Investment

Accounting and profitability

Projects

Production as a part of value chain

Production processes and production control

Production systems and organizations

Creating value

Accounting and profitability

Case-examples

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To maintain liquidity: Spotify

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Kuva: https://www.cnbc.com/2018/05/22/spotifys-ipo-disrupted-wall-street-what-lies-ahead-now-for-unicorns-looking-to-go-public.html

In this exercise:

- Spotify’s financial statement
  - Market share, revenue and net income
  - Cash flow statement
  - Liquidity
  - Balance sheet
- Financial indicators

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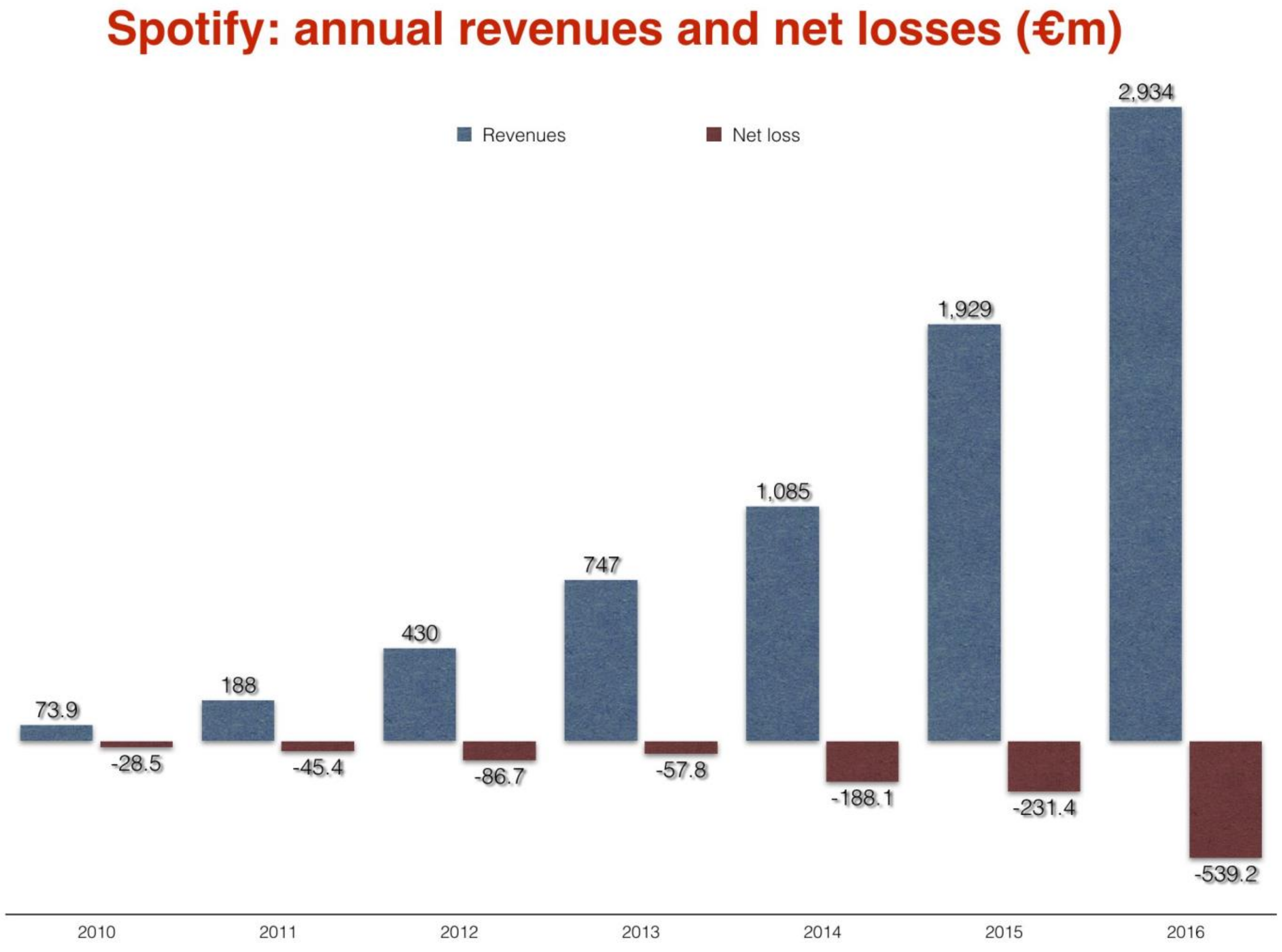
Market share

- **Music streaming service, released in 2008**
    - 299 million monthly active users as of June 30 2020, of which 138 million are subscribers.
- **Spotify Global Market Share 32% (Q1 2020)**
    - The highest market share in the industry
- **Spotify has agreements with major record labels**
    - The rights to use their music

https://www.businessofapps.com/data/spotify-statistics/
https://www.rollingstone.com/music/music-news/spotify-record-labels-dispute-720512/

Revenue and net income

- Despite increasing revenue, Spotify has always made yearly net losses
- The company reported its first positive result in the fourth quarter of 2018 (negative result for the full financial year of 2018)
- How is this possible?



Kuva: https://www.musicbusinessworldwide.com/spotify-revenue-hit-3-3bn-in-2016-but-net-loss-soared-to-597m/

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Cash flow from operating activities CF_{OPS}

CF_{OPS} = **Net income**
+ non-cash expenditures
- non-cash income
- change in working capital

- CF_{OPS} should be positive. Negative = you don't earn enough to cover the costs, or you don't get paid quick enough.

	Note	2018	2017	2016
Operating activities				
Net loss		(78)	(1,235)	(539)
Adjustments to reconcile net loss to net cash flows				
Depreciation of property and equipment	**12**	21	46	32
Amortization of intangible assets	**13**	11	8	6
Share-based payments expense	**17**	88	65	53
Finance income	**9**	(455)	(118)	(152)
Finance costs	**9**	584	974	336
Income tax (benefit)/expense	**10**	(95)	2	4
Share in losses/(earnings) of associate		1	(1)	2
Other		7	(3)	58
Changes in working capital:				
Increase in trade receivables and other assets		(61)	(112)	(60)
Increase in trade and other liabilities		291	447	245
Increase in deferred revenue		38	77	77
(Decrease)/Increase in provisions		(17)	8	38
Interest received		18	19	5
Income tax (received)/paid		(9)	2	(4)
Net cash flows from operating activities		**344**	**179**	**101**

Cash flow from investing activities CF_{INV}

CF_{INV} = - New fixed assets
- Short term investments
+ Return on short-term investments
+/- other investment income / expenses

Investing activities				
Purchases of property and equipment	12	(125)	(36)	(27)
Purchases of short term investments	22	(1,069)	(1,386)	(1,397)
Sales and maturities of short term investments	22	1,226	1,080	609
Change in restricted cash	14	(10)	(34)	(1)
Other		(44)	(59)	(11)
Net cash flows used in investing activities		**(22)**	**(435)**	**(827)**

- In general, cash flow from investing activities is negative, but it may not be a bad thing.

Cash flow from financing activities CF_{FIN}

CF_{FIN} = change in short-term loans

+ change in share capital

- repurchase of shares

+/- other financing income / expenses

Financing activities				
Proceeds from issuance of Convertible Notes, net of costs	**18**	—	—	861
Proceeds from exercise of share options	**17**	163	29	33
Repurchases of ordinary shares	**16**	(72)	—	—
Other		1	5	22
Net cash flows from financing activities		**92**	**34**	**916**

Positive CF_{FIN} : Company's assets increase.

Negative CF_{FIN} :Company is paying its debts, dividends to investors or repurchase stocks

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Liquidity

- **In general:**

  Change in cash (and equivalents) = $CF_{OPS} + CF_{INV} + CF_{FIN}$

  Cash (end of accounting period) = Cash (start of accounting period) + Change in cash

- **The figure shows that cash and cash equivalents have been positive at the end of each financial year**
- **Spotify has thus maintained its liquidity despite a negative result**

Net increase/(decrease) in cash and cash equivalents		**414**	**(222)**	**190**
Cash and cash equivalents at January 1	**22**	477	755	597
Net foreign exchange gains/(losses) on cash and cash equivalents		—	(56)	(32)
Cash and cash equivalents at December 31	**22**	**891**	**477**	**755**

Company liquidity

- **The company can run at a loss, as long as it has enough cash!**
- **A negative result for the financial year alone does not indicate that the business is unprofitable**
- **Startups in particular start out at a loss and need external financing to keep cash flow positive**
- **If you run out of cash, you will go bankrupt**

    - The company's assets are converted into cash and distributed to creditors

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Assets

- **From the balance sheet we can see the development of the value of long-term investments**
  - 2017: 910 M€
  - 2018: 1646 M€
- **Spotify's investments may include contracts with record companies and artists**
- ***Cash and cash equivalents is a part of company's balance sheet***

	2018	2017
Assets		
Non-current assets		
Property and equipment	197	73
Intangible assets including goodwill	174	162
Investment in associate	—	1
Long term investments	1,646	910
Restricted cash and other non-current assets	65	54
Deferred tax assets	8	9
	2,090	**1,209**
Current assets		
Trade and other receivables	400	360
Income tax receivable	2	—
Short term investments	915	1,032
Cash and cash equivalents	891	477
Other current assets	38	29
	2,246	**1,898**
Total assets	**4,336**	**3,107**

Equity and Liabilities

- Equity ratio = $\frac{\text{Total Equity}}{\text{Total assets}}$
- The higher the ratio, the less risky a company is (as more funds come from shareholder's equity than from debts).

- Spotify's equity ratio has increase: From 0.08 in 2017 to 0.48 in 2018.

Equity and liabilities		
Equity		
Share capital	—	—
Other paid in capital	3,801	2,488
Treasury shares	(77)	—
Other reserves	875	177
Accumulated deficit	(2,505)	(2,427)
Equity attributable to owners of the parent	**2,094**	**238**
Non-current liabilities		
Convertible notes *Ei pitkäaikaista velkaa 2018*	—	944
Accrued expenses and other liabilities	85	56
Provisions	8	6
Deferred tax liabilities	2	3
	95	**1,009**
Current liabilities		
Trade and other payables	427	341
Income tax payable	5	9
Deferred revenue	258	216
Accrued expenses and other liabilities	1,076	881
Provisions	42	59
Derivative liabilities	339	354
	2,147	**1,860**
Total liabilities	**2,242**	**2,869**
Total equity and liabilities	**4,336**	**3,107**

- **Total balance sheet value has increased**
  - 2017: 3107 M€
  - 2018: 4336 M€

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Spotify's financial indicators

Return on equity:

$$\mathbf{ROE} - \% = \frac{\text{Net income 2018}}{Equity\ (2017 \text{ and } 2018\ \boldsymbol{average})} * 100 \mathbf{=} \frac{-78\ M€}{\frac{(2094\ M€+238\ M€)}{2}} * 100 = -\mathbf{6,689} \ldots \%$$

Negative ROE is generally interpreted as being bad for profitability

- Investments made by Spotify may not have generated cash flow yet, which should be taken into account when assessing profitability
- The biggest competitors of Spotify have significantly higher ROEs
  - Apple's ROE: 50,92 %
  - Alphabet's (Google) ROE: 18,34 %

https://www.macrotrends.net/stocks/charts/AAPL/apple/roe
https://www.macrotrends.net/stocks/charts/GOOG/alphabet/roe
https://www.almatalent.fi/tietopalvelut/tunnuslukuopas

Spotify's financial indicators

Profitability:

$$\textbf{Profit margin}-\% = 100 * \frac{\text{Net income}}{\text{Revenue}}$$

2016: $100 * \frac{-349\ M€}{2952\ M€} = -11{,}822 \ldots \%$

2017: $100 * \frac{-378\ M€}{4090\ M€} = -9{,}242 \ldots \%$

2018: $100 * \frac{-43\ M€}{5259\ M€} = -0{,}8176\ \%$

- A negative profit margin indicates that the business is unprofitable
- Increasing profit margin indicates that the business will be profitable

Spotify’s financial indicators

$$\textbf{Current Ratio} = \frac{Current\ assets}{Current\ liabilities} = \frac{2246\ M€}{2147\ M€} = \mathbf{1,046} \ldots$$

- the current ratio describes how a company can pay its current liabilities (debt that is due within a year)
- If Current Ratio is 1, the company is barely able to meet current liabilities with cashable assets
- The higher the Current Ratio, the better the liquidity
- Alphabet’s Current Ratio **3,92** and Apple’s is **1,30**

https://www.macrotrends.net/stocks/charts/AAPL/apple/current-ratio
https://www.macrotrends.net/stocks/charts/GOOG/alphabet/current-ratio

Spotify's financial indicators

Solvency:

Debt ratio$-\% = 100 * \frac{\text{Total Debts}}{\text{Total } Assets} = 100 * \frac{0\ M€}{2147\ M€} = 0\ \%$

- Spotify had no interest-bearing debt at the end of 2018
- In the case of Spotify, the interest-bearing debt had been converted into equity

-- Debtors were able to collect debts in the form of shares

Alphabet's debt ratio is **2 %** and apples is **79 %**

- The level of indebtedness can vary widely between companies in the industry

https://www.vox.com/2018/1/3/16847786/spotify-tpg-tencent-debt-dragoneer-ipo-music-streaming
https://www.macrotrends.net/stocks/charts/AAPL/apple/debt-equity-ratio
https://www.macrotrends.net/stocks/charts/GOOG/alphabet/debt-equity-ratio

Week 8 assignment: Financial statements and indicators

1. **Excel file: Financial statements**
   - Download the Excel file from MyCourses and fill it with your own values
   - Use with your own approximate numbers in purple cells
   - Write your formulas in blue cells
     - ➢ *Blue cell values are obtained using numbers from purple cells*
   - Note: Your company is doing business in years 1-4 and in 5th year it has been closed down
     - ➢ *In year 5, net sales, depreciations, debt, fixed assets and working capital will be valued at 0 €*

2. **Assessment of profitability, liquidity and solvency (1 page)**
   - Calculate at least one indicator each for profitability, liquidity and solvency
     - ➢ *The values for profitability ratio are averaged over two consecutive years.*
     - ➢ *Calculations for all indicators have to be presented in the Excel file*
   - Compare the values of your indicators with those of other companies in the industry
     - ➢ *Financial indicators for other companies can be found on the Internet*
     - ➢ *Compare and analyze them in text*

Return the <u>Excel</u> file AND your text part as a <u>PDF</u> to MyCourses!

Week 8 assignment: Accounting and profitability

- **Remember to give feedback:**
    1. How long did it take to do the assignment?
    2. What new did you learn?
    3. What should be developed in this exercise?
    4. General comments on the course so far?