

Victrex Plc (VCT)

Current price: £22.96 as on the 15th of March 2019

Table 1: Financial History

Income Statement	Year																				Growth					
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	21 Year Annualised	15 Year Annualised	10 Year Annualised	5 Year Annualised
Revenue	326	290.2	252.3	263.5	252.6	221.9	219.8	215.8	189.5	97.7	136.4	126.4	118.7	98.1	86.6	71.5	59.1	72.1	58.7	46.4	47.3	43.4	10%	11%	9%	8%
Gross Profit	208	183.8	158.7	168.2	163.2	147.8	145.7	146.4	120.6	58.4	86.9	79.8	72	54.4	47.7	39.4	32.5	36	27.7	21.1	20.7	18.2	12%	12%	9%	7%
Operating Profit	126.9	111.1	100.3	106.3	102.2	94	94	93.8	74.9	25.1	54.6	51.2	45.1	34.5	28.3	22.9	19.5	22.9	17.4	13.2	13.4	12	12%	12%	9%	6%
Net Income	110.6	99.5	82.5	83.5	80.2	72.9	71.9	71.2	54	17.8	39.1	36.4	31.8	23.9	19.2	15.2	12.9	15.4	12	9.3	9.4	8.5				
Effective tax rate	13.3%	10.4%	17.7%	21.5%	21.9%	22.9%	23.9%	24.4%	28.0%	29.0%	29.0%	30.0%	31.0%	32.2%	32.5%	32.5%	32.5%	31.2%	24.5%	27.2%	28.0%	28.2%				
Balance Sheet																										
Receivables	33.6	32.4	37.7	25.3	26.4	21.5	23.1	21.9	17.9	14.3	17.0	14.7	9.6	8.7	7.4	6.8	5.4	6.6	4.3	4.3	5.3	4.4				
Inventory	69.3	61.5	61.8	57.4	44.2	51.1	48.6	45	34.5	37.2	31.7	27.9	23	19.9	18.8	16.4	13.9	7.9	10.8	13.9	9.9	9				
PPE	253.4	258.6	255.5	251.3	227.6	175.7	143.6	125.5	125.3	129.5	129.9	112.8	84	63.8	49.3	43	39.9	33.3	30.7	24.3	20.9	14.9				
Cash	144.4	120.1	64	53.8	89.6	91.6	83.9	72.3	77.3	18.6	23.5	17.1	26.9	15.7	17	6	6.3	1	1.4	0	1	1.8				
Long term debt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	12.5	7.4	5.6	1.5				
Cash Flow																										
Free cash flow	119.1	100.9	57.5	46.4	32.2	39.3	39	56.9	72.7	8.2	21.5	1.7	21.6	21.8	17	13.1	2.7	16.4	22.3	0.8	0.3	5.4	16%	16%	19%	25%
Turns																										
Receivables/Sales	10%	11%	15%	10%	10%	10%	11%	10%	9%	15%	12%	12%	8%	9%	9%	10%	9%	9%	7%	9%	11%	10%	Average	Stability	Coefficient of Variation	
Inventories/Sales	21%	21%	24%	22%	17%	23%	22%	21%	18%	38%	23%	22%	19%	20%	22%	23%	24%	11%	18%	30%	21%	21%	10%	2%	18%	
Margins																										
Gross Margin	64%	63%	63%	64%	65%	67%	66%	68%	64%	60%	64%	63%	61%	55%	55%	55%	55%	50%	47%	45%	44%	42%	22%	5%	22%	
Operating Margin	39%	38%	40%	40%	40%	42%	43%	43%	40%	26%	40%	41%	38%	35%	33%	32%	33%	32%	30%	28%	28%	28%	58%	8%	13%	
Returns to Shareholders																										
Dividends per share	0.6	0.54	0.47	0.47	0.45	0.43	0.37	0.33	0.25	0.19	0.18	0.17	0.14	0.12	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	-	-	-	
ROE	23%	23%	22%	24%	24%	25%	29%	33%	28%	11%	25%	29%	31%	29%	28%	27%	27%	39%	38%	36%	46%		28%	7%	25%	

1.0 The Company

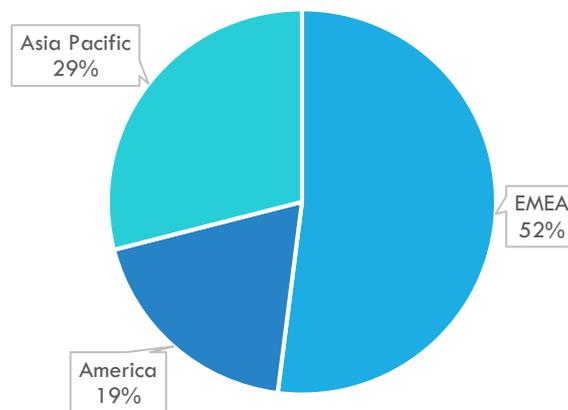
Victrix manufactures and supplies high performance polymer solutions and parts. It was formed following a management buyout from ICI (Imperial Chemical Industries) in 1993 and listed on the London Stock Exchange in 1995. ICI was founded in 1926 and was once the largest manufacturer in Britain. It was bought out by Akzo Nobel in 2008. A good summary of ICI's history can be found [here](#).

Victrix manufactures PEEK (polyether ether ketone) a high-performance thermoplastic polymer. It was invented and patented by ICI in 1978. The patent expired in the early 2000's. Victrix has been in the business of manufacturing PEEK for 40 years.

PEEK has a unique combination of properties that gives it a range of applications. Among them are good mechanical strength, chemical resistance, high wear resistance and biocompatibility. It is used in a range of application from the manufacture of electrical connectors used in the oil & gas industry, the manufacture of thermoplastic composites in the aerospace industry and implanted devices among other applications.

Victrix operates in five main business segments – transport (aero + auto), electronics, energy & industrial, value added resellers and medical. Revenue contribution from its main business segments are shown below and have been consistent over the last three years.

Figure 1: Revenue by Region in 2018



2.0 PEEK Market & Peers

Victrex is the only specialist, among diversified chemical companies that manufacture PEEK. It has the largest market share of PEEK production globally and is the only producer in the EU. It has the most experience manufacturing PEEK and has no interest in expanding into a more diversified chemicals company. To quote from the new CEO Jakob Sigurdsson:

“We will remain the number one PEEK experts and we are not looking to become a broader diversified polymer business.”

Victrex is a stable, predictable business with a low variation in year-to-year operating margins shown by the low coefficient of variation (standard deviation divided by the mean).

Table 2: Current valuation and quality of comparable companies

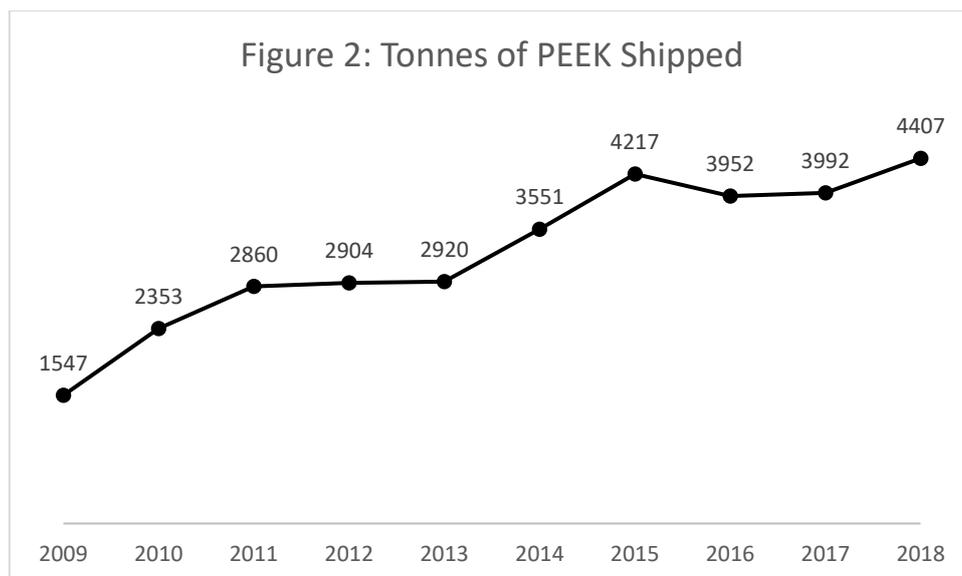
Peers	EV/EBIT	Median Operating margin (10 year)	Coefficient of Variation (10 year)
Victrex	15	38%	15%
Croda	20	24%	16%
Solvay	12	7%	24%
Daicel Corp	7	9%	41%
Evonik	8	9%	25%

Victrex has a PEEK capacity of 7000 tonnes /year. Other PEEK manufacturers have facilities in India, China and the USA. Solvay has a PEEK production capacity of 2500 tonnes/year with production facilities in India and the USA. Evonik, through a joint venture with Jilin University in China has a 1500 tonnes/year capacity. Evonik also has a joint venture with Daicel with 300 tonnes/year capacity. Smaller regional producers based in China and India have undisclosed capacity. This gives Victrex an approximate 60% market share based on capacity.

3.0 Product Economics

Victrex is an easy to understand business and currently has one economic driver – revenue equals tonnes of PEEK shipped multiplied by the average selling price. Victrex has stable gross and operating margins as will be discussed in the next section. To increase its income from its current business, Victrex can either sell PEEK at a higher price or ship more product.

The average selling price of PEEK has hovered between £66/kg to £74/kg over the last 8 years. In this period, the tonnes of PEEK shipped has grown at an annualised rate of 8%. Also in this period, according to the World Bank, global GDP has grown by 3% annualised, the Euro area GDP has remained stagnant (Victrex’s main market), East Asia Pacific GDP has grown at 5.1% annualised and US GDP has grown at 3.7% annualised. Revenue growth generated by Victrex has surpassed GDP growth of all its markets which means that demand for PEEK is strong and growing faster than the broader economy in these regions.



In 2018, Victrex shipped 4407 tonnes of PEEK and has further production capacity to manufacture up to 7,150 tonnes.

4.0 Business Quality & Competitive Advantage

Victrex operates three manufacturing sites in the UK. It is the only vertically integrated aromatic polyketone supplier in the world. This affords some level of control over key raw materials costs. This is shown in the consistency of its gross margins. As shown in Table 1, from 1997 to 2018, its gross margins have increased from 42% to 64% with a low coefficient of variation implying low year-to-year swings in margins.

Victrex owns the upstream process used to manufacture BDF (benzophenone difluoride) the key raw material needed for PEEK production. BDF manufacturing plants were acquired in 1999 and 2005. It was followed by subsequent step increases in Victrex's gross margins as shown in Table 1.

Operating margins are also high and stable. They have averaged 36% over the last 21 years with a low coefficient of variation (standard deviation divided by the average) of 15%. Predictable businesses like Apple, Costco, Greggs and some advertising agencies also have low variations in operating margins.

5.0 Valuation

1. Reverse DCF

Current price = £22.96

Assumptions

- 10% discount rate
- Normal FCF per share = £0.72 (median FCF margin * 2018 revenue)
- Time = 100 years
- FCF growth during 90-year terminal phase = 4% (inflationary growth of 3% + 1% real growth)

FCF growth required during 10-year growth phase to justify current price = 12%

A margin of safety exists if Victrex can achieve growth in excess of 12% a year for the next 10 years. From Table 1, the FCF has grown at an annualised rate of 16% over the last 21 years. In the future, certain trends make it likely that PEEK will play a larger role in our economy. Victrex may or may not capture this growth but its good historical performance and market position suggests that they will. The catalyst for growth is discussed in Section 6.0.

2. EV/EBIT

Current enterprise value = market cap – cash + debt = £1840 million

Normalised EBIT = median EBIT margin * 2018 revenue = £124 million

EV/EBIT = 14.8

An EV/EBIT multiple of 14.8 is fair for Victrex. The upside could come from future growth projects not currently priced in. This however depends on good execution from management.

6.0 Catalyst

Additional growth not priced in

The old lab emission test – called the New European Driving Cycle (NEDC) – was designed in the 1980's. Due to evolutions in technology and driving conditions, it became outdated. The European Union has therefore developed a new test, called the Worldwide Harmonised Light Vehicle Test Procedure (WLTP). This came into force in 2017. It was developed with the aim of being used as a global test cycle across different world regions, so pollutant and CO2 emissions as well as fuel consumption values would be comparable worldwide.

WLTP aims to provide a much more accurate basis for calculating a vehicle's fuel/energy consumption and emissions. A car with a larger mass does more work and consumes more fuel than an identical car with a lower mass, all else being equal. Low density PEEK gears that could replace traditional gears will reduce the mass of the car hence reduce emissions. Victrex currently manufacture PEEK gears for a major European OEM. They don't disclose the name of the OEM but revenue is currently insignificant (< £1 million).

According to Victrex, the average car currently has 8g of PEEK/car. Victrex forecasts this could grow to 12g of PEEK/car for internal combustion engines and 100g/car for electric vehicles. These are based on the company's own estimates so it's difficult to validate its accuracy. If estimates are accurate, this provides a long runway for growth.

In aerospace, PEEK manufactured by Victrex is used in the brackets of plane fuel tanks. There is a lightweighting trend in the aerospace and automobile industry and replacing parts traditionally made out of metal with PEEK is a catalyst for future growth.

In medicine, PEEK implants are biocompatible and there are currently 9 million implanted devices manufactured by Victrex. The medical industry currently accounts for only 4% of sales. The catalyst here is extended life expectancy which results in an increasing need to replace worn out body parts. Victrex manufactures trauma plates, spinal rods, dental discs and recently entered a supply agreement with Straumann – a dental implant OEM.

It is difficult to make predictions about future growth. However, two key questions are:

- Will there be less or more PEEK used in aerospace, automobile and medical implants?
- Will Victrex capture some of that growth?

Tax reduction through R&D

As shown in Table 1, the company's effective tax rate in 2018 was 13.3%. UK corporation tax is at 19%. To quote from the 2018 annual report:

"The Group's effective tax rate reflects the associated benefit from Victrex filing patents as part of its unique chemistry and IP. Victrex qualified under the UK government's Patent Box scheme, which incentivises Research & Development investment in the UK. As previously communicated, the scheme is expected to provide an associated benefit to our tax rate from 2017 for the duration of the patents, resulting in a normalised tax rate of approximately 12% and a range expected to be between 10.5% and 13.5%."

The Patent Box enables companies to apply a lower rate of Corporation Tax to profits earned from its patented inventions. The relief was phased in from the 1st of April 2013 and the lower rate of Corporation Tax to be applied will be 10%.

7.0 Risks

1. Changing Strategy

Victrex has been solely in the business of manufacturing PEEK for 40 years. It is changing its strategy and slowly moving downstream into component manufacture while maintaining its PEEK manufacturing business. So far, this expansion into downstream manufacturing of finished or semi-finished products has been achieved via joint ventures and acquisitions. The key risk here would be overpaying for an acquisition target.

2. Currency Risk

Victrex derives 98% of its revenues outside the UK so the company is exposed to currency risks. Victrex has a hedging strategy in place which requires that at least 90% of its cash flow exposure is hedged for the first six months, then at least 75% for the second six months of any twelve-month period. This means that at a minimum, 83% of the company's cash flow is hedged in any twelve-month period.

3. Brexit

The EMEA region is the largest revenue source for Victrex. Victrex is also the only manufacturer of PEEK in the EU. A no deal Brexit might have consequences on its ability to export to Europe tariff free.

Quoting from the company's 2018 annual report:

“Victrex has assessed the potential financial impact of a ‘no deal’ Brexit. If our materials are unable to secure exemptions – as the only manufacturer of PEEK products in the EU – based on standard WTO tariffs, we estimate that cross-border duties, both for import of certain raw materials and export of finished goods, may add some additional costs in the first financial year following the UK’s exit from the EU. However, any weakening in Sterling following a ‘no deal’ Brexit, in line with the average of market assessments of approximately 10% lower rates than today, could provide a high degree of mitigation once the effect of existing hedging in place rolls off.”

Victrex also has subsidiary companies in Europe, including Victrex Europa GmbH, and it is securing additional warehousing in Europe to hold a higher level of stock, should there be a need.

4. Cyclicity of Oil & Gas and Consumer Electronics

Oil & gas and consumer electronics account for about 35% of the company's total revenues and the cyclicity from these segments could lead to fluctuations in revenues.