Planet Tracker

PLASTIC PACKAGING COMPANIES Paying for transition

Authors:

John Willis
Director of Research,
Planet Tracker

Peter Reilly
Co-founder,
Bailey Network

Executive summary

The plastic container and packaging companies (PC&P), also called converters, are a vital part of the plastic supply chain. These business-to-business (B2B) converters sit between the oil and chemical giants (e.g. Dow, ExxonMobil, Saudi Aramco) and the fast moving consumer goods (FMCG) companies (e.g. Coca-Cola, Nestlé, P&G). They source plastic resins and turn these into an array of packaging products.

Can PC&P companies afford to prepare for a circular economy, away from the present take, make and waste structure? To explore this we need to understand their financial capabilities.

At first glance, the PC&P companies appear to take orders from larger suppliers on one side and customers on the other, implying they survive on the slimmest of margins, giving them little financial latitude to invest in a transition strategy and play an important role in a new make, use and re-use plastic economy.

But this is not the case. These corporates are barely cyclical with profit margins and return on capital employed (ROCE) rising. They have the financial firepower to adapt and with the addition of investor support could rapidly invest in a transformative business model.

But will investors prefer to take the short-term returns - through dividends and share buybacks - or award a higher valuation premium to those PC&P companies that position themselves for a more sustainability-driven future?

April 2022

CONTENTS

The Plastic Container & Packaging Sector (PC&P)

This sector converts plastic into a variety of packaging. Many different sectors use these manufactured containers and packages including food and beverage, personal products, household products as well as healthcare and the pharmaceutical companies. Larger packagers like Berry supply packaging to 16 main markets, comprising 21 different product categories[i] - see Figure 1.

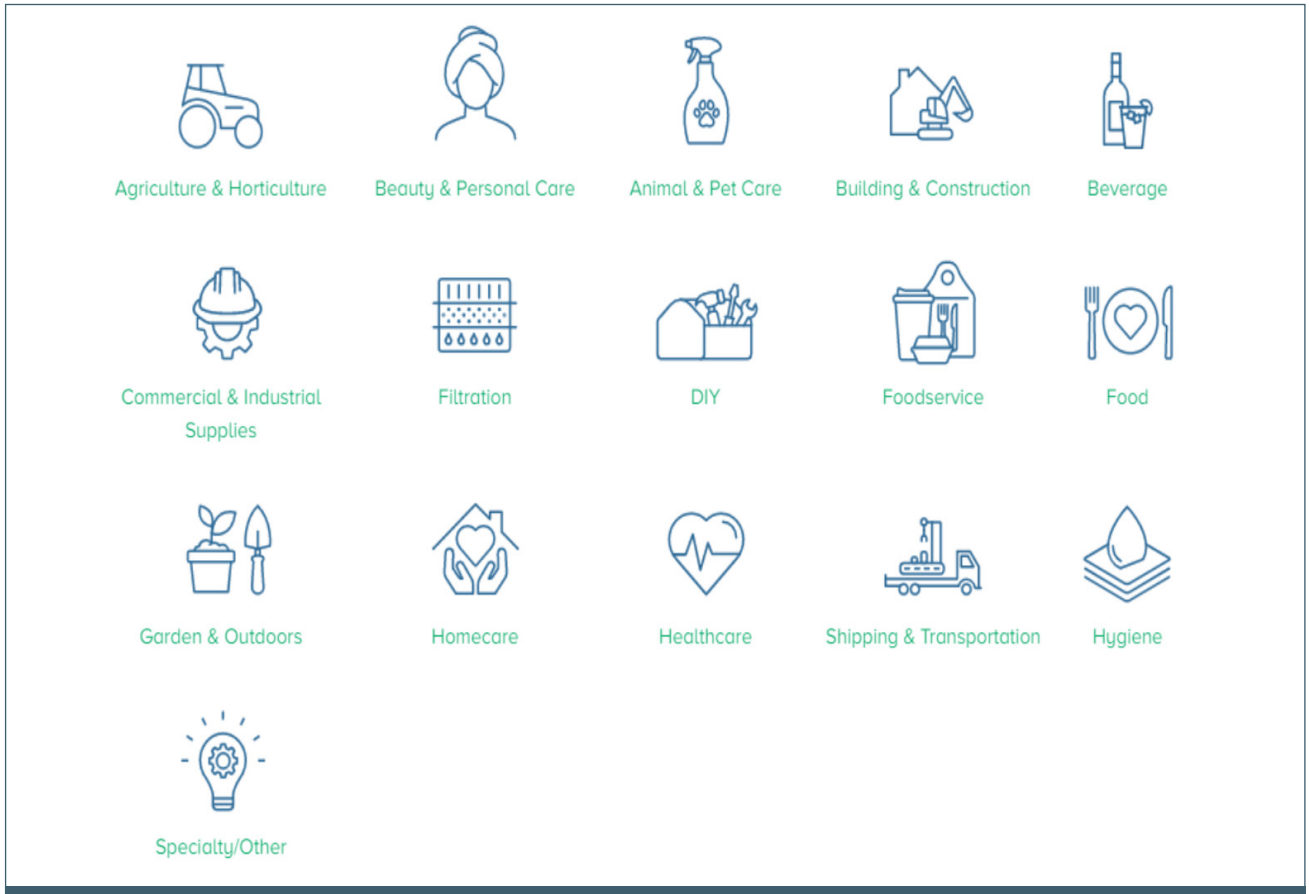

Figure 1: Berry's main markets.

Initially, Planet Tracker examined the finances of 20 listed global plastic PC&P companies but removed five as less than 70% of their revenue was sourced from PC&P activities. This left with us with 15 'purer' PC&P companies which are more focused on the sector we are analysing.

Our financial analysis has delivered two main conclusions:

1 The 'typical' PC&P company

First, we were able to identify a typical PC&P company. The 15 'purer' PC&P companies we analysed are global and operate in different sub-sectors, so we were surprised to discover such a homogeneous picture. Over the last ten years, our analysis shows that:

- The sector overall has very little cyclicality. The COVID-19 pandemic is barely visible, for example.
- The median Earnings Before Interest and Tax (EBIT) or operating margin is low-teens with most companies in the 8-15% range. In 2020, the actual median EBIT margin was 13.8%, the highest in the 10 years we analysed.
- Median Return on Capital Employed (ROCE) is typically mid-teens. In 2020, the ROCE was 18.0%, just below the 10-year high of 18.4% in 2016.
- Broadly, the operating margin and the ROCE are stable but gently rising. 2020 was a record year for most PC&P companies.
- Cash flow is healthy, dividends are well covered by free cash flow and the companies continue to invest in fixed assets, i.e. new plant and machinery.
- Tangible fixed assets (i.e. buildings, plant and machinery) have a typical working life of about 20 years and are 9 to 10 years old. In 2020, the actual numbers were 19.4 years and 9.5 years, respectively.

2 A profitable industry

The second conclusion follows naturally from the first: this is a profitable industry. It is important to note that PC&P is a fragmented, business-to-business (B2B) sector which lacks strong brands. The suppliers (i.e. the plastic producers[ii]) and the customers (e.g. large Fast-Moving Consumer Goods (FMCG) companies[iii]) are often much larger than the PC&P makers. This should not, in theory, bode well for profitability as the size inequity gives the larger firms the pricing power.

Yet, on all the key metrics, this is a profitable industry with high financial returns and healthy cash flow. There is no sign of financial duress, with the exception of Guala Closures,[iv] which was taken private in 2021. Guala also operates in a different sub-sector, bottle closures, to the remaining 14 included in the Planet Tracker universe of companies analysed in this report.

We conclude that this industry is able to afford investments to move to a more sustainable future which produces only recyclable packaging. Our analysis further shows that:

- The 15 PC&P companies could raise an extra USD 6 billion of debt by taking financial gearing up to 3.0x net debt/EBITDA
- The 15 PC&P companies could afford to invest an extra USD 2.3 billion each year if they halved their dividends and stopped making acquisitions.

Financial profile of the top 20 PC&P companies

A word on methodology

We have largely relied on the companies' own published annual reports and presentations, supplemented by our own estimates where necessary. In particular, we have estimated the proportion of revenues that come from plastic containers & packaging as this is often not formally disclosed. We have updated the proportions from our earlier report - **Unwrapping Investor Risk** - based on a more detailed analysis of company disclosures. The proportions are still estimates but for this report we believe them to be fairly robust. Most of the companies have a December year-end but there are some exceptions. We have used the financial year closest to the calendar year.

The metrics employed

Six main metrics were chosen for examination. For further details please see the Appendix.

1. Revenues, EBITDA margin and EBIT margin. This is a simple way of looking at profitability over time. Note that these are non-GAAP[1] metrics, i.e. not officially recognised accounting terms. Where companies have their own definition of EBITDA or EBIT, this report has used them. Otherwise, we have calculated our own numbers by adding back financial expenses and depreciation to pre-tax profit. Some numbers may be distorted by acquisition effects which we have not tried to adjust.
2. Return on Capital Employed. This is a more sophisticated way of looking at profitability. It compares a company's EBIT or operating profit with the capital invested in the business. ROCE is widely used both by investors (to judge financial stewardship) and by executives (to assess whether to invest or not). ROCE is a non-GAAP term.
3. Net debt and financial gearing. This looks at the net indebtedness relative to the EBITDA. Net debt/EBITDA is a widely used metric to gauge financial gearing, i.e. how much debt a company carries relative to its gross profit.
4. Free cash flow and dividend payout. Free cash flow (FCF) is another non-GAAP term. It is used to assess how much cash a company generates from its operations after paying for internal investment, interest expenses and tax. Our goal is to compare FCF to dividends and share buybacks, to see whether such payouts are sustainable.
5. Capital expenditure and depreciation. We also examined the cash cost of capital investment, which varies from year to year, in relation to the depreciation charge, which is the allocation of the capital cost over the expected lifetime of the assets. Capex/depreciation ratios consistently above 1.0x indicate that a company continues to invest for future growth.
6. Asset life and age. Lastly, we looked at the implied life and age of tangible fixed assets, i.e. buildings, plant and machinery. This gives us an indication of how long the assets are expected to last and whether investment trends are stable, rising or falling.

[1] Generally accepted accounting principles (GAAP) are a commonly recognised set of rules and procedures designed to govern corporate accounting and financial reporting. In the U.S. these principles are issued by the U.S. Financial Accounting Standards Board (FASB). Public companies must follow GAAP when compiling their financial statements. Non-GAAP accounting is an adjustment to already existing numbers and although there is no direct creator of non-GAAP standards, they are overseen by the SEC to ensure they are not misleading. So, companies are allowed to display their own accounting figures, as long as they are clearly disclosed as non-GAAP and provide a reconciliation to GAAP results. Please see Appendix.

We have not examined organic growth and what stock market valuations may be implying about future prospects. Our focus is on whether these companies are in a position to invest and whether they are doing so. We have also used quite simple definitions of metrics like ROCE and free cash flow. This analysis aims to provide a high-level view of financial trends. We do not offer detailed views on operational performance or offer investment advice.

The Planet Tracker Universe of 15 Listed PC&P companies

In our earlier PC&P report, **Unwrapping Investor Risk**, we estimated that global PC&P revenues were about USD 369 billion. We estimated that the top 20 producers generated about 13% of global PC&P revenues and that the top 15 focused PC&P makers generated 11% - see Table 1. Note that the PC&P sector is very broadly defined, with a wide range of products and technologies. In addition, most PC&P companies are private and some of them are quite large. For example, Austrian company ALPLA Group is family-owned and had revenues of €3.7 billion in 2020, rising to €4 billion in 2021,[v] predominantly from plastic packaging. ALPLA is probably in the top 5 global PC&P producers but provides very little public information which is why our analysis for the purpose of this report is on listed PC&P companies.

Table 1: PC&P sector revenues.

Plastic Conainers & Packaging sector	PC&P revenues (USD bn)	Share of total	Comment
Global Industry	369	100%	
Listed companies	61	17%	Most PC&P makers are private
Top 20 producers	47	13%	
Top 15 focussed producers	39	11%	15 companies produce about 10% of global PC&P by value

Source: Unwrapping Investor Risk, company data, Planet Tracker estimates of PC&P revenue proportion

As 15 of the top 20 listed PC&P companies derive more than 70% of their revenues from plastic containers and packaging, we have decided to focus primarily on this group. Of the other 5 companies, 4 derive less than 20% revenues from single-use plastics and therefore a comparison of their financial analysis is of limited relevance. The fifth company excluded was Gerresheimer, which derives 54% of revenues from PC&P activities.

Normally one would expect a group of 15 global manufacturing companies to have very different financial characteristics, even if they were operating in the same sector. This is not the case here as we demonstrate overleaf.

Remarkably similar margins and returns

The technology used to make plastic containers and packaging is mature but varies widely across different materials and processes. Some products are extruded, some are injection moulded and some are blow moulded. The British Plastics Federation identifies 17 ways to process thermoplastics,[2] four ways for thermoset plastics[3] and two secondary manufacturing processes.[vi]

The machinery used is typically dedicated to a specific process and is difficult to re-purpose. Therefore, the product range of each company tends to be stable over time unless there are material acquisitions or divestments. Virtually all the companies are reliant on externally sourced raw materials; none are vertically integrated. The dominant raw material is plastic resin sourced from crude oil.

In Figure 2 on page 8, we show the EBIT margins of the 15 companies. The thick red line shows the median EBIT margin for the last 10 years. It is remarkably stable and has trended up. This does not signal a sector under financial pressure. The spread of results is also quite narrow, with most in an 8-15% range. It is normal to find regional variations - e.g. U.S. companies being more profitable than Japanese ones.

One might have expected margins to be more volatile caused by fluctuating raw material prices. The latest Amcor annual report states that ***"increases in the price of raw materials are generally able to be passed on to customers through contractual price mechanisms over time and other means"***. It would be very surprising if such pass-through clauses are unique to Amcor. The chart strongly suggests that most PC&P suppliers have similar mechanisms in place.

In Figure 3 on page 8, we examine the ROCE, showing the median for this group by a thick red line. This is even more remarkable as ROCE tends to vary more than EBIT margins as capital intensity often differs and the actual result can be distorted by accounting effects, particularly for acquisitive companies. This group has had a stable mid-teens ROCE history with 2020 being a near-record year. A mid-teens pre-tax ROCE is very respectable for a manufacturing company and especially for a sector where there are a lot of large customers, who are presumably quite aggressive on pricing.

[2] Thermoplastic is a class of polymer that can be softened through heating and then processed using methods such as extrusion, injection moulding, thermoforming and blow moulding. Thermoplastics harden once cooled and do not show any changes in chemical property after being heated and cooled multiple times, making them easily recyclable.

[3] Thermoset plastics are synthetic materials that strengthen when heated but cannot successfully be remoulded or reheated after initial heat-forming or moulding. These properties allow moulded thermoset parts to be used in a variety of challenging end-use environments. Using a thermoset moulding process allows the final parts to remain dimensionally and chemically stable against elements such as moisture, high operating temperatures, electric voltage and chemicals.

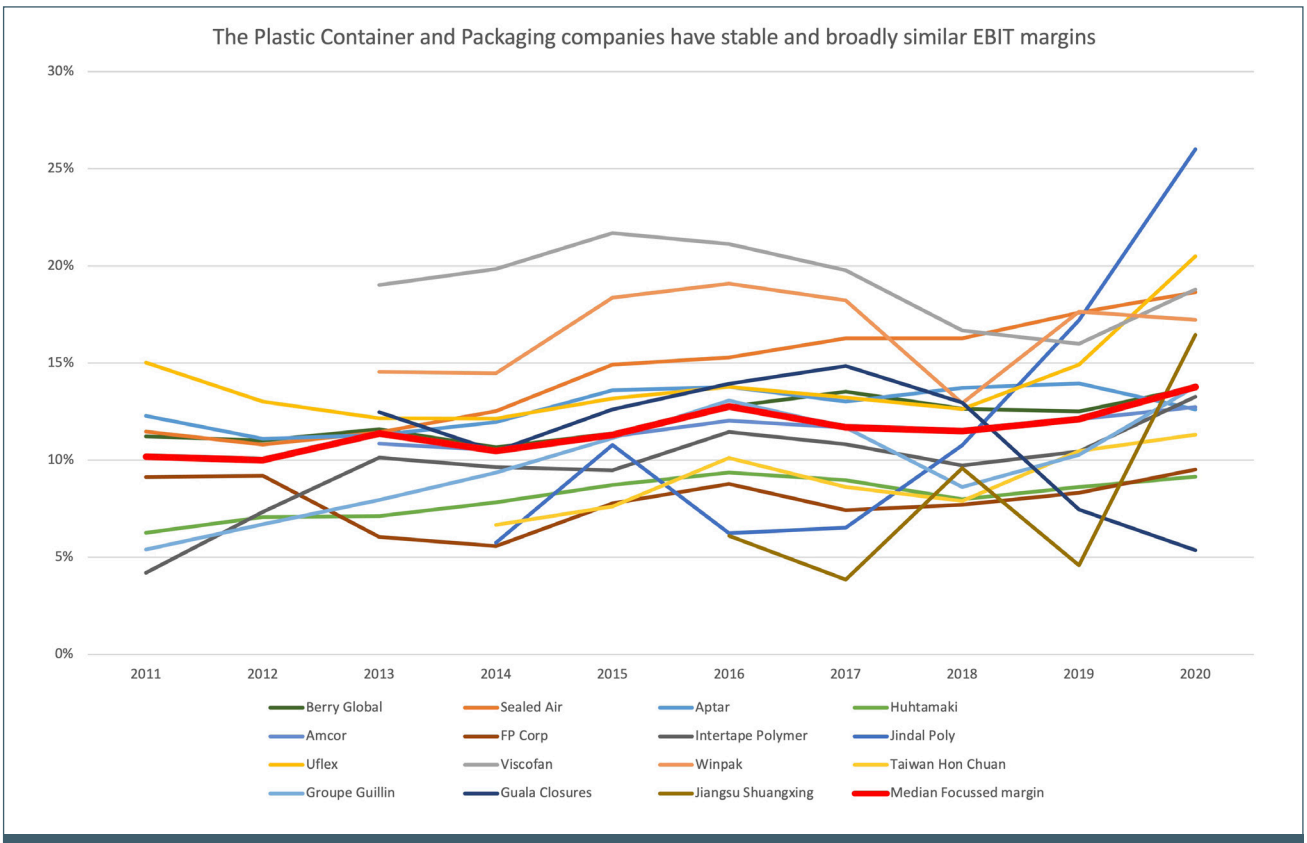

Figure 2: EBIT margins of PC&P companies 2011 to 2020 (Source: company reports, Planet Tracker analysis).

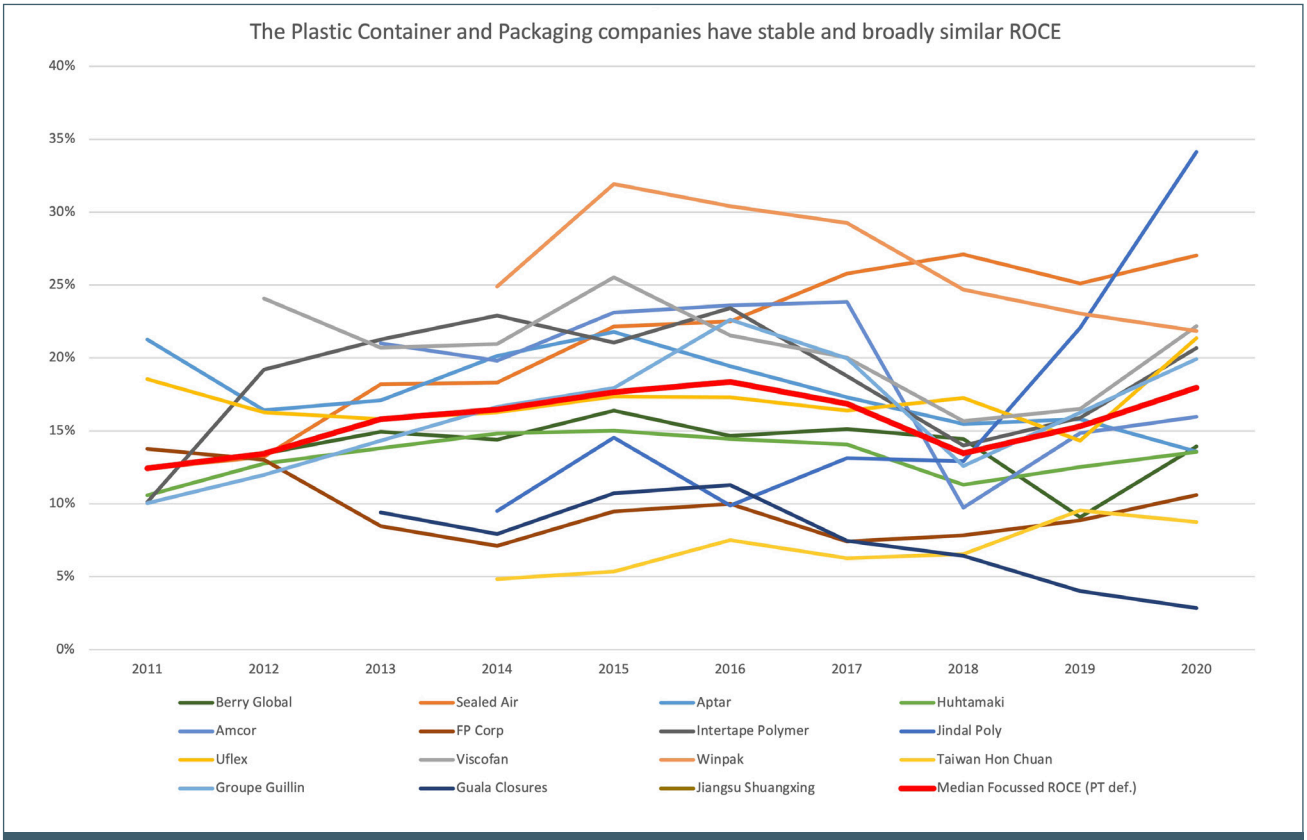

Figure 3: ROCE for PC&P companies 2011 to 2020 (Source: company reports, Planet Tracker analysis).

Stable margins and returns – how come?

Most of the PC&P makers are medium-sized companies. Their suppliers and customers are often much larger. Imagine being a PC&P company stuck between, say, ExxonMobil and Unilever. One would imagine that this would be an uncomfortable place to be, with no buying power and a very powerful customer. One would reasonably assume that margins and returns would be squeezed. But our analysis suggests that this is not the case.

So why are the PC&P makers so profitable? The obvious conclusion is that there are either high barriers to entry or the relationship with the FMCG companies is more collaborative than adversarial. Establishing the trading details of a private commercial relationship is problematic from the outside, but it provides a credible answer.

Barriers to entry appear high

PC&P manufacturing technology is well-established but not easy to master, particularly in high volume with tight quality control. Packaging is also an important part of brand image and perceived quality. Consider the effort that Apple makes to ensure that an iPhone box opens smoothly. Consumers judge products partly based on packaging and this increases barriers to entry.

There is almost no evidence of well-funded new entrants in the last 10 years, which also strongly implies high barriers to entry. This may also imply high barriers to exit. It is possible that new entrants may be nervous that financial returns are unsustainable, particularly with the gathering environmental clouds. The stable revenue trends also suggest that customer relationships tend to be long-lived although the larger FMCG brands often allocate their purchasing between a couple of suppliers. This is to ensure competition and continuity of supply. We have seen very little evidence of customer churn. One can argue that the greatest threat to a PC&P maker comes not from other PC&P companies but from alternative and greener technologies, such as paper-based packaging.

Markets are more concentrated than they first appear

This market is much more concentrated than it first appears. Although the top 15 may have only 11% market share, this underestimates market concentration. Not all 15 compete in the same product sectors, so effective market shares are higher. It also worth noting that plastic containers tend to be inexpensive and bulky with the result that suppliers tend to be local. Shipping an empty PET bottle halfway across the world makes little financial sense. It is the local market shares in specific technologies and products that matter, not the overall PC&P global market shares.

Locating robust market share data for PET bottles is challenging, but it is possible to find solid data points here and there. For example, on page 87 of its 2020 annual report, Taiwan Hon Chuan[vii] discloses that its market share in the domestic PET bottle market is 61%. This is a very high share by any standards. On page 94 it adds that the largest customer in 2020 was 10% of group sales. These two statistics imply that THC has a strong market position with high share and a small number of large customers. We would expect this market structure to be broadly similar in other countries.

A high-volume business

Global production of PET bottles is estimated to be about 500 billion per annum or about 13 million tonnes;[viii] in other words each bottle weighs about 25 grammes. The PET price depends on location and grade but has averaged about USD 1,000/tonne over the last 5 years. According to Statista,[ix] it was about USD 850/tonne in 2021. This implies that the raw material cost of a typical PET bottle is about 2 US cents. Even allowing for the conversion cost, the cost to the customer is probably much less than 10 cents, which explains the popularity with the FMCG companies; PET bottles are cheap. This has the side effect of deterring new entrants. The low average selling price means that a new entrant would need to sell tens of millions of bottles to generate a million dollars of revenue. The popularity of PET bottles is not only driven by their relatively low production price, but by their efficiency in delivering beverages and other products to consumers with minimal product loss. However, this excludes the uncosted environmental externalities associated with this type of container.

Oligopoly characteristics?

Taken together, this analysis suggests that the PET bottle market is a complex but stable oligopoly with high local market shares, high barriers to entry and, as a result, attractive financial returns.

The top 15 in aggregates

Figure 4 shows the aggregated results of the 15 focused companies. Although we lose the colour of the individual companies, it provides a better understanding of how the whole industry looks. A number of observations are noted in Box 1.

Figure 4: The Global PC&P Companies: financial overview (Source: company reports, Planet Tracker analysis).

Box 1 The characteristics of the largest global PC&P companies

- This is not a cyclical industry. Revenues hardly fell in 2019 or 2020 despite the global recession caused by the COVID-19 pandemic.
- The long-term growth rate is modest although this is distorted by some major acquisitions and divestments.
- EBIT and EBITDA margins are stable and edging higher. One might have expected more variability given the volatility of oil-based product prices but this appears to have little or no impact. We suspect many PC&P makers have raw material pass-through contracts.
- Median ROCE reached a 10-year high of 18.4% in 2016 and was 18.0% in 2020. Most PC&P companies are acquisitive, which tends to reduce reported ROCE, so it is reasonable to conclude that underlying ROCE is trending up.
- The sector operates with financial gearing of 1.5-2.0x net debt/EBITDA. This is further evidence of a stable sector. Many manufacturing companies struggle to borrow money (bank debt, bonds etc) at affordable rates if their gearing is above 1.0-1.5x. This is because their businesses are often considered to be volatile and therefore higher risk. Less volatile and more stable companies can often borrow money at affordable rates with gearing of 2-3x.
- We calculate that the sector has generated about USD 20.1 billion of free cash flow over the last 10 years and paid out USD 8.2 billion (41%) in dividends and share buybacks. This is a sector that does not face any risk of having to cut dividends or reduce share buybacks.
- The sector has invested USD 16.7 billion in tangible fixed assets since 2011 and depreciation has been USD 14.5 billion, giving a cumulative 10-year capex/depreciation of 1.2x. Capex has been higher than depreciation in every single year, even during the pandemic. This is a sector that remains happy to invest assisted by an increase in demand for convenience products and a growing middle class in developing countries.
- The profile of tangible fixed assets (buildings, plant and machinery) is extremely stable. Asset life is about 20 years, which is above average for the manufacturing sector; a typical manufacturing company will be closer to 15 years. Asset age is about 10 years and has also been stable. In other words, manufacturing assets are about half-way through their working life and this proportion has not changed in the last 10 years. This is another sign of a very stable and healthy financial performance.

Planet Tracker concludes that this is a sector with healthy and rising returns and also one that continues to invest for the future, but under the existing Business-as-Usual model. They also appear to be confident that future prospects remain bright.

How much could the 15 invest in a transition to sustainability?

This analysis shows that this is a group of companies with very healthy financial indicators, which can afford to invest in more sustainable technology, if they so choose. This raises an obvious question: how much could they spend? We have examined this in two ways:

1. First, we looked at the additional debt that these PC&P companies could raise by moving to 2.5x, 3.0x or 3.5x net debt/EBITDA ratio. These levels of financial gearing are not excessive for companies with high and stable returns, as noted for this group. This gives us a broad measure of the additional capital available.

2. We also looked at the annual free cash flow that would be available if the companies halved their dividend and share buyback payments and stopped making acquisitions. Again, we think this is a scenario worth considering. Investors would need to make a choice between short term returns - through annual dividends and a share buyback – or a longer term sustainable operating model i.e. repositioning these companies for a make, use and re-use plastic economy. This gives us a measure of what these companies could afford on an on-going, annual basis without raising additional debt. Cash flow is more volatile than profits, so we have taken an average of the last three financial years.

We estimate that this PC&P universe of companies could raise an extra USD 6 billion of debt to finance a sustainability transition

We used the financial year 2020 stated EBITDA, multiplied it by 3.0x and then deducted actual FY20 year-end net debt. We also did the same analysis for 2.5x and 3.5x. (We excluded the few companies that already had higher financial gearing such as Berry, which has net debt in excess of 3.5x EBITDA.) The outcome was that this group could raise an additional USD 6 billion of debt by adopting a 3.0x net debt/EBITDA. Rising to USD 9 billion and 3.5x and falling to USD 4.5 billion at 2.5x - see Table 2.

The dream scenario for investors would be if existing manufacturing capacity could be re-purposed for recyclable packaging. This would likely involve lower levels of investment than buying-in new machinery. Some of these PC&P companies are researching this possibility but we are unaware of a large scale success to date.

Company (USD m)	FY20			Additional debt capacity with higher net debt/EBITDA ratios		
	net debt	EBITDA	ND/EBITDA	2.5x	3.0x	3.5x
Berry Global	9,487	2,157	4.4x	NA	NA	NA
Sealed Air	3,212	1,051	3.1x	NA	NA	467
Aptar	872	586	1.5x	594	887	1,180
Huhtamaki	988	539	1.8x	360	630	899
Amcor	5,439	2,028	2.7x	NA	645	1,659
FP Corp	499	303	1.6x	257	408	560
Intertape Polymer	474	211	2.2x	54	160	265
Jindal Poly	78	168	0.5x	342	426	509
Uflex	405	308	1.3x	365	519	673
Viscofan	42	267	0.2x	625	758	891
Winpak	-495	192	-2.6x	974	1,070	1,165
Taiwan Hon Chuan	379	151	2.5x	NA	73	149
Groupe Guillin	-16	132	-0.1x	345	411	477
Guala Closures	529	112	4.7x	NA	NA	NA
Jiangsu Shuangxing	-11	27	-0.4x	78	91	104
Total	**21,883**	**8,230**		**3,993**	**6,077**	**8,999**

Table 2: Additional debt capacity of PC&P companies (Source: company reports, Planet Tracker analysis).

An additional USD 2.3 billion is available annually

Planet Tracker is not suggesting that listed companies should stop paying dividends, but we do believe it's reasonable to model what would happen to free cash flow if they halved the dividend/share buyback budget to fund a move to a more sustainable business model. Bear in mind that FCF, as we define it, is after current capital expenditure. Our analysis shows that this group would have USD 2.3 billion of cash flow to invest in incremental capital expenditure if they halved the dividend and stopped making acquisitions - see Table 3.

Table 3: Potential annual extra investment (Source: company reports, Planet Tracker analysis).

Company (USD m)	FY18-20 FCF	FY18-20 Div/SBB	Halved div/SBB	Potential annual extra investment
Berry Global	2,372	107	54	773
Sealed Air	1,137	987	493	214
Aptar	699	413	206	164
Huhtamaki	583	303	152	144
Amcor	3,052	2,278	1,139	638
FP Corp	349	131	65	94
Intertape Polymer	236	105	52	61
Jindal Poly	92	2	1	30
Uflex	-132	6	3	-45
Viscofan	269	306	153	39
Winpak	265	18	9	86
Taiwan Hon Chuan	109	76	38	24
Groupe Guillin	165	34	17	49
Guala Closures	114	19	9	35
Jiangsu Shuangxing	14	6	3	4
Total	**9,323**	**4,790**	**2,395**	**2,309**

This analysis turns the spotlight onto investors. Should they demand from PC&P management teams short term returns based on dividend income and capital gain via share buybacks? An alternative is a requirement by investors to protect the long-term viability of these PC&P companies and direct more cash flow into investments which prepare for a retooling for a circular economy model. This could include promoting the acquisition of emerging, alternative packaging companies in order to hedge their existing PC&P investments.

Appendix: Financial Terms

We have relied entirely on public sources for our financial analysis. All numbers come from either company annual reports or from companies' own websites (e.g. media statements or financial presentations). We have made extensive use of non-GAAP numbers - i.e., terms that are not defined by either US or International accounting standards.

In this section we explain how we have derived the numbers and how we use them.

Revenues, EBITDA and EBIT

Revenue is the total value of goods and service that customers have agreed to pay for and is defined under both US and international accounting standards.

EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation) is a measure of operating profitability before the allocated cost of using assets that have been capitalised. It is widely used by many companies and investors, particularly in capital-intensive industries. Where companies publish their own EBITDA numbers, we have used them. Where not, we have calculated our own numbers by taking pre-tax profit and adding back financial expenses, depreciation and amortisation. EBITDA is a non-GAAP term.

EBIT (Earnings Before Interest and Tax) is in our view a better measure of operating profit as depreciation is a real cost. Where companies publish their own EBIT numbers, we have used them. Where not, we have calculated our own numbers by taking pre-tax profit and adding back financial expenses and, where possible, amortisation of intangible assets created by acquisitions. We use EBIT for our ROCE calculation, see below. EBIT is a non-GAAP term.

Return on Capital Employed (ROCE)

ROCE is a more sophisticated metric that compares operating profit (EBIT) to the money invested in the business (Capital Employed). There are many definitions of ROCE - it is another non-GAAP term - and we have used a simple variant as our aim is to compare high-level financial performance, not to offer investment advice. We define Capital Employed as shareholder's funds (or equity) plus net debt; see below for net debt definition. ROCE is simply EBIT divided by Capital Employed at the end of the financial year.

Net debt and financial gearing

We define net debt as short-term and long-term debt less cash and cash equivalents. Net debt is another non-GAAP term. We have used company data for net debt where available, otherwise we have calculated our own. We have ignored pension liabilities and other quasi-debt items and we have not treated lease liabilities as debt, if disclosure has been adequate.

To calculate financial gearing, we use net debt divided by EBTDA, another widely-used non-GAAP term. Generally speaking, companies that investors perceive to be riskier tend to have lower financial gearing and safer, while more stable companies can run with higher net debt/EBITDA ratios. Most manufacturing companies tend to operate in the 0.5-1.5x range and anything above 2.5x implies that the company is perceived to have below-average risk.

Free cash flow, dividends and dividend cover

There are many definitions of free cash flow (another non-GAAP term) and we have used a simple variant: net cash flow from operations less capital expenditure. We have used company data where available, which tends to be the same as our own definition. Free cash flow is best thought of as the cash generated by operations, after tax, interest payments and capital investment, which is then available for making acquisitions and/or paying dividends to shareholders (including buying back shares).

We also look at the cost of paying dividends and buying back shares relative to free cash flow, which is the payout ratio. This helps us understand whether the dividend payments are sustainable. Many companies have payout ratios of close to, but less than, 50% which is generally considered sustainable, assuming no dramatic change in business conditions.

Capital expenditure and depreciation

We look at the capital expenditure on tangible fixed assets and then compare it with the associated depreciation charge. A capex/depreciation ratio above 1.0x implies that a company is continuing to invest in its future. A ratio below 1.0x implies that a company is reducing investment, either because it thinks future returns are unattractive and/or because it thinks it has over-invested in the past. The annual depreciation charge is a notional accounting cost and tends to be stable over the short-term so a volatile capex/depreciation ratio implies that either the business is cyclical or that investments are large and lumpy.

Tangible fixed asset life and age

Lastly, we use the detailed notes on tangible fixed assets to derive implied asset life and age. We estimate implied asset life by dividing the annual depreciation charge into gross tangible fixed assets. We estimate asset age by dividing the annual depreciation charge into the accumulated depreciation. By comparing asset life and age we can gain insight into management's view of the future. A stable age/life ratio of about 50% (as we see here) implies that management thinks that the current assets will remain both productive and adequate for many years to come.

We should add that these age/life calculations are estimates as there can be material distortions from currency movements, acquisitions, divestments and revaluations.

Table 4: Summary of the top 20 companies.

Rank Company (largest PC&P producer first)	Country	Employees (2020)	2020 revenues (USD m)	PC&P as % sales	PC&P sales (USD m)	Largest customer as % sales	End markets (% of revenues)	Products	Comment
Berry Global	US	47,000	11,709	90%	10,538	<5%	Healthcare (35%), Food & Bev (30%), Specialty (25%), Distribution (10%	Wide range	
Sealed Air	US	16,500	4,903	100%	4,903	<10%	Food & Bev (56%), ecommerce (14%), healthcare (5%), other (25%)	Films, wraps	Also supplies packaging equipment
Toppan Printing	Japan	52,400	13,709	20%	2,742	N/A		Flexible packaging	
Dai Nippon	Japan	37,100	12,480	15%	1,872	N/A		PET bottles, flexible packaging	Mainly a publication and communication business
Aptar	US	13.000	2,929	100%	2,929	<5%	Pharma (42%), Beauty & Home (44%), Food & Bev (14%)	Pumps, sprays	
Huhtamaki	Finland	18,250	3,816	72%	2,747	N/A	Food & Bev (100%)	Plastic and paper cups, containers, trays etc	
Amcor	US	46,000	12,861	70%	9,003	<10%	Food & Bev (68%), Healthcare (12%), HPC (7%), Other (13%)	Flexible and rigid packaging	PepsiCo was 11% of sales in FY19
FP Corp	Japan	4,500	1,841	100%	1,841	N/A	Food & Bev (100%)	Food trays and containers	Largely Japanese
Intertape Polymer	Canada	3,700	1,213	100%	1,213	N/A	Industrial (28%), e-commerce (27%), Food & Bev (15%), Construction (10%)	Tapes, films	
Rengo	Japan	18,900	6,362	17%	1,081	N/A		Mainly paper and board	
Jindal Poly	India	1,750	570	96%	547	N/A	N/A	PET and PP films	
Uflex	India	7,000	1,203	100%	1,203	N/A	N/A	PET and PP films	Also supplies packaging equipment
Viscofan	Spain	5,000	1,054	95%	1,001	N/A	Food & Bev (100%)	Sausage casings	

Notes: Green is for companies with over 70% revenues from PC&P, Blue is for less than 70%
Source: Planet Tracker (Unwrapping Invest Risk), company reports and presentations

Rank Company (largest PC&P producer first)	Country	Employees (2020)	2020 revenues (USD m)	PC&P as % sales	PC&P sales (USD m)	Largest customer as % sales	End markets (% of revenues)	Products	Comment
Winpak	Canada	2,500	853	100%	853	12%	Food and Healthcare (>90%)	Flexible and rigid packaging	Also supplies packaging equipment
Gerresheimer	Germany	10,000	1,640	54%	885	N/A	Pharma (81%), Cosmetic (13%), other (6%)	Mainly glass-based	
Taiwan Hon Chuan	Taiwan	4,600	646	100%	646	10%	Food & Bev (100%)	PET bottles, caps, filling	
Groupe Guillin	France	2,800	715	93%	665	N/A	Food & Bev (100%)	Food trays and packaging	
Guala Closures	Italy	4,850	661	100%	661	N/A	Food & Bev (100%)	Bottle closures	Taken private in June 2021
Jiangsu Shuangxing	China	1,600	106	98%	104	N/A		PET and PP films	Very little info available
Silgan	US	13,000	4921	14%	689	23%		Mainly metal containers	
Total top 20		**310,450**	**84,191**	**55%**	**46,124**				
Focused PC&P		**179,050**	**45,080**	**86%**	**38,854**				
Diversified		**131,400**	**39,112**	**19%**	**7,270**				

Notes: Green is for companies with over 70% revenues from PC&P, Blue is for less than 70%
Source: Planet Tracker (Unwrapping Invest Risk), company reports and presentations

REFERENCES

i Berry website (accessed 3 March 2022)

ii See 'Policing the Plastic Producers', Planet Tracker.

iii See 'Unwrapping Investor Risk', Planet Tracker

iv Guala Closures Group

v ALPLA Group news release 9th February 2022

vi British Plastics Federation plastic processes

vii Taiwan Hon Chuan Group financial report (2020)

viii ResearchAndMarkets.com PET forecasts

ix Statista - Price of polyethylene terephthalate (PET) worldwide from 2017 to 2020 with estimated figures for 2021 to 2022

ABOUT PLANET TRACKER

Planet Tracker is an award-winning non-profit financial think tank aligning capital markets with planetary boundaries. Created with the vision of a financial system that is fully aligned with a net-zero, resilient, nature positive and just economy well before 2050, Planet Tracker generates break-through analytics that reveal both the role of capital markets in the degradation of our ecosystem and show the opportunities of transitioning to a zero-carbon, nature positive economy.

PLASTIC TRACKER

The goal of Plastics Tracker is to stem the flow of environmentally damaging plastics and related-products that are creating global waste and health issues by transparently mapping capital flows and influence in the sector starting from resins production through to product-use. By illuminating risks related to natural capital degradation and depletion, investors, lenders and corporate interests across the economy will be enabled to create more sustainable plastics products.

ACKNOWLEDGEMENTS

Authors: John Willis, Peter Reilly

WITH THANKS TO OUR FUNDERS

This work was made posible through the support of Plastic Solutions Fund, a sponsored project of Rockefeller Philanthropy Advisors.

Suggested citation, Willis J. Reilly P. (2022): - Plastic Packaging Companies: Paying for Transition

Planet Tracker

www.planet-tracker.org @planet_tracker