



RISK AND RETURN



Today, we'll talk
about



**SHOW RELATIONSHIP BETWEEN RISK AND
RETURN**





SHOW RELATIONSHIP BETWEEN RISK AND RETURN

- Calculate expected rate of return, risk level and coefficient of variation
- Compare which investment proposal is viable based on measured risk and return
- Identify types of risk and relationship between risk and return

At the end of the lesson, students should be able to:-

- Calculate expected rate of return, risk level and coefficient of variation
- Compare which investment proposal is viable based in the measured risk and return
- Identify types of risk and relationship between risk and return



RISK

A hazard or exposure to loss or injury

A chance of a monetary loss

**The uncertainty of cash flows
(expected return) generated
from an investment**

**The chance that some
unfavourable event will occur**

CONCEPT

OF RISK

The higher the uncertainty of return generating from an investment, the higher the risk of the investment



Example

Investment A would generate return between RM10 to RM100 after one year
Investment B guarantee return of RM50 after one year

Investment A is MORE RISKY than investment B because of the uncertainty factor involved

ATTITUDES TOWARDS RISK (RISK PREFERENCES)

Different investors have different acceptable level of risk, depends on their attitudes towards risk
3 groups of risk preferences



RISK AVERSE



RISK TAKER



RISK INDIFFERENT

RISK AVERSE

- Dislike risk
- Try to expose to the minimum risk level
- Require a higher expected return to compensate the additional risk
- Rationale attitude





RISK TAKER




- **Prefer to take risk**
- **Willing to give up some return to take additional risk**




RISK INDIFFERENT



- **Would obtain the same satisfaction from a risk-free situation and a risky situation**
- **Would not change their required return for any increase in risk**
- **Irrational attitude**



TYPES OF RISK



SYSTEMATIC

- **Non-diversifiable**
- **Affect overall market (market risk)**

eg: purchasing power, interest rate risk

UNSYSTEMATIC

- **Diversifiable risk**
- **Specific or unique to a firm**

eg: business risk, liquidity risk, default risk



THE RELATIONSHIP BETWEEN RISK AND RETURN



The relationship between risk and return must be understood to select the best investment

The HIGHER the RETURN, the HIGHER the RISK
(vice versa)





MEASURING RISK



RANGE



STANDARD DEVIATION

COEFFICIENT OF
VARIATION


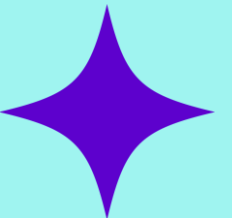



RANGE

THE HIGHER THE
RANGE, THE HIGHER
THE RISK



RANGE is the differences
between the highest rate of
return and the lowest rate of
return in an investment



RANGE



Example 3 : What is the range of return for AA and BB?

YEAR	RETURN (%) AA	RETURN (%) BB
2007	9	10
2008	10	12
2009	15	14
2010	12	9

Range = the higher return – the lowest return

$$\text{Range AA} = 15 - 9 = 6\%$$

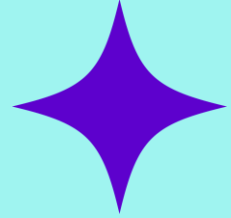
$$\text{Range BB} = 14 - 9 = 5\%$$



STANDARD DEVIATION




**THE HIGHER THE
STANDARD DEVIATION,
THE HIGHER THE RISK**



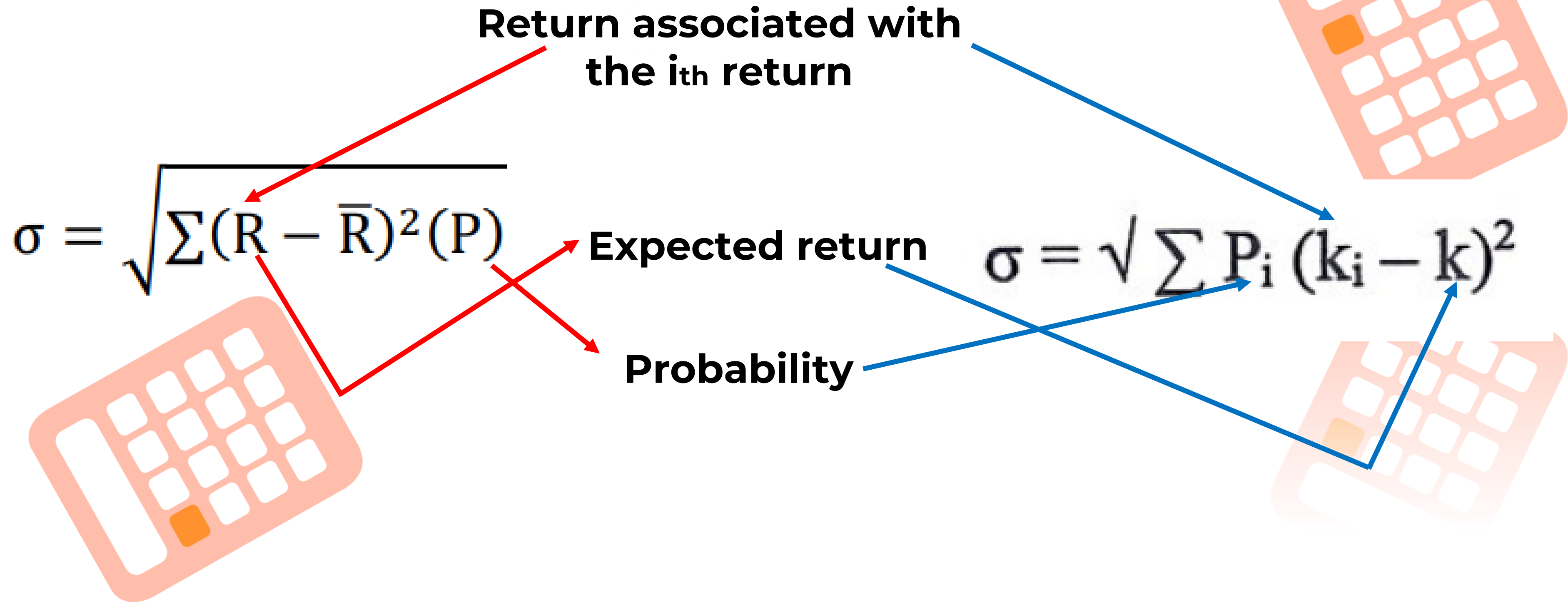
STANDARD DEVIATION measure of the spread or dispersion of the distribution in the returns

It tells how much a particular return can deviate from the average return or mean return

If the distribution is very spread out, the expected return are said to be very uncertain or more risky



STANDARD DEVIATION



COMPUTING THE STANDARD DEVIATION

For example, please refer to my next video

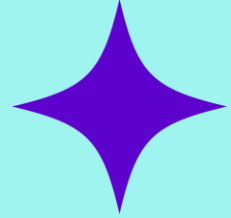




COEFFICIENT OF VARIATION




**THE HIGHER THE
COEFFICIENT OF VARIATION,
THE HIGHER THE RISK**



A measure of risk per unit of expected return or a measure of relative risk

A more meaningful basis for comparison when the expected return and the standard deviation are not the same



COEFFICIENT OF VARIATION

$$CV = \frac{\sigma}{\bar{R}}$$

Standard deviation

Expected return

$$CV = \sigma / k$$

COMPUTING THE COEFFICIENT OF VARIATION

For example, please refer to my next video





CONCLUSION



Choose the investment which offer the
lowest risk

The higher the return,
the higher the risk

The higher the standard deviation,
the higher the risk


The higher the coefficient of variation,
the higher the risk



REFLECTION



Students should be able to:-

- Calculate required rate of return, risk level and coefficient of variation 
- Compare which investment proposal is viable based on the measured risk and return
- Identify types of risk and relationship between risk and return



GRACIAS
ARIGATO
SHUKURIA
GOZAIMASHITA
EFCHARISTO

DANKSCHEEN
SPASSIBO
SHACHALNYA
NUHUN
CHALTU
YAQHANYELAY
TASHAKKUR ATU
YUSPAGARATAM
WADEEJA
MAITEKA
HUI
SUKSAMA
EKHMET
UNALCHEESH
HATUR GUI
SPASIBO
DENKAUJA
MINACHALNYA
ATTO
MAAKE
GRAZIE
MEHRBANI
PALDIES
YOU
BOLZİN
MERCI

TINGKI
BIYAN
SHUKRIA
MAKETAJ
MINMONCHAR
MAKETAJ
SIKOMO
EKOJU
BAIKA
JUSPAXAR
KOMAPSUMNIDA
LAH
SAKCO
MERASTANHY
GAEJTHO
AGUYJE
FAKAQUE
TAVTAPUCH
MEDANAGSE

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