

12TH

CESA
YOUNG PROFESSIONALS
SUSTAINABILITY
IMBIZO
2024
13-14 AUGUST
PREMIER HOTEL MIDRAND



Session 1b: Leadership & Management: Business of consulting engineering.

Francois Swart, Pr Eng

 **interswart**

Business of Consulting Engineering

OBJECTIVE OF THE LECTURE

To realise you are running a
business and Engineering happens
to be that business

Audience analysis

Who works for firms that employ

More than 500 staff

Between 100 and 500

Between 10 and 100

Less than 10

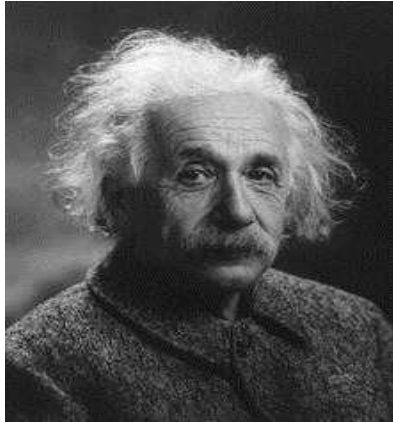
Who are the shareholder's/ partners of your company?

Do you want to become a shareholder?

Why?

Can you identify the engineer?

1



2



3



4



5



***Do you want to invest in
your company?***

Why?

At what price and Risk

Asset allocation

Where do you want to be in 10 Years?

Design engineer?

Discipline manager?

Shareholder /Partner?

Contractor?

Concession owner?IPP, Design and Construct O&M

Show of hands???

Who wants to be a Business owner?

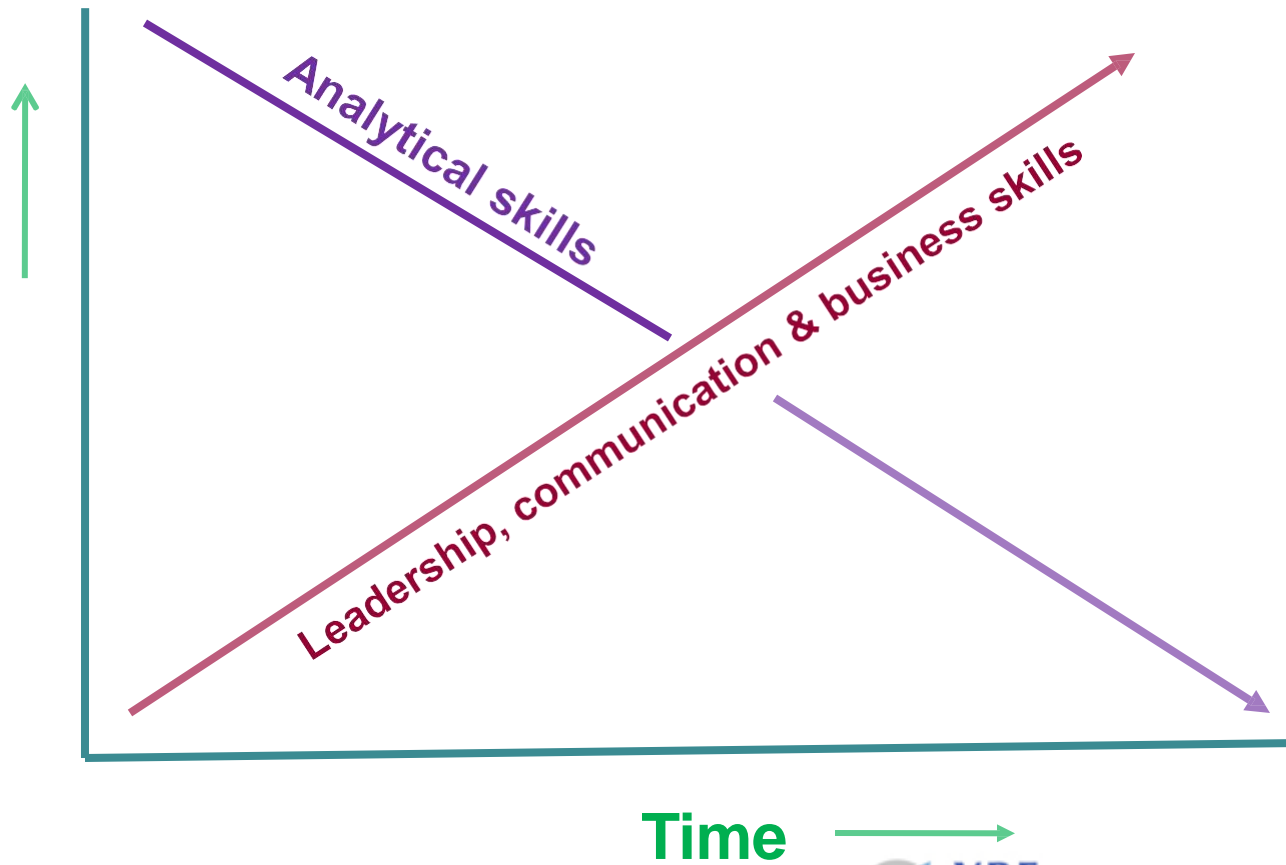
How are you going to prepare yourselves?

Courses in Finance, : Legal(Contract Law),Tax, Future studies,
Economics, Politics, Demographics

Investment management is important of all!!

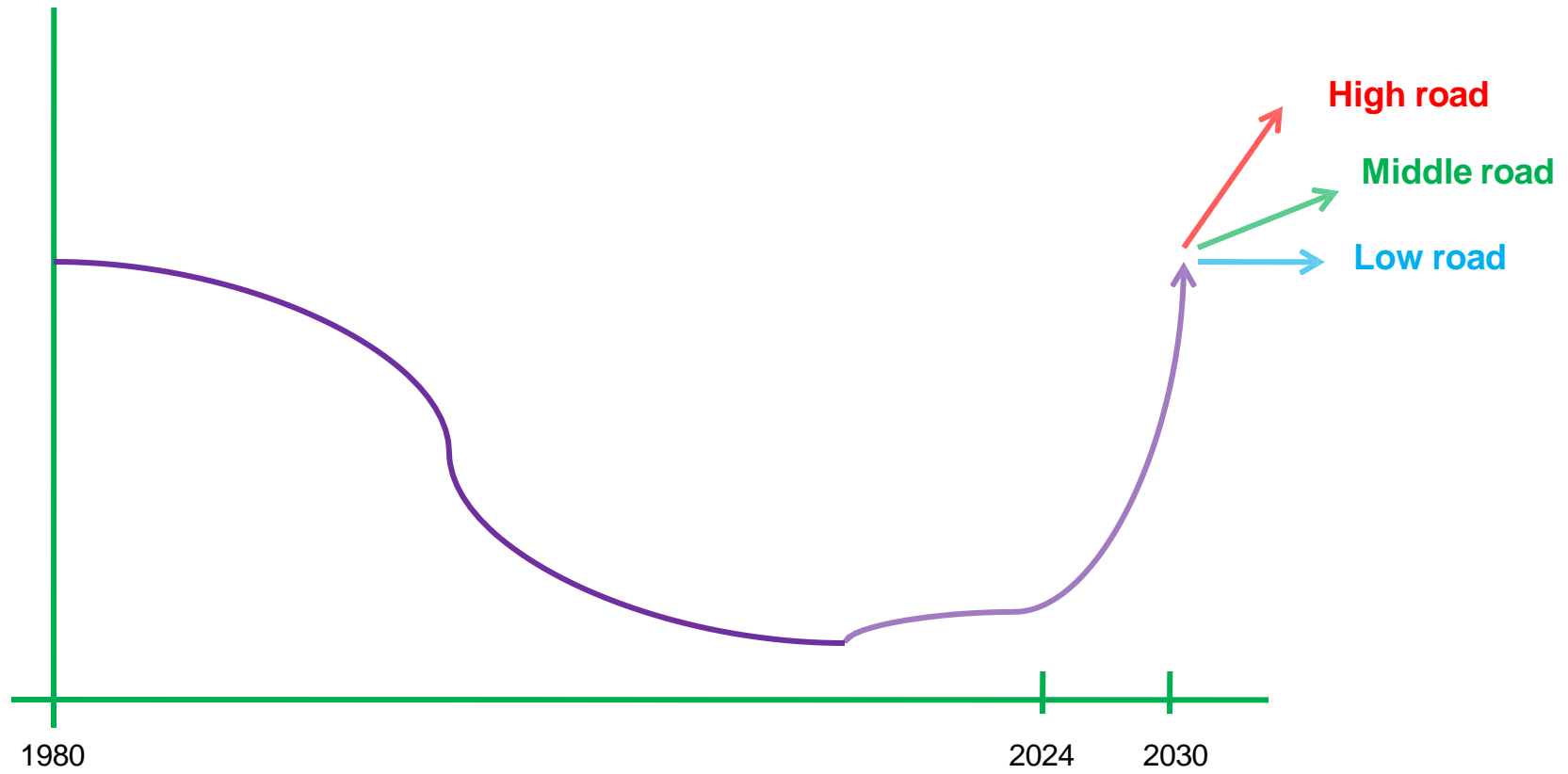
W
h
y
?

Computers!



What is happening with engineering globally?

- South Africa, Australia, South America, Middle East, China



- Relationship between cranes and 1st year engineering students

Which is easier?

To teach an engineer accounting
or
To teach an accountant engineering?

To teach a lawyer engineering
or
To teach an engineer law?

What is the size of toys for boys and girls

- Rail
- Water supply
- Harbors'
- Energy Generation
- Transmission

Toys for Boys and girls

Trump International Hotel & Tower



Winning

*The best people
with the best
people always
wins!!!*

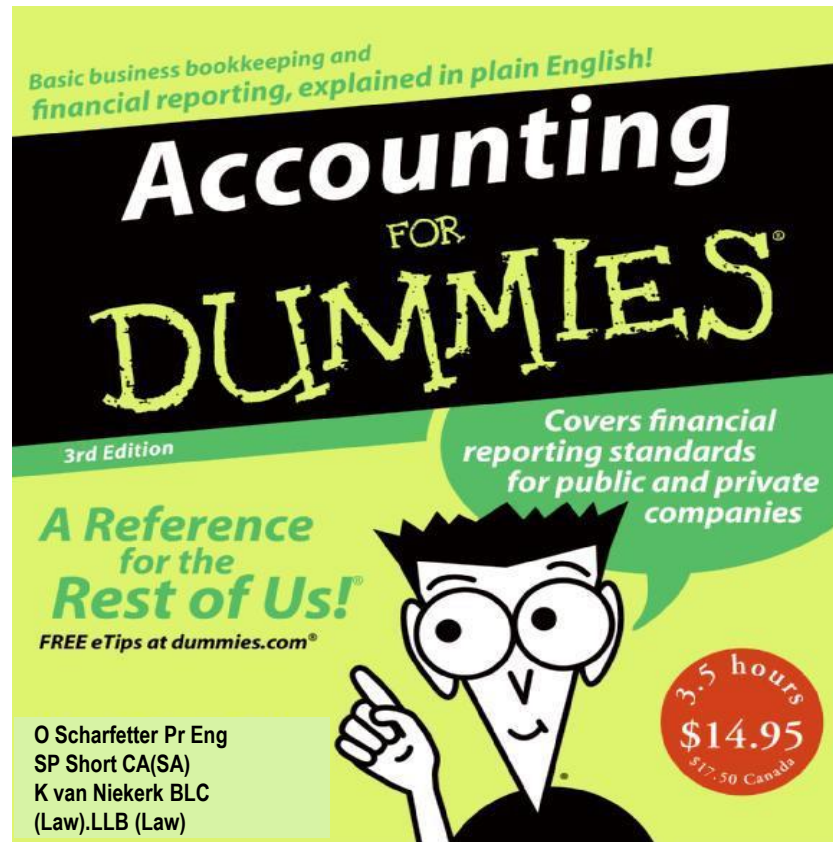
Business of Consulting Engineering

Do you have formal
business training at your
firms?

BARR COURSE Lite (*)

YPF Conference

10 September 2010



COURSE OVERVIEW



First section of **BARR** course deals with:

- Business organisations
- The accounting equation
- Accounting and bookkeeping principles
- Financial reports
- Financial statements
- Ratio analysis
- Debt vs. Equity
- Financial markets
- Cost accounting
- Earned value

Business Economics

What occupies the CEO's mind?

- ✓ ***Vision*** : Where in 5 years (disciplines, geographic, etc.)
- ✓ ***Strategy*** : What, for who, how much
- ✓ ***Structure*** : Ownership type (BEE)
- ✓ ***Operational***: ROE, Margins, Dividend Ratio, etc

Business Economics

Vitals of Business

- W I P
- Debtors
- Project Pipeline

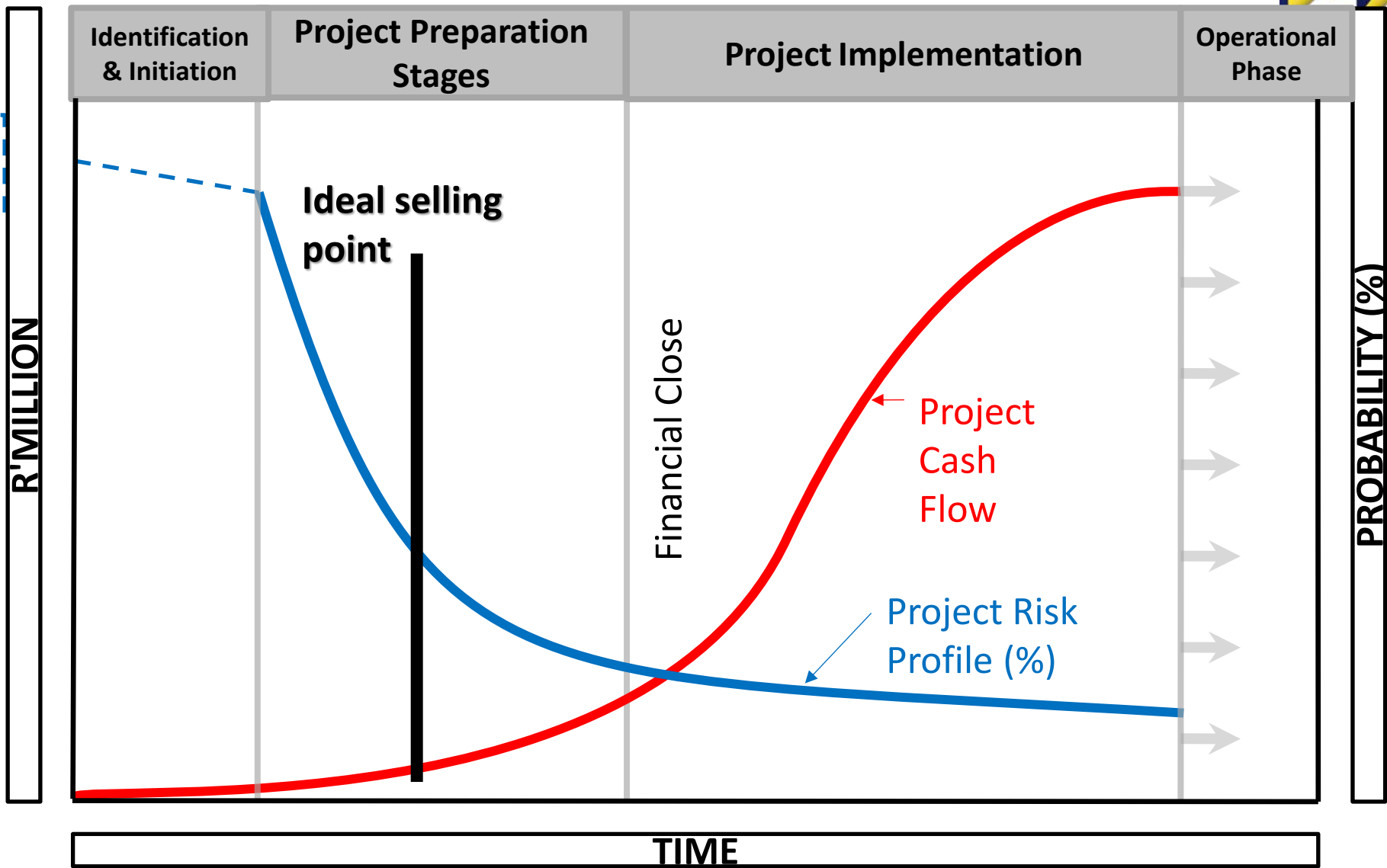
Business Economics

Vitals of Business

- Pricing – Risk in pricing
- Overheads
- Multiplier
- Profitability

- Taxes

- Working at risk



PROJECT RISK APPORTIONMENT

Economics of Engineering

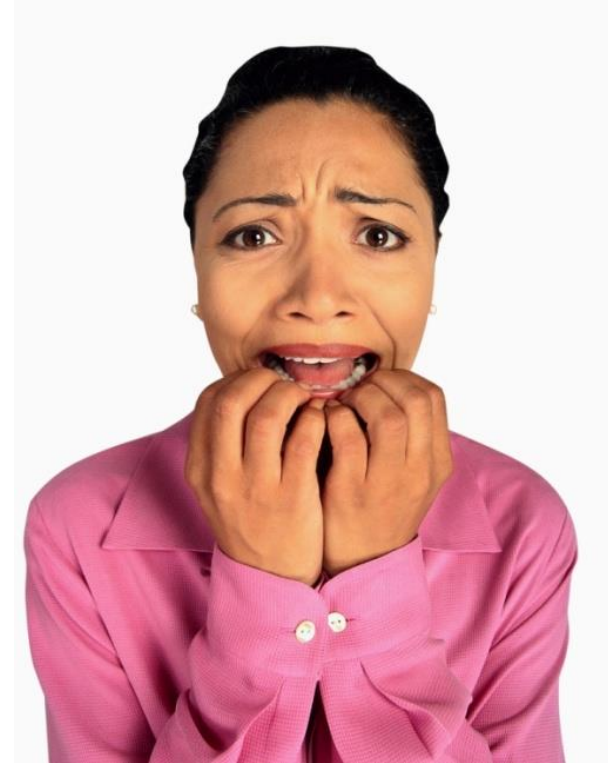
What is the difference or similarities between your
private (home) economics/finances and business
(office) economics'/finances

To tell the difference :

You should always start with the end in mind!

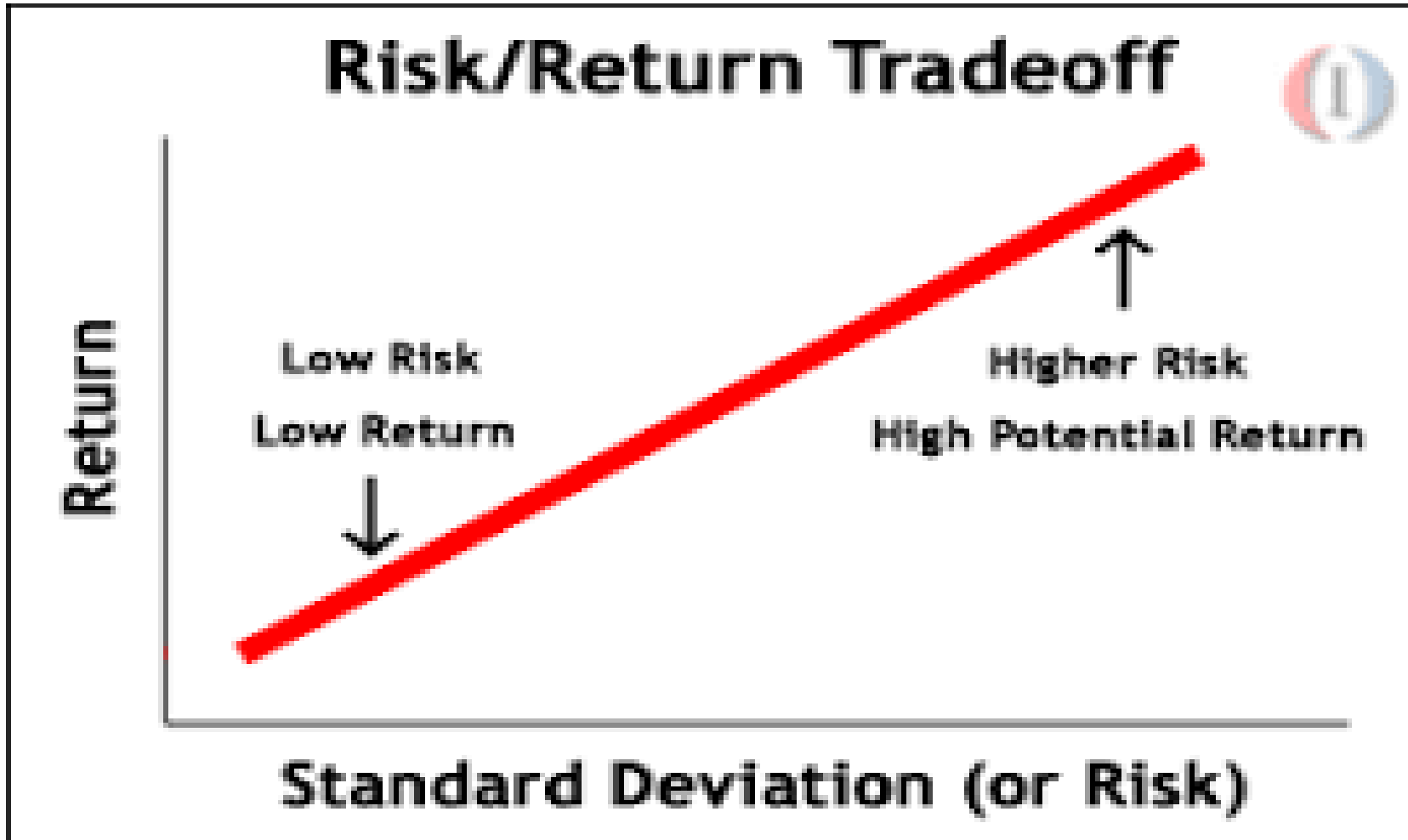


greed



fear

Emotions volatility



Economics of Engineering

Private (home) economics/finances

➤ **Your retirement**

➤ Your Executive live

➤ Your Professional life

➤ Your studies

Home Economics

Important aspects of home economics

- Work hard and smart
- Get your salary in the bank every month
- Spend less than you earn

- Invest well

What is the seventh
wonder of the world?
COMPOUNDED INTEREST!!!!!!

Business Economics

Most important principle of private equity:

Know how you are going to get out

before

you go in



Business Economics

Ownership types of C/E businesses :

- Listed
- Private Equity
- Management owned
- Employee owned
- Mix of above

Business Economics

Business Principles (continued)

NAV : Nett Asset Value

Market Value=NAV plus Goodwill

***Do you want to invest in
your company?***

Why?

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Asset allocation

Business Economics

Ownership types of C/E businesses :

- What does the equity cost?
- How is it paid for? Risk Transfer??
- Can you borrow to Invest?
- What percentage of you portfolio is it?

shares



property



cash



bonds



Alternative investments

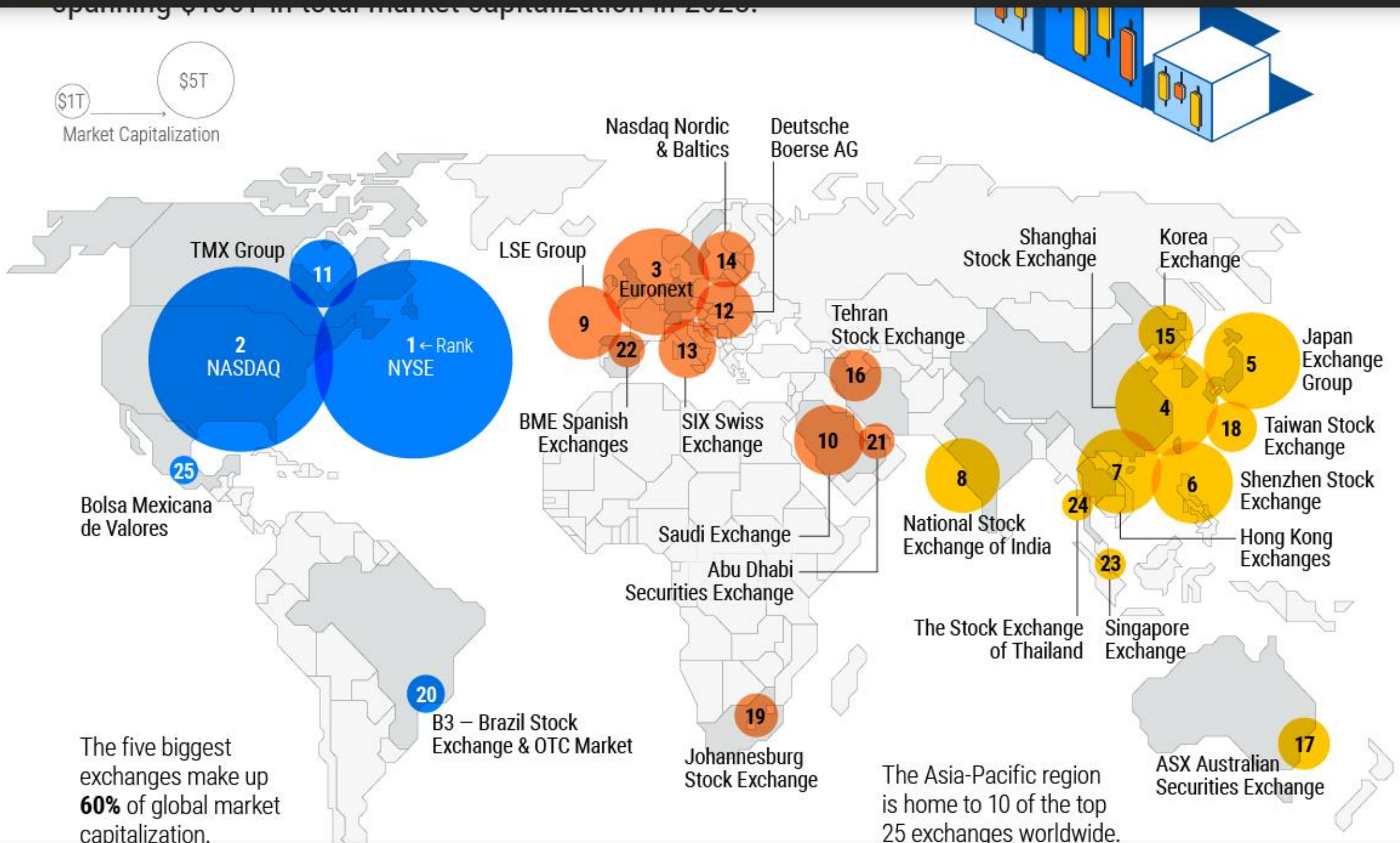
Art, Bitcoin, Hedgefunds
etc

What can I invest in?

Why invest offshore?

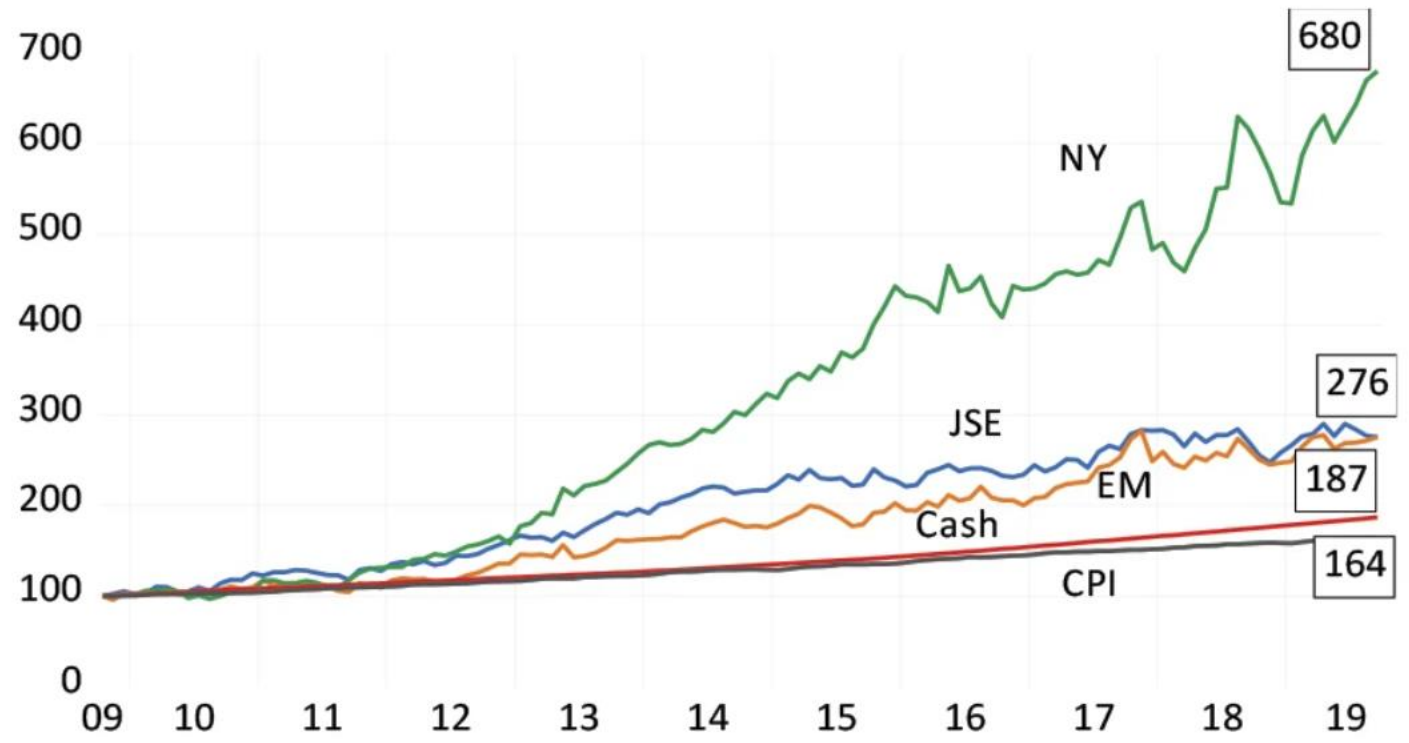
- Performance and less fees.
- Ability to invest in a much wider range of Assets
 - Diversify, Diversify and Diversify
- Sovereign risk (political)
- Protection against the R/US currency
- You cannot invest in the Magnificent 7

Mapped: The Largest Stock Exchanges in the World



The five biggest exchanges make up **60%** of global market capitalization.

The Asia-Pacific region is home to 10 of the top 25 exchanges worldwide.



— JSE ALL SHARE — MSCI EM (ZAR)
— S&P 500 (ZAR) — MONEY MARKET
— CPI



Sovereign risk (political)

Local rand hedge assets



Other questions?

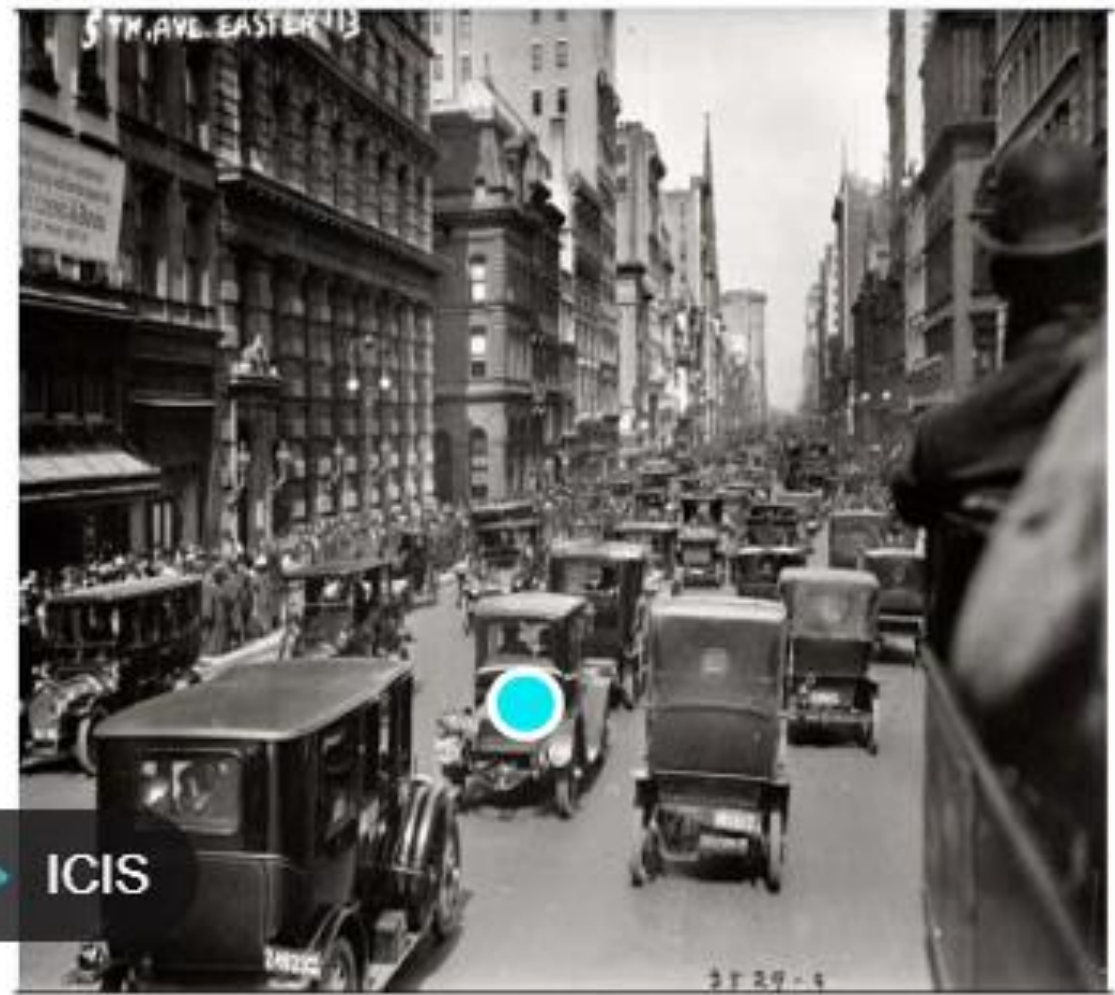
- Pension vs Provident vs RA vs paying off your house?
- % of salary that should be saved?
- Paying Debt vs Investing?
- Buying or renting a house?
- Hospital plan vs “Full medical plan”
- Multi generational planning

- Technology Changes

Easter morning 1900: 5th Ave, New York City. Spot the automobile.



Easter morning 1913: 5th Ave, New York City. Spot the horse.



art

Source: George Grantham Bain Collection.

- **Provident Fund: Regulation restriction. Possible defined contribution to state infrastructure assets on the horizon**
- Contribute as little as possible!!!!!!!
- Maximise offshore exposure.
- Convert to a living annuity with large offshore exposure as soon as you turn 55 years old
- Consider Glacier with a maximum 0.6% annual fee

Where do you want to be in 10 Years?

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Discipline manager?

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*Thank you for allowing me to share the wisdom
that I gained by doing the **RIGHT THINGS***

rather than doing:

THINGS RIGHT

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