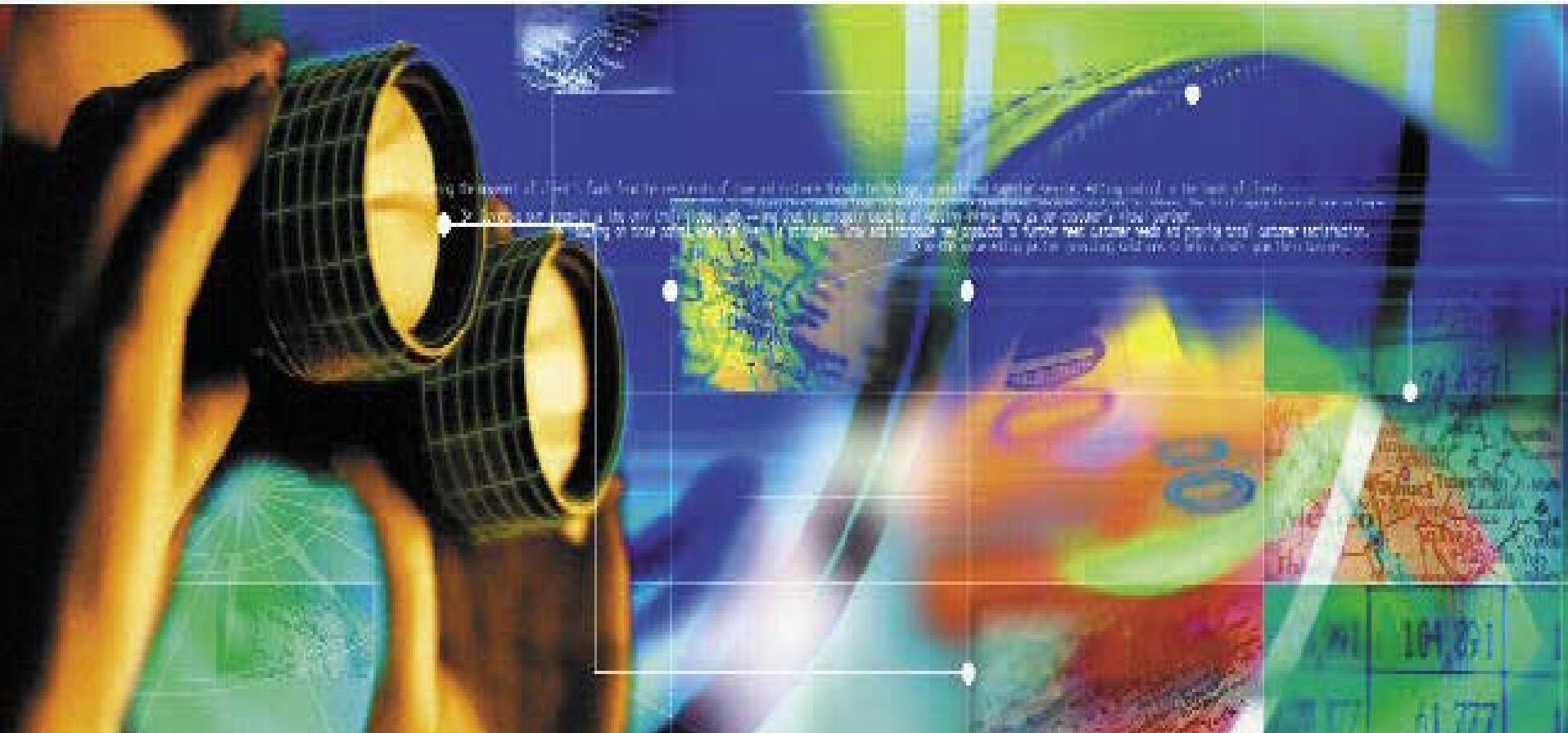
- MYR investments linked to FX (previously, only non-MYR investments are permitted)
- MYR investments linked to offshore equity indices, such as S&P 500, Hang Seng or Nikkei 225 or a combination of these indices
- Quanto MYR investments linked to offshore interest rates such as Callable CMS Spread which allows views on USD swap curves
- Bond linked investments
- Hybrid structures such as best of equities (selected stocks on the Bursa Malaysia) and bonds (Malaysian Government Securities)

Something for everyone in the future?

Will structured investments find a place everyone's investment portfolio in the future?

- We believe the answer is **YES!**
- Demand driven mainly by the low interest rate environment.
- However, investors are beginning to appreciate the fact that these investments enable them to express their views explicitly on their chosen reference index.
- In instances, where investors do not have a view, hybrids lead the way forward.
- Important to keep in mind investment objectives. Diversification is key in investing!

Hedging of Malaysian Assets



Agenda

- To hedge or not to hedge?
- More liberal hedging rules : Post 1st April 2005
- Hedging examples
- What hedging tools are available?

To hedge or not to hedge?

Key considerations

- Hedging policy?
 - Hedge interest rate risk or currency risk or both?

- What tools are available?

- How dynamic must dynamic hedging be?
 - How often do we need to rebalance the hedges?
 - Cost of frequent rebalancing of hedges and effort/resources dedicated

More liberal hedging rules: post 1st April 05

Existing investments vs. new investments

Type of transactions	Allowed	Remarks
<p><u>New Investment</u></p> <p><u>Sell</u> forward foreign currency for MYR for committed investment in Malaysia</p> <p><u>Buy</u> forward foreign currency up to maturity date of marketable securities with fixed maturity e.g MGS, Government bills, MYR Private Debt Securities (Corporate bonds)</p>	<p>YES</p>	<p>Can hedge new flow of investment into Malaysia immediately at the point of remittance or at later date</p> <p>Extension or rollover <u>ALLOWED</u></p>
<p><u>Existing Investment</u></p> <p><u>Buy</u> forward foreign currency for existing MYR investment in Malaysia</p> <p>e.g. Foreign company (FDI) set up a Malaysian subsidiary for many years – balance sheet hedge</p>	<p>YES</p>	<p>Subject to firm commitment to sell investment</p>

Examples of hedging by non-residents

Type of transactions	Allowed	Remarks
Non-resident buys MGS in 7 day's time, MGS settles T+2. Can non-resident hedge for 7 days or 9 days	9 days	The maturity date of the forward contract should be the expected due date of settlement (firm commitment to pay)
Non-resident buys 10-year MGS after 1 April 2005. Can they hedge up to maturity up to 10 years?	YES	Non-resident can hedge at any point in time
Can non-resident hedge income flows from coupon (on conventional paper)/dividend (on Islamic securities)?	YES	
Can non-resident hedge based on projected dividend (what they expect to receive)	NO	No firm commitment
What if non-resident did not hedge immediately upon purchase of MYR asset but some time later? Can they hedge?	YES	At any point in time for MYR assets purchased after 1 April 2005 For assets purchased prior to 1 April 2005, hedging is allowed only when there is a firm commitment to sell the MYR asset

What hedging tools are available?

Interest Rate Risk

Hedging Tool

- MYR Interest Rate Swaps
- MYR Interest Rate Options

Market

- Active and reasonably liquid up to 5 years
- Quotes up to 10 years

Hedging tools available

Currency Risk

Hedging Tool

Market

- **FX Forwards**
- Fairly good market liquidity up to 6 months
- Market quotes available up to 12 months
- Beyond 1 year, quoted “Over-The-Counter” and customized to client’s requirements
- USD trading at a discount to MYR in the forward market
- 1mth (-0.0015), 3mth (-0.0055), 6mth (-0.0155), 9mth (-0.0270), 12mth (-0.0385)

Hedging tools available

Currency Risk

Hedging Tool

- **Cross Currency Swaps**

Market

- Often quoted “Over-The-Counter” and customized to client’s requirements
- Sizeable deals have gone through the market in recent months

Other Tools

- **USD/MYR FX options**
 - Relatively undeveloped

Thank you

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