



# EUTIC training

## Session 1 – Financial Markets 101



# Agenda

- 1. EUTIC training sessions**
- 2. What are financial markets?**
- 3. What is a stock?**
- 4. Why do financial markets exist?**
- 5. How do financial markets work?**
- 6. Overview key terms**
- 7. Q&A**

# EUTIC training sessions

- **Designed for members without previous knowledge in finance**
- **Aim: Educate about financial markets, help you pick stocks**
- **Basically: Bring everyone up to speed**
- **When? THURSDAYS WEEK 3 – 5, 5PM – 6PM, APPLETON TOWER G.05**
- **Outline**
  1. **Financial markets 101**
  2. **How to pick a stock – qualitative part**
  3. **How to pick a stock – fundamental analysis**

# What are financial markets?

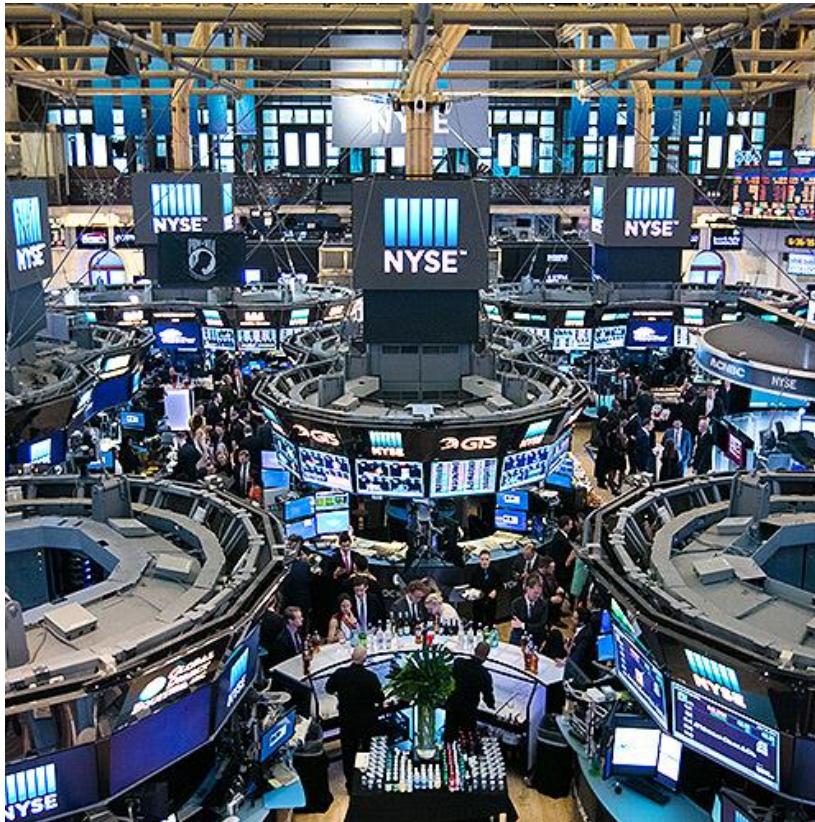
- **Financial markets**  
= marketplace where buyers & sellers participate in trade of assets such as equities, bonds, currencies and derivatives
- **Asset**  
= resource with economic value, expectation that it will provide future benefit to holder
- **Transparent pricing, regulations on trading, costs & fees, prices determined by market forces**
- **Our focus on capital markets -> stock markets**
- **Types: Auction markets, electronic exchanges, OTC**

# What are financial markets?

Forex - \$5trn/day

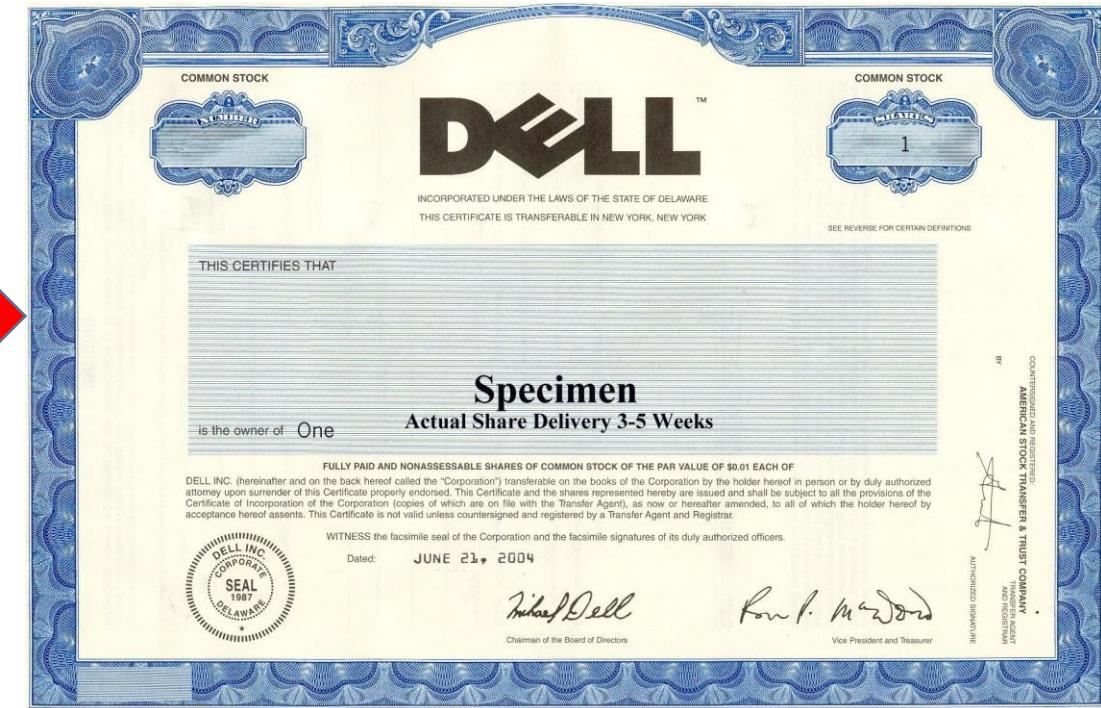


NYSE - \$1.5trn/month



# What is a stock?

- Part/share of a firm
- Claim on company's assets/earnings
- Sold on stock market, often subject to strong regulation
- Embodied by share certificate
- Focus on ordinary shares
- Voting rights
- No guaranteed dividend



# Why do financial markets exist?

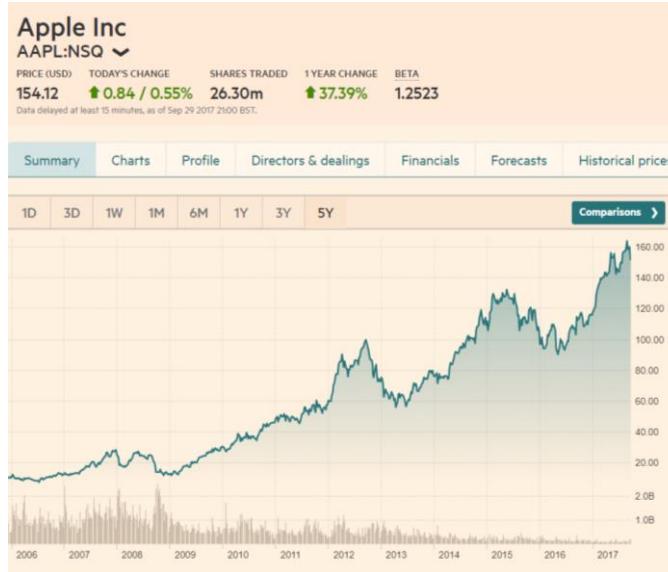
What do YOU think?



# Why do financial markets exist?

## Why would you want to have stocks?

1. The market decides how much the stock/company is worth:
  - You can make a lot of \$\$\$!
2. Dividends
3. Voting
  - You have influence on important issues, e.g. mergers
  - E.g. Central Asia Metals



# Why do financial markets exist?

## Why would a company go public?

- There seem to be many downsides
- Have to listen to shareholders
- Have to publish results
- Supposed to pay dividends

But:

A company make a lot of money through an IPO

- E.g. Facebook, VISA



# How do financial markets work?

←22-51

## Step 1: Primary market

- Aka Initial Public Offering/IPO
- Company that goes public receives the proceeds



Decide to go public

Find an investment bank/bookrunner

Register with regulators

Price range & publicity tour

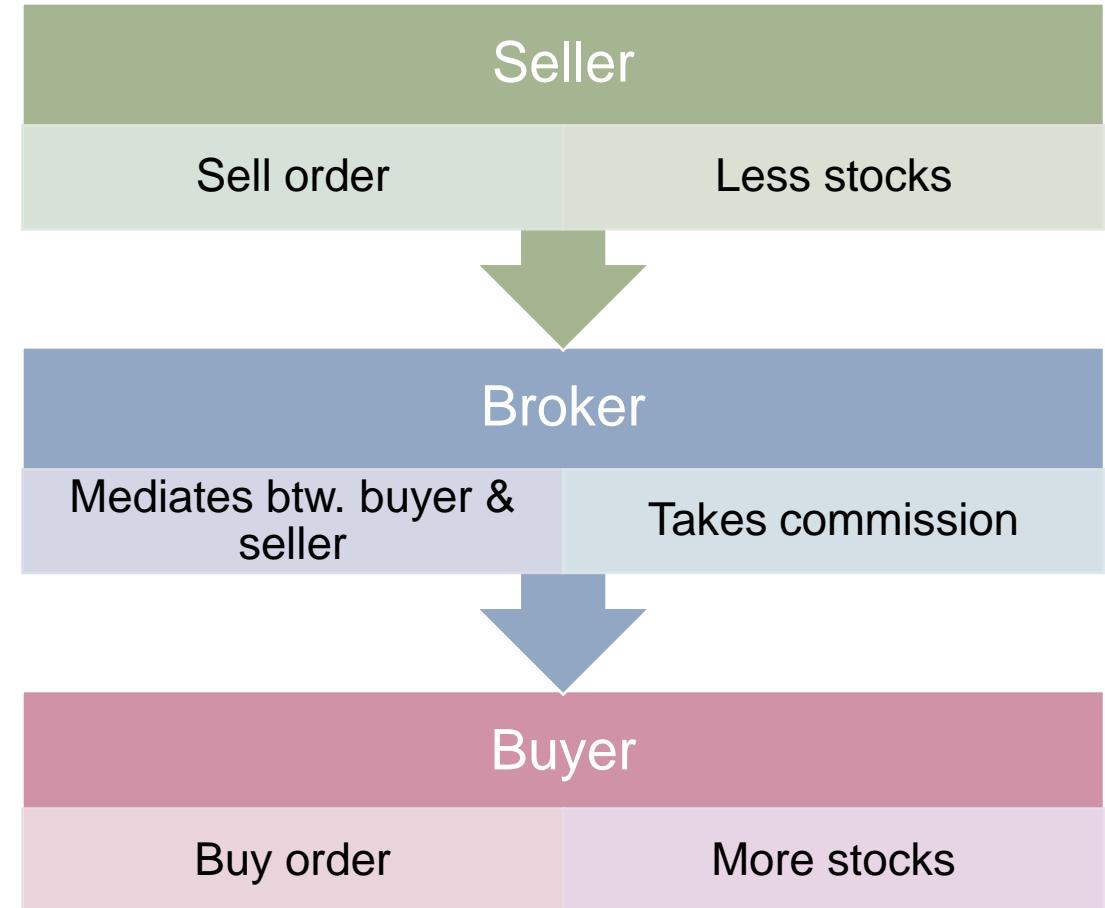
Go public/IPO

# How do financial markets work?

←22-51

## Step 2: Secondary markets

- Company that issued stocks not involved but through dividends, announcements & results
- No more money to company but through rights issue
- Transactions between buyers & sellers w/ broker as mediator



# How do financial markets work?

←22-51

## On the dynamics of stock markets

- **Buying a company like looking into a crystal ball:**
- You try to predict its future value
- Rule of thumb:
- Good news: Price up (higher expectations about future value)
- Bad news: Price down
- Prices fall/rise to point where buyers & sellers meet



Sometimes sellers can't find buyers for a long time & vice versa!



# Key terms

←22-51

- **Bid**
- **What you're willing to pay for a stock**
- **Ask**
- **What you're looking to get for your shares**
- **Bid-ask spread**
- **Difference btw. the two**
- **The more liquidity, the smaller the spread**

- **Bull market/bullish**
- **Positive outlook**
- **Bear market/bearish**
- **Negative outlook**



# Key terms

←22-51

- **Limit order**
- **Only execute order above/below certain sale price**
- **Can be buy or sell order**
- **Stop-loss order**
- **Sell at certain price to minimize losses**
- **Market order**
- **Execute trade ASAP**
- **Good till cancelled order/GTC**
- **Order stands until you cancel**

- **Day order**
- **Order only good for day placed**
- **Volatility**
- **How fast & often stock moves up and down**



# Key terms

←22-51

- **Liquidity**
- How easily you can get into & out of a stock
- **Trading volume**
- Number of shares being traded
- **Long**
- Betting that stock price will increase
- **Short**
- Betting that stock price will decrease



# Key terms

←22-51

- **Market cap**
- **Total value of all stocks of that company**
- **Blue chip stock**
- **Large companies offering stable dividends**
- **Hedge funds/mutual funds**
- **You invest in them/they invest for you**
- **ETF**
- **They track an index**
- **Beta**
- **Measurement of risk**
- **Dividend**
- **Payment to shareholders**
- **Stock symbol**
- **E.g. KMG:NYQ**
- **Portfolio**
- **Collection of investments**
- **Yield**
- **Measurement of return**

# Recap

←22-51

- **What are financial markets?**
- **What are stocks?**
- **Why do financial markets exist?**
- **How do they work?**



# Q&A

Any questions?



**Thank you for your attention!**



## Training session - 2



# Outline

- 1. The art of investing**
  - **Some basic rules of thumb**
  - 2. Annual report – strategic report section**
  - 3. Annual report – financial statements**
  - 4. Key ratios & how to interpret them**
  - 5. Literature**
  - 6. Q&A**

**‘Qualitative’ analysis**

**Fundamental analysis**

# Hold on, it will be intense

- We've got a lot of material to cover
- Don't despair – everything will be online
- Just try to understand it – it doesn't matter if you don't pick up everything
- **ASK QUESTIONS!**



# The art of investing

- **There is no grand strategy**
- **You will make mistakes**
- **But: You can minimize your mistakes by following a few rules**
- Some people have become very successful at investing
- **There is hope, I will try to help you out!**



# The art of investing

- Why do stocks go up in the long run or over a certain period of time and vice versa?



# The art of investing

- **Stock price is a bet on the future value of a company**
    - If the company has a solid past performance, keeps releasing good results and is predicted to perform even better in the future
- Stock prices UP in the LR**
- If the company has a bad past performance, releasing disappointing figures and is predicted to struggle/perform badly
- Stock prices DOWN in the LR**

# The art of investment

## Amazon



- Solid revenue growth, reported profits for the last 2 years
- Expanding aggressively, growth potential: E.g. Prime Now (Groceries, Whole Foods)

## Deutsche Bank



Deutsche Bank

- Hit hard by 2008 financial crisis
- Many lawsuits, cost the bank €12.7bn btw. 2013 and 2016
- Internationally demise
- IMF: Deutsche Bank 'important contributor to systematic risk'

# The art of investing

## Critical thinking

- **Outsmarting market in SR difficult, but POSSIBLE if LR perspective**
- **When looking at a company, ask yourself a few key questions:**
  1. Does this business idea make sense?
  2. What is the company's growth potential?
  3. What are the possible dangers of the company?

# The art of investing

## Theranos

- Providing blood tests from one drop of blood from your finger
- Quick, fast, efficient, CHEAP

**1. Good business idea?**

**Definitely!**

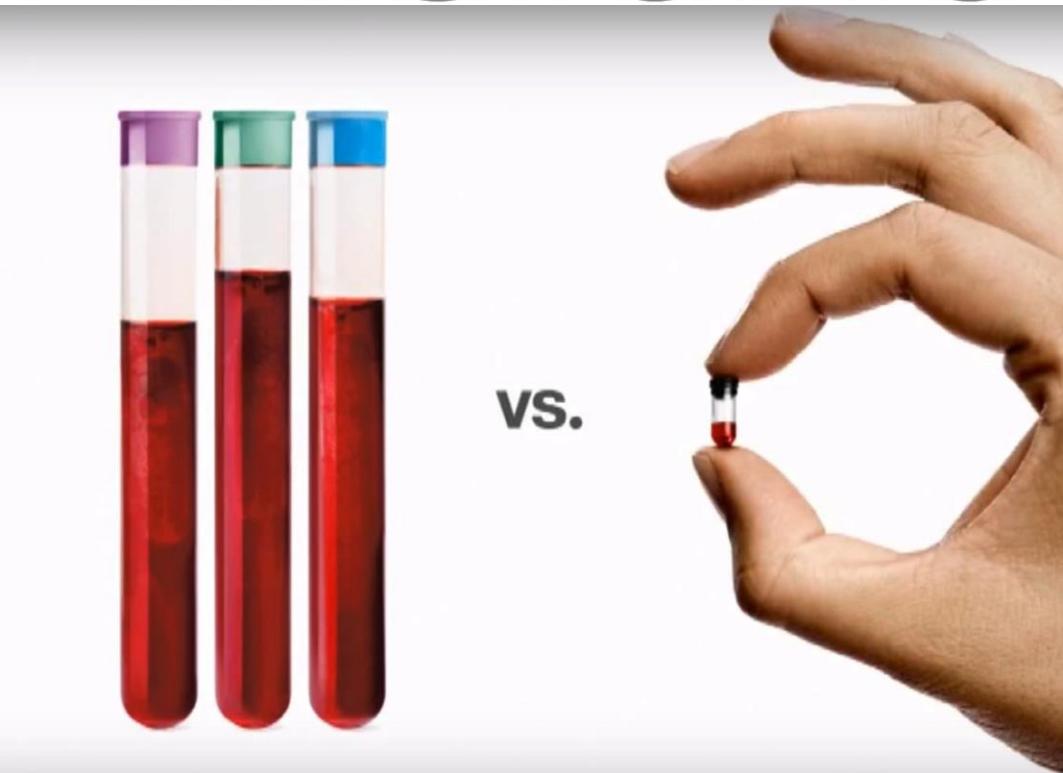
**2. Growth potential?**

**Definitely!**

**3. Danger**

**Does it work?**

# theranos



# The art of investing

## Theranos

- **Timeline of what happened:**

2013:

- Significant news coverage
- Company partners up with Walgreens

2014:

- Valued at \$9bn, EH net worth \$5bn

2016

- Company gets into trouble, Walgreens cancels partnership

2016 cont.:

- Valued at \$800m, EH net worth 0
- Lawsuits start coming in

**THE TESTS DIDN'T WORK!!!**



# The art of investing

## Juicero

- Company that sells machine to press pre-prepared juice packs
- Machine wields four tons of force: "enough to lift two Teslas,"

**1. Business idea?**

**Yes**

**2. Growth potential?**

**Yes**

**3. Risk?**

**What if you can actually press the juice yourself?**



**VS**



# The art of investing

## Guess what?

- Turns out you could actually just press the juice yourself
- Obvious no one wanted to buy the machine any more
- Company went bust in September 2017 after 1.5 years of operation



# Strategic report section

- **Annual report:**

Performance overview every public company has to release once a year

- **Clear legal guidelines:**

1. Insight into entity's business model, main strategy, objectives
2. Principal risks the entity faces & how they might affect its future prospects
3. Analysis of entities past performance



# Strategic report section

## Parts of the strategic report

### 1. Strategic management

- Strategy & objectives
- Business model
- Were there any negative surprises (e.g. planned mine above budget)?
- Does the business model make sense/seem sustainable?
- Are the objectives reasonable & realistic?

## CONTENTS

### STRATEGIC REPORT

- 1 Highlights
- 2 Company Overview
- 4 Business Model
- 6 Company History
- 8 Executive Chairman's Statement
- 10 Strategic Summary
- 12 Market Overview
- 14 Operational Review
- 18 Strategy in Action
- 20 Financial Review
- 24 Business Development Review
- 26 Strategy in Action
- 28 Corporate Social Responsibility
- 32 Strategy in Action
- 34 Principal Risks and Uncertainties

# Strategic report section

## 2. Business environment

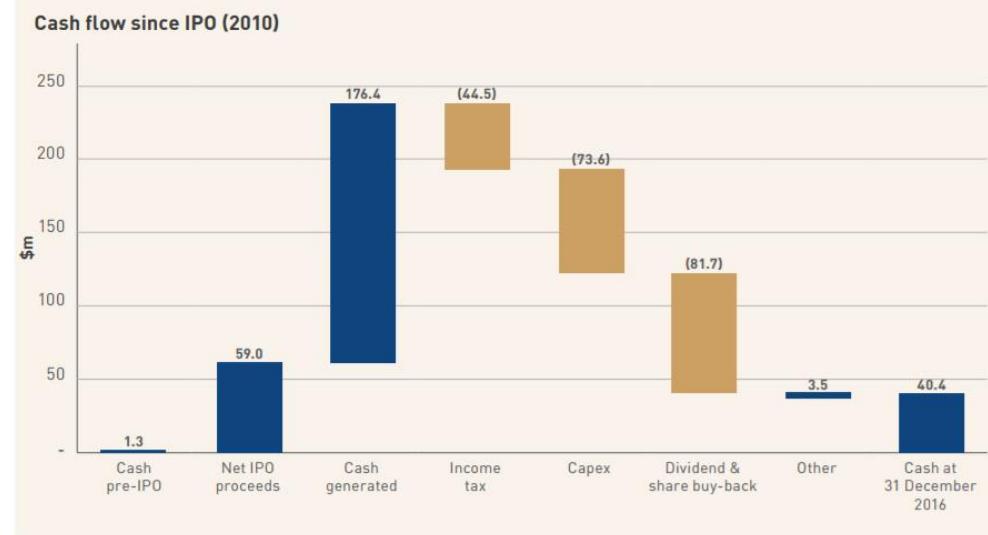
- Trends and factors
  - Principal risks & uncertainties
  - CSR
- 
- How is the industry doing as a whole? Is the outlook good?
  - What are the main risks? Are they bearable?
  - What is done to mitigate these risks? Does it seem reasonable?

NATURE AND IMPACT OF RISK	MOVEMENT IN RISK	HOW WE MANAGE THE RISK
<b>OPERATIONAL</b>		
<b>Leaching operations</b> The nature of in-situ leaching means that there are varying grades and flows of copper bearing solution from the dumps.  Should the flow and/or grade drop, this could lead to a reduction in copper cathode produced.  During 2017, operations will begin on the Western Dumps where we do not have operational leaching experience.  An interruption to the project's water supply could have an adverse impact on leaching operations.		CAML has conducted extensive testing on the grades and expected recovery of the copper bearing solution from the Kounrad dumps.  Production to date has correlated reasonably well with the initial testing and management has no reason to believe that this correlation will not continue with future operations. CAML also utilises the services of consultants to regularly review leaching performance and advise on operating strategy.  A second water source has been constructed from Lake Balkhash to ensure water availability.
<b>SX-EW operations</b> The SX-EW operations have a number of critical supplies, particularly reagents and electricity, and the loss of any one may have a significant adverse impact on the production of copper cathode.		During 2016, a review was carried out on critical spare parts and changes were implemented where necessary.  Generator capability has been installed at Kounrad to ensure that no damage occurs to the SX-EW facility in the event of a power shortage.
<b>Fire</b> The SX operations of the Kounrad facility in particular have a significant risk of fire due to the materials used in the extraction of copper.		A comprehensive fire detection and fighting system has been installed. Business interruption insurance has been taken out to mitigate the majority of loss from a significant fire event. Improvements to fire detection and control have been made.

# Strategic report section

## 3. Business performance

- Analysis of performance and position
  - KPIs
  - Employee gender diversity
- 
- How has the performance developed?
  - Does it exceed that of competitors?
  - Be critical



### Cash flows

The continued strong operational performance of the Kounrad project and the associated low costs of production resulted in robust cash flows for the Group. Cash generated from operations increased to \$44.7 million (2015: \$33.6 million) and during the year \$20.4 million was returned to shareholders as dividends (2015: \$20.4 million) and a further \$12.3 million was invested in the Kounrad Stage 2 Expansion project and sustaining capital expenditure.

\$9.2 million of Kazakhstan corporate income tax was paid during 2016 (2015: \$10.0 million). Payments made during 2016 included \$8.7 million towards the 2016 corporate income tax liability and \$0.5 million of 2015 corporate income tax paid in April 2016.

### Dividend

Having raised \$60 million at IPO in September 2010, this latest dividend will increase the amount returned to shareholders in dividends and share buy-backs since the listing to \$96 million. The graph above shows the cash flows of the Group since the IPO.

### Growth opportunities

As of 31 December 2016, the Group has a robust balance sheet with no debt and \$40.4 million in cash. This, combined with the Company's strong financial performance and reducing Kounrad capital commitments, means that CAML is well positioned to maintain its dividend policy, finance the Shuaq exploration programme and continue to look for attractive growth opportunities.

# Financial statements

- **3 main parts**

- **Balance sheet/statement of FP**

- Assets
- Liabilities
- Equities

➤ How have assets developed?

➤ How have debts developed?

Are there any abnormalities? What could explain them?

Fiscal data as of Dec 31 2016	2016	2015	2014	2013	2012
<b>ASSETS</b>					
Cash And Short Term Investments	40	42	46	43	34
Total Receivables, Net	0.57	1.81	3.21	1.40	2.89
Total Inventory	3.32	3.03	4.05	3.92	2.59
Prepaid expenses	0.35	0.84	--	--	--
Other current assets, total	0.16	0.58	0.23	1.92	8.13
<b>Total current assets</b>	<b>45</b>	<b>48</b>	<b>54</b>	<b>50</b>	<b>47</b>
Property, plant & equipment, net	50	41	75	78	20
Goodwill, net	10	10	20	9.28	0
Intangibles, net	30	30	61	7.42	7.47
Long term investments	--	--	0	0	4.01
Note receivable - long term	2.37	2.76	6.39	17	12
Other long term assets	--	--	--	--	--
<b>Total assets</b>	<b>138</b>	<b>133</b>	<b>216</b>	<b>162</b>	<b>92</b>
<b>LIABILITIES</b>					
Accounts payable	3.76	3.91	1.04	0.22	1.77
Accrued expenses	2.26	2.35	3.21	11	5.82
Notes payable/short-term debt	0	0	0	0	0
Current portion long-term debt/capital leases	--	--	--	--	0.02
Other current liabilities, total	0.36	0.43	0.46	1.62	10
<b>Total current liabilities</b>	<b>6.38</b>	<b>6.69</b>	<b>4.72</b>	<b>12</b>	<b>18</b>
Total long term debt	0	0	0	0	0.15
Total debt	0	0	0	0	0.17
<b>Deferred income tax</b>	<b>8.54</b>	<b>10</b>	<b>21</b>	<b>9.65</b>	<b>0.27</b>
	0.09	0.26	0	0	0

# Financial statements

## ▪ Cash flow statement

### Cash flows

= net amount of cash and cash-equivalents moving into and out of a business

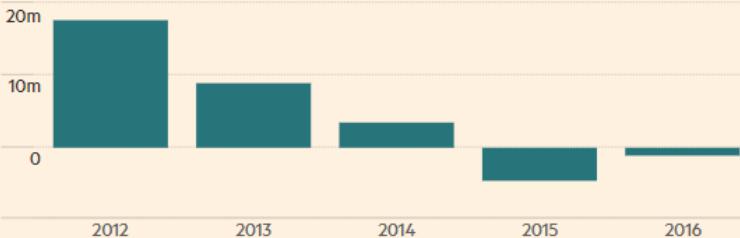
- Have there been any depreciation abnormalities
- How much money has been spent on financing activity? Do those levels seem sustainable?
- Has the net change in cash been positive

#### Cash flow in USD

[View more](#)

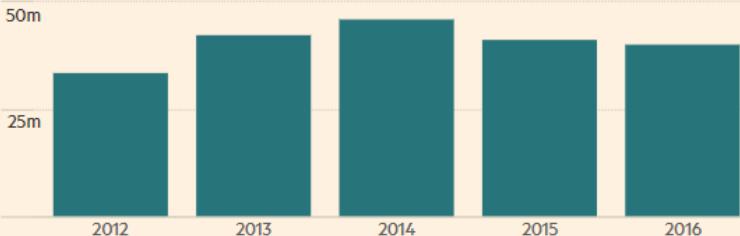
In 2016, Central Asia Metals PLC did not generate a significant amount of cash. However, the company earned 35.53m from its operations for a Cash Flow Margin of 53.27%. In addition the company used 13.34m on investing activities and also paid 22.80m in financing cash flows.

#### Cash Flow



Cash flow per share	0.2451
Price/Cash flow per share	9.49

#### Cash



Book value per share	0.862
Tangible book value per share	0.5771

# Financial statements

## ▪ Income statement

- Revenue
  - Operating expenses
  - Taxes
- How have operating expenses developed? Have they increased in line with revenue growth? Have they increased more or less?
- Has the profit/net income shown any trends?



# Key ratios

- **P/E – Price/Earnings ratio**
  - Is the company overvalued?
  - Compare to its competitors
  - No right or wrong answer, but everything **above 40** should be a **red flag** for you
- **EPS – Earnings per share**
  - Measure of profitability
  - The higher, the better
  - Historical development important

- **Dividend yield**
  - Dividend/share price
  - The higher, the better
  - But: Be cautious
- **Dividend payout ratio**
  - What % of profits paid out in dividends
  - If too high (e.g. above 50/60%): Is the company not investing enough?

# Key ratios

- **Operating margin**

- Ratio of profit to revenues
- The higher, the better

- **Return on assets (ROA)**

- How efficient is company at using assets to generate earnings

- **Return on equity (ROE)**

- 10-20% normal, 20%+: vg

- **Current ratio**

- Current assets/current liabilities
- 2 or more: Good

- **Quick ratio**

- Indicator of ST liquidity
- Aim at 1+

- **Beta**

- Aim at less than 1.5

# FT Equity Screener

- Good way to find companies, ask your SH for sector-specific ratios
- Markets -> Markets Data -> Equities -> Or use the equity screener

Enter name or symbol  Go [Or use the Equity Screener](#)

► Country 152,764  
152,764

► Sector & Industry 152,764  
152,764

▼ Equity attributes 152,764  
152,764

Currency normalised to: [UK Pound](#) | [US Dollar](#) | [Euro](#)

Market Cap Remove	0	From <input type="text"/>	to <input type="text"/>	1.6t	<input type="button" value="↔"/>	152,764 152,764	
Beta (5 year) Remove	-9.9	From <input type="text"/>	to <input type="text"/>	10	<input type="button" value="↔"/>	152,764 152,764	
Dividend Yield (%) Remove	0	From <input type="text"/>	to <input type="text"/>	8.3k	<input type="button" value="↔"/>	152,764 152,764	
Consensus Forecast Remove	<a href="#">Buy</a>	<a href="#">Outperform</a>	<a href="#">Hold</a>	<a href="#">Underperform</a>	<a href="#">Sell</a>	<a href="#">No rating</a>	152,764 152,764

- Add or change criteria

Category	Measures of Size	Criteria
Default Criteria	Price	Beta (5 year)
Stock Metrics	Margins	Consensus Forecast
Balance Sheet	Growth	Dividend Yield (%)
Growth Rate	Efficiency	DX Short Selling Activity
Valuation Multiples	Financial Strength	Market Cap
Management Effectiveness		Price to Earnings Ratio

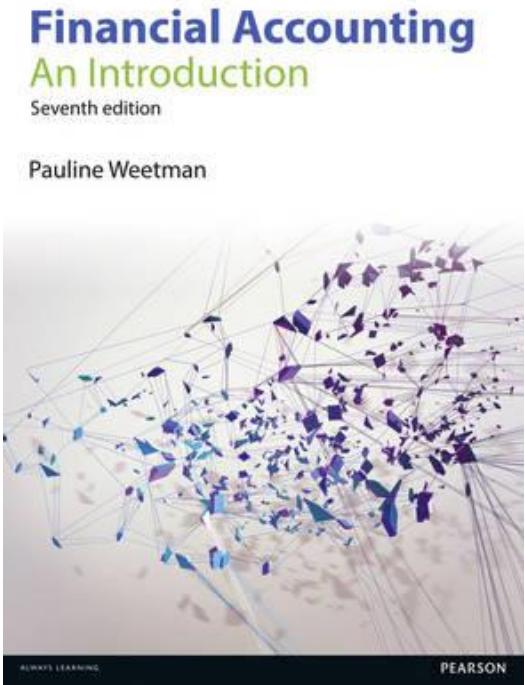
# FT Company Data

- **Useful to determine whether company suitable**
- **Markets -> Market Data -> Search Securities -> Enter company name**
- **Summary:** Key ratios and stock performance
- **Profile:** Overview company & main competitors
- **Financials:** Past performance
- **Forecasts:** Analyst recommendations, revenue forecasts

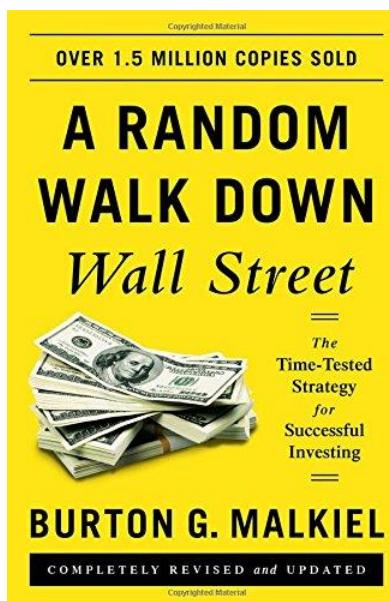
The screenshot shows the Financial Times website interface. At the top, there's a navigation bar with links for HOME, WORLD, UK, COMPANIES, MARKETS, OPINION, WORK & CAREERS, and LIFE & ARTS. On the right, there are links for myFT, Portfolio, and My Account. Below the navigation, a search bar says "Search securities" with a magnifying glass icon. The main content area is titled "Equities". A specific company profile for "Central Asia Metals PLC" is displayed, with the stock code "CAML:LSE". It shows the company belongs to the Basic Materials sector and Mining industry. Key financial metrics are listed: PRICE (GBX) 238.25, TODAY'S CHANGE ↑1.50 / 0.63%, SHARES TRADED 374.36k, 1 YEAR CHANGE ↑26.73%, and BETA 0.0546. A note at the bottom states "Data delayed at least 20 minutes, as of Oct 12 2017 09:23 BST." Below this, there are tabs for Summary, Charts, Profile, Directors & dealings, Financials (which is selected), Forecasts, and Historical prices. Under the "Financials" tab, there are links for Overview, Income statement, Cash flow, and Balance sheet. The "Income statement in USD" section includes a chart showing Revenue from 2012 to 2016 and some financial ratios: Gross margin 72.47%, Net profit margin 41.19%, and Operating margin 51.70%. To the right of the main content, there's a sidebar titled "FT Lexicon" with a search bar and a list of terms: beta, current ratio, return on equity, cash flow, operating margin, and a link to "Go to FT Lexicon". At the bottom right, there's a section titled "Explore our tools" with a "Alerts" button.

# Literature

- **Financial Accounting**
- Pearson, Pauline Weetman
- Ch. 7, 13, 14



- **A Random Walk Down Wall Street**
- Burton G. Malkiel
- Recommended by former BM sector head



# Next two sessions

We have covered all the finance basics, now careers:

- **Session 3:**
  - How to pick a suitable job for yourself
  - When to apply
  - Major application fallacies
  
- **Session 4:**
  - How the application process works
  - CV & cover letter tips
  - Do's and Don'ts of applications



**NEXT**  
**Any questions?**

A stock market chart serves as the background for the slide. It features a green candlestick price chart on the left, a red candlestick chart on the right, and a blue line chart at the bottom. A legend in the top left corner identifies the data series: 'Our P/E Level' (green dashed line), 'Est P/E Level' (red dashed line), and 'Price USD' (blue dotted line). The word 'NEXT' is positioned above the question text.