

# MERCER

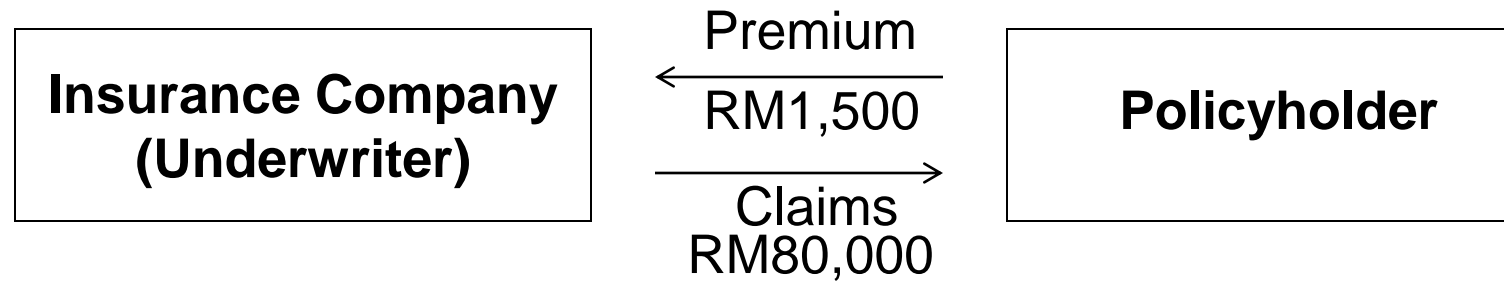
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## **Takaful Products for the Islamic Financial System**

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# The Insurance Process Example

- Car insurance for RM80,000



# First Possible Outcome

<b>Income</b>		<b>Outgo</b>	
Premium	1,500	Claims	-
		Profit	1,500
	1,500		1,500

# Second Possible Outcome

<b>Income</b>		<b>Outgo</b>	
Premium	1,500	Claims	80,000
		Loss	(78,500)
	1,500		1,500

# Conclusion

- Insurer either makes a RM1,500 profit in any year or a loss of RM78,500
- Not a good business model

# Law of large Numbers

- If you toss a coin 1000 times, on average
  - 500 times it would be heads
  - 500 times it would be tails
- As the possibility of heads or tails is 50:50
- If you toss the coin only twice the outcome can be
  - head head
  - head tail
  - tail head
  - tail tail

i.e Inconclusive!

# Conclusion

God created this universe according to certain mathematical relationships. This extend to events in this world as well.

To the individual an event may seem random or chaotic, but from the 'higher' perspective there is a 'trend' or 'mean' (average).

# Example

In the example if instead of insuring only one car the company insures 1000 cars, and if the average number of claims is 14 to 17 per year....



# Possible Outcome (14 claims)

<b>Income</b>		<b>Outgo</b>	
Premiums	1,500,000	Claims	1,120,000
		Profit	380,000
	1,500,000		1,500,000

# Possible Outcome (17 claims)

<b>Income</b>		<b>Outgo</b>	
Premiums	1,500,000	Claims	1,360,000
		Profit	140,000
	1,500,000		1,500,000

# Conclusion

A risky business (with only policyholder) has become an attractive business simply by increasing the number of policyholders (i.e. by spreading the risk).

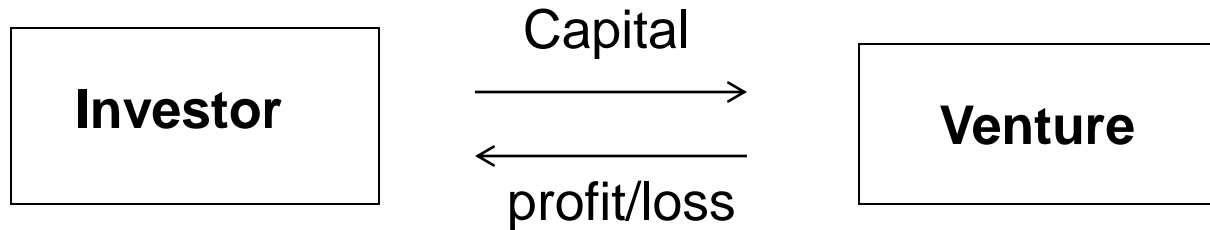
# Do we need the Insurance Company?

- No, if we can be reasonably sure of a surplus (i.e. premiums exceeding claims).

# What happens under Takaful

- No guarantee that the contribution (i.e. premiums) will exceed claims.
- Operator there to manage the pool, not to provide any guarantees.

# Basic Investment Process



- Investor either makes a profit or a loss in any one year
- not very satisfactory

# Diversification is the solution

- Spread capital over many ventures
- Profits in some ventures will offset losses in others
- No 'Underwriter' or 'guarantor' of profits

# Can We ensure Profits on Capital Invested?

- Yes, by introducing a 'middle man'





# Limitations on Bank's Investments

- 1) Cannot take equity in ventures, can only lend money
- 2) Bank more concerned with the ability of borrower to repay the loan (thus the need for collateral) rather than just the viability of the venture.
- 3) Bank needs to be able to liquidate investments at short notice to meet depositors draw-down. Equity investments are difficult to liquidate.

# Islamic Banks

- 1) Bulk of investments are short term in nature, Murabaha
  - Liquid investments
  - Low possibility of default
- 2) Guarantees the capital of the depositors

# Can Islamic Banks take equity in business/ventures

- Mudarabah/Musyaraka investments require banks to take business risk.
- In exchange it can expect higher returns as compared to Murabaha investments.

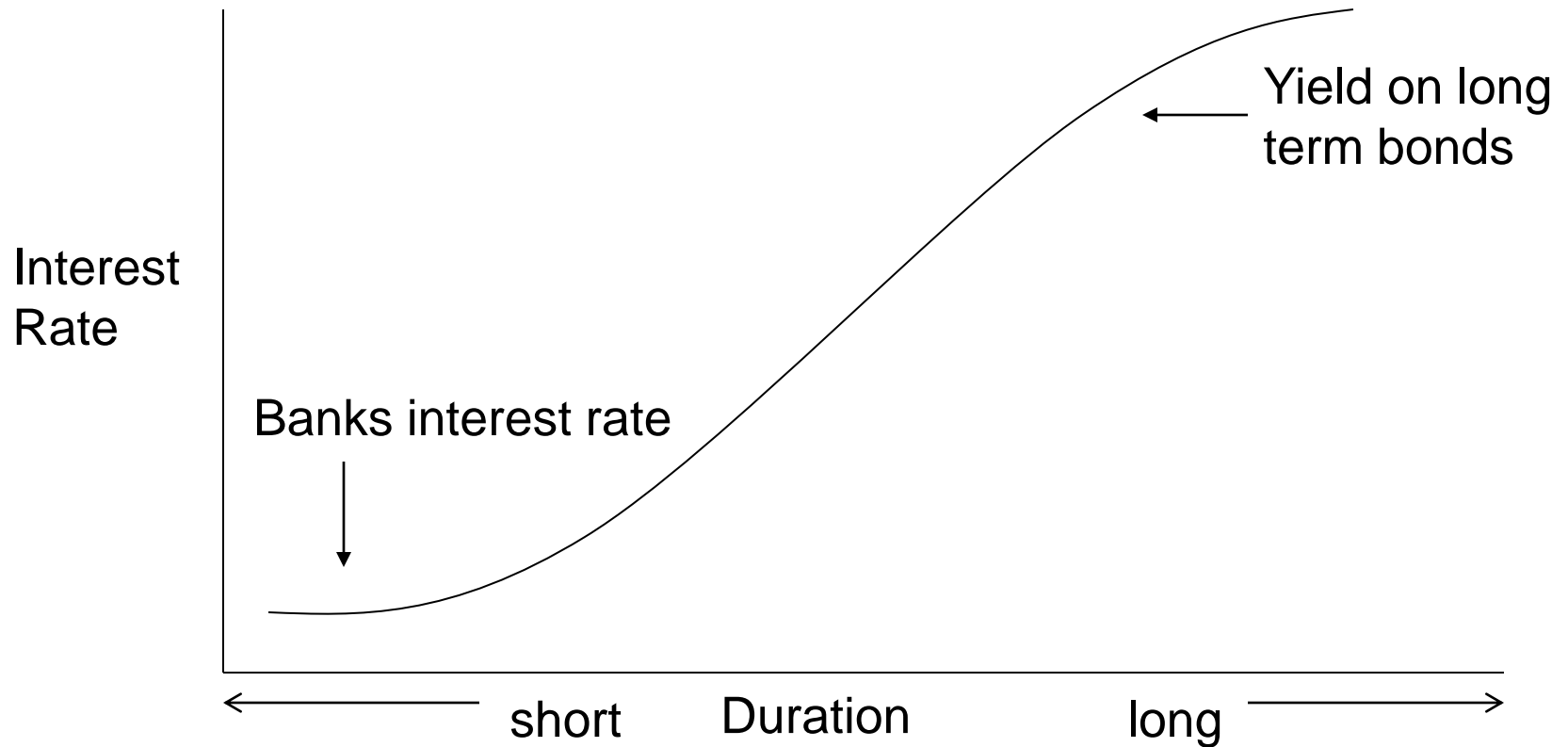
# What are the risks to the Islamic Banks

- Failure of investments while having to guarantee depositors money.
- Duration mismatch, deposits are short term while investment are long term. Disastrous if there is a run on deposits.

# Can Islamic Bank afford to pay a profit rate much different from Conventional Bank's interest rates?

- Money can be moved between Islamic Banks and Conventional Banks easily (remember, non Muslims can deposit money in Islamic Banks as well) generally without penalty.
- Conventional Banks interest rates reflect returns earn on short term loans as interest rates charged by banks to its borrowers are not pegged but varies from time to time (I.e. floating rate loans).

# Yield Curve



- Yield on long term bonds are indicative of return on equities and other long term investments.

# Dilemma?

- If Islamic Banks were to give profit on deposits based on the higher longer term return (expected on Mudaharabah/Musyaraka investments) there will be a flood of money from Conventional Banks!
- Difficult to invest a rush of money in a short space of time. This results in immediate lower profit rate to existing Islamic Bank depositors as new money will take time to invest and generate a return under Mudarabah/Musyaraka.



**If not Banks can Unit Trust or Mutual funds provide a source of financing for long term businesses?**



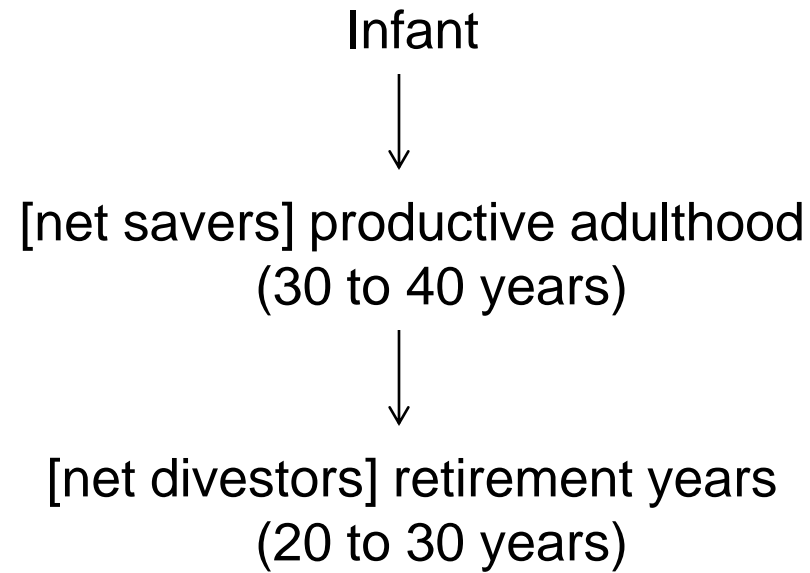
# Problems with Unit Trust / Mutual Funds

- 1) Need to invest in marketable securities as investors can pull out investments when market turns bad.
- 2) Because of the need for marketability cannot invest directly in ventures/businesses.

# What are required of investors in businesses

- 1) Long term perspective. Concern with long term gains rather than short term profits.
- 2) Regular or Continuous investments rather than once-off investments.
  - The former are generally small investments but are dependable over time, whilst the latter are usually large but very ‘mobile’ (hot money?)

# Life Cycle



# What comprises Takaful?

- A protection element
- A savings element

# Takaful for Retirement

- Differs from investing in unit trust/mutual funds as
  - regular savings rather than once off/irregular investments.
  - instil discipline in savings habit.
  - long period of investment.
  - provides Takaful cover on early death.
  - investments in assets need not only be in easily marketable securities as investor is not always checking on his investments.
  - instead of a lump sum redemption, redemption can take the form of a pension payable for life.

# Example of Product

- Monthly contribution from age 25 US\$25
- On death prior to retirement age, a lump sum is payable of US\$12,000
- On survival to retirement age a pension of US\$1200 p.a. is payable for life

# **Risk Sharing applied to Investment (strength in diversity)**

- 1) Mudarabah/Musyaraka investments should be securitised
- 2) As investments will be tailor made in Syariah approved investments, the securities/equity can be distributed to Takaful companies in small amounts
- 3) To further spread risk these securities/equity should be available to Takaful Companies world-wide.

# Proposed basis for Islamic Financing

<b>Type of Financing (Features)</b>	<b>Carriers</b>
Short Term Low risk	Islamic Banks
Long Term Medium to high risk	Takaful Companies



# Managers of long term Investible Funds in the USA

Life Insurance Companies (top 10) US\$3,172.7 billion

Pension Funds (top 1000) US\$4,795.2 billion

Biggest pension fund in USA is CalPERS with US\$150 billion in assets.

Biggest Life Insurance Company in the USA is MetLife with US\$219.2 billion in assets.