Accounting and profitability

Projects and investing

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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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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To maintain liquidity: Spotify

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

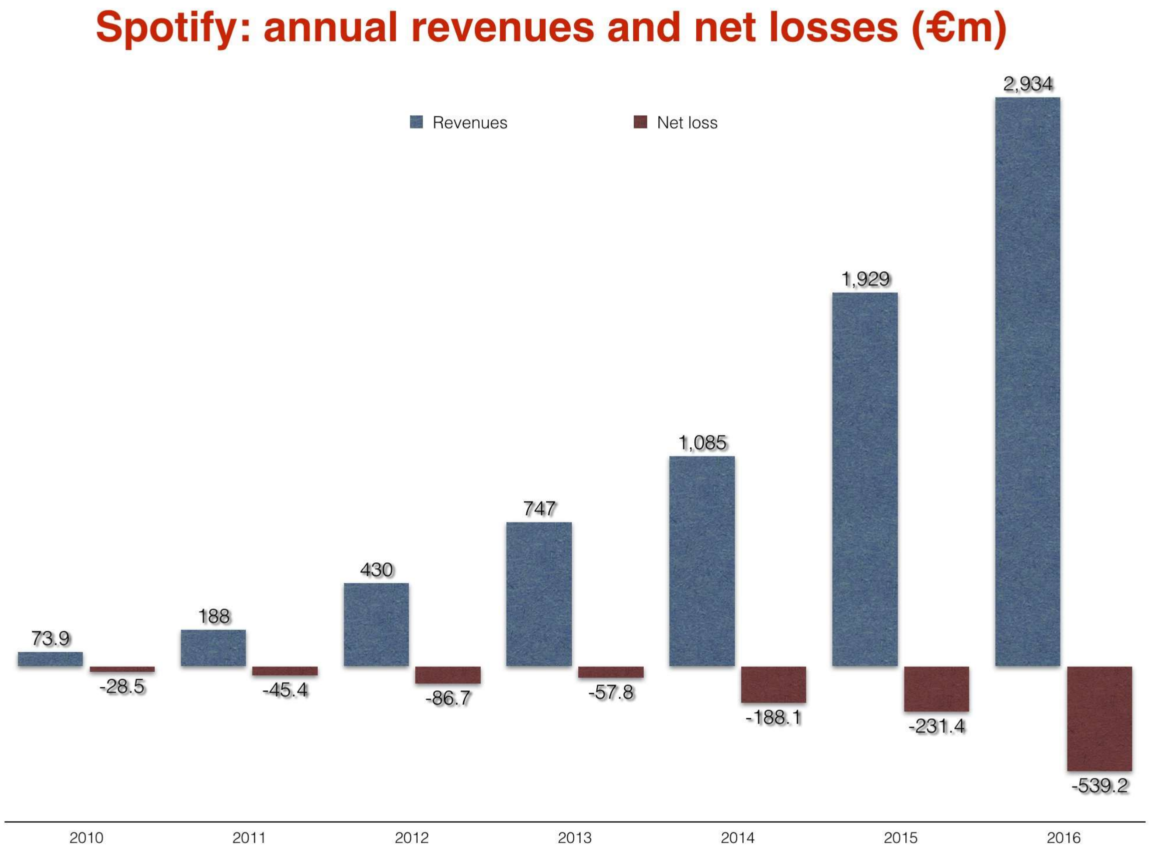
Market share

- **Music streaming service, released in 2008**
  - 217 million active users in Q1 2019, of which 100 million are paying "premium" users
- **Spotify Global Market Share 36%**
  - 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
- How is this possible?



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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

Non-cash expenditures include depreciation

CF_{ops} is the total cash flow from operating activities

	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

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**

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Liquidity

- **In general:**

$$\textit{Cash at the end of accounting period} = CF_{OPS} + CF_{INV} + CF_{FIN} + cash\ at\ the\ start\ of\ accounting\ period$$

- **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

- **Spotify's equity ratio has increased**

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 *No long-term liabilities 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:

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

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
- Apple's ROE is **50,92 %** and Alphabet's (Google) ROE is **18,34 %**
- Competitors' ROE has been significantly higher

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:

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

2016: $100 * \frac{-34 \quad M€}{2952\ M€} = -11{,}822 \ldots \%$

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:

$$\textbf{Dept ratio}\ \% = 100 * \frac{\text{Total Depts}}{\text{Total } Assets} = 100 * \frac{0\ M€}{2147\ M€} = 0\ \%$$

- 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 dept 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