

Case Study: INITIAL PUBLIC OFFERING OF PIRELLI



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The elements presented in this case are inspired by actual operations, but it should be emphasized that certain facts and data could have been modified from reality for educational purposes.

Description of PIRELLI (excerpt of the IPO prospectus)

Established in 1872, PIRELLI is the world's-fifth largest tyre maker¹. The Italian maker is a well-known player in the consumer tyres market (cars and motorcycles) and is focused on two markets:

- The 'High Value' segment encompasses the tyres mainly sold to 'Premium' and 'Prestige' car makers such as Audi, Bentley, BMW, Ferrari, McLaren, Mercedes and Porsche among others. For instance, PIRELLI is the exclusive supplier to Formule1 racing cars. The 'High Value' market is characterized by high-valued tailored tyres made through advanced technological and innovative processes. This tyres market is expected to grow at more than 10% by 2020.
- The 'Standard' segment mostly encompasses car tyres (PZero, Cinturato, Winter and Scorpion) and motorcycles tyres (Metzeler) to a larger client base. The 'Standard' market is characterized by tyres with standard dimensions, typically diameters less than 17 inches (43.18cm). This tyres market is expected to grow at around 2.5% per year until 2020.

In 2014, PIRELLI established a new strategy to become the global leader in High Value Consumer Tyres. For this purpose, the Italian manufacturer has progressively divested its industrial tyres business between 2015 and March 2017. In parallel, PIRELLI has focused its development in the High Value segment, which is aimed to count for 63% of the sales by 2020.

Listed since 1922, PIRELLI went private in 2005 following its acquisition by the Chinese group ChemChina, which bought a 65% stake in the investment fund Marco Polo International Italy which owns 100% of PIRELLI through its subsidiary Marco Polo Industrial Holding.

PIRELLI's consolidated revenues increased from €4.48bn to €5bn between 2014 and 2016², representing a CAGR of 5.4% mainly driven by the new focus of the Italian manufacturer on the High Value market. The consolidated operating profit reached €844m in 2016.

PIRELLI mostly manufactures tyres for cars representing 93% of its revenues in 2016 the remaining 7% coming from the motorcycles market. The Italian tyre maker is present both in the replacement market and in the equipment market, respectively counting for 74% and 26% of its 2016 revenues. In addition, Europe and North America stand for 42% and 19% of its sales in 2016 while PIRELLI having a strong position in Brazil and China.

To support its new strategy, PIRELLI planned to return to the stock market. The Italian manufacturer initially expected to conduct an Initial Public Offering aka 'IPO' in the first quarter in 2018. Nonetheless, favourable market conditions and positive results led PIRELLI to accelerate the process and finally consider a listing in October 2017.

¹ The tyres market was estimated to be worth \$160bn in 2015.

² These figures exclude activities/assets sold by Pirelli between 2014 and 2017.

Description of PIRELLI's IPO on the Milan Stock Exchange

PIRELLI wants to go public, during the fourth quarter of 2017, through a secondary offering which means selling existing shares to new public investors. The IPO is expected to be worth around €2.5bn. The aim of the Italian tyre maker is to increase its international visibility following its new strategy implemented progressively since 2015. By going public, PIRELLI wants also to ensure a higher level of transparency and responsibility towards its actual and future investors and more broadly the financial community.

Questions

1. Conduct a financial analysis of PIRELLI

In particular, you will ask yourself about the working capital requirement (WCR) which appears on the balance sheet as of December 31 of each year, if it is representative of the annual average WCR. What impact can you draw out on PIRELLI's average level of debt throughout the year?

2. Analyze the Compound Annual Growth Rates (CAGR) of the companies comparable to PIRELLI mentioned in appendix 2 over the 2016-2020 period.

Calculate, for PIRELLI's comparables, the CAGR of EBIT over the period 2016-2020 and the EV/EBIT 2017 multiple.

What kind of relationship do you see between these two indicators?

3. Compute for PIRELLI the EBIT CAGR over the 2016-2020 period.

Deduce a valuation range for PIRELLI's stock knowing that there are 1bn of shares.

4. Without making any computation, analyse carefully in the Appendix 3 the discounted cash flows (DCF) results coming from the financial notes of four different analysts. Which valuation(s) has (ve) been carried out without any mistake(s)? What are the mistakes made by other analysts? Why are the latter methodological errors?

5. Choose in the Appendix 3 the DCF valuation model that you think is the most relevant and test the sensitivity of the computed PIRELLI's stock price to:

- a $\pm 0.77\%$ change in the cost of capital
- a $\pm 0.15\%$ change in the long-term growth rate
- a $\pm \text{€}78\text{M}$ change in the 2021 terminal free cash-flow

What do you find?

You can download the valuation methods of PIRELLI's stock price on www.vernimmen.net -> tab quizzes -> case study.

6. Given the different computations you have carried out, in which price range level do you propose to list PIRELLI shares on the stock market in October 2017? Why?

7. What will be the impact of the IPO on PIRELLI's balance sheet and income statement?

If the IPO had been carried out by capital increase (new shares issuance) and not by sale of existing shares, would your answer have been different? Why?

8. If the IPO had taken place in 2016, do you think it would have taken the form of a sale of existing shares? Why?

APPENDICES

1. PIRELLI's Key Financials

Nota Bene:

The income statement, the balance sheet and the cash flow statement presented are on a like-for-like basis, namely assets sold between 2014 and 2017 are considered as sold in 2014 (disposal of PIRELLI Industrial and discontinuation of activities of PIRELLI Venezuela CA among others). Thus, these restatements allow us to carry out a relevant financial analysis over the 2014-2017 period.

2. Comparables and PIRELLI's financials and forecasts as of September 30th, 2017
3. Discounted Cash Flows (DCF) method used by financial analysts to value PIRELLI

APPENDIX 1:

PIRELLI's Key Financials³

Income Statement (Accounts reported as of December 31st of each year)

In million of euros	2014	2015	2016	2017e
Revenues	4 480	4 785	4 976	5 412
o/w High Value	2 035	2 484	2 755	3 113
o/w Standard	2 445	2 301	2 222	2 300
- COGS	(2 325)	(2 469)	(2 548)	(2 760)
= Gross Margin	2 155	2 316	2 428	2 652
- Personnel costs	(996)	(1055)	(986)	(1096)
- Research and Development (R&D) costs	(181)	(187)	(209)	(220)
- o/w dedicated to High Value products and services	(175)	(177)	(191)	(196)
+ Other operating income (costs)	(89)	(52)	(151)	(140)
= EBITDA	890	1 021	1 082	1 196
- Depreciation and Amortization	(235)	(252)	(238)	(264)
= EBIT	654	769	844	933
o/w High Value	447	596	686	774
o/w Standard	207	174	158	159
+ Net Financial Income (Charges)	(257)	(309)	(427)	(363)
+ Non-recurring and exceptional items	88	179	130	69
= Profit before tax	485	640	547	639
- Taxes	(129)	(188)	(126)	(136)
+ Associates/Results from Equity Investments	(87)	(41)	(20)	(7)
= Net income (Loss) from continuing operations	269	411	401	496
+ Net income (Loss) from discontinued operations	18	(15)	-	-
- Goodwill impairment	(6)	(6)	(105)	(110)
= Net income	280	390	296	387
- Minority interests	(11)	(5)	(9)	(12)
= Net income Group Share	269	384	287	375

Income Statement (Accounts reported as of December 31st of each year)

In % of Revenues	2014	2015	2016	2017e
Revenues	100,0 %	100,0 %	100,0 %	100,0 %
o/w High Value	45,4 %	51,9 %	55,4 %	57,5 %
o/w Standard	54,6 %	48,1 %	44,6 %	42,5 %
- COGS	- 51,9 %	- 51,6 %	- 51,2 %	- 51,0 %
= Gross Margin	48,1 %	48,4 %	48,8 %	49,0 %
- Personnel costs	- 22,2 %	- 22,1 %	- 19,8 %	- 20,3 %
- Research and Development (R&D) costs	- 4,0 %	- 3,9 %	- 4,2 %	- 4,1 %
+ Other operating income (costs)	- 3,9 %	- 3,7 %	- 3,8 %	- 3,6 %
= EBITDA	19,9 %	21,3 %	21,7 %	22,1 %
- Depreciation and Amortization	- 5,3 %	- 5,3 %	- 4,8 %	- 4,9 %
= EBIT	14,6 %	16,1 %	17,0 %	17,2 %
+ Net Financial Income (Charges)	- 5,7 %	- 6,4 %	- 8,6 %	- 6,7 %
+ Non-recurring and exceptional items	2,0 %	3,7 %	2,6 %	1,3 %
= Profit before tax	10,8 %	13,4 %	11,0 %	11,8 %
- Taxes	- 2,9 %	- 3,9 %	- 2,5 %	- 2,5 %
+ Associates/Results from Equity Investments	- 1,9 %	- 0,9 %	- 0,4 %	- 0,1 %
= Net income (Loss) from continuing operations	6,0 %	8,6 %	8,1 %	9,2 %
+ Net income (Loss) from discontinued operations	0,4 %	- 0,3 %	0,0 %	0,0 %
- Goodwill impairment	- 0,1 %	- 0,1 %	- 2,1 %	- 2,0 %
= Net income	6,3 %	8,1 %	6,0 %	7,1 %
- Minority interests	- 0,2 %	- 0,1 %	- 0,2 %	- 0,2 %
= Net income Group Share	6,0 %	8,0 %	5,8 %	6,9 %

³ e stands for estimated.

Cash Flow Statement

In million of euros	2014	2015	2016	2017 e
Net income	280	390	296	387
+ Depreciation and Amortization	235	252	238	264
+ Goodwill impairment	6	6	105	110
+ Other non- cash items	385	(2)	396	118
= Cash Flow	906	646	1 035	878
- Change in Working Capital	(221)	61	32	299
= Net Cash Flow provided by (used in) operating activities (1)	685	707	1 066	1 176
Net investments in intangible and tangible assets	(288)	(340)	(245)	(489)
Investments in property, plant and equipment	(287)	(338)	(333)	(489)
Disposal of property, plant and equipment	10	10	96	-
Investments in intangible assets	(11)	(12)	(8)	-
Disposal of intangible assets	-	-	-	-
- Acquisitions (disposals) of other non- current assets	102	(9)	(193)	(155)
= Net Cash Flow provided by (used in) investing activities (2)	(185)	(349)	(438)	(644)
Free cash flow available after interest expenses (1)+(2)	500	358	629	532
+ Increase in capital	6	0	0	1189
+ Financial cash- flows related to financial instruments	(185)	(285)	(304)	36
- Dividends paid	(102)	(168)	0	(13)
= Net cash flows provided by (used in) financing activities (3)	(281)	(452)	(304)	1 213
= Decrease (Increase) in Net financial debt (1)+(2)+(3)	219	(94)	325	1 744

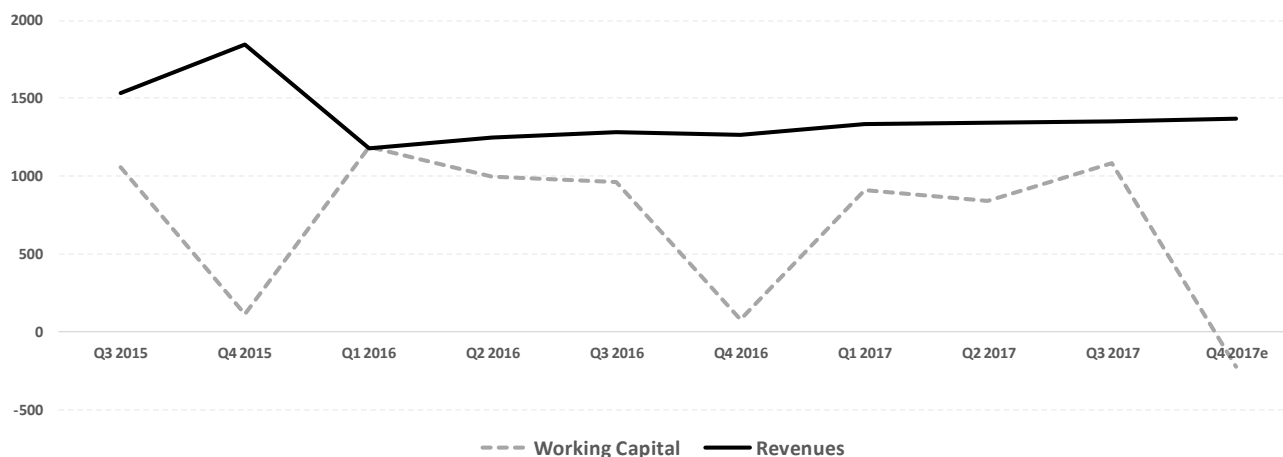
Balance Sheet

In million of euros	2014	2015	2016	2017 e
Tangible assets	2 115	2 075	2 925	2 960
+ Intangible assets	6 013	5 996	5 996	5 893
+ Financial Investments	368	392	246	268
+ Other non- current assets	31	0	0	0
= Fixed Assets (1)	8 526	8 464	9 168	9 121
Inventories	850	849	874	941
+ Trade receivables	566	584	680	653
+ Other operating assets	137	0	19	61
- Trade Payables	(1243)	(1173)	(1280)	(1674)
- Other operating liabilities	(139)	(149)	(214)	(201)
= Working Capital (2)	172	111	79	- 220
Capital Employed = (1)+(2)	8 698	8 574	9 246	8 901
Shareholders' equity	3 139	2 920	3 907	5 269
+ Minority interests	54	54	64	101
= Total Equity (3)	3 192	2 974	3 971	5 370
Long- term financial debt	6 218	5 613	6 236	4 265
+ Short- term financial debt	343	964	634	570
- Cash and cash equivalents	(1050)	(977)	(1595)	(1304)
= Net financial debt (4)	5 506	5 600	5 275	3 531
Invested Capital = (3)+(4)	8 698	8 574	9 246	8 901

Working capital and its components

In number of days	2014	2015	2016	2017 e
Working Capital/Revenues (excl. VAT)	14j	8j	6j	-15j
Trade receivables/Revenues (incl. VAT)	38j	36j	41j	36j
Inventories/Revenues (excl. VAT)	69j	65j	64j	63j
Trade payables/COGS (incl. VAT)	160j	142j	150j	181j

Fluctuating Working Capital (€m)



Returns

	2014	2015	2016	2017 e
EBIT (Operating Profit) after tax/Revenues	10,7 %	11,4 %	13,1 %	13,6 %
x				
Revenues/Invested Capital	0,5	0,6	0,5	0,6
= Return on Capital Employed (ROCE)	5,5 %	6,3 %	7,0 %	8,2 %
Return on Equity (ROE) (excl. non-recurring and exceptional items, net income from discontinued operations and goodwill impairment)	5,7 %	7,8 %	6,8 %	8,0 %
Financial leverage (Net financial debt/Shareholders' equity)	1,72x	1,88x	1,33x	0,66x

Increase in capital in June 2017

In order to go public with an attractive financial profile, PIRELLI set up an increase in capital of €1.2bn, in June 2017, reserved to its 3 shareholders:

- the Chinese group ChemChina owning 65 % of the shares
- the Italian investment fund Camfin having 22.4% of the shares
- the Russian investment fund LTI owning 12.6% of the shares

This increase in capital allowed PIRELLI to enhance its financial structure, notably by refinancing its banking debt for an amount of €4.2bn.

APPENDIX 2:

Comparables and PIRELLI's financials and forecasts as of September 30th, 2017⁴

In millions of euros	PIRELLI	Bridgestone	Continental	Goodyear	Michelin
Market capitalisation	?	29 499	43 250	7 005	22 012
Shareholders' equity	3 907	17 125	14 270	4 152	10 599
Net financial debt	3 531	(972)	6 960	3 458	4 387
Revenues 2016	4 976	25 157	40 550	12 893	20 907
EBITDA 2016	1 082	4 807	6 057	2 202	4 183
EBIT 2016	844	3 389	4 341	1 688	2 791
Net income 2016	287	2 002	3 048	907	1 667
Revenues 2017	5 412	27 017	43 982	12 558	21 960
EBITDA 2017	1 196	4 654	6 774	1 808	4 324
EBIT 2017	933	3 279	4 692	1 170	2 742
Net income 2017	375	2 175	3 157	645	1 700
Revenues 2018	5 747	28 075	46 466	12 791	21 739
EBITDA 2018	1 337	5 014	7 359	1 993	4 324
EBIT 2018	1 056	3 619	5 156	1 360	2 898
Net income 2018	446	2 332	3 525	772	1 886
Revenues 2019	6 192	28 944	49 127	13 153	22 207
EBITDA 2019	1 488	5 208	7 927	2 214	4 538
EBIT 2019	1 183	3 769	5 588	1 518	3 087
Net income 2019	574	2 445	3 860	923	2 029
Revenues 2020	6 684	30 603	51 863	13 382	22 984
EBITDA 2020	1 666	5 329	8 367	2 269	4 750
EBIT 2020	1 336	3 833	5 736	1 561	3 265
Net income 2020	699	2 380	4 035	936	2 192

Compound Annual Growth Rate (CAGR) 2016-2020 (%)	PIRELLI	Bridgestone	Continental	Goodyear	Michelin
Revenues	7,7 %	5,5 %	6,3 %	2,4 %	2,4 %
EBITDA	11,4 %	3,2 %	8,4 %	2,2 %	3,2 %
EBIT	?	?	?	?	?
Net income	24,9 %	4,9 %	7,3 %	2,3 %	7,1 %

⁴ Bridgestone (Yen) and Goodyear (USD) financials were converted to Euros using the average exchange rates over the year.

APPENDIX 3:

Discounted Cash Flows (DCF) method used by financial analysts to value PIRELLI

1 Discounted Cash Flows. Analyst 1.

Free Cash Flow				
	2017E	2018E	2019E	2020E
Revenues	5 412	5 747	6 192	6 684
EBIT	933	1 056	1 183	1 336
Theoretical tax rate @ 28%	(261)	(296)	(331)	(374)
Depreciation & Amortization	264	281	304	329
Capital expenditures	(489)	(433)	(441)	(434)
Change in Working Capital	299	(423)	(76)	(87)
= Free Cash Flow to the Firm	744	186	639	770
Cost of capital				
Risk-free rate	2,20%			
Market risk premium	6,00%			
Equity beta	1,11			
Cost of equity	8,86%			
Long-term growth				
Long-term growth rate	1,5%			
Terminal Free Cash Flow 2021	782			
Share price computation				
Terminal value in 2020	10 627			
+ Discounted Cash Flows 2017-2020	1 885			
= Enterprise value	12 513			
- Average net debt and minority interests	(4 131)			
= Market Equity Value	8 381			
Number of shares	1 000			
Share Price	8,38 €			

2 Discounted Cash Flows. Analyst 2.

Free Cash Flow				
	2017E	2018E	2019E	2020E
Revenues	5 412	5 747	6 192	6 684
EBIT	933	1 056	1 183	1 336
Theoretical tax rate @ 28%	(261)	(296)	(331)	(374)
Depreciation & Amortization	264	281	304	329
Capital expenditures	(489)	(433)	(441)	(434)
Change in Working Capital	299	(423)	(76)	(87)
= Free Cash Flow to the Firm	744	186	639	770
Cost of capital				
Risk-free rate	2,20%			
Market risk premium	6,00%			
Equity beta	1,11			
Cost of equity	8,86%			
Cost of debt after-tax	4,25%			
Average net debt/Enterprise value	25,41%			
Cost of capital (WACC)	7,69%			
Long-term growth				
Long-term growth rate	1,5%			
Terminal Free Cash Flow 2021	782			
Share price computation				
Terminal value in 2020	12 639			
Discounted Terminal Value	9 400			
+ Discounted Cash Flows 2017-2020	1 937			
= Market Equity Value	11 336			
Number of shares	1 000			
Share Price	11,34 €			

3 Discounted Cash Flows. Analyst 3.

Free Cash Flow				
	2017E	2018E	2019E	2020E
Revenues	5 412	5 747	6 192	6 684
Net income	375	446	574	699
Depreciation & Amortization	264	281	304	329
Capital expenditures	(489)	(433)	(441)	(434)
= Free Cash Flow to the Firm	149	295	437	594
Cost of capital				
Risk-free rate	2,20%			
Market risk premium	6,00%			
Equity beta	1,11			
Cost of equity	8,86%			
Cost of debt after-tax	4,25%			
Average net debt/Enterprise value	25,41%			
Cost of capital (WACC)	7,69%			
Long-term growth				
Long-term growth rate	1,5%			
Terminal Free Cash Flow 2021	603			
Share price computation				
Terminal value in 2020	9 756			
Discounted Terminal Value	7 255			
+ Discounted Cash Flows 2017-2020	1 185			
= Enterprise value	8 440			
- Average net debt and minority interests	(4 131)			
= Market Equity Value	4 309			
Number of shares	1 000			
Share Price	4,31 €			

4 Discounted Cash Flows. Analyst 4.

Free Cash Flow				
	2017E	2018E	2019E	2020E
Revenues	5 412	5 747	6 192	6 684
EBIT	933	1 056	1 183	1 336
Theoretical tax rate @ 28%	(261)	(296)	(331)	(374)
Depreciation & Amortization	264	281	304	329
Capital expenditures	(489)	(433)	(441)	(434)
Change in Working Capital	299	(423)	(76)	(87)
= Free Cash Flow to the Firm	744	186	639	770
Cost of capital				
Risk-free rate	2,20%			
Market risk premium	6,00%			
Equity beta	1,11			
Cost of equity	8,86%			
Cost of debt after-tax	4,25%			
Average net debt/Enterprise value	25%			
Cost of capital (WACC)	7,69%			
Long-term growth				
Long-term growth rate	1,5%			
Terminal Free Cash Flow 2021	782			
Share price computation				
Terminal value in 2020	12 639			
Discounted Terminal Value	9 400			
+ Discounted Cash Flows 2017-2020	1 937			
= Enterprise value	11 336			
- Average net debt and minority interests	(4 131)			
= Market Equity Value	7 205			
Number of shares	1 000			
Share Price	7,20 €			