



Microsoft

By Nina Zhang

ECON 160B, DISC 5

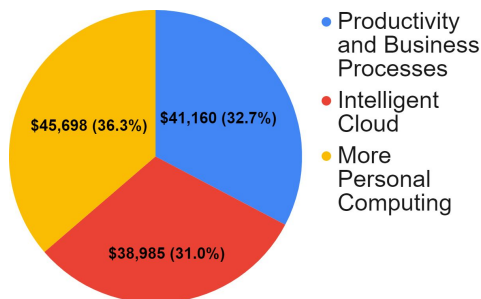
Due: 12/5/2019

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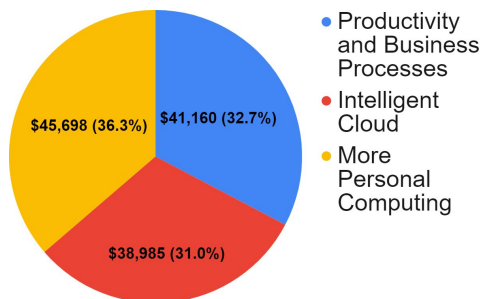
Brief Introduction

- Founding year: 1975
 - Founders: Bill Gates & Paul Allen
 - Management:
 - CEO: Satya Nadella
 - CFO: Amy Hood
 - CTO: Kevin Scott
 - Key industries/products: computer software, consumer electronics, personal computers, and related services.
 - Headquarters: Redmond, WA
 - IPO: 1986, USA
 - Global Expansions: Offices in over 300 countries around the world.
- Major Milestones:
 - 1975: Founded
 - 1985: Released Microsoft Windows, allowed for easier navigation and was wildly popular
 - 1987: Released Microsoft Works
 - 1995: Released Internet Explorer
 - 2000: Bill Gates steps down as CEO, and is replaced by Steve Ballmer
 - 2013: Steve Ballmer steps down as CEO, and is replaced by Satya Nadella in 2014
 - 2013: Microsoft buys Nokia
 - 2015: Released Windows 10
 - 2016: Microsoft buys LinkedIn
 - 2018: Microsoft buys GitHub

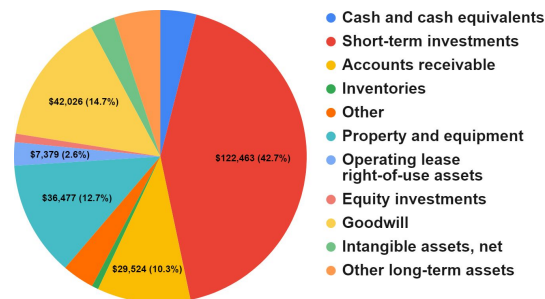
Financial Analysis 2019



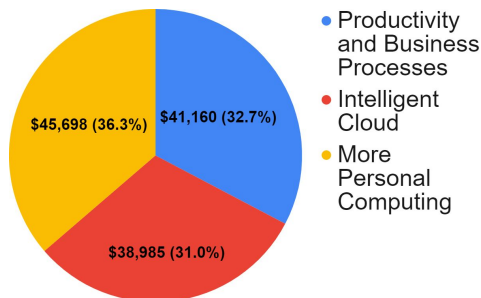
Revenue Composition (in mil)



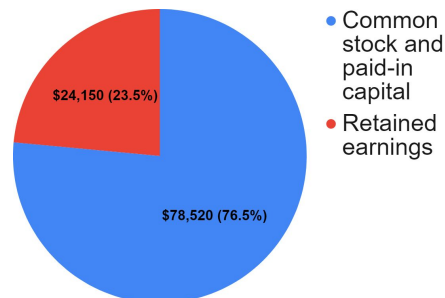
Profit (in mil)



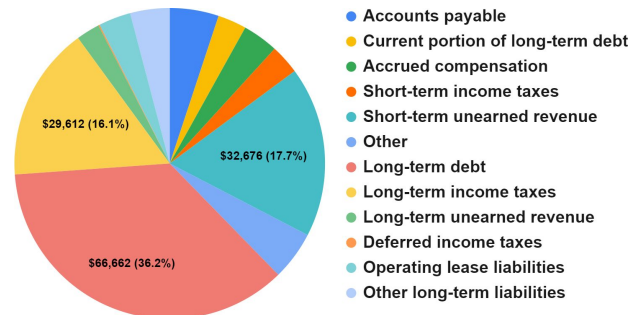
Assets (in mil)



Expenses Composition (in mil)



Equity (in mil)



Liabilities (in mil)

Financial Analysis 2019 (cont.)

- Direct costs from the Income Statement in 2019FY → **\$10,412**
- Capital costs from the Cash Flow Statement in 2019FY → **\$8,686**
- Two most important assets:
 - 2019 **Short-term investments** → **\$122,463**
 - 2019 **Goodwill** → **\$42,026**
- Most important source of financing was equity:
 - **2019 Equity** → **-\$32,887**
 - 2019 Debt → **-\$4,000**
- Book Value vs. Market Value (as of 9/30/19)
 - Stock price was **\$139.03**
 - Book value per share was **\$13.89**
 - Price to book ratio was **10.01**

Direct Costs	2019	2018	2017
Product	16,273	15,420	15175
Service and other	26,637	22,933	19086
Total	\$42,910	\$38,353	\$34,261

Capital Costs (Financing)		2019	2018	2017
	Repayments of short-term debt	\$0	-\$7,324	-\$4,963
	Proceeds from issuance of debt	\$0	\$7,183	\$44,344
	Repayments of debt	-\$4,000	-\$10,060	-\$7,922
	Total	-\$4,000	-\$10,201	\$31,459
	Common stock issued	\$1,142	\$1,002	\$772
	Common stock repurchased	-\$19,543	-\$10,721	-\$11,788
	Common stock cash dividends paid	-\$13,811	-\$12,699	-\$11,845
	Other, net	-\$675	-\$971	-\$190
	Total	-\$32,887	-\$23,389	-\$23,051
Total		-\$36,887	-\$33,590	\$8,408

Market Structure

- Market Structure & Major Competitors:
 - **Near monopoly** on operating systems.
 - Competes with Sony and Nintendo in an **oligopolistic market** for gaming consoles
- Market Share:

Market	Product	October 2018	October 2019
Browser	Internet Explorer	9.64	6.47
Operating System	Windows	87.03	86.86
Search Engine	Bing	9.18	9.56
Console	Xbox	25.75	32.28

- Market Power: Microsoft controls most of the market for operating systems (86.86%), so it has a lot of market power in that particular industry. However, it does not have as much market power in the industries for search engines (9.56%) or browsers (6.47%) in comparison.

- Major entry barriers of Microsoft's industries:
 - **Monopoly of the market**, ex. OS.
 - **Startup Revenue**. Can new companies afford to spend as much as big companies, like Microsoft, can on their products?
 - **Product differentiation**. Because Microsoft is already so well-established in the tech industry, any companies that want to market a new product, such as computers or operating systems, must be able to differentiate themselves from the products already available
 - Are they cheaper? More efficient? Etc.

Market Structure (cont.)

- Key business model/Competitive advantage
 - Though Microsoft's business model spans multiple markets, its core business is in **Office products, Windows operating systems, and computers**. One of its advantages is that it is a giant in the tech industry with many popular products.
 - **Broad differentiation**: Microsoft's products are marketed to a wide range of people
 - **Diversification**: Microsoft constantly dips into new markets, such as smartphones, gaming consoles, etc.
- How are the company's products and services differentiated from its major competitors?
 - Windows OS - more customizable | Mac OS X - less customizable
 - More software is compatible with Microsoft's OS simply because more people use it
 - Microsoft products are cheaper than their Apple counterparts
- Antitrust Lawsuit
 - In 2001, Microsoft was accused of monopolizing the PC market by bundling Internet Explorer with its Windows operating system. In doing so, it restricted the market for other browsers such as Netscape. Ultimately, they came to a settlement in which Microsoft was required to share its programming interfaces with third-party companies.

Demand Analysis

- Shapes of Demand for various products (taken directly from FY 2019)
 - Total Revenue in Personal Computing products: \$11.3 billion, increased by 4%
 - Decreasing demand:
 - Gaming revenue declined 10% with Xbox software and services revenue down 3%
 - Increasing demand:
 - Windows Commercial products and cloud services revenue increased 13%
 - Surface revenue increased 14%
 - Search advertising revenue excluding traffic acquisition costs increased 9%
- Types of customers:
 - **Age:** Teenagers to adults
 - **Profession:** Students, teachers, working professionals
 - **Race:** all
 - **Gender:** all

Demand Analysis (cont.)

- If there was a price change:
 - **Most sensitive:** lower income bracket, professionals who use the Office Suite regularly for business, or students who need to learn how to use these programs but cannot afford them
 - **Least sensitive:** upper income bracket, who would not be as affected by an increase in price
- The company does not price discriminate its customers.
 - In terms of Office products, Microsoft offers multiple packages to **maximize affordability**, such as the Office 365 Home package, which you can share with 5 other people, or the cheaper Office Home & Student package, which is a one-time purchase of the basic programs
- Price Strategies
 - **Penetration pricing** for the Microsoft Surface
 - **Lower cost** of Office products so consumers will opt to buy rather than pirate
 - **Different price points** for products around the world, to maximize profit

Supply Analysis

- Upstream/downstream firms:
 - **Upstream:** Microsoft deals with the development/production of its products internally through four groups: Applications and Services Engineering, Cloud and Expertise Engineering, Devices Engineering, and Operating Systems Engineering.
 - **Downstream:** Although they do have their own stores, Microsoft also allows electronic retailers like Best Buy and Amazon to sell their products such as the Surface computers.
- Major recognized suppliers of 2019:
 - **AnRui Digital** - helped train users, partners, and developers to use Microsoft products
 - **Nextant** - Automated and improved processes, and implemented quality assurance plans
 - **Compass Group** - developed a navigation bar to help the visually impaired
 - **Wiwynn** - helped ensure on-time delivery of Microsoft servers and by investing globally

Supply Analysis (cont.)

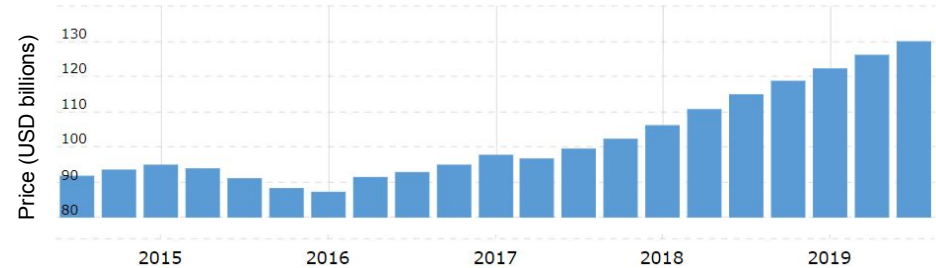
- Does Microsoft rely heavily on a particular supplier for a key component of its product?
 - Microsoft has hundreds of suppliers that supply hardware, and does not rely heavily on one particular supplier.
- Company Diversity:
 - In 2019, Microsoft spent \$2.9 billion working with diverse suppliers
 - It is necessary to be diverse because their customer base is so diverse that input from a diverse supplier base is crucial
- Major risks in production/distribution process:
 - Leaking of data → Microsoft invested in risk management in order to protect data
 - Windows 10 data deletion: the system was deleting the personal files of users, which was overlooked during testing

Stock Price & Investment Analysis of Past 5 Years

Stock price



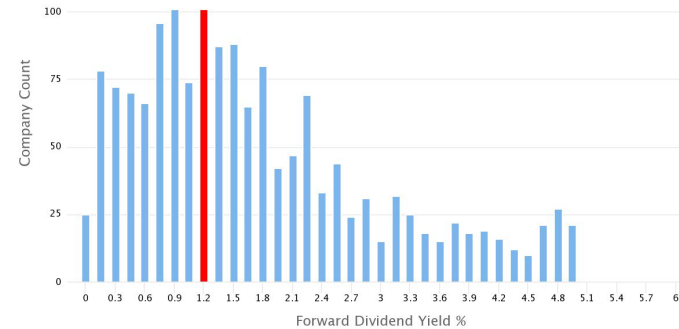
Revenue Growth



Market Capitalization



Forward Dividend Yield % Industry Distribution



Stock Price & Investment Analysis of Past 5 Years (cont.)

Stock Market Index (Nasdaq)

Market Summary > Nasdaq Composite
INDEXNASDAQ: .IXIC

8,567.99 -97.48 (1.12%) ↓



- Correlation to Microsoft stock:
 - Follows the same trend
 - Upwards trend
 - Similar growth rates
 - Dip around December 2018

- The stock price change can be explained by the company's forward dividend yield because as the stock price increases, the forward dividend yield decreases accordingly
- The stock price change can be explained by the company's revenue growth or profit margin because as the company continues to profit and grow, more people will invest, and its stock price will increase.
- The stock price moves in the same direction as the stock market index because Microsoft is a large company with a large index weight. Thus, it will influence the stock market index heavily.
- Buy or Sell now? → Considering how Microsoft has a monopoly on the OS market, it will likely continue to grow and expand. Thus, its stock price can be expected to increase and one may want to invest now for future profits. However, considering the P:E ratio is 28.16, and the stock price is \$149.55, it can be a pricey stock for some.

Data

- Microsoft official website
 - FY 2019
 - 2019 total revenue, profits, expenses, equity, assets, liabilities, direct costs, and capital costs
 - Key business model, demand analysis, suppliers, products
 - Biographical articles: CEO, CFO, CTO, global offices
 - Supplier list
- Online articles
 - ThoughtCo, The New York Times, Forbes, EWeek
 - Biographical information, analysis of Microsoft's market structure, demand analysis, supply analysis
- Financial data-tracking sites:
 - StatCounter, Panmore Institute, NetMarketShare, Google, GuruFocus, YCharts, MacroTrends
 - Microsoft's market share, revenue growth, market capitalization, dividend yield, stock price

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Reference

- Slide 2 - Brief Introduction Citations: biographical information was taken from a combination of online articles and Microsoft's official website
- Slides 3-4 - Financial Analysis 2019: Financial data came mostly from the FY 2019 report on Microsoft's site
- Slides 5-6 - Market Structure: Market share data came from online sources that track tech markets such as StatCounter, Panmore Institute, and NetMarketShare
- Slides 7-10 - Demand Analysis and Supply Analysis: information came from a combination of online articles and the data available on Microsoft's website
- Slides 11-12 - Stock Price & Investment Analysis of Past 6 Years: Stock data and graphs were taken from data-tracking sites such as Google, GuruFocus, YCharts, and MacroTrends
- To see the data used to create the tables and pie charts, see Appendix

Appendix

Data from last 3 years used to create the pie charts for Financial Analysis 2019

Segment Revenue	2019	2018	2017
Productivity and Business Processes	\$41,160	\$35,865	\$29,870
Intelligent Cloud	\$38,985	\$32,219	\$27,407
More Personal Computing	\$45,698	\$42,276	\$39,294
Total	\$125,843	\$110,360	\$96,571

Operating Income/Profit	2019	2018	2017
Productivity and Business Processes	\$16,219	\$12,924	\$11,389
Intelligent Cloud	\$13,920	\$11,524	\$9,127
More Personal Computing	\$12,820	\$10,610	\$8,815
Corporate and Other	\$0	\$0	-\$306
Total	\$42,959	\$35,058	\$29,025

Expenses	2019	2018	2017
Research and Development	\$16,876	\$14,726	\$13,037
SG&A	\$23,098	\$22,223	\$19,942
Operating	\$82,884	\$75,302	\$67,546
Non-Operating	\$729	\$1,416	\$876
Total	\$123,587	\$113,667	\$101,401

Equity	2019	2018	2017
Common stock and paid-in capital	\$78,520	\$71,223	\$69,315
Retained earnings	\$24,150	\$13,682	\$2,648
Accumulated other comprehensive income (loss)	-\$340	-\$2,187	\$431
Total	\$102,330	\$82,718	\$72,394

Appendix (cont.)

Data from last 3 years used to create the pie charts for Financial Analysis 2019

Assets	2019	2018	2017
Cash and cash equivalents	\$11,356	\$11,946	\$7,663
Short-term investments	\$122,463	121,822	\$125,318
Accounts receivable	\$29,524	26,481	\$19,792
Inventories	\$2,063	2,662	\$2,181
Other	\$10,146	6,751	\$4,897
Property and equipment	\$36,477	29,460	\$23,734
Operating lease right-of-use assets	\$7,379	6,686	\$0
Equity investments	\$2,649	1,862	\$6,023
Goodwill	\$42,026	35,683	\$35,122
Intangible assets, net	\$7,750	8,053	\$10,106
Other long-term assets	\$14,723	7,442	\$6,250
Total	\$286,556	\$258,848	\$241,086

Liabilities	2019	2018	2017
Accounts payable	\$9,382	\$8,617	\$7,390
Short-term debt	\$0	\$0	\$9,072
Current portion of long-term debt	\$5,516	\$3,998	\$1,049
Accrued compensation	\$6,830	\$6,103	\$5,819
Short-term income taxes	\$5,665	\$2,121	\$718
Short-term unearned revenue	\$32,676	\$28,905	\$34,102
Other	\$9,351	\$8,744	\$6,280
Long-term debt	\$66,662	\$72,242	\$76,073
Long-term income taxes	\$29,612	\$30,265	\$0
Long-term unearned revenue	\$4,530	\$3,815	\$10,377
Deferred income taxes	\$233	\$541	\$531
Operating lease liabilities	\$6,188	\$5,568	\$0
Other long-term liabilities	\$7,581	\$5,211	\$17,184
Total	\$184,226	\$176,130	\$168,595