

An Investment Analysis Case Study

This case is a group project that is due on April 1, before class at 10.30.

Stating the obvious: Each group will turn in one report (sounds obvious, but might as well make it explicit) **electronically (as a pdf file)**. While you should include your cash flows tables in your report, you don't have to attach your excel spreadsheets.

Cover page: Each report should have a cover page that contains the following – the names of the group members in alphabetical order and the following summary information on the analysis:

Decision on Investment: Invest or Do not invest

Cost of capital: % value

Return on capital: % value

NPV – 10-year life: \$ value

NPV- Longer life: \$ value

Report format: Please try to keep your report brief. In the report, be clear about:

- a. Any assumptions you made to get to your conclusion
- b. Your final recommendation

Exhibits: Please make sure that you include the following in your exhibits

- a. The table of earnings/cash flows by year
- b. Your computation of cost of equity/capital/discount rate

Time: To keep time straight, you can assume the following:

Next year: Year 1

Most recent year: Just ended

Right now: Time 0. Any “up front” expenditure is incurred immediately.

Netflix enters the Fitness Business: The Netflix Fit Equipment & Streaming Service

The Setting

Netflix has had a very good run in stock prices, over the last decade. Using original and rented content, the company has seen its subscriber numbers grow (see exhibit 1) and its stock price has reflected this success (see exhibit 2). It has a substantial cash balance and a balance sheet that reflects, at least partly its content investments over the past few years(see exhibit 3 for balance sheet information). However, Reed Hastings, CEO of Netflix, is concerned that the subscriber numbers in the United States are starting to plateau and is considering offering a new equipment/subscription service directly at fitness enthusiasts in its audience.

The Proposal

Netflix's new service, which will be called *Netflix Fit*, is modeled on Peloton, and will include fitness equipment in conjunction with a subscription service that will offer fitness videos for that equipment. You have been asked to collect the data to make the assessment and have come back with the following information:

1. R&D Expenses: Netflix has already spent (and expensed) \$ 250 million on research on fitness equipment and video development. None of that money can be recouped at this stage, if Netflix decides not to go ahead with the *Netflix Fit*.
2. Introductory Costs: If Netflix decides to go ahead with the Netflix Fit investment, it will have to spend \$2.4 billion up front (right now) to develop manufacturing facilities to make the equipment. The cost is depreciable over the next 10 years, down to a salvage value of \$400 million, and Netflix expects to use straight-line depreciation.
3. Market Potential and Share: Netflix believes that there are 20 million potential subscribers globally for its fitness subscription, growing 2% a year in perpetuity. Netflix expects to gain a 5% market share of this market next year if Netflix Fit is introduced and increase that market share by 5% a year (10% in the second year, 15% in the third year, 20% in the fourth year and 25% in year 5) to reach a target market share of 25% of the overall market by the fifth year. It expects to maintain that market

share beyond year six. To provide some clarity, here are the estimated subscriber numbers for Netflix Fit for the first three years:

<i>Year</i>	<i>Total Market (in millions)</i>	<i>Netflix Fit Market Share</i>	<i>Netflix Fit Subscribers</i>	<i># New Subscribers</i>
Year 1	20.40	5.00%	1.02	1.02
Year 2	20.81	10.00%	2.08	1.06
Year 3	21.22	15.00%	3.18	1.10

4. Equipment Price/Sales: Netflix expects to sell each new subscriber an exercise bike or treadmill and *these units are expected to last five years and customers who stay on for longer than five years have to buy new units*. The price of each unit is expected to be \$1,000 and the cost of making each unit is expected to be \$400/unit next year, and both will rise at the inflation rate every year thereafter.
5. Subscription Price: Netflix expects to price Netflix Fit at \$10/month (\$120/year) next year and the price will keep pace with inflation after that. It will cost Netflix \$2/month (\$24/year) to service a fitness subscriber, and this cost will grow at the inflation rate every year.
6. Content Costs: It will cost Netflix \$400 million to create content for Netflix Fit next year and this cost will grow 10% a year for the next 5 years and at the inflation rate thereafter.
7. Geographical breakdown: Netflix expects to get its revenues from Netflix Fit globally, with the following breakdown for revenues:

<i>Region</i>	<i>% of Revenues</i>
Africa	5.00%
Asia	15.00%
Australia & New Zealand	5.00%
Central and South America	10.00%
Eastern Europe & Russia	5.00%
Middle East	5.00%
North America	40.00%
Western Europe	15.00%

Netflix expects this revenue breakdown for the Netflix Fit to be stable over time. The regional country risk premiums (over and above the mature market premium) are provided in exhibit 4. You can assume that the premium for mature markets (Aaa rated countries) is 5.25%.

8. Studio Costs: Netflix currently has a studio in Mumbai to produce its Asian entertainment content, but it anticipates using only 40% of the facility next year, though Asian content is expected to grow 20% a year (and the studio need will grow proportionately) after that. If Netflix introduces Netflix Fit, it will use the excess capacity in the Mumbai studio to produce its fitness content, but if it does so, it will use 30% of studio capacity next year. If the capacity limit is reached, Netflix will have to invest a substantial amount to create a new studio of equivalent capacity. The current estimate of the cost of building a new studio is \$ 500 million, and this cost will grow at the inflation rate.
9. G&A expenses: Netflix will allocate 4% of its existing general and administrative costs to the new division. These costs total \$ 1.5 billion for the entire firm in the most recent year and are expected to grow 5% a year for the next 10 years, with or without the Netflix Fit investment. In addition, it is expected that Netflix will have an increase of \$ 50 million in general and administrative costs next year when Netflix Fit is introduced, and this amount will grow with the new division's dollar revenues after that. The latter cost is directly related to the new Netflix Fit division.
10. Advertising Expenses: Netflix spent \$ 2 billion on selling and advertising in the most recent year. If Netflix does not invest in Netflix Fit, it expects this cost to increase 5% a year for the next 10 years. If Netflix Fit is introduced, the total advertising expenses each year, from years 1 to 10, are expected to be 6% higher than they would have been without the Netflix Fit investment.
11. Working Capital: The Netflix Fit will create working capital needs, which you have estimated as follows:
 - The sale of fitness Equipment to subscriber will create accounts receivable amounting to 5% of equipment revenues each year.
 - Inventory (of fitness equipment) will be approximately 10% of the equipment revenues each year.
 - Accounts payable, primarily related to fitness equipment, will be 5% of the equipment revenues each year.

All of these working capital investments will have to be made at the beginning of each year in which goods are sold. Thus, the working capital investment for the first year will have to be made at the beginning of the first year.

12. Side benefits for overall subscriptions: If Netflix goes ahead with the Netflix Fit, it will see revenues from its regular subscription service increase by \$ 500 million next year and grow at the inflation rate after that. The pre-tax operating margin (operating income/ revenues) is 15% for the regular subscription streaming service.
13. Risk Measures: The beta for Netflix is 1.29, calculated using weekly returns over the last 2 years. The details of the beta calculation are included in Exhibit 5, and you can assume that beta for the entertainment streaming business is captured in the beta. The current stock price for the firm is \$ 368.77/share and there are 438.81 million shares outstanding.
14. Debt Choices: Netflix expects to finance Netflix Fit using the same mix of debt and equity (in market value terms) as it is using currently in the rest of its business. Netflix currently has \$14.759 billion in book value of interest-bearing debt (with a weighted average maturity of 4 years) and it reports the following lease commitments for the future (in \$ millions):

Lease commitment (year 1) =	\$ 248.64
Lease commitment (year 2) =	\$ 246.15
Lease commitment (year 3) =	\$ 226.02
Lease commitment (year 4) =	\$ 211.39
Lease commitment (year 5) =	\$ 194.51
Lease commitment (beyond year 5) =	\$ 912.46

The lease payment for the most recent year is \$ 198 million. Netflix was rated Ba3 by Moody's and the default spread for companies with that rating is 2.00%.

15. Taxes: Netflix's effective tax rate is 10%, but its marginal tax rate is 25%.
16. Macro data: The current long-term US Treasury bond rate is 1.50%, and the expected inflation rate is 1.0%.
17. Other information: You have collected information on other fitness companies in Exhibit 6. The data includes the regression betas of these companies and relevant information on market values of debt, equity and cash. You can assume a 25%

marginal tax rate for these firms, as well. (You can also assume that the debt includes the present value of operating leases).

Questions on the Project

1. Accounting Return Analysis

- Estimate the operating income from the proposed Netflix Fit investment to Netflix over the next 10 years.
- Estimate the after-tax return on capital for the investment over the 10-year period.
- Based upon the after-tax return on capital, would you accept or reject this project?

This will require you to make some assumptions about allocation and expensing. Make your assumptions as consistent as you can and estimate the return on capital.

2. Cash Flow Analysis

- Estimate the after-tax incremental cash flows from the proposed Netflix Fit investment to Netflix over the next 10 years.
- If the project is terminated at the end of the 10th year, and both working capital and investment in other assets can be sold for book value at the end of that year, estimate the net present value of this project to Netflix. Develop a net present value profile and estimate the internal rate of return for this project.
- If the Netflix Fit division is expected to have a life much longer than 10 years, estimate the net present value of this project, making reasonable assumptions about investments needed and cash flows. Develop a net present value profile and estimate the internal rate of return for this project.

3. Business Model

- One of the key drivers of a subscription-based model is the assumptions you make about subscription renewal rates. What are you assuming in your base case and how sensitive is your conclusion to that assumption?

Based upon your analysis, and any other considerations you might have, tell me **whether you would accept this project or reject it**. Explain, briefly, your decision.

Exhibit 1: Netflix's Income Statements (in millions)

For the Fiscal Period Ending	12 months Dec-31- 2014	12 months Dec-31- 2015	Reclassified 12 months Dec-31-2016	Reclassified 12 months Dec-31-2017	12 months Dec-31- 2018	12 months Dec-31- 2019
Revenue	\$5,504.66	\$6,779.51	\$8,830.67	\$11,692.71	\$15,794.34	\$20,156.45
Other Revenue	-	-	-	-	-	-
Total Revenue	\$5,504.66	\$6,779.51	\$8,830.67	\$11,692.71	\$15,794.34	\$20,156.45
Cost Of Goods Sold	\$3,752.76	\$4,591.48	\$6,257.46	\$8,033.00	\$9,967.54	\$12,440.21
Gross Profit	\$1,751.90	\$2,188.04	\$2,573.21	\$3,659.71	\$5,826.80	\$7,716.23
Selling General & Admin Exp.	\$876.93	\$1,231.42	\$1,413.18	\$1,867.32	\$2,999.76	\$3,566.83
R & D Exp.	\$472.32	\$650.79	\$780.23	\$953.71	\$1,221.81	\$1,545.15
Depreciation & Amort.	-	-	-	-	-	-
Other Operating Expense/(Income)	-	-	-	-	-	-
Other Operating Exp., Total	\$1,349.25	\$1,882.21	\$2,193.41	\$2,821.03	\$4,221.58	\$5,111.98
Operating Income	\$402.65	\$305.83	\$379.79	\$838.68	\$1,605.23	\$2,604.25
Interest Expense	-\$50.20	-\$132.70	-\$150.10	-\$238.20	-\$420.50	-\$626.00
Interest and Invest. Income	\$5.14	\$6.08	\$7.83	\$12.85	\$42.73	\$77.00
Net Interest Exp.	-\$45.10	-\$126.60	-\$142.30	-\$225.40	-\$377.80	-\$549.00
Currency Exchange Gains (Loss)	-\$8.20	-\$37.30	\$23.00	-\$128.00	-\$1.00	\$7.00
Other Non-Operating Inc. (Exp.)	-	-	-	-	-	-
EBT Excl. Unusual Items	\$349.37	\$141.89	\$260.51	\$485.32	\$1,226.46	\$2,062.23
Impairment of Goodwill	-	-	-	-	-	-
Other Unusual Items	-	-	-	-	-	-
EBT Incl. Unusual Items	\$349.37	\$141.89	\$260.51	\$485.32	\$1,226.46	\$2,062.23
Income Tax Expense	\$82.57	\$19.24	\$73.83	-\$73.60	\$15.22	\$195.32
Net Income to Company	\$266.80	\$122.64	\$186.68	\$558.93	\$1,211.24	\$1,866.92

Exhibit 2: Netflix - Stock Prices

Market Summary > Netflix Inc

NASDAQ: NFLX

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368.77 USD **-12.28 (3.22%)** ↓

Closed: Mar 3, 7:47 PM EST · Disclaimer

After hours 372.00 **+3.23 (0.88%)**

1 day 5 days 1 month 6 months YTD 1 year **5 years** Max



Open	381.03	Div yield	-
High	393.52	Prev close	381.05
Low	367.40	52-wk high	393.52
Mkt cap	161.82B	52-wk low	252.28
P/E ratio	95.78		

→ [Financial news, comparisons and more](#)

Exhibit 3: Netflix's Balance Sheets

Balance Sheet as of:	Restated Dec-31- 2014	Dec-31- 2015	Dec-31- 2016	Dec-31- 2017	Dec-31- 2018	Dec-31- 2019
ASSETS						
Cash And Equivalents	\$1,113.60	\$1,809.30	\$1,467.60	\$2,822.80	\$3,794.50	\$5,018.40
Short Term Investments	\$494.90	\$501.40	\$266.20	-	-	-
Total Cash & ST Investments	\$1,608.50	\$2,310.70	\$1,733.80	\$2,822.80	\$3,794.50	\$5,018.40
Accounts Receivable	-	-	-	-	\$362.70	\$454.40
Other Receivables	-	-	-	-	\$206.90	\$524.70
Total Receivables	-	-	-	-	\$569.60	\$979.10
Prepaid Exp.	-	-	-	-	\$178.80	\$181.00
Other Current Assets	\$2,318.60	\$3,121.10	\$3,986.50	\$4,847.20	\$5,151.20	-
Total Current Assets	\$3,927.10	\$5,431.80	\$5,720.30	\$7,670.00	\$9,694.10	\$6,178.50
Gross Property, Plant & Equipment	\$414.70	\$470.80	\$544.60	\$641.20	\$786.80	\$2,513.20
Accumulated Depreciation	-\$264.80	-\$297.30	-\$294.20	-\$321.80	-\$368.50	-\$416.00
Net Property, Plant & Equipment	\$149.90	\$173.40	\$250.40	\$319.40	\$418.30	\$2,097.20
Long-term Investments	-	-	\$1.50	-	-	-
Other Intangibles	\$2,773.30	\$4,312.80	\$7,274.50	\$10,371.10	\$14,951.10	\$14,703.40
Deferred Tax Assets, LT	\$120.30	\$180.60	\$227.20	\$478.30	\$564.40	\$658.20
Other Long-Term Assets	\$71.90	\$104.20	\$112.70	\$174.00	\$346.40	\$10,338.40
Total Assets	\$7,042.50	\$10,202.90	\$13,586.60	\$19,012.70	\$25,974.40	\$33,975.70
LIABILITIES						
Accounts Payable	\$201.60	\$253.50	\$312.80	\$359.60	\$563.00	\$674.30
Accrued Exp.	\$69.70	\$140.40	\$197.60	\$315.10	\$481.90	\$652.40
Curr. Port. of Leases	-	-	-	-	-	\$190.60
Unearned Revenue, Current	\$274.60	\$346.70	\$443.50	\$618.60	\$760.90	\$924.70
Other Current Liabilities	\$2,117.20	\$2,789.00	\$3,632.70	\$4,173.00	\$4,681.60	\$4,413.60
Total Current Liabilities	\$2,663.20	\$3,529.60	\$4,586.70	\$5,466.30	\$6,487.30	\$6,855.70
Long-Term Debt	\$885.80	\$2,371.40	\$3,364.30	\$6,499.40	\$10,360.10	\$14,759.30
Long-Term Leases	-	-	-	-	-	\$1,422.60
Other Non-Current Liabilities	\$1,635.80	\$2,078.50	\$2,955.80	\$3,465.00	\$3,888.30	\$3,356.00
Total Liabilities	\$5,184.80	\$7,979.40	\$10,906.80	\$15,430.80	\$20,735.60	\$26,393.60
Common Stock	\$1,042.90	\$1,324.80	\$1,599.80	\$1,871.40	\$2,316.00	\$2,793.90
Additional Paid In Capital	-	-	-	-	-	-
Retained Earnings	\$819.30	\$941.90	\$1,128.60	\$1,731.10	\$2,942.40	\$4,811.70
Treasury Stock	-	-	-	-	-	-
Comprehensive Inc. and Other	-\$4.40	-\$43.30	-\$48.60	-\$20.60	-\$19.60	-\$23.50
Total Common Equity	\$1,857.70	\$2,223.40	\$2,679.80	\$3,582.00	\$5,238.80	\$7,582.20
Total Equity	\$1,857.70	\$2,223.40	\$2,679.80	\$3,582.00	\$5,238.80	\$7,582.20
Total Liabilities And Equity	7,042.5	10,202.9	13,586.6	19,012.7	25,974.4	33,975.7

Exhibit 4: Country Risk Premiums by region (over and above the mature market premium)

<i>Region</i>	<i>Weighted Average: CRP</i>
Africa	4.69%
Asia	1.01%
Australia & New Zealand	0.00%
Central and South America	3.28%
Eastern Europe & Russia	2.14%
Middle East	1.57%
North America	0.00%
Western Europe	0.81%

Exhibit 5: Netflix's Beta

Regression against S&P 500

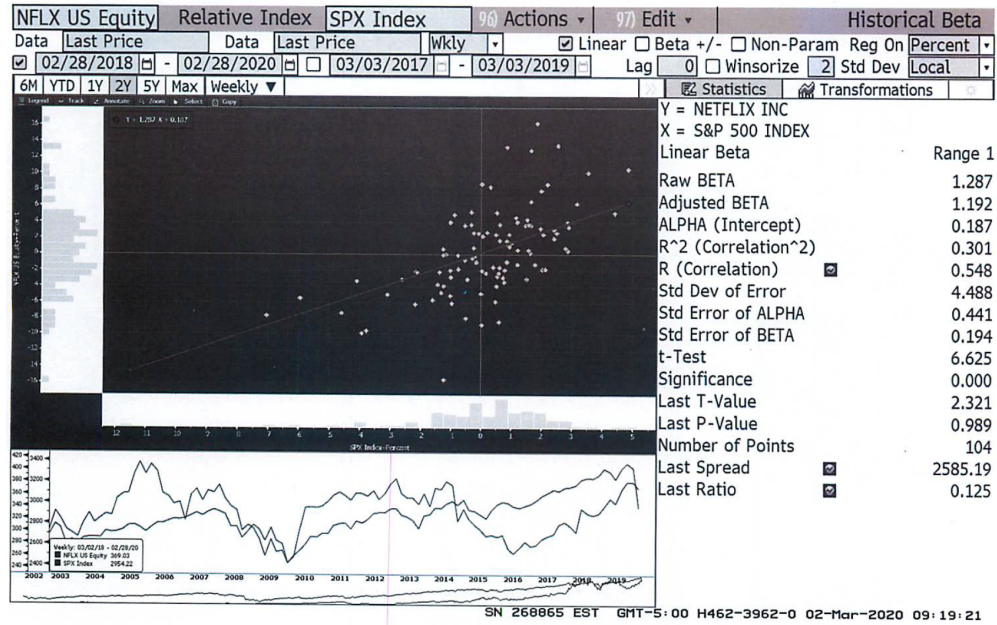


Exhibit 6: Fitness Companies

The data includes all publicly traded fitness companies, listed in developed markets.

[Click on this link](#) to get the data in an excel spreadsheet.

<i>Company Name</i>	<i>Industry Classifications</i>	<i>Market Capitalization</i>	<i>Total Debt including leases</i>	<i>Cash And Equivalents</i>	<i>Beta</i>
Thule Group AB	Sporting Goods	\$2,285.20	\$258.30	\$28.70	1.24
Technogym S.p.A. (BIT:TGYM)	Sporting Goods	\$2,087.00	\$130.10	\$84.30	0.83
Basic-Fit N.V.	Gyms/Fitness	\$1,824.00	\$1,177.90	\$26.20	1.24
Accell Group N.V.	Sporting Goods	\$760.50	\$283.20	\$47.10	1.04
MIPS AB (publ)	Sporting Goods	\$602.60	\$0.02	\$4.90	1.60
The Gym Group plc	Gyms/Fitness	\$461.70	\$295.50	\$4.85	1.22
Sats ASA	Gyms/FitnessC9	\$437.60	\$635.80	\$18.80	1.65
Rapala VMC Corporation	Sporting Goods	\$116.30	\$106.30	\$13.80	1.02
Hövdning Sverige AB (publ)	Sporting Goods	\$48.90	\$0.00	\$2.18	0.89
Actic Group AB (publ)	Gyms/Fitness	\$34.20	\$140.00	\$9.16	2.38
Tandem Group plc	Sporting Goods	\$12.40	\$9.62	\$4.75	1.57
Shimano Inc.	Sporting Goods	\$12,739.50	\$41.40	\$2,485.10	0.90
Yamaha Corporation	Sporting Goods	\$8,469.60	\$303.90	\$913.10	1.26
Tosho Co., Ltd.	Gyms/Fitness	\$547.30	\$253.50	\$128.90	1.31
Mizuno Corporation	Sporting Goods	\$495.70	\$185.20	\$154.60	1.11
YONEX Co., Ltd. (Sporting Goods	\$436.00	\$33.70	\$94.20	0.84
Koshidaka Holdings Co., Ltd.	Gyms/Fitness	\$416.10	\$211.91	\$81.50	1.46
Honma Golf Limited	Sporting Goods	\$352.50	\$123.10	\$94.60	1.04
Tokyu Recreation Co., Ltd.	Gyms/Fitness	\$262.30	\$25.20	\$6.18	1.17
Renaissance, Incorporated	Gyms/Fitness	\$202.00	\$133.50	\$36.20	1.49
Globeride, Inc.	Sporting Goods	\$199.20	\$237.10	\$53.70	1.64
Mamiya-OP Co., Ltd.	Sporting Goods	\$70.70	\$70.20	\$51.80	1.34
Endo Manufacturing Co., Ltd.	Sporting Goods	\$39.80	\$7.36	\$6.54	1.51
People Co., Ltd.	Sporting Goods	\$34.70	\$1.90	\$10.90	0.91
SD ENTERTAINMENT, Inc.	Gyms/Fitness	\$30.80	\$104.70	\$5.87	1.88
Graphite Design, Inc.	Sporting Goods	\$23.40	\$3.18	\$3.11	0.91
JSS Corporation	Gyms/Fitness	\$20.20	\$24.39	\$4.67	1.45
Peloton Interactive, Inc.	Sporting Goods	\$8,060.80	\$286.40	\$532.80	0.91
Planet Fitness, Inc.	Gyms/Fitness	\$5,659.30	\$1,875.90	\$436.30	1.05
Brunswick Corporation	Sporting Goods	\$4,313.70	\$1,553.00	\$320.30	1.13

Acushnet Holdings Corp.	Sporting Goods	\$1,922.00	\$402.30	\$34.20	0.93
Callaway Golf Company	Sporting Goods	\$1,568.80	\$1,006.40	\$106.70	1.25
Malibu Boats, Inc.	Sporting Goods	\$897.50	\$135.60	\$27.70	1.57
Johnson Outdoors Inc.	Sporting Goods	\$626.20	\$74.80	\$138.30	1.68
Vista Outdoor Inc.	Sporting Goods	\$439.30	\$899.90	\$32.10	1.21
Marine Products Corporation	Sporting Goods	\$436.70	\$0.00	\$19.80	0.87
Clarus Corporation	Sporting Goods	\$353.50	\$28.80	\$1.85	1.07
MasterCraft Boat	Sporting Goods	\$312.00	\$119.40	\$5.45	1.36
Escalade, Incorporated	Sporting Goods	\$121.20	\$13.33	\$5.88	1.26
Nautilus, Inc.	Sporting Goods	\$82.20	\$36.80	\$11.10	1.30
Town Sports, Inc.	Gyms/Fitness	\$41.30	\$1,293.30	\$20.90	3.68
WellTek Incorporated	Gyms/Fitness	\$19.20	\$0.00	\$0.00	2.23
Slinger Bag Inc.	Sporting Goods	\$13.40	\$0.00	\$0.31	2.15