ACCESS TO NUTRITION INITIATIVE

gain Global Alliance for Improved Nutrition

Planet Tracker

MATERIALITY OF NUTRITION

ARE FINANCIAL MARKETS MISSING THE VALUE OF HEALTHY FOOD?

June 2024

CONTENTS

EXECUTIVE SUMMARY

This report analyses 20 global food manufacturers[1] with total revenues worth USD 6.63 trillion in 2022, representing 10% of the global food and beverage market, and compares the healthiness of their food product portfolios with their profits and market valuations. This analysis seeks to identify if investors are missing economic opportunities by not investing intentionally in companies with healthier food portfolios. For example, if companies with healthier food portfolios have higher earnings before taxable income (EBIT) compared to companies with unhealthier food portfolios then this would be a clear signal to investors that "health is wealth".

Considering the data limitations of the report listed below, the results to date are tantalising. First, they suggest that there is significant variability within the food companies on Health Star Rating (HSR) scores and EBIT correlations and that stratification is key to identifying investments that generate health and wealth. Second, they suggest that there is not a strong association between unhealthy food (low HSR) and high EBIT, which is reassuring, even considering the small sample sizes. Third, smaller companies with broad food portfolios appear to have the greatest chances of producing a positive association between healthy food (higher HSR) and EBIT. Finally, the results suggest that with the right approach, health-wealth wins can be achieved that benefit society, companies and investors.

Improved company disclosures and additional analysis will be required to more fully answer this question, however, the key points from our analysis are as follows:

- **The foods routinely eaten across the world continue to fall short of the minimum standards for healthy and sustainable diets.**[i] Today, unhealthy diet is the leading global cause of disease, disability and premature death, and one of the top two risk factors for non-communicable diseases (NCDs). Further, unhealthy food products cost employers, through reduced productivity and increased costs, and place a significant burden on society (estimated to reduce GDP by an average of 3.3%, and average life expectancy by three years by 2050).

- **Food companies are failing to disclose sufficient information to enable investors to properly price in the impacts of nutrition.** This is a missed opportunity for companies with a positive story to tell. The threat of regulation is growing and companies producing unhealthy food products are likely to be most impacted. This also creates a risk for investors attempting to assess those companies. Any reduction in long-term growth forecasts as a result could materially affect valuations.[2]

- **There is an opportunity for investors and society to mitigate risk and realise gains by encouraging companies to regard nutrition as material and switch to healthier food product portfolios.** We examine a scenario where companies with broader, unhealthy, food product portfolios switch to healthier alternatives. Not only would the costs to society related to the consumption of unhealthy food products

1 All are included in the Access to Nutrition Initiative's (ATNI) 2018 and 2021 Global Index reports.

2 Discounted cash flow valuations will be particularly impacted since the long-term growth estimate is a key determinant of the terminal value which often accounts for over 80% of the overall estimated company value. By way of illustration: cutting forecast long-term growth by 1% could reduce the terminal value by a third (assuming 8% growth reduced to 7% and a discount rate of 10%).

decrease, but if one assumes these companies generated higher margins as a result (in line with their healthier peers), then the companies could generate nearly USD 350 million of extra profits (EBIT[3]) and add value to the tune of USD 60 billion if EV[4]/EBIT4 multiples are considered.

- **Thirteen companies see nutrition as a strategic opportunity** and many are keen to ensure the issue of nutrition is flagged to analysts during earnings calls. However, **only seven regard nutrition as a sufficiently material issue** to warrant raising in the context of their earnings calls discussions with analysts.

- **Six companies[5] with broader, healthier food portfolios have a higher average profit (EBIT) margin (15.2%) than the average for their peers[6] with broader, unhealthy food product portfolios (13.4%).**

- However, **five companies[7] with narrower, unhealthy, food product portfolios have a higher average margin (16.7%) compared to their peers with narrower, healthier food product portfolios[8] (10.4%).** The higher average profit margin of this group is particularly influenced by two companies (Coca Cola and Keurig Dr Pepper) that have very strong brands and generate significant revenues (and profits) from selling soft drinks while controlling costs by outsourcing a portion of their bottling operations. However, there is significant overlap between the two groups in terms of their individual EBIT margins and the range of EBIT margins is wide.

- **T he six companies with broader, healthier food portfolios have a higher average EV/EBIT valuation ratio than their unhealthy peers.**

- W hen other valuation metrics are used the picture is more mixed and there is less evidence that the market is favouring companies with healthier food product portfolios.

- **Analysis of a sample of the Annual Reports of the 20 companies showed that only two (Coca Cola and Grupo Bimbo) disclose targets relating to nutrition and only three (Danone, Nestlé and Grupo Bimbo)* acknowledge their Health Star Rating.[9]**

- **Analysis of transcripts and Annual Reports of a sample of the 20 companies showed that nutrition is rarely mentioned as a risk despite the growing threat of regulation** but frequently mentioned (albeit often briefly) as a strategic opportunity responding to consumer demand.

**Erratum: An earlier version of this report incorrectly stated that 'only two (Danone and Grupo Bimbo) acknowledge their Health Star Rating' omitting Nestlé. This has been corrected.*

---

3 EBIT: Earnings Before Interest and Tax – a measure of profitability designed to be more comparable across companies and regions because it excludes the impact of differing debt levels and different tax regimes.

4 Enterprise Value (EV) combines the market capitalisation of the company with its net debt to provide a proxy for the market value of operating assets.

5 Campbell Soup Co, Conagra Brands Inc, General Mills Inc, Kraft Heinz Co, Suntory Beverage & Food Ltd, Nestlé SA.

6 Ajinomoto Co Inc, Unilever PLC.

7 Keurig Dr Pepper Inc, Tingyi (Cayman Islands) Holding Corp, Coca-Cola Co, Mondelez International Inc, PepsiCo Inc.

8 China Mengniu Dairy Co Ltd, Danone SA, Grupo Bimbo SAB de CV, Inner Mongolia Yili Industrial Group Co Ltd, Kellanova, Meiji Holdings Co Ltd.

9 The 2021 ATNI Global Index report identifies more companies disclosing some form of nutritional target and/or discussing the nutritional profile of their food products but doing so outside their Annual Reports and not using externally verified systems such as HSR.

Limitations of the report:

There are two major caveats to this preliminary finding. First, our sample size (19) is small. This is because health star rating (HSR) scores are only available for a few public companies across their portfolios. Stratifying the sample reduces the sample sizes further. For example, when examining smaller companies with broader food portfolios, we are comparing the EBIT of five smaller companies that have a higher HSR with only one smaller company that has a lower HSR.

Second, demonstrating association between HSR and EBIT does not establish causation. Our analysis does not prove that healthier food portfolios are a driver of higher profits, merely that there appears to be an association between HSR and EBIT which could be driven by an unidentified third factor.

A next step towards uncovering the materiality of nutrition for company economic performance would be to increase the sample size (e.g. to at least 100 companies) and conduct additional multiple regression work that can ensure a more comprehensive approach to accounting for multiple firm characteristics and better address the correlation versus causation issue. This could provide a stronger guide to investors on the features that strengthen the positive relationship between HSR and EBIT.

The report warns investors that regulation will increasingly put companies which produce mostly unhealthy foods at risk. Further research may consider financial forecasting under various regulation scenarios, such as wider use of, salt reduction measures, marketing restrictions and mandatory reporting requirements for food and beverage companies to identify the potential impact in terms of reduced sales and profits from unhealthy foods which these regulations seek to achieve.

INVESTOR CALL TO ACTION

Our findings indicate that policymakers, motivated by the societal costs of obesity and by consumer concerns, are increasingly considering regulation to improve the food environment. These include health taxes, restrictions on marketing, especially to children, limits on salt content and mandatory front of package labelling.

Investors can mitigate their risks and identify potential opportunities when investing in food manufacturers by:

- Encouraging companies to improve the healthiness of their food product portfolios before regulation forces changes on them.
- Pressing companies for consistent, more detailed, nutrition-related disclosures; particularly an analysis of their food product portfolios (including profitability) using the Health Star Rating system or related government-endorsed product profiling system.
- Asking companies to set proportional nutrition-related targets and publish KPIs to allow progress to be monitored.
- Incorporating an assessment of the healthiness of particular companies' food product portfolios in their investment analysis.
- Engaging with food companies to encourage a greater focus on nutrition as an opportunity and to ensure companies are taking concrete steps to mitigate nutrition-related risks, in terms of lost employee productivity as well as the risks of increasing health related regulations.
- Joining with other investors to encourage regulators and policy makers to implement compulsory disclosure regimes relating to nutrition and to introduce rules and incentives to encourage companies.
- Engaging with ESG data providers to ensure they include nutrition as a metric in their frameworks and scoring.

COMPANY SUMMARY

The analysis in this report covers the 20 quoted companies from the 25 covered by ATNI's Global Index - see Table 1.

Table 1: *Companies covered by the analysis in this report*

Company	Margin and valuation analysis	Annual report analysis	Earnings transcripts analysis
1. Ajinomoto Co Inc (AJINY)	✓	✓	X
2. BRF SA (BRL)	✓	✓	✓
3. Campbell Soup Co (CPB)	✓	✓	✓
4. China Mengniu Dairy Co Ltd (2319.HK)	✓	X	X
5. Coca-Cola Co (KO)	✓	✓	✓
6. Conagra Brands Inc (CAG)	✓	✓	✓
7. Danone SA (BN.PA)	✓	✓	✓
8. General Mills Inc (GIS)	✓	✓	✓
9. Grupo Bimbo SAB de CV (BIMBOA.MX)	✓	✓	✓
10. Inner Mongolia Yili Industrial Group Co Ltd (600887.SS)	✓	X	X
11. Kellanova[10] (K)	✓	✓	✓
12. Keurig Dr Pepper Inc (KDP)	✓	X	X
13. Kraft Heinz Co (KHC)	✓	✓	✓
14. Meiji Holdings Co Ltd (MEJHY)	✓	X	X
15. Mondelez International Inc (MDLZ)	✓	X	X
16. Nestlé SA (NSRGY)	✓	✓	✓
17. PepsiCo Inc (PEP)	✓	✓	✓
18. Suntory Beverage & Food Ltd (STBFY)	✓	X	X
19. Tingyi (Cayman Islands) Holding Corp (0322.HK)	✓	✓	X
20. Unilever PLC (UL)	✓	✓	✓

We used a narrower sample when surveying Annual Reports and earnings transcripts as discussed later in this report.[11]

10 The 2021 ATNI Global Index assessed Kellogg before the company split into Kellanova and WC Kellogg and so ATNI data for Kellogg are compared to financial and valuation data for Kellanova.

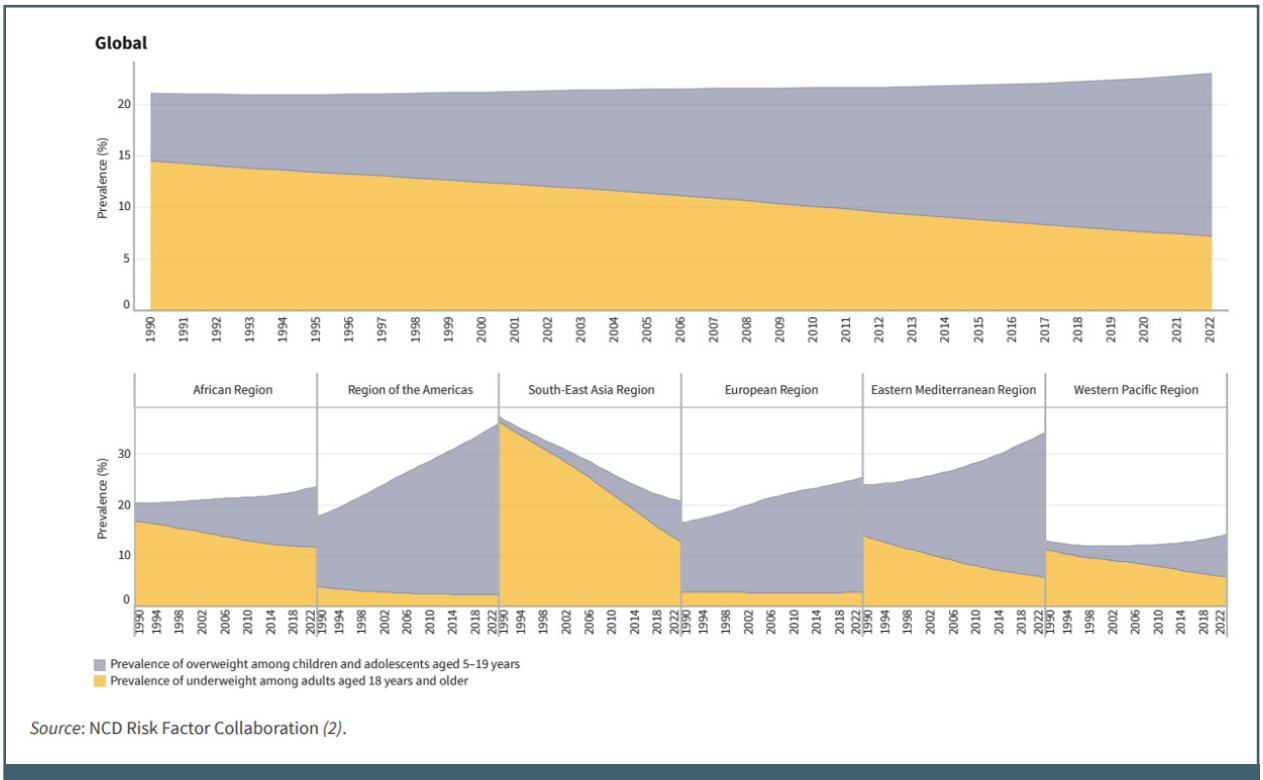
11 Resource constraints and/or lack of English transcripts prevented us from including the other companies.

THE COST TO SOCIETY OF UNHEALTHY FOOD

The food system is a significant driver underpinning climate change, nature loss and poor health associated with malnutrition. These effects result in significant costs to society, risks to investors and threaten the food system itself. Planet Tracker's Financial Markets Roadmap for Transforming the Global Food System discusses many of these harms in more detail and sets out a strategic framework for financial institutions to use their capital and financial influence to support the required transformation of the food system.

With respect to nutrition, the foods routinely eaten across the world continue to fall short of the minimum standards for healthy and sustainable diets.[ii] Today, unhealthy diet is the leading global cause of disease, disability and premature death, and one of the top two risk factors for non-communicable diseases (NCDs). Better nutrition is essential for improved infant, child and maternal health outcomes, stronger immune systems, safer pregnancy and childbirth, lower risk of non-communicable diseases (such as diabetes and cardiovascular disease) and improved longevity.

WHO's 2024 World Health Statistics Report[iii] indicates that progress towards decreasing the prevalence of underweight has been slowing while at the same time there is an increase in the prevalence of obesity globally among adults aged 18 years and older – see Figure 1.



Source: NCD Risk Factor Collaboration *(2)*.

Figure 1: *Prevalence of underweight and obesity among adults aged 18 years and older, globally and by WHO region, 1990-2022 (Source: WHO)*

It was recently estimated that dietary factors were responsible for 8.3 million deaths worldwide and contributed to many illnesses such as type 2 diabetes, cardiovascular disease, hypertension and many cancers.[iv]

The global socio-economic implications of these trends are substantial. On average, across the 52 OECD countries, 8.4% of the health budget is expected to be spent to treat the consequences of overweight between 2020 and 2050, with the associated average reduction in GDP due to lower employment and reduced productivity predicted to be 3.3%, accompanied by a reduction in average life expectancy of three years.[v] The expected economic costs of undernutrition, in terms of lost national productivity and economic growth, range from 2% to 3% of GDP in some countries, up to 11% of GDP in Africa and Asia each year.[vi]

A significant driver in this increasing obesity prevalence is the global shift towards increased consumption of foods and beverages that have been processed to varying degrees beyond the level needed to ensure food safety and feasibility for use by consumers in home food preparation. The growth of the manufactured food industry and increasing availability and promotion of foods that fit definitions such as "highly processed" or "ultra-processed" is driven by changing lifestyles, strategic actions by large food manufacturers in product design, pricing, marketing and distribution and by adverse government policies and subsidies. ATNI data on approximately 40,000 food products sold globally by the world's 25 largest food manufacturers – or 30% of global supply of packaged foods – show that 73% do not meet healthy standards[12].

Highly processed foods now constitute at least half of the total calorie intake in the United States,[vii] UK,[viii] and Canada.[ix,x] In other high- and middle-income countries, highly processed foods contribute about 20-40% of total calories consumed.[xi,xii,xiii] Similarly, highly processed foods also constitute an increasing proportion of people's diets in low and lower-middle income countries, with highly processed foods comprising between 31% and 65% of the value of urban households' food baskets in Ethiopia, Uganda, Tanzania, Mozambique, and Malawi;[xiv] and between 18% and 37% in Bangladesh, Indonesia, Nepal and Vietnam.[xv]

Between 1998 and 2012, sales volumes of packaged highly processed foods experienced a rapid compound annual growth rate, varying from around 1% per year in high-income countries to 10% in middle-income countries.[xvi] Over a period of 15 years (2002-2016), the volume sales of packaged processed foods increased by 67% in South and Southeast Asia, 58% in North Africa and the Middle East, while the volume sales of packaged processed drinks rose by 120% in South and Southeast Asia and by 71% in Africa.[xvii]

12 When assessed against healthy thresholds such as Health Star Rating nutrient profiling model using a healthiness threshold score of 3.5. This is estimated % healthy sales obtained by multiplying product category sales by % healthy products.

THE COST TO BUSINESS OF UNHEALTHY FOOD

In addition to the societal costs caused by malnutrition, it increases risks and costs to employers across all sections of the economy.

A 2018 study[13] in the Journal of Occupational and Environmental Medicine summarised the results of a literature review covering 275 academic articles published between 2011 and 2016 investigating the impact of obesity in the American workplace.

The study concluded that high Body Mass Index (BMI[14]) was associated with increased medical expenditures by the employer including pharmaceutical costs and workers' compensation, and a negative impact on productivity including absenteeism, presenteeism[15] and short-term disability (STD). The relationship tended to be 'J-shaped', not linear, with significantly increasing impacts for workers with a BMI ≥ 30 kg/m^2 (defined as 'obese'). The authors of the 2018 literature review also found strong links between increasing BMI and costs to the employer.

In addition, a 2018 report by the Milken Institute asserts that the annual productivity costs of obesity to American employers alone stands at USD 1.24 trillion. These costs are chiefly driven by absenteeism and presenteeism, along with disability and workers' compensation.[xviii] The potential cost relating to obesity is 50 to 80 times higher than for employees within the recommended BMI range – see Figure 2.

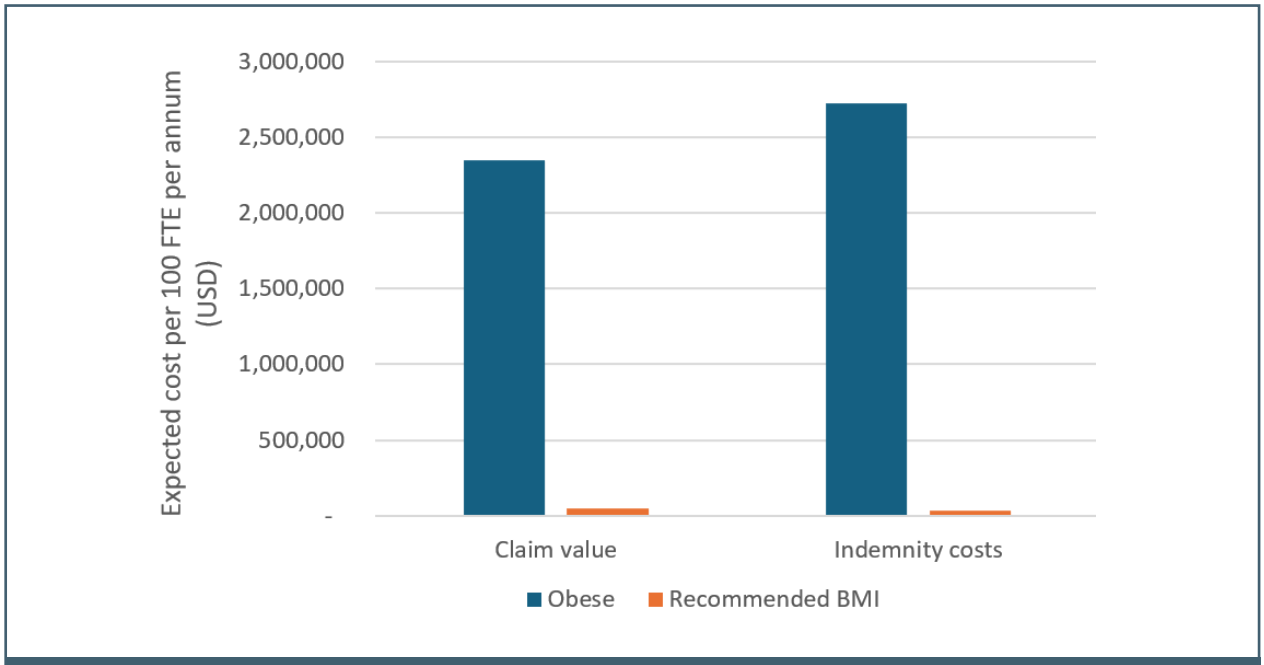


Figure 2: *Estimated potential employer costs arising from obesity (Source: Planet Tracker analysis using data from Østbye et al, 2007).*

13 Obesity in the Workplace: Impact, Outcomes, and Recommendations, Charles Yarborough, Stacy Brethauer, Wayne Burton, et al.

14 Body Mass Index: body mass divided by the square of the body height (kg/m^2).

15 Presenteeism: the act of staying at work longer than usual, or going to work when you are ill, to show that you work hard and are important to your employer (Cambridge Dictionary) – in this context we use the term to denote employees who are present at work but whose productivity is impaired by ill-health due to dietary factors.

THE THESIS – INVESTORS ARE NOT REWARDING COMPANIES FOR HEALTHY FOOD PORTFOLIOS

The majority of food manufacturers do not disclose information about the healthiness of their global food portfolios suggesting that the information provided by ATNI's Global Access to Nutrition Index is one of the few sources of information on this topic for financial markets.

Planet Tracker investigated the thesis that this lack of disclosure impairs the ability of investors to properly assess the companies in which they are investing and means that the financial markets are not taking the healthiness of company food product portfolios into account when evaluating food manufacturing companies.

Our analysis compared the HSR data provided by ATNI with financial and valuation data for 20 of the largest quoted food manufacturing companies, representing 10% of the global market that are among the 25 covered by ATNI's 2021 Global Index.

We also conducted an analysis of company annual reports and earnings call transcripts for a subset of these companies to identify the extent to which companies and/or investors are discussing the healthiness of food product portfolios.

We discuss our analysis in the following sections.

METHODOLOGY (SUMMARY)

Data analysis

Company-reported financial and valuation data[16] were taken from Refinitiv and compared to data from the ATNI Global Index series – see Figure 3.

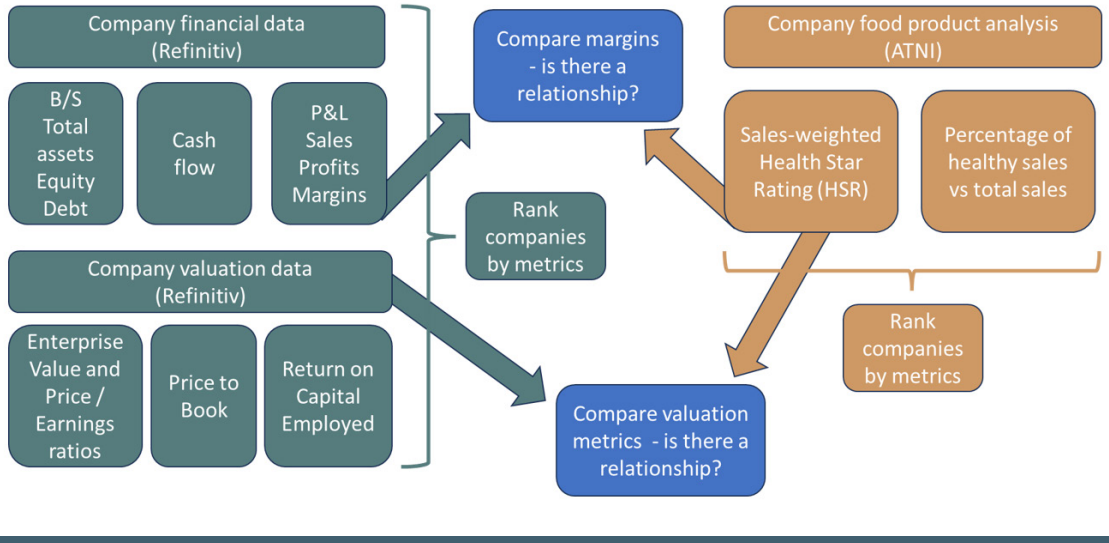


Figure 3: *Comparing financial data to the 'healthiness' of food product portfolios (Source: Planet Tracker analysis of Refinitiv and ATNI data)*

Refer to the Appendices for more details on the ATNI methodology for estimating Health Star Ratings (HSR) for each company, and the methodology deployed by Planet Tracker when undertaking the analysis summarised in this report.

The challenge of a small sample - grouping to compare like-with-like

The selected companies are all covered by the 2021 ATNI Global Index. However, despite their focus on food manufacturing – and their significance to the global food system representing 10% of the market – they represent a very diverse group and overall a small sample. This limited the extent to which statistical analysis techniques could be utilised, for example. To help address this challenge, the companies were divided into four groups to increase the extent to which comparisons could be made on a like-for-like basis. Companies were grouped according to size (market capitalisation) and breadth of food portfolio:

1. Smaller companies with narrower food portfolios
2. Smaller companies with broader food portfolios
3. Larger companies with narrower food portfolios
4. Larger companies with broader food portfolios

Within these groups, companies were divided into those with 'healthier' food portfolios and those with 'unhealthier' food portfolios based on their HSR scores.

16 Financial data was the latest reported annual financial data for years ending in fiscal year 2022/23. Valuation multiples used 12 month forward forecasts taken from Refinitiv and market values as at 23rd February 2024.

The dividing lines (smaller vs larger, narrower vs broader, and 'healthier' vs 'unhealthier') were determined by ranking the companies according to these characteristics and identifying natural breakpoints in these sequences that were close to the average values for the overall sample as discussed in the following sections. The summary at the end of this section shows which companies were allocated to each group.

Dividing by size

In terms of size (market cap), three companies have market values of over USD 200 billion, two are valued between USD 75 billion and USD 200 billion and the rest are worth USD 50 billion or less. The average market cap for the whole group was USD 71 billion. As a result, we divided them into two groups using USD 75 billion as the dividing line – see Figure 4.

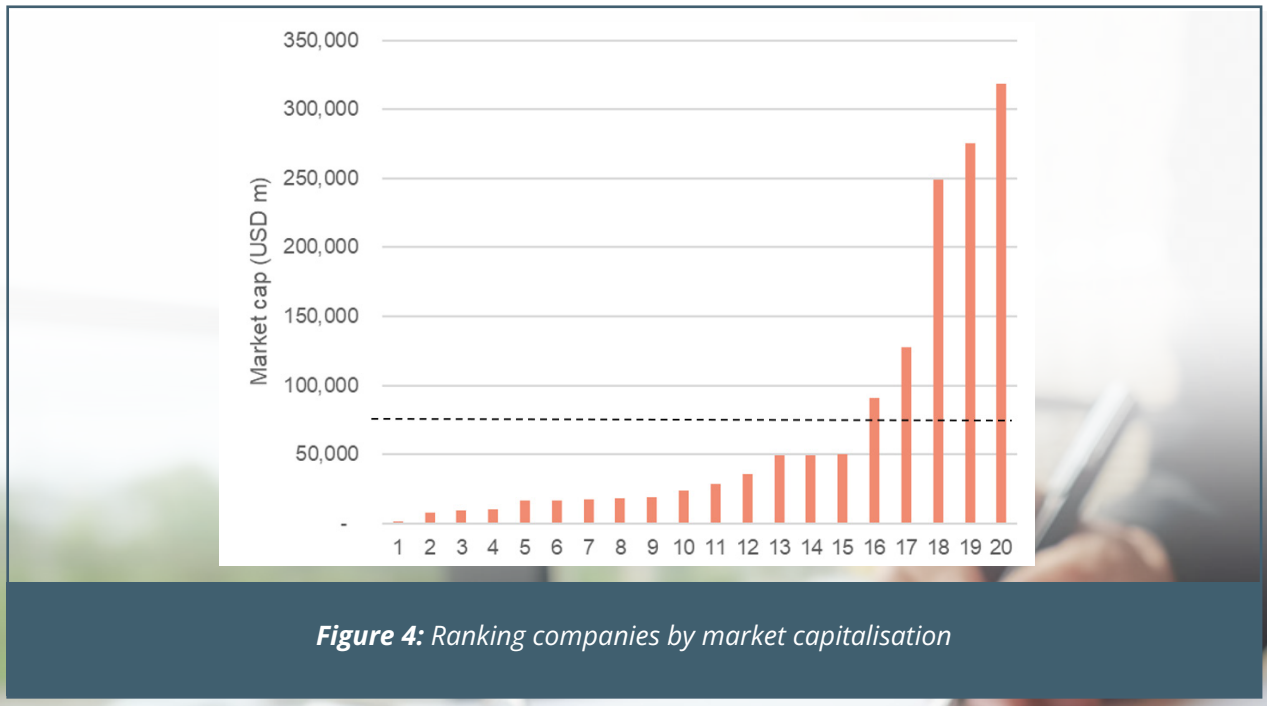


Figure 4: *Ranking companies by market capitalisation*

Dividing by breadth of food portfolio

The ATNI survey data groups the food products sold by a company according to the Euromonitor food categories (see Appendix for more details). The average number of Euromonitor food categories for the whole group was four, with a minimum of one and a maximum of seven. The group was therefore divided into those with fewer than 5 food categories and those with five or more – see Figure 5.

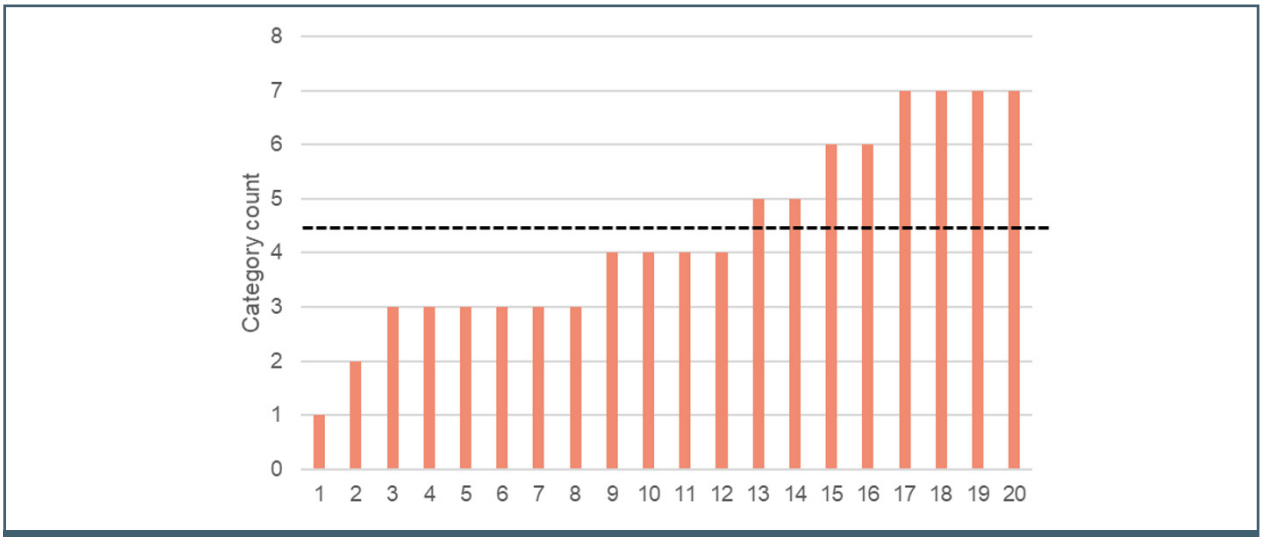


Figure 5: *Ranking companies by count of food product categories in the ATNI survey data (Planet Tracker analysis of ATNI data)*

Dividing by sales weighted HSR score

Only one of the companies in our sample (or in the wider ATNI Global Index) – Danone - had a sales-weighted HSR score of 3.5 out of five (the lowest level at which their food portfolio could be classified as 'healthy' by ATNI) – the average sales-weighted HSR score for the whole group was 2.5 and there was a clear breakpoint, with companies with 'unhealthier' food portfolios (HSR <=2.3) and those with 'healthier' food portfolios (HSR >=2.5) – see Figure 6.

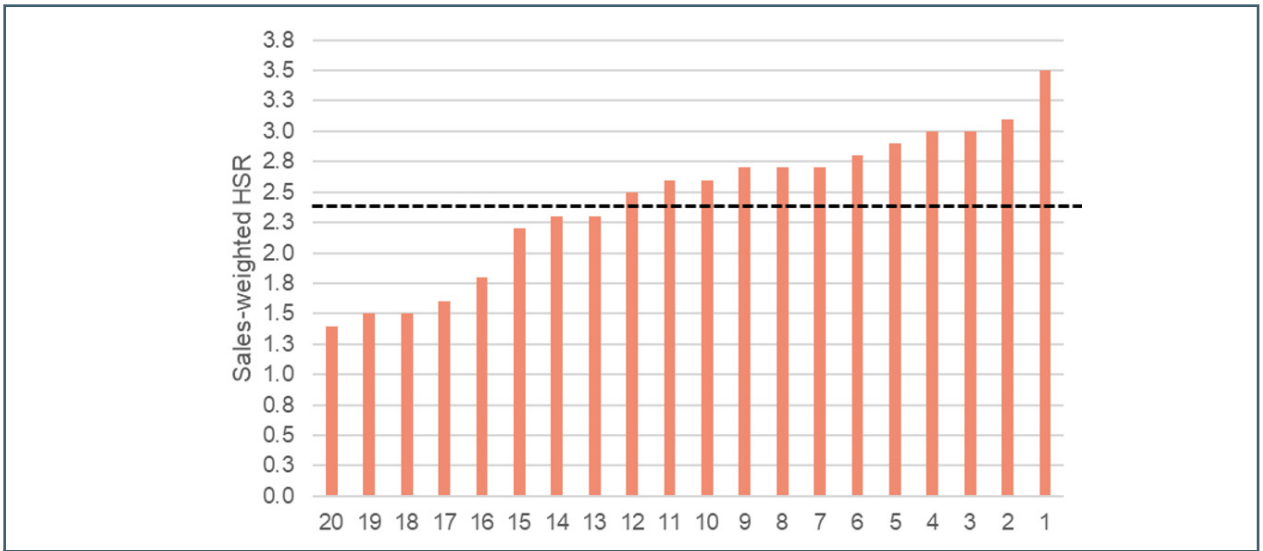


Figure 6: *Ranking companies by sales-weighted HSR score (Planet Tracker analysis of ATNI data)*

For the purposes of this report, rather than refer to 'less unhealthy' food portfolios, we describe food portfolios scoring 2.5 or higher as 'healthier' when compared to the alternative (food portfolios scoring 2.3 or less), however it is important to note that the accepted definition of 'healthy' in the context of the Health Star Rating is a score of 3.5 or higher.[xix]

Summary – the seven comparison groups

Dividing companies by size, breadth of food portfolio and HSR score made sense when comparing like-for-like, but did not result in similar sized groups on either side of the dividing line – see Table 2.

Table 2: *Summary of company groupings*

Criteria		Number of companies	Average HSR score
Size - smaller	<USD 75bn	15	2.5
Size - larger	>=USD 75bn	5	2.1
Narrower food portfolio	<5 food categories	12	2.3
Broader food portfolio	>=5 food categories	8	2.6
'Unhealthy' food portfolios	HSR <= 2.3	8	1.8
'Healthier' food portfolio	HSR >=2.5	12	2.8

In theory, dividing our sample across these three axes would result in eight sub-groups, however one of the potential groups (large companies with narrow food portfolios and a higher than average HSR score) did not contain any companies (preventing comparisons with the comparison group of large companies with narrow, unhealthy, food portfolios) and three of the sub-groups only contained one company – see Table 3.

Table 3: *Grouping companies by size, breadth of food portfolio and HSR score (Planet Tracker analysis)*

Company sub-groups	M/cap (USD m)	Category count	HSR	EBIT margin	EV/EBIT
Smaller, narrower food portfolio, unhealthy (3 companies)					
BRF SA	1,696	3	2.3	0%	8.9
Keurig Dr Pepper Inc	50,504	3	1.5	21%	16.4
Tingyi (Cayman Islands) Holding Corp	9,942	4	1.4	5%	12.2
Smaller, narrower food portfolio, healthier (6 companies)					
China Mengniu Dairy Co Ltd	17,929	1	3.0	6%	21.9
Danone SA	35,607	3	3.5	13%	12.5
Grupo Bimbo SAB de CV	18,751	3	2.7	14%	13.2
Inner Mongolia Yili Industrial Group Co Ltd	28,762	2	3.0	8%	16.1
Kellanova	24,313	4	2.6	12%	16.1
Meiji Holdings Co Ltd	7,627	4	2.5	9%	10.6
Smaller, broader food portfolio, unhealthy (1 company)					
Ajinomoto Co Inc	16,510	6	1.6	11%	13.3
Smaller, broader food portfolio, healthier (5 companies)					
Campbell Soup Co	16,995	7	2.9	14%	15.6
Conagra Brands Inc	18,445	6	3.1	16%	15.0
General Mills Inc	49,439	7	2.8	18%	17.6
Kraft Heinz Co	49,867	5	2.7	18%	13.8
Suntory Beverage & Food Ltd	10,606	7	2.6	9%	9.8
Larger, narrower food portfolio, unhealthy (3 companies)					
Coca-Cola Co	275,082	4	1.8	28%	22.2
Mondelez International Inc	91,018	3	1.5	14%	21.7
PepsiCo Inc	248,897	3	2.3	15%	21.5
Larger, broader food portfolio, unhealthy (1 company)					
Unilever PLC	128,096	5	2.2	16%	14.9
Larger, broader food portfolio, healthier (1 company)					
Nestlé SA	318,731	7	2.7	17%	20.4
Overall averages	**70,941**	**4**	**2.4**	**13%**	**15.7**

Caveat – small sample sizes reduce the strength of our conclusions

As can be seen from Table 3 above, when drawing comparisons between the sub-groups there is a chance that one or both of the subgroups only contains one company. As a result, there is a clear risk that our results are distorted by the individual characteristics of one particular company and so should be interpreted accordingly.

PROFIT AND FOOD PRODUCT HEALTHINESS

Margins are higher for healthier, broader, food portfolios

When companies are grouped according to their HSR scores, it would appear that companies with healthier food portfolios (HSR >=2.5) have slightly lower EBIT margins than the companies with unhealthier food portfolios – see Figure 7.

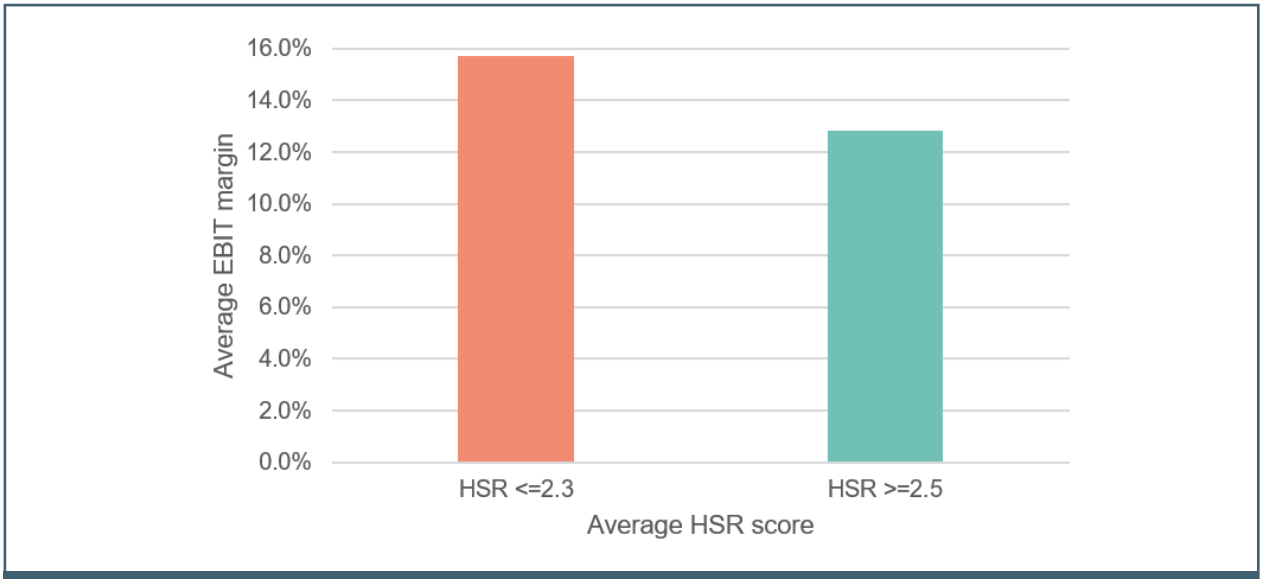


Figure 7: *Comparing EBIT margins to ATNI data*
(Source: Planet Tracker analysis of Refinitiv and ATNI data)

This relationship has been true in every year since 2014 – see Figure 8.

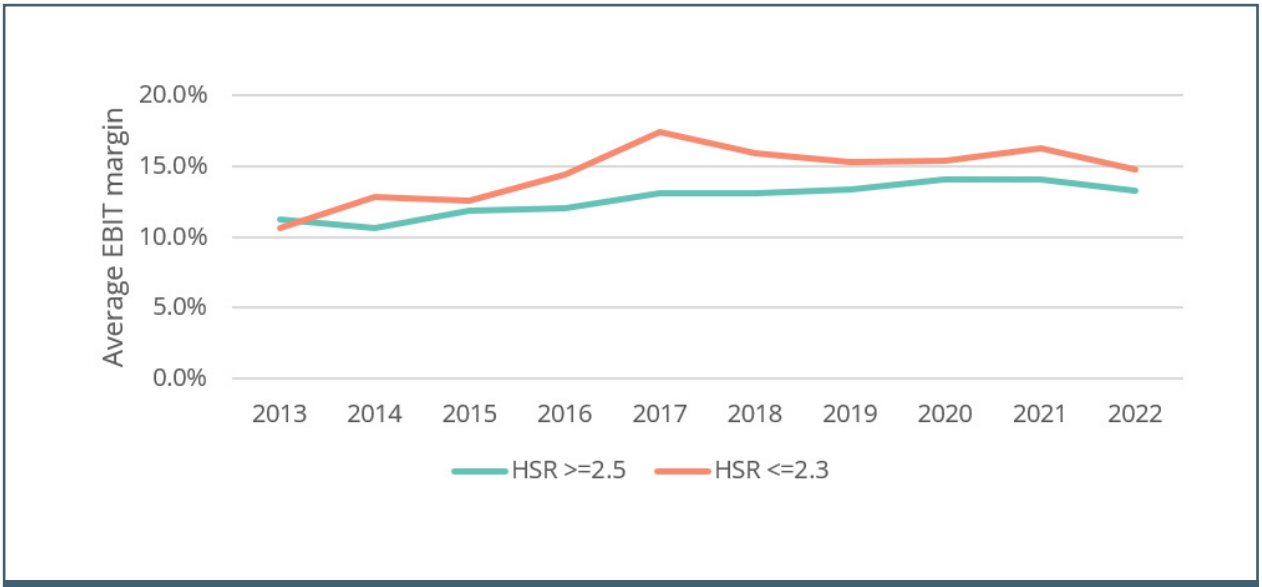


Figure 8: *Comparing EBIT margins (healthier vs unhealthy food portfolios) since 2013*
(Source: Planet Tracker analysis of Refinitiv and ATNI data)

However, when the companies are subdivided by size and by breadth of food portfolio, a different picture emerges.

When companies with broader product portfolios are compared, margins are *higher* for companies with *healthier* food portfolios. This result holds for both smaller and larger companies when their FY2022 EBIT margins are considered[17] – see Figure 9.

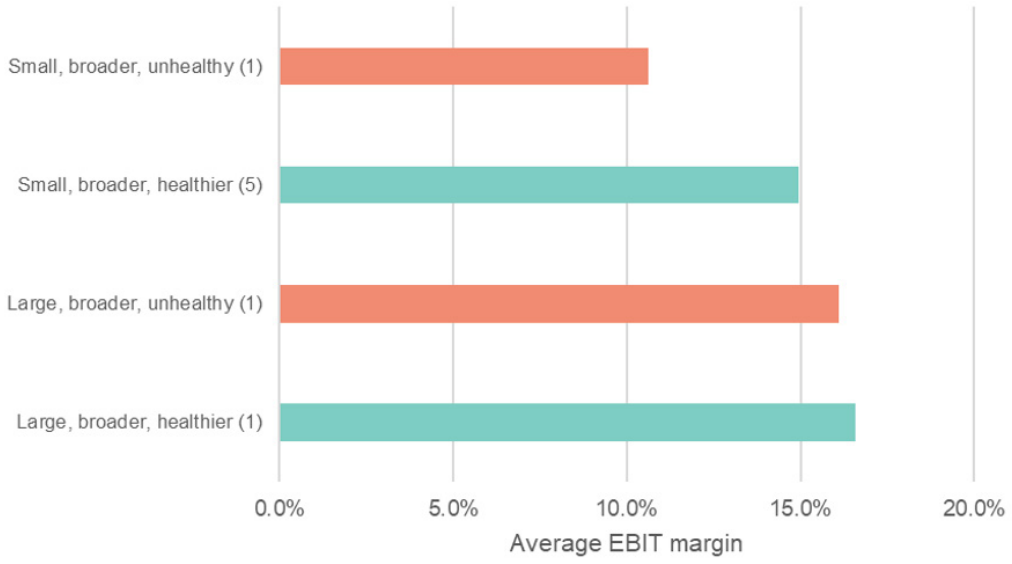


Figure 9: *Comparing 'healthier' vs 'unhealthy' broader food portfolios by size of company (sample size in brackets) (Planet Tracker analysis)*

However, when these same companies are compared across time, it can be seen that this relationship only applies to the smaller companies in the sample – see Figure 10.

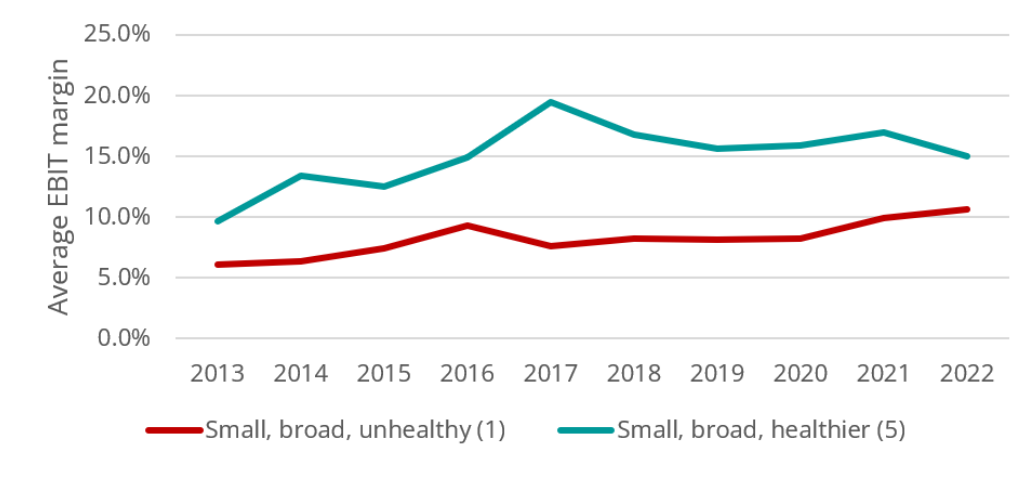


Figure 10: *Smaller companies - comparing EBIT margins (healthier vs unhealthy broad food portfolios) since 2013 (Source: Planet Tracker analysis of Refinitiv and ATNI data)*

17 There is only one company in each of the 'Large, Broader' groupings so in effect this analysis compares Unilever (HSR of 2.2) with Nestlé (HSR of 2.7). The margins shown are their reported consolidated margins. Based on their FY23 results, Unilever reported an underlying operating margin of 15.7% (35% of sales, weighted average excluding HPC categories,) and Nestlé reported an underlying operating margin of 19.6% (80% of sales, weighted average excluding Pet Care) – supporting the impression given in the chart.

When EBIT margins are examined for the two larger companies from 2013 to 2022 there are some years where margins are higher for the company with a healthier food portfolio, and others where the opposite is true – see Figure 11.

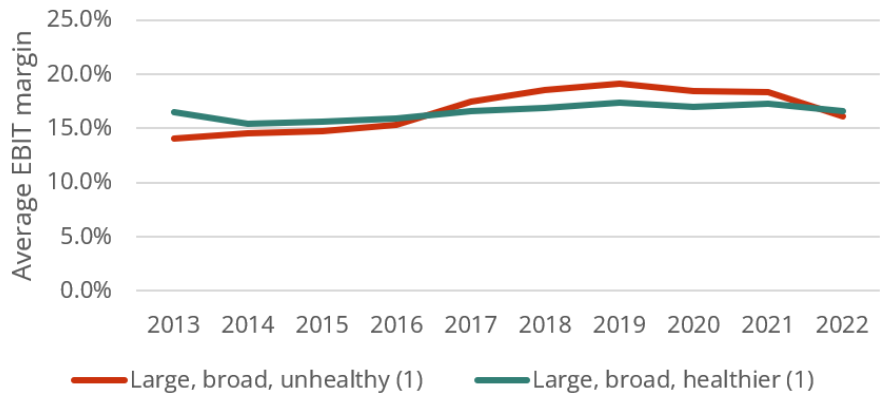


Figure 11: *Larger companies - comparing EBIT margins (healthier vs unhealthy broad food portfolios) since 2013 (Source: Planet Tracker analysis of Refinitiv and ATNI data)*

This pattern does not hold true for companies with narrower food portfolios - higher margins tend to be found in companies with lower HSR scores in this sub-group.

This can be seen in the case of smaller companies with narrower food portfolios – companies with unhealthy food portfolios have higher margins (13%) than their 'healthier' peers (10%).

The same comparison is not possible for larger companies with narrower food portfolios. There were no companies with 'healthier' food portfolios (HSR >=2.5) among the larger companies with narrower food portfolios in our sample since this category is dominated by companies focused on soft drinks with HSR scores equal to or less than 2.3, so it is not possible to make a like-for-like comparison for this grouping – see Figure 12.

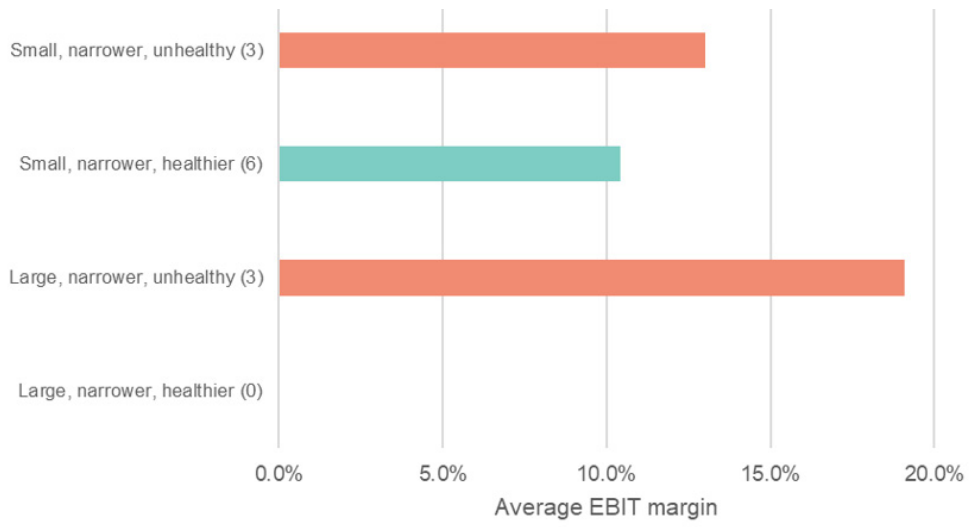


Figure 12: *Comparing 'healthier' vs 'unhealthy' narrower food portfolios by size of company*

When EBIT margins are examined for companies with narrower food portfolios from 2013 to 2022, the pattern of unhealthy food portfolios corresponding to higher margins holds true for all years – see Figure 13.

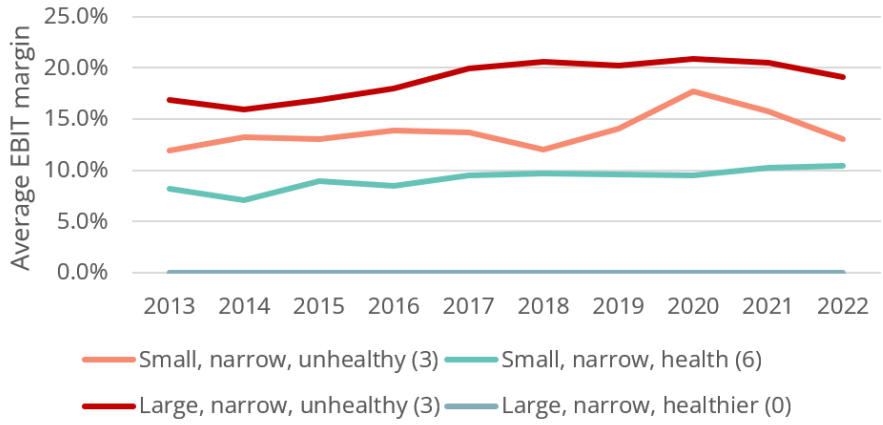


Figure 13: *All companies - comparing EBIT margins (healthier vs unhealthy narrower food portfolios) since 2013 (Source: Planet Tracker analysis of Refinitiv and ATNI data)*

Statistical analysis supports these observations

Sales-weighted HSR scores are published as part of the ATNI's Global Indexes for 2018 and 2021, based on the analysis of sales two years prior to the Index publication year (2016 for the 2018 Global Index and 2019 for the 2021 Global Index).

We examined the correlation between HSR scores and the EBIT margin in the years preceding each index, separating the companies into two groups based on the breadth of their food portfolios (as captured by the ATNI Global Index).

The correlation between HSR and EBIT margins for companies with broad food portfolios is positive in every case, both when the 2018 HSR scores are considered and when testing the 2021 HSR scores. The average correlation across all the years is 0.57 – see Table 4.

Table 4: *Rank correlations between HSR scores and EBIT margins (Source ATNI and Refinitiv data and Planet Tracker analysis)*

	Correlation vs 2018 HSR				**Correlation vs 2021 HSR**							**Average correlation**
	2016 EBIT margin	2017 EBIT margin	2018 EBIT margin	**Average** (2016-18)	2018 EBIT margin	2019 EBIT margin	2020 EBIT margin	2021 EBIT margin	2022 EBIT margin	**Average** (2019-20)	**Average** (2018-22)	All years
Narrow food portfolios	0.01	-0.06	-0.07	-0.04	-0.35	-0.40	-0.53	-0.47	-0.35	-0.47	-0.42	-0.28
Broad food portfolios	0.37	0.91	0.75	0.67	0.52	0.47	0.51	0.60	0.45	0.49	0.51	0.57

This supports the conclusion that healthier, broader, food portfolios tend to be associated with higher margins.

However, as Table 4 shows, for companies with narrower food portfolios, the correlation between HSR scores and EBIT margins is negative for all years except 2016 (which is close to zero), with an overall average correlation of -0.28, reinforcing the view that unhealthier narrow food portfolios are weakly associated with higher margins.

BRF has been excluded

The margin analysis above excludes BRF as an outlier.

BRF's latest reported EBIT margin was 0% and the company was the only one in our sample that reported a net loss after tax for the year. The median EBIT margin value for our sample was 13%.

We included Coca-Cola although its reported EBIT margin was 28% - 7 percentage points higher than the next highest (Keurig Dr Pepper Inc, 21%) and nearly double its closest peer in the same 'large company, narrow food portfolio' grouping (PepsiCo, 15%), and it has the lowest HSR score (1.8) among the large companies (their average is 2.5) and the third lowest across the entire sample.

We included Unilever although only 35% of its sales come from food ('nutrition' and 'ice cream'). As noted earlier, there is only one company in each of the 'Large, Broader' groupings so in effect this margin analysis compares Unilever (HSR of 2.2) with Nestlé (HSR of 2.7). The margins shown in Figure 9 are reported consolidated margins – in the case of Unilever this will include the results from its Household and Personal Care businesses. Based on their FY23 results, Unilever reported an underlying operating margin of 15.7% on 35% of sales that related to food (weighted average excluding HPC categories), and Nestlé reported an underlying operating margin of 19.6% on the 80% of sales that related to food (weighted average excluding Pet Care) – supporting the conclusion that a broader, healthier, food portfolio is associated with higher margins..

Implications of margin analysis for companies and investors

Company profit margins will be driven by a variety of factors and the 'healthiness' of their food portfolio, as measured by the sales weighted HSR score, will only be one of these factors.

The data published by the majority of companies in our sample do not allow for a more detailed examination of the relationship between the HSR score and EBIT margin, but this is clearly an area where investors have an opportunity to quiz companies further.

In simple terms, our analysis suggests a positive relationship between HSR score and margins for companies that have a broader (more varied) food portfolio, suggesting that companies will benefit from shifting towards more healthy food products if their business model covers a wide variety of food products.

However, our analysis also suggests that companies that focus on a narrow range of unhealthy food products make good margins and so will be less likely to change their business approach without external pressure. Given the potential returns to investors from such businesses, it is unlikely that a majority of investors will demand that such companies move away from the profitable production of unhealthy food products, unless investors decide to include nutrition in their investment assessment. External regulation, driven by the desire to reduce the wider costs to society and the taxpayer, is likely to be the only option to force such a paradigm shift.

We discuss the potential for further regulation later in this report, but the currently high margins some companies are reaping from manufacturing and selling unhealthy food products will be at risk if the current trend towards increasing tighter regulations continues. There is an incentive for investors to begin to look ahead in terms of their analysis of food manufacturers.

VALUATIONS AND FOOD PRODUCT HEALTHINESS

Healthier food portfolios have higher EV/EBIT multiples

Financial market valuations based on Enterprise Values (market cap plus net debt) and EBIT are higher for companies with healthier food product portfolios when companies are compared on a like-for-like basis (similar market cap and breadth of food product portfolio).

To provide clearer comparisons the following charts combine the figures for larger companies (>= USD 75 billion) irrespective of the number of food product categories in their food portfolios since there were no companies with narrower, 'healthier', food portfolios among the larger companies in our sample.

Unsurprisingly, given its outlier status from a profitability perspective, BRF is an outlier from a valuation perspective as well and so has been excluded from the valuation analysis. As noted earlier, Unilever only generates 35% of its sales from food so a large part of its valuation will be driven by its non-food activities. We have not attempted to adjust for this in valuation terms but since it generates higher underlying operating margins (17.2%) from these divisions it is likely that its valuation multiples would be lower if its non-food value was excluded.

EV/Sales

When companies are compared using EV/Sales multiples[18] analysis it can be seen that 'healthier' food product portfolios are associated with higher valuation multiples for smaller companies with broad food portfolios. However, the opposite is true for smaller companies with narrower food product portfolios and when comparing larger companies – see Figure 14.

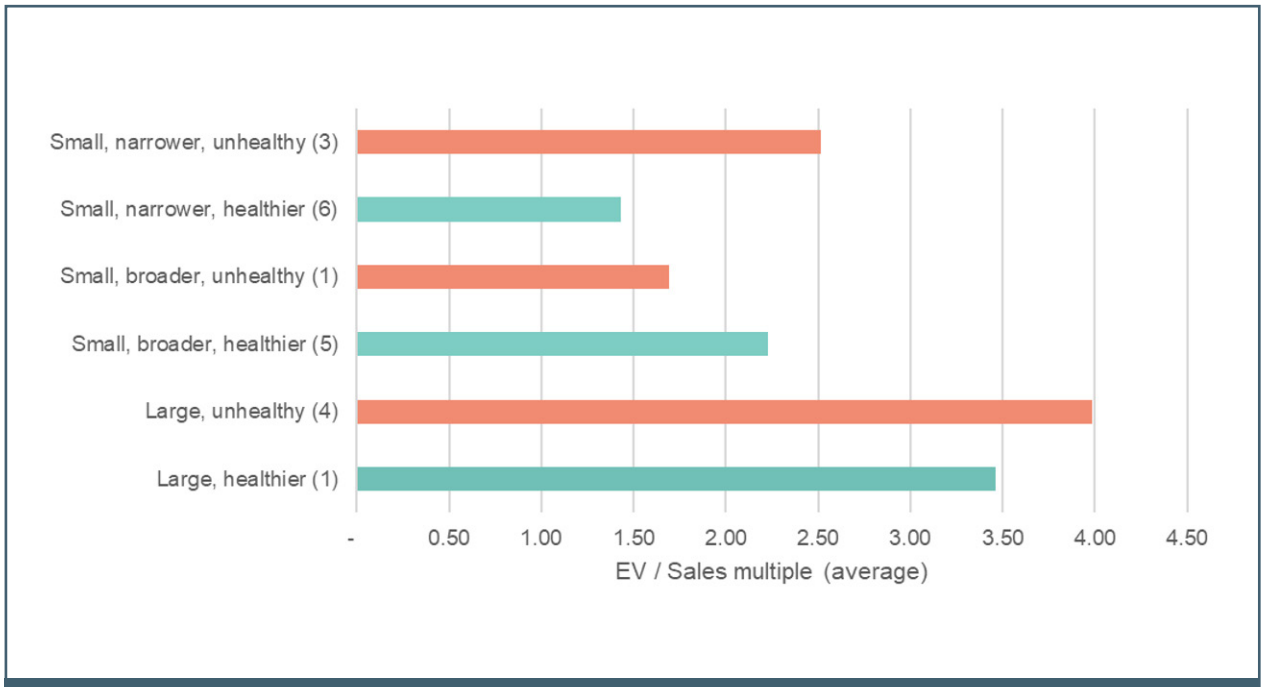


Figure 14: *Comparing EV/Sales multiples for healthier and unhealthier food portfolios (Source: Planet Tracker analysis)*

18 EV/Sales is a valuation multiple that ignores margin differentials and other factors such as the amount of debt the company has or its tax rate).

EV/EBITDA

When companies are compared using EV/EBITDA multiples[19], the difference between the valuation multiples is less marked, but the relationship between higher multiples and higher HSR scores persists among smaller companies with broader food portfolios, and smaller companies with narrower food product portfolios no longer appear such strong outliers – see Figure 15.

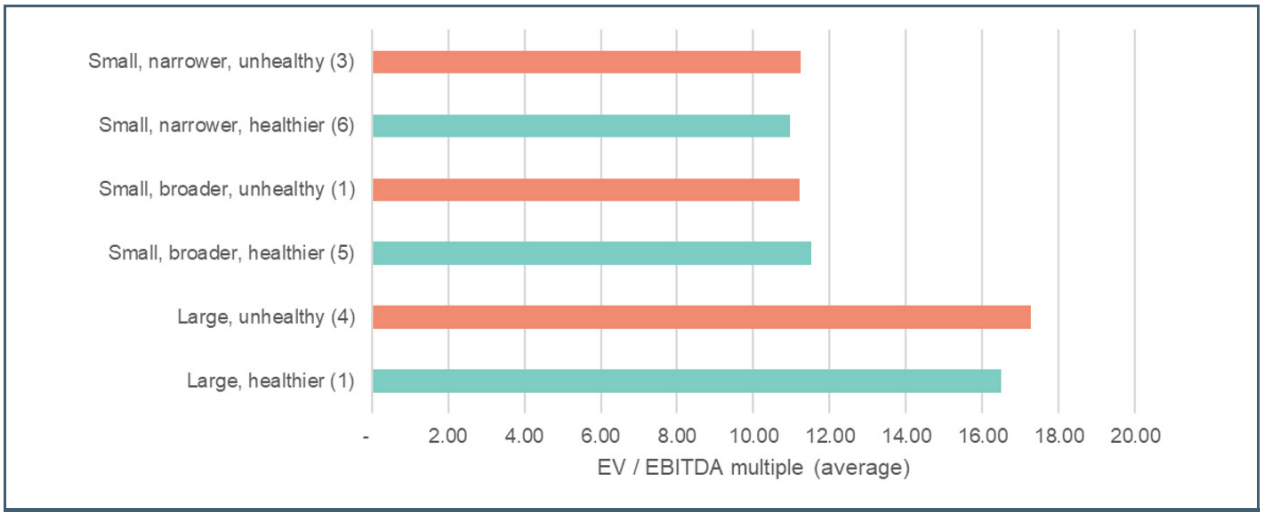


Figure 15: *Comparing EV/EBITDA multiples for healthier and unhealthier food portfolios (Source: Planet Tracker analysis)*

EV/EBIT

Comparing companies based on EV/EBIT[20] multiples provides the clearest picture. When this multiple is used, higher HSR scores align with higher EV/EBIT multiples across all the groupings – see Figure 16.

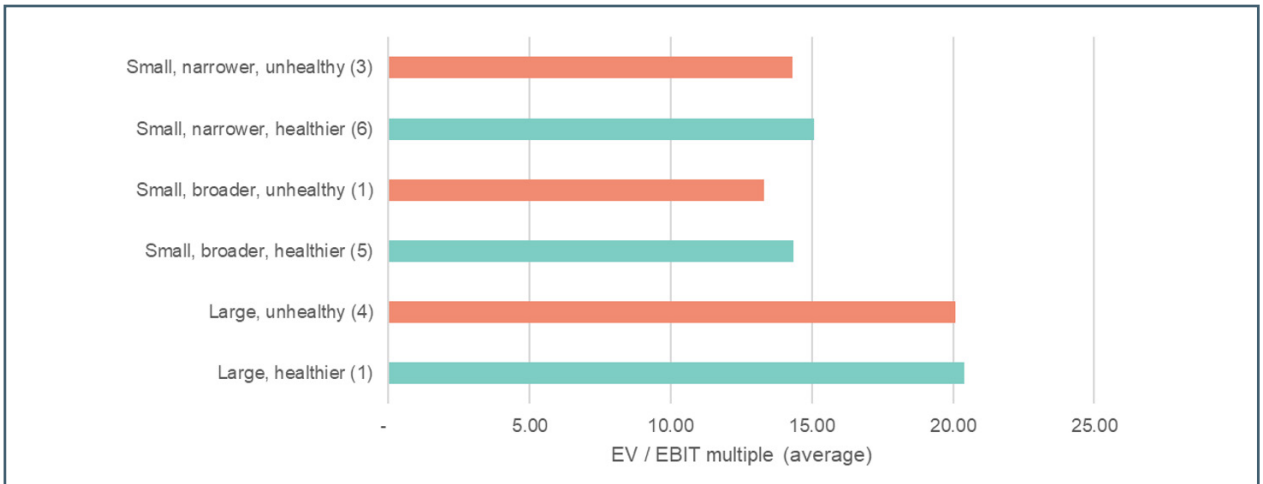


Figure 16: *Comparing EV/EBIT multiples for healthier and unhealthier food portfolios (Source: Planet Tracker analysis)*

19 EBITDA = Earnings Before Interest, Tax, Depreciation and Amortisation – a measure that takes margins into account but ignores other factors that bear less relationship to the underlying operations of the company or are more open to management manipulation, and thus arguably allows for better comparisons between companies operating in different jurisdictions when used in a valuation multiple.

20 EBIT = Earnings Before Interest and Tax. Unlike EBITDA, EBIT takes into account depreciation and amortisation (two accounting measures that provide an indication of the level of historic investment undertaken by a company) and thus can arguably provide a more representative view of a company's performance.

Coca-Cola is an outlier with respect to EV multiples

Coca-Cola is an outlier with respect to EV multiples, with the highest EV multiples of our sample.

If Coca-Cola is excluded in the Enterprise Value (EV) ratio analysis, then the results for the large companies are partially reversed and the EV/Sales and EV/EBITDA multiples are lower for companies with unhealthier food portfolios, aligning them with the results found when comparing EV/EBIT multiples (where the result remains unchanged) – see Figure 17.

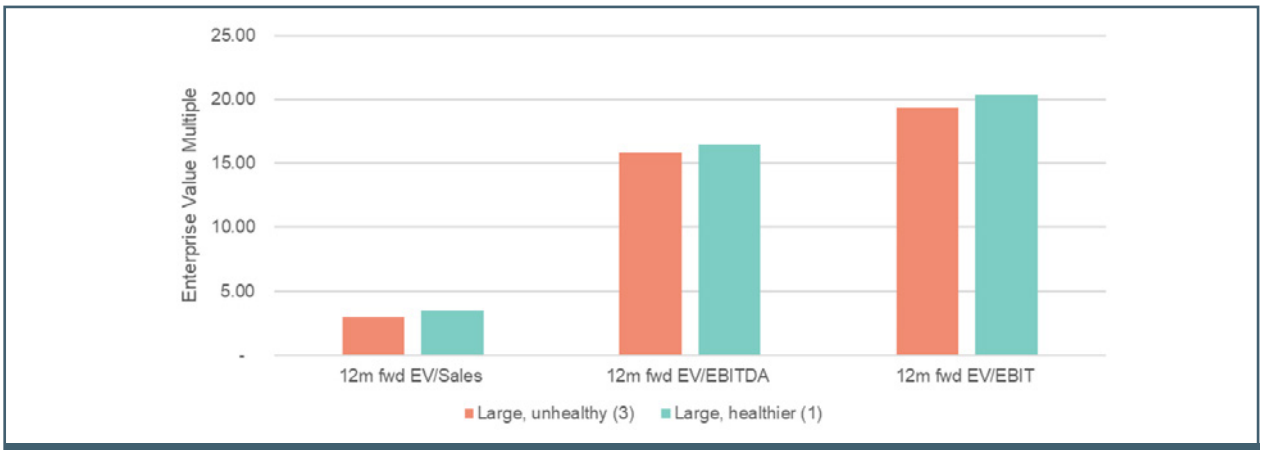


Figure 17: *EV multiples compared excluding Coca-Cola (Source Planet Tracker analysis).*

The picture is more mixed with price/earnings multiples

The picture is different when price/earnings (P/E) multiples are considered. This valuation approach does not adjust for differences between the companies caused by non-operational factors such as accounting for depreciation, or the different tax rates experienced by the companies as a result of operating in different jurisdictions.

When companies with healthier food portfolios are compared to their less healthy peers, P/E multiples are lower across all the peer groups except larger companies with broader portfolios (where they are markedly higher). However, since this peer group only compares two companies (Unilever and Nestlé) with each other, the results are unlikely to be representative of the wider market – see Figure 18.

Figure 18: *Comparing price/earnings multiples for healthier and unhealthier food portfolios (Source: Planet Tracker analysis).*

As noted earlier, there were no companies with narrower, 'healthier' food portfolios among the larger companies in our sample, so that element of the chart is blank and there is no comparator for larger companies with narrower, unhealthy food portfolios.

If the P/E multiples for larger companies (companies (>= USD 75 billion) are combined in the same way as was done with the EV charts previously, then the average P/E multiple for larger companies with unhealthy food portfolios is increased by the higher P/E multiples of the companies with narrower food portfolios – see Figure 19.

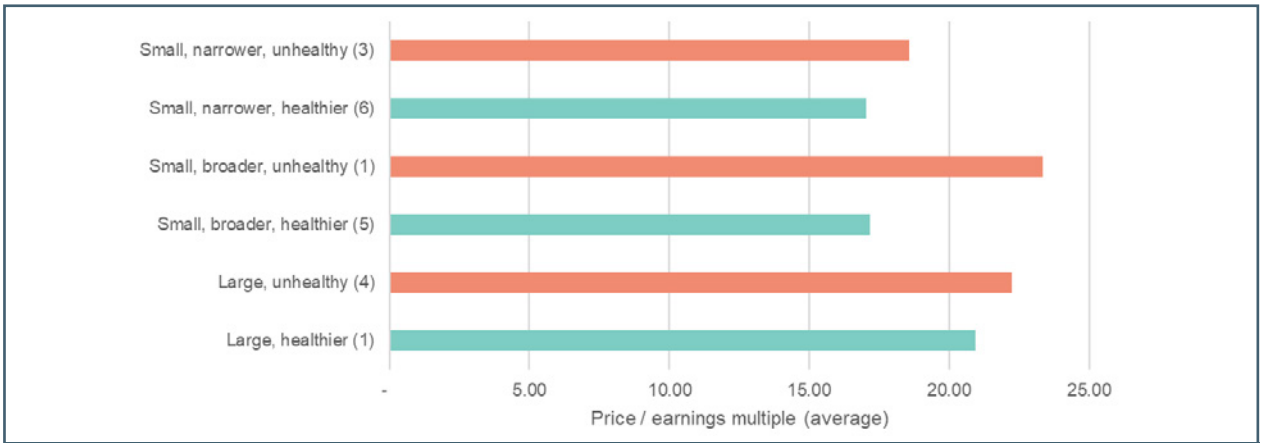


Figure 19: *Comparing price/earnings multiples for healthier and unhealthier food portfolios ignoring category differences for larger companies (Source: Planet Tracker analysis)*

When price/earnings are considered, Coca-Cola is no longer an outlier. It has the highest P/E multiple in our sample but the P/E multiples of other, similar companies are close and so it makes no difference to the overall result if Coca-Cola is included or excluded.

Price-to-book multiples are higher for bigger companies

There is a clear relationship between size and valuation. When the HSR score and breadth of the food portfolio are ignored, valuation multiples are consistently higher for larger companies – see Figure 20.

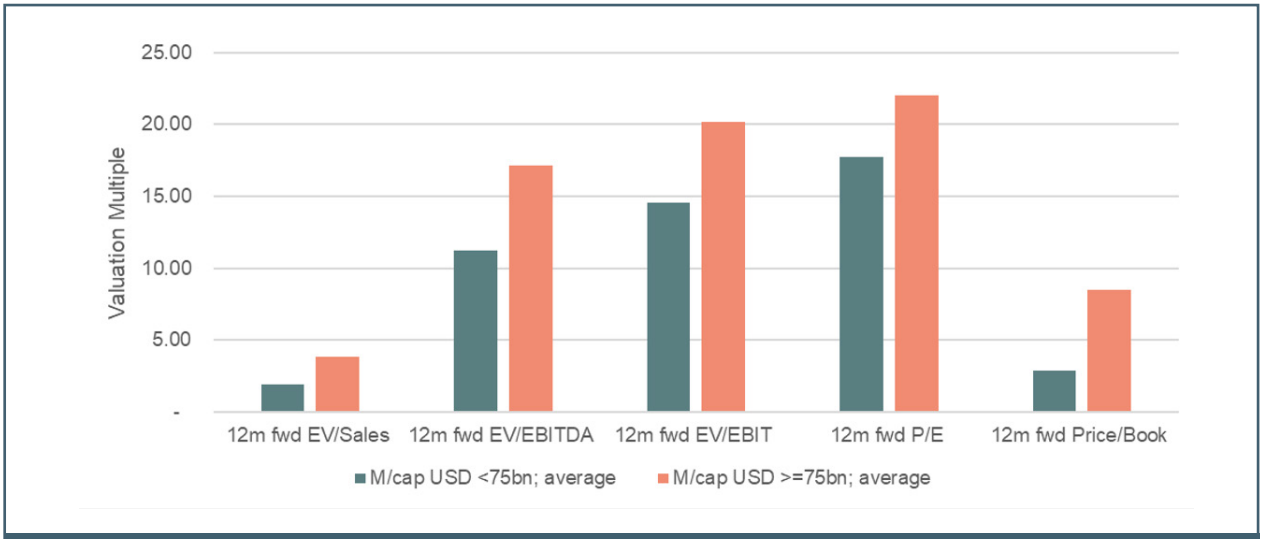


Figure 20: *Comparing different valuation multiples when companies are grouped by size (Source: Planet Tracker analysis).*

Because price-to-book multiples compare the market value of a company to its accounting ('book') value they are strongly influenced by size, so it is no surprise to find that even when companies are separated into more closely defined peer groups (by size and breadth of food portfolio) the size effect is still stronger than the health effect.

This is particularly marked among the larger companies in our sample as can be seen when companies are divided by size and HSR score (ignoring the breadth of their food portfolios) – see Figure 21.

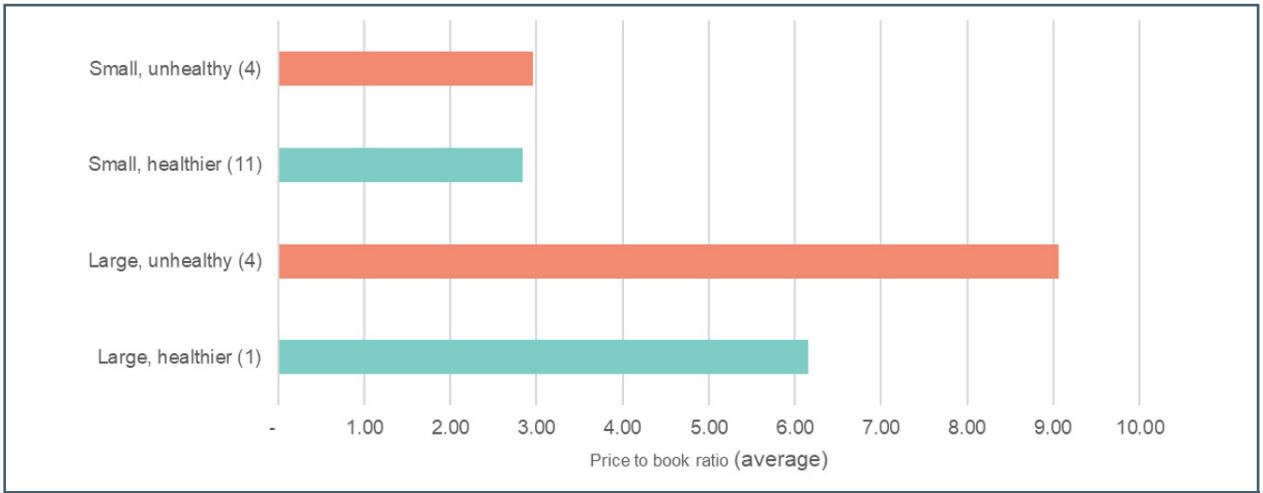


Figure 21: *Comparing price-to-book ratios for healthier and unhealthier food portfolios ignoring category differences ((Source: Planet Tracker analysis).*

The PBR results for larger companies with narrower food portfolios are strongly influenced by Coca-Cola and PepsiCo, since their average price-to-book multiple is 13x, significantly higher than the rest of the universe and significantly higher than the other companies in the 'larger' group (average 6x).

If they are excluded from the analysis a different pattern can be detected among the larger companies – those with healthier food portfolios have higher price-to-book ratios than those with unhealthy food portfolios. However, as before, given the small sample size, this result may not be representative of the wider market – see Figure 22.

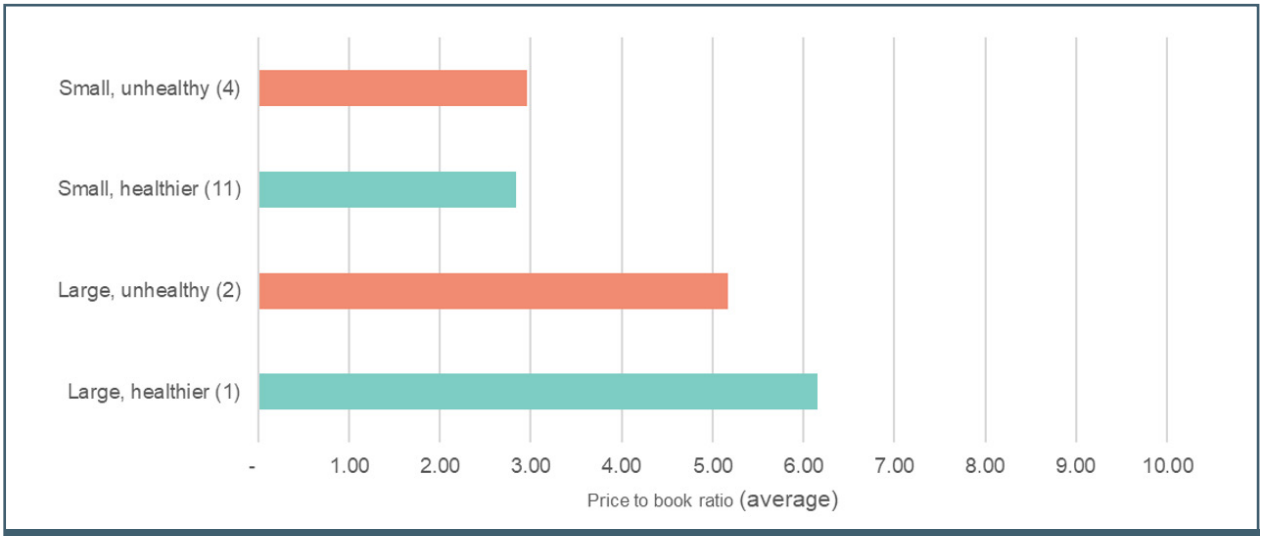


Figure 22: *Comparing price-to-book ratios excluding Coca-Cola and PepsiCo (Source: Planet Tracker analysis).*

Implications of valuation analysis for companies and investors

The valuation analysis in this report provides a mixed picture. While there is some evidence that the financial markets are favouring companies with healthier food product portfolios, it is clear that this does not always apply, and when it does the differences are not always that large.

This is unsurprising given the margin analysis discussed earlier, and the fact that our sample of companies is small and very diverse.

It is also unsurprising given that the information disclosed by food manufacturers regarding the healthiness or otherwise of their food portfolios is often limited or even nonexistent. This presents a significant challenge to investors seeking to evaluate companies with respect to nutrition and so is likely to impair the ability of the financial markets to incorporate this issue into company valuations in a consistent manner.

We discuss the poor state of company disclosures regarding nutrition later in this report.

The lack of information constitutes a risk for investors. As we discuss later in this report, the threat of regulation is growing and companies producing unhealthy food products are likely to be most impacted. While near-term measures such as forecast EBIT are unlikely to be impacted by such potential changes, techniques based on longer-term cash flow forecasts could be materially affected if long-term growth forecasts are reduced[21].

21 Discounted cash flow valuations will be particularly impacted since the long-term growth estimate is a key determinant of the terminal value which often accounts for over 80% of the overall estimated company value. By way of illustration: cutting forecast long-term growth by 1% could reduce the terminal value by a third (assuming 8% growth reduced to 7% and a discount rate of 10%).

EXAMINING A HEALTHIER SCENARIO

Increased profit

As noted earlier, companies with broader, healthier food portfolios have higher margins than their peers, but the opposite is true for companies with narrower food portfolios – Figure 23.

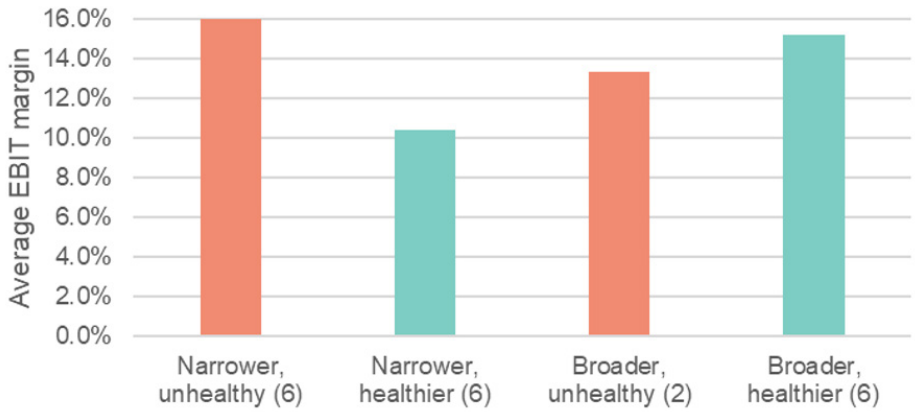


Figure 23: *Comparing margins with breadth of food portfolio (Source: Planet Tracker analysis)*

The difference between the average EBIT margin for companies with broader, healthier food portfolios (15.2%) and those with broader, unhealthy food portfolios (13.4%) is nearly 200 basis points[22].

To illustrate the financial potential that could result from food manufacturing companies with broader food portfolios switching to healthier food products we calculated the total EBIT that would be produced by the two companies in our sample with less healthy (broader) food portfolios if their margins were as high as their peers – see Table 5.

Table 5: *Illustrated effect of increasing the margins of companies with broader, unhealthy food portfolios (USD m) (Planet Tracker analysis)*

	EBIT Margin – 'healthier' (HSR >=2.5)	Total Sales (reported)	Scenario EBIT (sales x healthier margin)	EBIT reported	Change
Small, broader, unhealthy	15.0%	9,447	1,413	1,371	42
Large, broader, unhealthy	16.6%	64,290	10,668	10,363	305
Totals			**12,081**	**11,734**	**347**
Percentage change					3%

22 Basis point = 0.01%

As Table 5 illustrates, if the companies with less healthy, broader food portfolios in our sample shifted their product portfolios towards healthier alternatives and achieved margins in line with their peers as a result, the aggregate increase in EBIT could be in the region of USD 350 million.

This illustration obviously ignores important factors such as market demand for healthier versions of the products concerned and any investment that might be required to facilitate such a shift in the food product portfolio, but it serves to illustrate the fact that producing and selling healthier products could be beneficial for the companies concerned and the financial institutions supporting them.

From a policy perspective, it illustrates the potential for a double benefit: increased tax revenues from companies that are generating higher profits, combined with the reduction in healthcare costs that would come from providing the population with a healthier diet.

Increased value

In a similar way, we calculated the total change in Enterprise Value and Market Cap that would result if companies with broader, unhealthy food portfolios were valued in line with their healthier peers[23]. We excluded price-to-book ratios from this analysis to reduce the effect of company size on the scenario.

In each case the result was an increase in the aggregate value of companies with unhealthy food portfolios – see Table 6.

Table 6: *Illustrated effect of applying 'healthy' valuation multiples to companies with broader, unhealthy food portfolios (USD m) (Planet Tracker analysis).*

Valuation multiples			12m fwd EV/Sales Latest Reported	12m fwd EV/ EBITDA Latest Reported	12m fwd EV/EBIT Latest Reported	12m fwd P/E Latest Reported
Small, unhealthy			1.69	11.20	13.29	23.33
Small, healthier			2.23	11.51	14.36	17.16
Large, unhealthy			2.44	12.41	14.94	17.42
Large, healthier			3.46	16.48	20.39	20.93
	Total Enterprise Value Latest Reported	Total Market Cap Latest Reported	Calculated EV (using EV/Sales)	Calculated EV (using EV/EBITDA)	Calculated EV (using EV/EBIT)	Calculated M/cap (using P/E)
Small, unhealthy	18,223	16,510	24,011	18,724	19,688	12,142
Large, unhealthy	160,031	128,096	227,621	212,400	218,415	153,903
Totals	**178,254**	**144,606**	**251,633**	**231,124**	**238,103**	**166,045**
Increase in value (USD m)			**73,379**	**52,870**	**59,849**	**21,439**
			41%	30%	34%	15%

23 We excluded companies with narrower food portfolios because our analysis showed they were more highly valued than their healthier peers when using EV and Price/Earnings multiples – see earlier discussion in this report.

Not surprisingly, given the uncertainties involved in such an illustration, the range of outcomes shown in Table 6 is wide, but the maximum potential increase in value (+41%) is clearly significant and could amount to around USD 73 billion, highlighting the potential opportunity available to companies with broader food portfolios that shift their food portfolios towards more healthy products (and to the investors that encourage them to do so).

The valuation multiples based on enterprise values are designed to avoid the potential challenges that company-specific factors such as debt levels, interest burdens and tax can pose when making comparisons across geographies and between different businesses. The end result provides an insight into the potential change from an operating asset perspective (including brand value but not accounting for any debt) – the impact on share prices would obviously depend on additional company-specific factors.

Multiples based on market cap provide a more complex picture

For completeness, we also examined the effect on this scenario (shifting to a healthier food product portfolio) on valuations based on market cap (price/earnings and price-to-book multiples).

As discussed earlier in this report, the significant differences between the companies in our sample universe really show through when they are compared based on their earnings and their shareholders' equity, since both these measures take into account all the differences in terms of tax rates, debt levels and other non-operating aspects of the businesses concerned.

As a result, it is more difficult to assess scenarios illustrating the potential change in valuation based on market cap multiples that might result from companies adopting more healthy food portfolios.

In general, because companies with less healthy food portfolios tend to have higher market cap-based valuation multiples than their peers (as discussed earlier in this report), the results of any revaluation scenario would obviously produce lower valuations in a number of cases. As Table 6 shows, when price/earnings multiples are used, the modelled valuation uplift is relatively small (and would be negative for the sub-group of smaller companies with broader, unhealthy portfolios).

The effect of revaluing using price-to-book ratios would be negative since the price-to-book ratios for companies with unhealthy food portfolios are higher than those with healthier food portfolios, so price-to-book ratios are excluded from the scenario outlined in Table 6.

EXAMINING WHAT COMPANIES SAY ABOUT NUTRITION

To understand to what extent and in what ways food manufacturing companies are discussing the healthiness or nutritional value of their food portfolios we examined earnings transcripts and annual reports for a number of the companies in our universe[24] – see Table 7.

Table 7: *Companies included in reviews of transcripts and/or annual reports (Planet Tracker analysis)*

Company	Included in transcripts analysis	Included in Annual Report analysis
Ajinomoto Co Inc	N	Y
BRF SA	Y	Y
Campbell Soup Co	Y	Y
China Mengniu Dairy Co Ltd	N	N
Coca-Cola Co	Y	Y
Conagra Brands Inc	Y	Y
Danone SA	Y	Y
General Mills Inc	Y	Y
Grupo Bimbo SAB de CV	Y	Y
Inner Mongolia Yili Industrial Group Co Ltd	N	N
Kellanova	Y	Y
Keurig Dr Pepper Inc	N	N
Kraft Heinz Co	Y	Y
Meiji Holdings Co Ltd	N	N
Mondelez International Inc	N	N
Nestlé SA	Y	Y
PepsiCo Inc	Y	Y
Suntory Beverage & Food Ltd	N	N
Tingyi (Cayman Islands) Holding Corp	N	Y
Unilever PLC	Y	Y
Totals	12	14

24 Resource constraints and/or lack of English transcripts prevented us from including the other companies.

DOES 'NUTRITION' FEATURE IN COMPANY EARNINGS CALLS WITH INVESTORS?

Analysing earnings calls

To understand to what extent and in what ways food manufacturing companies are discussing the healthiness or nutritional value of their food portfolios with investment analysts during their quarterly earnings calls, we examined call transcripts for twelve of the companies among the 20 featured in this report covering a total of 84 calls – an average of 7 per company over the 30 months reviewed (June 2020 to December 2022).

We searched for specific words relating to nutrition in the transcripts and then checked the context in which they were mentioned[25]. In the case of both investors and companies the main word used when the issue of nutrition was being raised was 'healthy'. 'Obesity' was not mentioned at all and neither was 'ultra-processed'.

How often is nutrition being discussed on earnings calls?

In 60% of the calls, nutrition was not mentioned at all, by the company or investors. In 33% of the calls either the company mentioned nutrition or investors raised a question about it, but in only 7% of the calls was nutrition mentioned by both the company and an investor on the same call – see Figure 24.

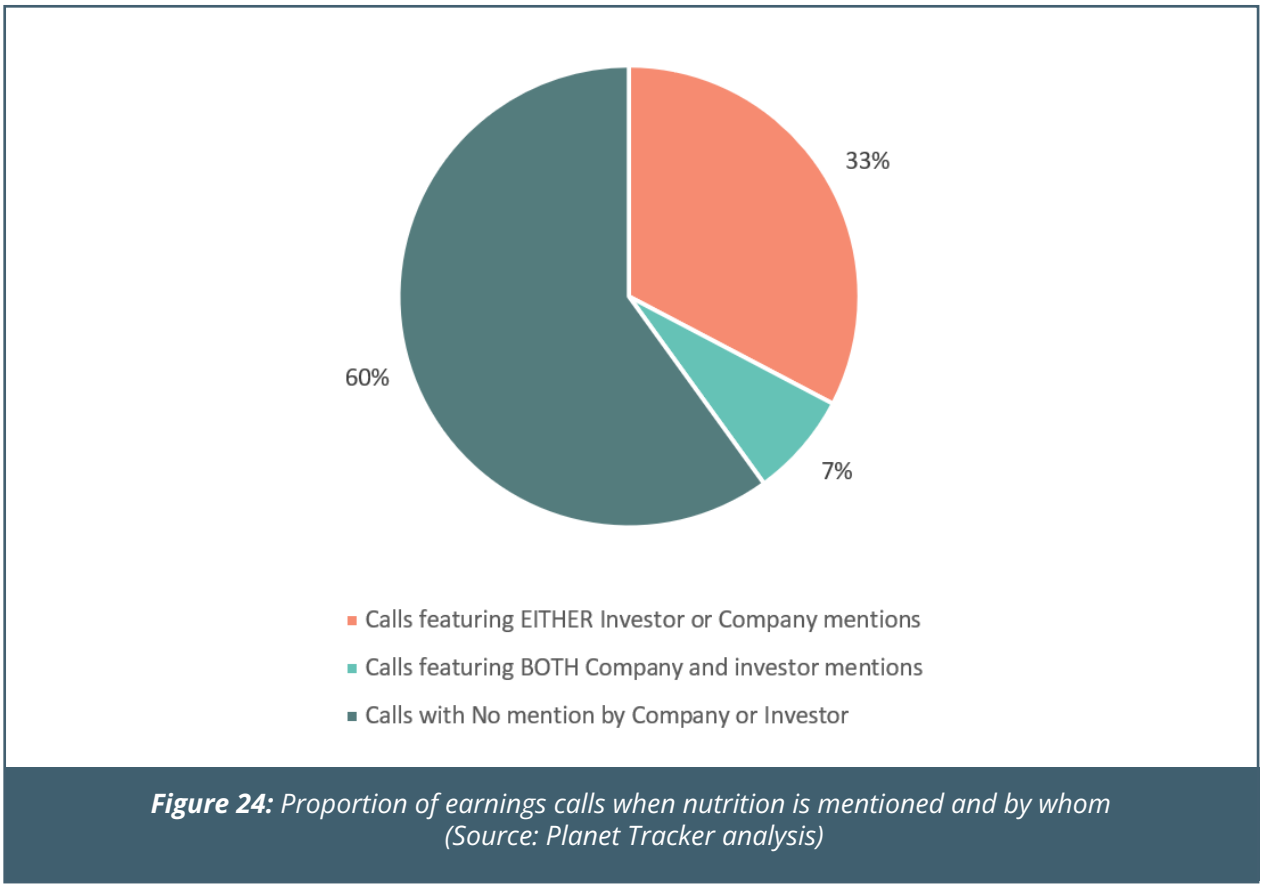


Figure 24: *Proportion of earnings calls when nutrition is mentioned and by whom (Source: Planet Tracker analysis)*

25 Words searched for: Healthy; Nutritious; Nourish; Balanced; Wholesome; Processed; Organic; Obesity.

Our analysis found strong geographical differences in the proportion of calls that included a mention of nutrition, with the majority of mentions occurring during earnings calls hosted by companies with headquarters in Europe. In contrast, the majority of calls by companies with headquarters in the USA or South America did not include any mention of nutrition - see Figure 25.

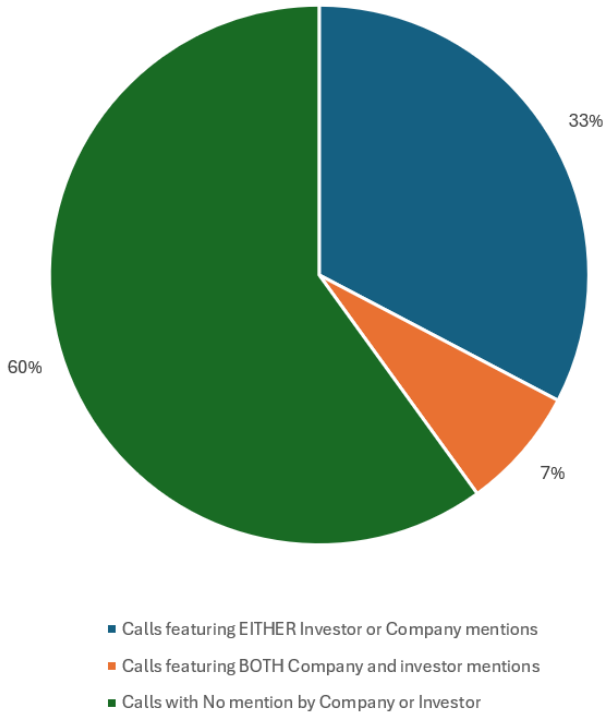


Figure 25: *Average proportion of earnings calls by geography (Source: Planet Tracker).*

Three of the companies covered by our transcripts analysis (BRF, Coca-Cola and Kellanova) did not host any earnings calls across our sample period where nutrition was mentioned, either by the company or by investors.

Who is initiating the conversation?

In the 7% of cases where the issue of nutrition was mentioned by both analysts and the company it was because an analyst asked a question and the company responded. In all the other instances where nutrition was mentioned (33% of the calls) it was the company initiating the discussion with no analyst follow-up or questions.

Discussions context

In the situations where nutrition was mentioned on earnings calls by the company, a significant majority of the company mentions (78%) related to consumer demand favouring healthy options, highlighting the extent to which companies are aware of this trend and regard it as significant enough to warrant mentioning on their earnings calls. Two-thirds of the mentions related to company plans to change their current products and just over half related to plans to expand the food portfolio to include healthier options - see Figure 26.

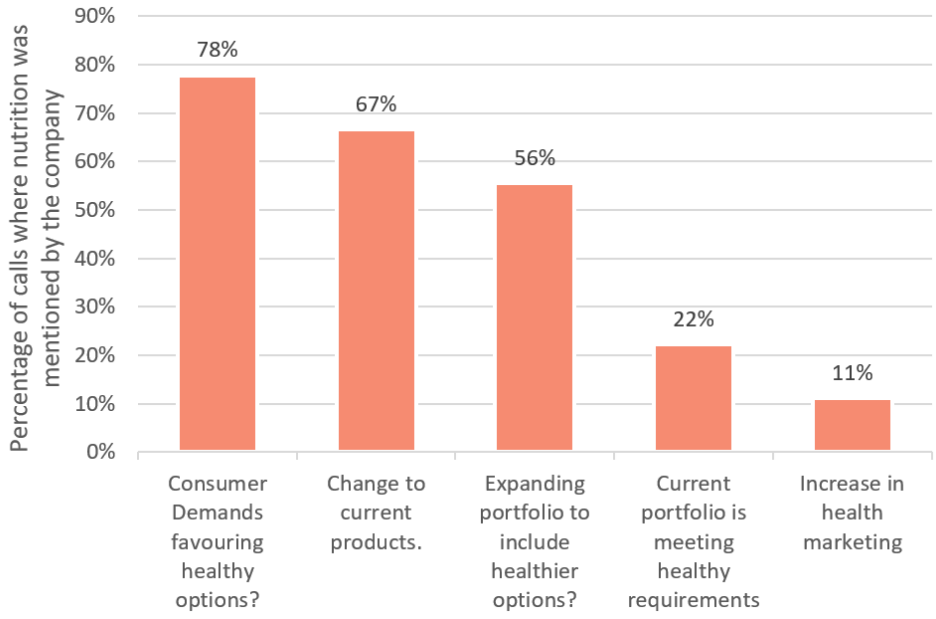


Figure 26: *Context for company discussions of 'nutrition' on earning calls (Source: Planet Tracker).*

However, when looked at from the perspective of specific companies (as opposed to all the calls across all companies), the analysis shows that the discussion of nutrition from a strategic perspective on earnings calls is confined to seven of the companies (58% of the sample). Five of the companies (42% of the sample) either have no plans to change their current products nor expand their portfolio to include healthier products, or simply do not discuss the issue at all on their earnings calls – see Figure 27 and Table 8.

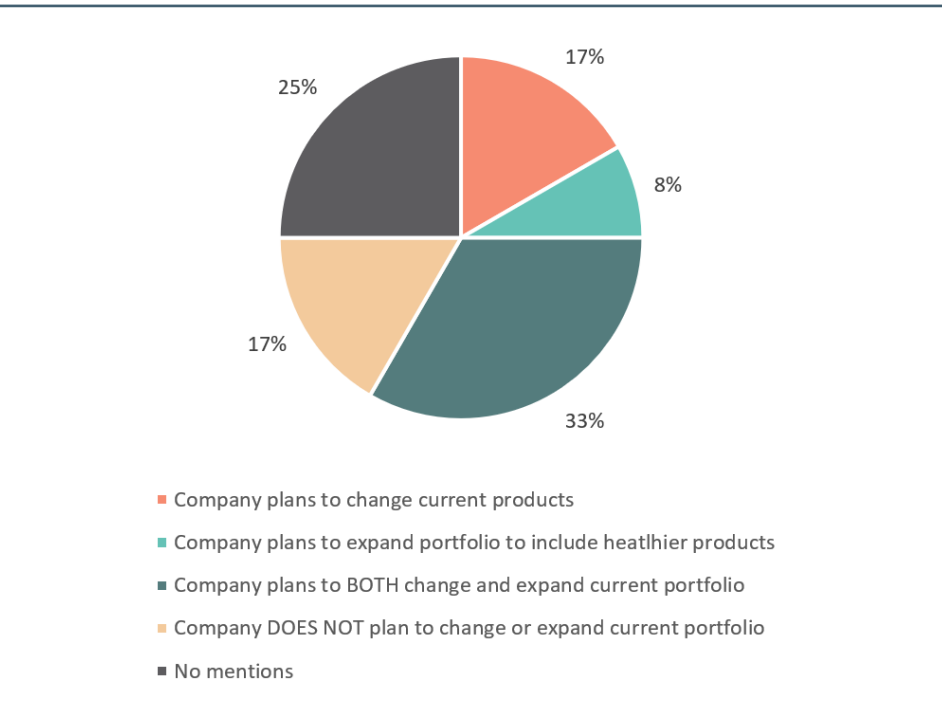


Figure 27: *Proportion of companies discussing their strategy for nutrition on earnings calls (Source: Planet Tracker analysis)*

Table 8: *Strategy focus when nutrition is mentioned by the company on earnings calls*

Company	Change to current products	Expanding portfolio to include healthier options?	No discussion re future plans	No mentions of nutrition
BRF				x
Campbell		x		
Coca-Cola				x
Conagra			x	
Danone			x	
General Mills	x			
Grupo Bimbo	x			
Kellanova				x
Kraft Heinz	x	x		
Nestlé	x	x		
PepsiCo	x	x		
Unilever	x	x		

Nestlé – investor pressure producing change (case study)

In May 2021, the FT reported[xx] that an internal Nestlé presentation 'circulated among top executives' acknowledged that more than 60% of the company's products do not meet a 'recognised definition of health' and stated that 'some of our categories and products will never be 'healthy' no matter how much we renovate'.

According to the FT the Nestlé internal assessment referred to in the presentation was using the HSR threshold of 3.5 as their definition of 'healthy' in line with best practice. The FT article noted that 'within its overall food and drink portfolio, about 70 per cent of Nestlé's food products failed to meet that threshold, the presentation said, along with 96 per cent of beverages - excluding pure coffee - and 99 per cent of Nestlé's confectionery and ice cream portfolio.'

This negative media comment clearly attracted the attention of the financial community. A year later in April 2022 the incident was still being referenced during a Q&A session with Nestlé's CEO organized by one of the senior sellside analysts covering the company.[xxi]

More broadly, the issue of nutrition has continued to feature in conversations with investment analysts, driven by a variety of factors including investor pressure on food manufacturers to increase the proportion of healthy foods in their portfolios[xxii] and the potential impact of anti-obesity drugs on demand for unhealthy food products.[xxiii]

Nestlé has responded to this pressure by publishing HSR data in its 2022 Annual Report, but investor pressure has continued. In March 2024 a group of shareholders, coordinated by ShareAction, announced that it was filing a resolution at Nestlé's AGM asking the company to set a target to increase the proportion of its sales that come from healthier products[xxiv] (37% according to its 2022 Annual Report – the same figure that the FT identified in 2021 in the internal Nestlé presentation).

The resolution was defeated at Nestlé's AGM in April (88% against, 11% for and 1% abstaining), although ShareAction noted that Swiss law requires such resolutions to ask for a change to the company's Articles which they suggested deterred 'many shareholders'.[xxv]

Earnings calls – some conclusions

This analysis clearly shows that some companies are keen to ensure the issue of nutrition is flagged to analysts during earnings calls but a significant minority do not appear to regard nutrition as an issue that is relevant in the context of their earnings discussions with analysts.

When nutrition is raised by companies, the main reason is to flag increasing consumer demand for healthier products and how the company is responding to that.

The companies that discuss nutrition on their earnings calls are almost always headquartered in Europe. The vast majority of calls that do not feature nutrition are hosted by companies headquartered in the US or South America.

Judging by our analysis of earnings calls, it might be concluded that investment analysts are not interested in the issue of nutrition (only 7% of calls involved an analyst asking a question on the topic).

However, it is worth noting that the main focus of earnings calls is the financial results that have just been published and the recent performance of particular business segments and their prospects over the next few periods (including progress regarding acquisitions and disposals). Strategic topics are often not discussed unless they are likely to have an impact in the near term, so investment analysts may be avoiding the topic of nutrition on the basis that they do not see an immediate impact on the company's performance. This conclusion is supported by the fact that when the topic of nutrition did feature in an earnings call the discussion was extremely brief.

The Nestlé case study also shows that when investment analysts are given more time to ask a range of questions, nutrition is likely to be one of the topics covered and is sufficiently concerning to some investors to motivate them to file an AGM resolution on the topic[26].

Having said that, the overall picture is that investment institutions are not focused on nutrition when engaging with food manufacturers, and investor resolutions on the topic are newsworthy because of their rarity.

---

26 As another example, on April 18th, 2024, investors members of the Interfaith Center on Corporate Responsibility (ICCR) announced that Coca-Cola ($KO) and Pepsi ($PEP) would face shareholder proposals questioning the companies' continued use of non-sugar sweeteners (NSS) at their May 1st annual stockholder meetings. Both resolutions were defeated, receiving support from 11% of shareholders in both cases (according to Bloomberg Law)

DOES 'NUTRITION' FEATURE IN COMPANY ANNUAL REPORTS?

Nutrition as an opportunity but not as a risk

To test the thesis that nutrition might be part of a broader, longer-term strategic discussion between the companies and the financial markets, we also examined whether corporations discuss the healthiness of their food portfolios within their Annual Reports & Corporate Responsibility Reports, and if they do, how this discussion is framed.

We looked at fourteen food manufacturing companies among the 20 featured in this report[27]. In contrast to the results of our analysis of earnings calls, the analysis of Annual Reports revealed that 13 of the companies reviewed included nutrition as an opportunity in the Strategy section of their Annual Report.

However, only five included nutrition as a potential risk factor in their Risks section (and all of these companies also discussed it as a strategic opportunity). No companies discussed nutrition only as a risk. One company (BRF) did not mention nutrition in either context - see Figure 28 and Table 9.

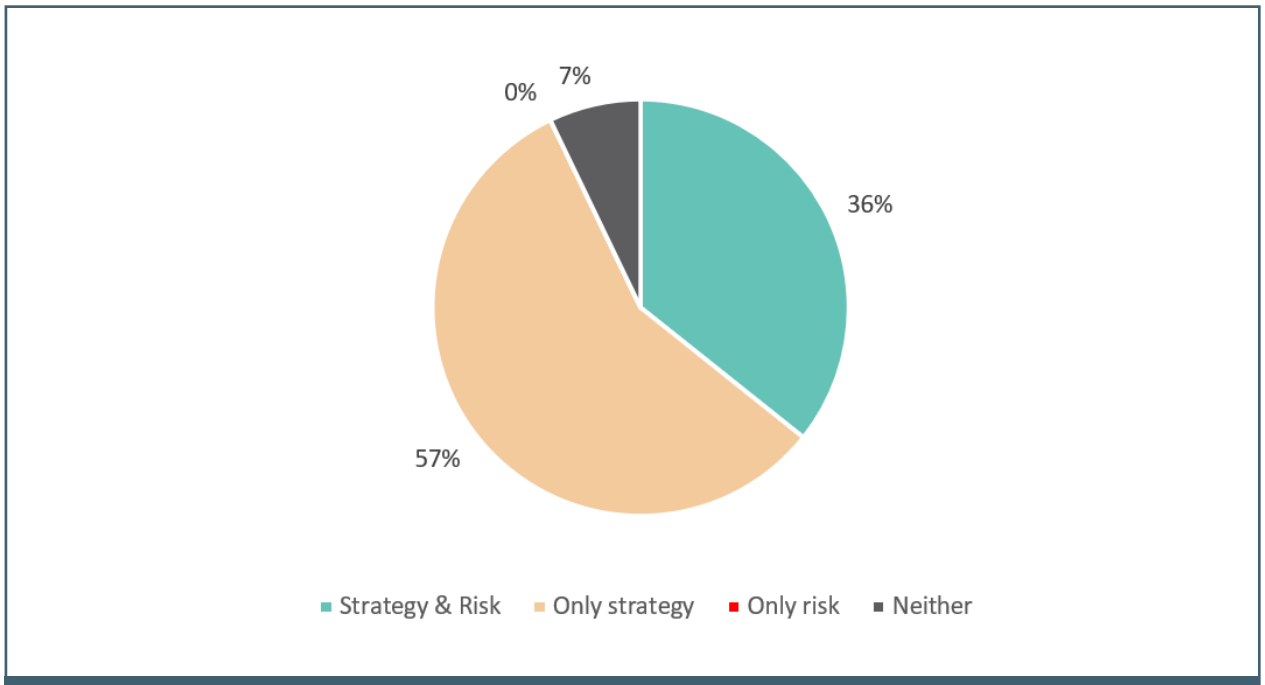


Figure 28: *Where do companies discuss the healthiness of their portfolio within their reports (Source: Planet Tracker analysis).*

27 The companies included in this analysis were: Ajinomoto, BRF, Campbell ,Coca-Cola, Conagra, Danone, General Mills, Grupo Bimbo, Kellanova, Kraft Heinz, Nestlé, PepsiCo, Tingyi, and Unilever.

Table 9: *Assessing company reporting of nutrition as a strategic opportunity and/or a risk.*

Company	Does the company strategy section discuss its approach to healthy food?	Does the 'risks' discussion in the Annual Report include healthy food as a risk factor
Ajinomoto	Yes	No
BRF	No	No
Campbell	Yes	No
Coca-Cola	Yes	Yes
Conagra	Yes	Yes
Danone	Yes	No
General Mills	Yes	No
Grupo Bimbo	Yes	No
Kellanova	Yes	No
Kraft Heinz	Yes	Yes
Nestlé	Yes	Yes
PepsiCo	Yes	Yes
Tingyi	Yes	No
Unilever	Yes	No

How are companies describing their future plans regarding nutrition?

We investigated what kind of strategies these companies have when it comes to the healthiness of their portfolio.

In all the cases where nutrition was mentioned as an opportunity (13 companies) they all disclosed a strategy that combined improving their current products to increase their healthiness as well planning to expand their food portfolios to include healthier options.

Are the words supported by data and/or targets?

Although 13 of the 14 companies we surveyed highlight nutrition as an opportunity and set out plans to take advantage of this, only two of them (14%) disclose any targets relating to nutrition and the healthiness of their food portfolios in their Annual Reports, and only two (14%) acknowledge their Health Star Rating. Only one company (Grupo Bimbo), equating to 7% of the sample, has done both – see Figure 29 and Table 10.

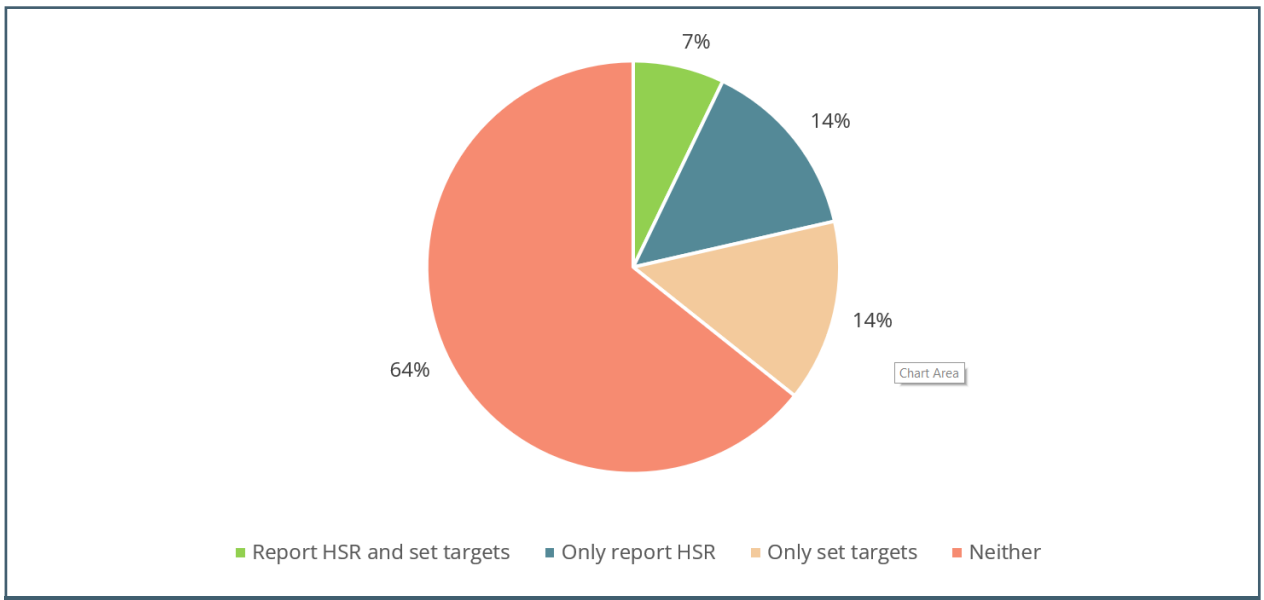


Figure 29: *Do companies acknowledge their HSR and set targets regarding the healthiness of their portfolio (Source: Planet Tracker).*

Table 10: *Assessing whether companies acknowledge their HSR score and/or disclose targets regarding the healthiness of their food portfolio (Planet Tracker analysis)*

Company	Acknowledge their HSR	Disclose short and long term targets regarding healthiness of their portfolio
Ajinomoto	No	No
BRF	No	No
Campbell	No	No
Coca-Cola	No	Yes
Conagra	No	No
Danone	Yes	No
General Mills	No	No
Grupo Bimbo	Yes	Yes
Kellanova	No	No
Kraft Heinz	No	Yes
Nestlé	Yes	No
PepsiCo	No	No
Tingyi	No	No
Unilever	No	No

2021 ATNI Global Index reveals a more nuanced picture

The analysis above focuses on disclosures in the Annual Reports of the companies concerned.

The 2021 ATNI Global Index report uses a broader assessment of the extent to which companies are setting targets relating to nutrition and/or reporting on the healthiness of their food product portfolios. In the 'Category B: formulating appropriate products' section of the report, eight companies (six of them covered by the Annual Report analysis[28]) are identified as reporting in some way on the healthiness of their food product portfolios[xxvi], however these disclosures were provided in documents other than the Annual Report.

Similarly, the 2021 Global Index report identified that 14 of the companies[29] out of the public companies assessed in this report had set one or more reformulation targets relating to issues such as the proportion of trans fats or salt in particular food products.

However, the ATNI Global Index report also notes that 'overall, few companies had externally verifiable targets'[xxvii] which aligns with the analysis of Annual Report disclosures above.

Annual Report review – some conclusions

13 of the 14 companies we surveyed (93%) highlight nutrition as an opportunity but only a third of them also regard it as a risk. This is surprising given the widespread concerns about obesity rates in various countries and regions (including those expressed by the World Health Organisation in various reports[30]) combined with the economic costs discussed earlier in this report, and the regulatory responses that could follow as a result (and in some cases, have already been seen, as discussed later in this report).

28 Campbell, Danone, General Mills, Nestlé, Kraft Heinz and Unilever.

29 Ajinomoto, BRF, Campbell, Coca-Cola, Danone, General Mills, Grupo Bimbo, Kellogg (Kellanova), Kraft Heinz, Meiji, Mondelez, Nestlé, PepsiCo, and Unilever.

30 For example: https://www.who.int/news/item/01-03-2024-one-in-eight-people-are-now-living-with-obesity.

INVESTOR INTERVIEWS – SUMMARY

We interviewed five investors who are experts on the topic of nutrition and the associated social costs being caused by current practices in the global food system.

The views of these investors are unlikely to be typical of investor views more widely given their expertise, but they highlight a number of important issues:

- Regulation is key to driving the changes required to improve the nutrition being provided by food manufacturing companies.
- Consumers won't drive change on their own due to the obesogenic food environment in which they are required to make purchasing decisions.
- Investors have an important role to play in influencing policy as well as company behaviour (but other sustainability issues tend to take priority).
- Better disclosures are essential to enable financial markets to assess the costs, risks and opportunities associated with nutrition.

Regulation is key

There was a strong consensus among all our interviewees that regulation is essential to drive changes in the types of food being produced and the way it is marketed to consumers.

The regulatory improvements our interviewees would like to see include measures to compel better disclosure of nutrition data by food companies (such as details of the food product portfolio and sales volumes by HSR bands), clearer labelling of food products for consumers, and stronger controls over marketing of unhealthy food products.

Specific taxes (such as 'sugar taxes') were mentioned by some as a powerful incentive for companies to change (and a risk factor that gets the attention of the financial markets), but the potential for such taxes to be ineffective if companies could just pass them on to consumers (with negative impacts that often fall hardest on those with the lowest incomes) was also acknowledged, so the design of such taxes is a key factor to be considered.

There was a general agreement that regulatory incentives in the food system (including subsidies and taxes) currently act as a disincentive for companies to change. Incentives need to be reconfigured to avoid supporting the production of unhealthy food products and to promote the production and consumption of healthier food products.

It is important to note that food companies themselves are also calling for regulation as opposed to voluntary standards in some situations. There is an obvious incentive for larger companies that already have a leadership position to seek to level the playing field by asking for rules to be imposed on their peers but several recent examples in the UK[xxviii, xxix] suggest that some leading food companies may be acting with a view to broader systemic benefits, not simply selfish economic ones.

Consumers won't drive change

There was strong consensus among all our interviewees that consumers will not drive change. One interviewee referred to the 'obesogenic environment' that many consumers live in as a deciding factor in consumer behaviour.

In this context the 'environment' referred to as 'obesogenic' is the 'food environment' in its widest sense - the physical, economic, political and socio-cultural context in which consumers engage with the food system to make their decisions about acquiring, preparing and consuming food.

Companies can influence this food environment via a variety of channels but particularly through marketing and the influence their lobbying activities have on local and national governments and regulators.

In addition to their influence over consumers via the food environment, companies also have control over the 'food choice architecture' i.e. all the aspects of a food product that will influence a consumer's behaviour when choosing that product including packaging, store location, discounts for retailers and/or consumers, etc.[31]. It is the food version of choice architecture (Nudge, Thaler and Sunstein, 2008).

Investors have an important role

Perhaps not surprisingly, all the interviewees believe that investors have an important role to play in influencing companies to shift to healthier food portfolios, however influencing policy was regarded as equally (in some cases, more) important to drive change.

Shareholder resolutions were mentioned as one potential lever by several interviewees although it was acknowledged that these require significant time and resources to craft and then solicit support from other investors.

Several interviewees emphasised the important effect that investor questions could have on company behaviour as a way to drive the issue up the agenda of Boards.

As our analysis of earnings calls shows, investor questions on the topic of nutrition are rare, so any increase in this context would certainly be noticeable. However, investor meetings with management and other situations such as capital markets days or investor conferences are likely to provide better opportunities for more detailed and searching questions that tend to have a greater impact (and the Nestlé case study referred to in this report is arguably an example of a company responding to such questions from investment analysts).

Although all the interviewees felt investors had an important role to play, they acknowledged that nutrition is generally a much lower priority for investors than other issues such as climate (for example) [32], and that the track record for investors successfully filing shareholder resolutions on the topic of nutrition and/or otherwise changing individual company behaviour does not show a high success rate to date in spite of the notable positive exceptions mentioned in this report.

In that context, increased engagement with policy makers may be required to complement engagement with companies.

---

31 Often referred to as 'price, place, and promotion'.

32 There are obvious exceptions such as the ShareAction initiative referred to earlier in this report; the Investor Coalition on Food Policy supported by the Food Foundation is another example of investor engagement on the topic of nutrition (https://foodfoundation.org.uk/initiatives/investor-coalition-food-policy).

The costs of poor nutrition are hidden

In addition to their desire for better disclosure by food systems companies, the interviewees all noted that the costs of malnutrition at a company level are hard for investors to discern.

While most investors will be aware of the costs to society of obesity (based on news headlines and occasional government-sponsored advertising campaigns or other health and diet-related initiatives, as well as, in some cases, more in-depth research), there is little to no information on the costs to individual companies.

Companies do not routinely provide information on the health of their workforce, nor do they discuss costs relating to poor health caused by dietary factors. If they disclose absentee rates they do not disclose the underlying reasons. This might indicate that the companies themselves are not gathering the data in a systematic fashion.

THE NEED FOR REGULATION

Evidence-based policy - which is not unduly biased by corporate lobbying - is central to transforming the food system to increase the availability, affordability, access, and ultimately consumption of healthier foods. There was a strong consensus among all our interviewees that government regulation is essential to drive changes in the types of food being produced and the way it is marketed to consumers.

Growing Body of Evidence

This is a growing body of evidence on the role policy can play in improving the food environment. The Food-EPI, an international model to identify key policies and policy gaps identifies the following key areas: food prices, food promotion, food retail, food composition, food labelling, food provision, and food trade and investment. These policy areas focus on improving nutrition outcomes broadly, but all have bearing on the private sector, as new policies in any of these areas will change the operating environment for companies, ultimately impacting their bottom line.

Policymakers, motivated by the societal costs of obesity and consumer concerns, are increasingly considering regulation to improve the food environment. These include taxes, restrictions on marketing especially to children, limits on salt content, and mandatory front of package labelling.

Taxes

As of 2024, taxes are widely used by national governments to improve dietary intake, with more than half of these policies increasing taxes on unhealthy foods and beverages. Health taxes are widely implemented and expanding, with more countries adding regulations, or increasing the strength of those regulations - see Figure 30.

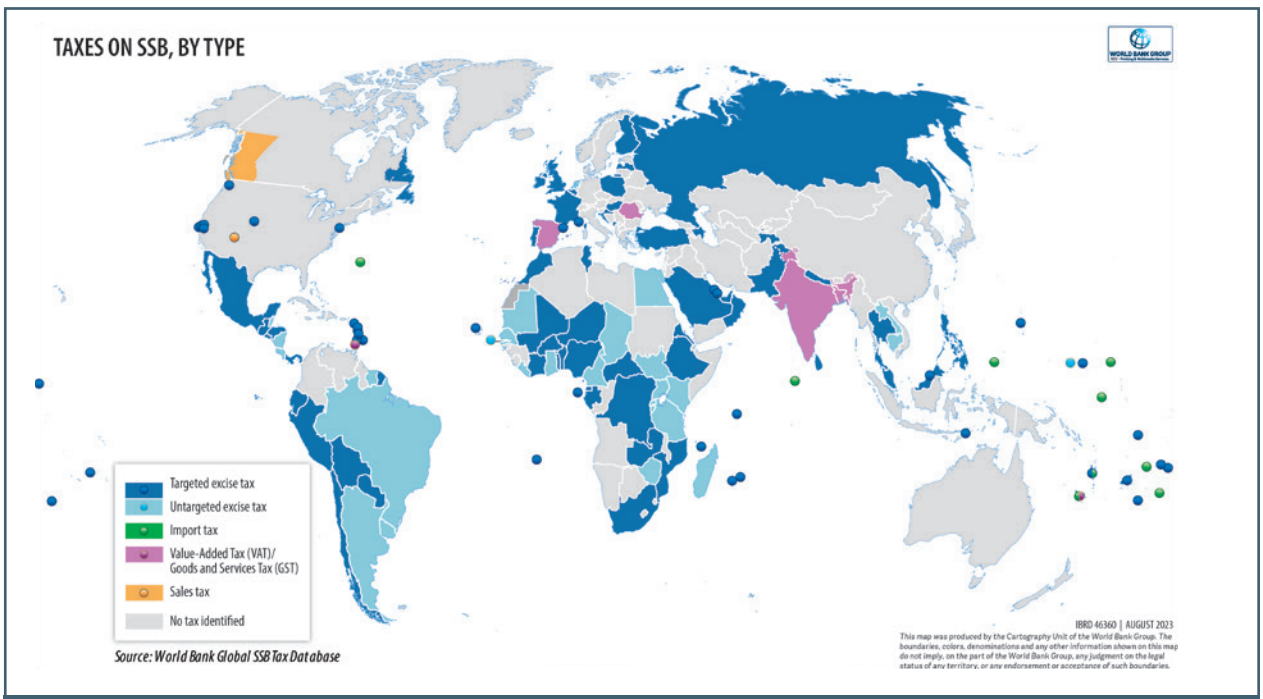


Figure 30: *Geographic analysis of taxes focused on achieving dietary outcomes*

There are 54 health-related food tax policies listed by the WCRF International NOURISH policy database. There are currently over 100 national-level taxes on sugar-sweetened beverages, covering 52% of the world's population.[xxx] These policies generally result in a reduction in net energy intake, preventing further growth in obesity prevalence in the countries where they are implemented. In addition, depending on the tax structure, sugar-sweetened beverage (SSB) taxes can provide impetus to reformulate products to reduce their sugar content leading to a subsequent decrease in demand.[xxxi]

Subsidies

There are increasing calls to better align agricultural subsidies with health, as well as environmental societal goals. Currently agriculture support subsidies total USD 233 billion globally, with approximately one third spent by the EU (32%) and 12% spent by the US, including oils and sugar and staples.[xxxii] If these subsidies were restructured, for example towards healthy crops, or changes in allocation of subsidies globally, this could lead to improvements in both health and environmental outcomes, without causing significant economic loss.

Restrictions on the exposure of children to the marketing of unhealthy food

At least 16 countries have regulations on the marketing of unhealthy foods to children.[xxxiii] One leader, the Chilean Government, has introduced a suite of policy measures that include restrictions on marketing to children and bans on sales of High Fat, Sugar and Salt (HFSS) foods and beverages in schools.[xxxiv]

Restrictions on placement and promotion of unhealthy food in-store

The UK Government has recently (October 2022) implemented restrictions on the placement of unhealthy foods and beverages in prominent places (e.g. checkouts) in supermarkets. Additional restrictions on price promotions (e.g. 'buy-one-get-one-free' specials) of unhealthy foods have been proposed.

Restrictions on product sales to children

Numerous countries have implemented regulations on the sale of energy drinks to minors.[xxxv, xxxvi] Lithuanian, Turkish and Latvian governments have mandated a ban on the sale of energy drinks to persons under the age of 18, while the UK, New Zealand and the United Arab Emirates have banned sales to under-16-year-olds. In Latvia, supermarkets are also required to display energy drinks separate from other food items, while in Sweden, sales of some energy drink products are restricted to pharmacies. The southern Mexican state of Oaxaca has banned the sale of sugary drinks and high-calorie snack foods to children (under 18), and other Mexican states are considering similar policies.[xxxvii]

Food composition

Countries including Argentina and South Africa have begun to introduce mandatory limits on sodium content in certain food categories.[xxxviii, xxxi]

Food labelling

Front of package labelling, showing the relative healthiness of a product or warning consumers about high levels of saturated fats or sugars, is becoming increasing mandated. In 1989 Sweden introduced keyhole logos to designate a healthy food choice, and there are now at least 40 countries globally mandating some level of front of package labelling.[xl] Some countries are now going further – Chile and Peru have both introduced regulations requiring front of pack labels that actively warn consumers of high salt, sugar and/or saturated fat content.

Mandatory business reporting requirements

In 2022, the EU adopted new mandatory reporting requirements for all large companies to disclose and audit data on the impact of their activities on people and planet and any sustainability risks they are exposed to.[xli] In 2021, the National Food Strategy for England recommended mandatory reporting on unhealthy and healthy sales-based metrics for all large food businesses.[xlii]

Regulation is a risk for companies with unhealthy food product portfolios

The policies summarised above are playing an increasingly important role in shaping markets and ensuring healthier diets for all. For companies whose business model depends on producing unhealthy food products, these polices represent a systemic threat and one that our analysis suggests many companies are ignoring, or not disclosing to the financial markets.

From a policymakers' perspective, the fact that our analysis shows that companies producing healthier food as part of a broader food portfolio can be more profitable than their peers reduces the strength of arguments against regulation based on the threat to corporate profitability[33]. An immediate action to improve food portfolios would be for regulators to call for the interoperability of company and government-backed nutrient profile models and disclosures on percentage of healthy sales as part of ESG reporting requirements.

33 Even more so if corporate profitability is calculated including the true costs of the food system (incorporating the health costs to society including other companies).

POTENTIAL AVENUES FOR FURTHER RESEARCH

First, as noted previously, this report assesses companies which together represent 10 per cent of the revenue of food and beverage manufacturing, so there is obviously potential to extend the analysis in this report to cover a wider universe of companies. The challenge would be to estimate HSR scores for any additional companies, but the ATNI methodology provides a useful starting point.

Second, we did not examine any potential relationship between margins and 'health' for individual food product lines because the disclosures provided by many companies make this challenging.

However, this would provide a clearer picture of the extent to which healthier versions of particular food products are more profitable (or not) for the companies concerned. It would also help to inform the debate regarding the cost of healthier food, the financial burden such a change might impose on poorer consumers and the role of subsidies and other incentives supporting the production of unhealthy food.

Third, it would be useful to analyse the data at a country level and assess regulatory exposure. Company reporting of their sales by geography is often limited and not sufficiently granular but other data sources (such as the Euromonitor survey data used to prepare the ATNI Global Indices) could facilitate such analysis.

Finally, data limitations prevented a more detailed examination of changes over time. The ATNI Global Index has been published four times since the ATNI was launched (in 2013, 2016, 2018, and 2021) but HSR scores for individual companies have only been published in connection with the 2018 and 2012 Global Indices. In an Appendix to this report we discuss what could be observed from comparing ATNI data with EBIT margins across time but the results were inconclusive.

CONCLUSIONS

Nutrition represents both an investment opportunity and an investment risk, and our analysis - which is based on a sample representing 10% of the market by revenues - suggests that the issue of nutrition would be given a higher priority if there was greater corporate disclosure regarding nutrition.

The analysis in this report highlights that there is a positive association between healthier food product portfolios and higher margins for companies with broader food portfolios. Companies with narrower food portfolios exhibit the opposite effect with the result that they are more at risk from regulatory changes that could threaten their business models. In both cases it is clear that nutrition is a material issue for food manufacturers and the financial institutions that support them.

Our findings support the thesis that poor disclosure is impacting the ability of the markets to assess the benefits of producing healthier food products and has prevented a more detailed examination of the relationship between profits, valuations and the nutritional profile of a company's food product portfolio in this report.

Poor disclosures represent a risk to investors. Companies can potentially improve their cost of capital by disclosing key nutritional information such as the percentage of healthy sales by value and investors should seek to mitigate their risks by demanding such disclosures and pressing ESG data providers to include nutrition in their assessment frameworks.

The costs of unhealthy food to society are growing and there is clear evidence that unhealthy food is costing employers as well. Regulation to address this has been effective in some countries already and others are likely to follow suit. This increases the risks for companies currently generating high margins by focusing on producing a narrow range of unhealthy food products (particularly those focused on soft drinks).

It also increases the risks for investors if they hold shares in a highly valued company producing unhealthy food products, since current market values may not reflect the potential impact of future regulation and poor disclosures make it difficult to quantify the risks.

On that basis, there is a financial case to be made for investors to encourage companies to increase the healthiness of their food product portfolios, both from the narrow perspective of mitigating risk in their holdings of Food and Beverage Manufacturers, and also because of the wider benefits across their portfolios in terms of reduced employment costs and the potential for lower taxation if diets are improved.

APPENDIX

APPENDIX 1
ASSESSING THE HEALTHINESS OF A FOOD PORTFOLIO

Access to Nutrition Initiative (ATNI), has been assessing the 'healthiness' of company food portfolios since 2013 when the first ATNI Global Index was published. Three updates have been published since (2016, 2018, and 2021).

In 2017, ATNI conducted a study with the George Institute for Global Health into 'The comparative nutritional profile of food and beverage products marketed by the 21 largest global companies in 9 countries', which forms the basis for the Global Access to Nutrition Index published in 2018 and updated in 2021. The detailed methodology is available on ATNI's website.

Health Star Rating (HSR)

ATNI's index methodology uses the Health Star Rating (HSR) system to evaluate the nutrient profile ('healthiness') of different food categories. This is disclosed within the Product Profile section of the ATNI Global Index.

The Health Star Rating was selected as the Nutrient Profiling Model (NPM) of choice by the ATNI following a comprehensive review. In 2015 ATNI's Expert Group established selection criteria to identify the most appropriate NPMs from a catalogue of 67 models, developed for the World Health Organization.

An NPM was considered suitable if it:

- was developed with appropriate stakeholder consultation;
- covered the majority of categories of foods and beverages available on the market (i.e., not just school or hospital foods);
- took into account both 'positive' and 'negative' food components/nutrients;
- was well-validated with results of the validation published in peer-reviewed literature demonstrating that the model produces internally consistent classifications of 'healthy' and 'unhealthy' foods, consistent with general nutrition principles;
- enabled differentiation of nutritional quality within and between categories; and
- was available in the public domain and allowed free access to the full algorithm (i.e., not a proprietary model).

Calculating a nutrient profile score for a product requires specific nutrition information; this can be at the energy or nutrient level (e.g., fats, carbohydrates, proteins) and/or the ingredient level (e.g., fruits, vegetables, water). To be able to work with label data available via market databases, ATNI selected the Health Star Rating (HSR) model to monitor and assess the healthiness of companies' overall portfolios and specific product categories (e.g., breakfast cereals, snacks, soups, ready meals).

According to the HSR methodology, products are rated between 0.5 stars (least healthy) to 5 stars (most healthy).

The underlying algorithm of the HSR is based on the 2004 UK Nutrient Profiling model.

Like that model, the HSR takes into account the four aspects of foods associated with increasing the risk for chronic diseases (energy, saturated fat, sodium and total sugars content) along with certain 'positive' aspects of foods (such as fruit and vegetable content and, in some instances, dietary fibre, calcium and protein content).

ATNI uses the government-recommended threshold of 3.5 stars or more to classify products as generally healthier.

ATNI Global Index HSR score

The ATNI Global Index covers packaged foods and non-alcoholic beverages manufactured and marketed by the included companies, but excludes breastmilk substitutes, complimentary infant foods, dry tea and coffee[34].

The ATNI methodology aims to cover 80% of each company's estimated global retail sales (with a minimum of 50%) covering up to 10 countries where that particular company sells its products.[35]

Individual product categories are included in the ATNI analysis if those products rank among the top five in terms of the sales by that company in a specific country.

The calculation of a company's sales-weighted HSR score requires several steps:

1. Each unique product sold by the company is assessed based on the composition of the food product (fibre, salt, sugar, etc) to calculate a product HSR.
2. Products are grouped into Euromonitor categories (e.g. baked goods, dairy, ready meals, etc.) and a simple average (mean) HSR score is calculated for each category sold by the company.[36] A country HSR score is then calculated by weighting the product category HSR by the sales of that category in that country relative to the sales of other categories sold by the company in that country.
3. Finally, the overall sales-weighted mean HSR score for the company is calculated as the country HSR scores for the company weighted by the relatives sales to those countries.
4. The maximum HSR is 5 (the most healthy products such as pure bottled water).

34 'Private' label goods, manufactured by a company but sold under another company's brand are excluded as are foods designed to meet specific nutritional or dietary needs in a healthcare context, but sports and energy drinks are included.

35 For the ATNI's 2021 Index core countries were selected based on the unrestricted availability of extensive data for no cost covering packaged food and beverage products: Australia, Brazil, Canada, China, France, Germany, Hong Kong, India, Japan, Mexico, New Zealand, Russia, South Africa, UK, and USA. Other countries are covered on a per company basis as required to exceed the 50% minimum.

36 Sum of HSRs for each product divided by the total number of products in the category.

APPENDIX 2
EXAMINING CHANGES OVER TIME

As noted previously, the ATNI Global Index series has been published four times (in 2013, 2016, 2018 and 2021) but only the two most recent publications have included HSR scores for the companies concerned.

As a result, it is not possible to draw useful conclusions from examining changes in HSR scores over time at this stage. When the next ATNI Global Index is published later in 2024 that will provide three data points for most of the companies and further analysis will be possible.

However, the ATNI Global Index series has included a 'Product' score for each company in each year the Index has been published, providing up to four data points for each company since 2013 and so potentially allowing more meaningful analysis of time series.

The methodology for calculating the Product score has been improved over time, with different weightings being given to the various components of the score. As a result, comparisons of this metric across time need to be treated with some caution.

The Product score included in the ATNI 2021 Global Index assesses the nutritional quality of companies' product portfolios by analyzing the levels of fat, salt, sugar, fruit, vegetables, and other components within individual products. The final Product score combines three elements:

1. an analysis of the healthiness of the companies' overall product portfolios (the sales-weighted HSR score, doubled to give a maximum of 10);
2. an analysis of companies' performance compared to peer companies within the same product categories, and
3. an analysis of how the healthiness of the product portfolio has changed since the previous Index (the 2018 Global Index provides the baseline for this component).

The following charts show the average ATNI Product score for each of the seven groups of companies compared to the average reported EBIT margin for the same group of companies from 2013 through to 2022 inclusive. Note that the ATNI Product score is out of ten (unlike the HSR score discussed in the rest of this report which has a maximum of 5).

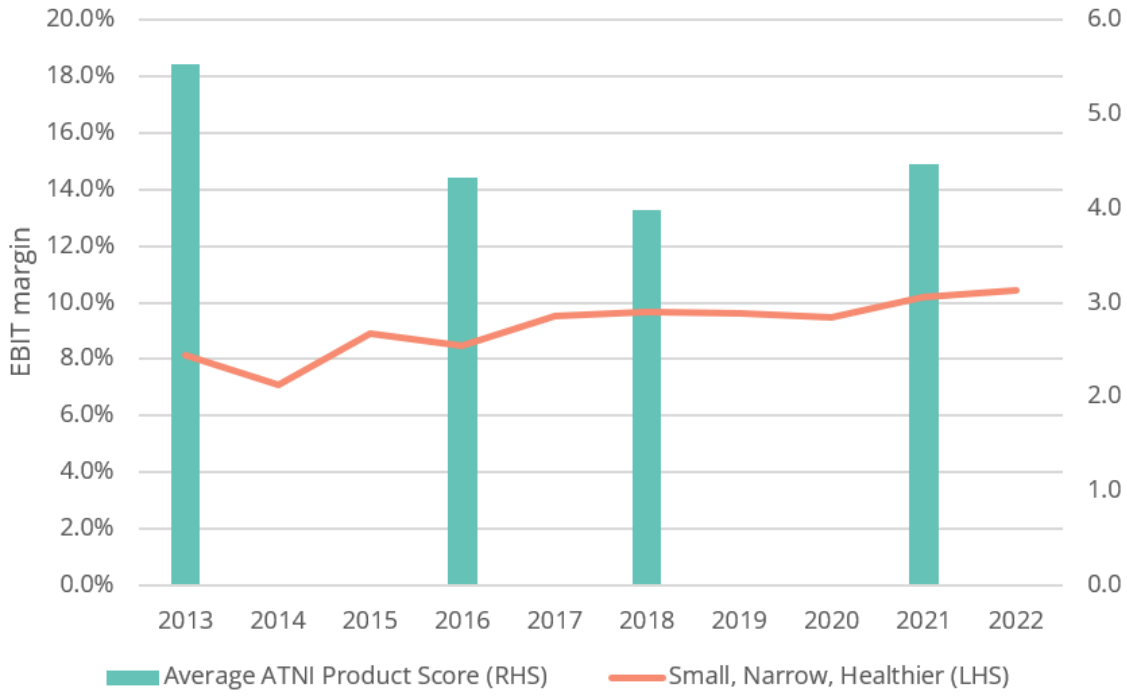


Figure 31a: *Comparison of EBIT margin to ATNI Product score (Source: ATNI and Refinitiv data, Planet Tracker analysis)*

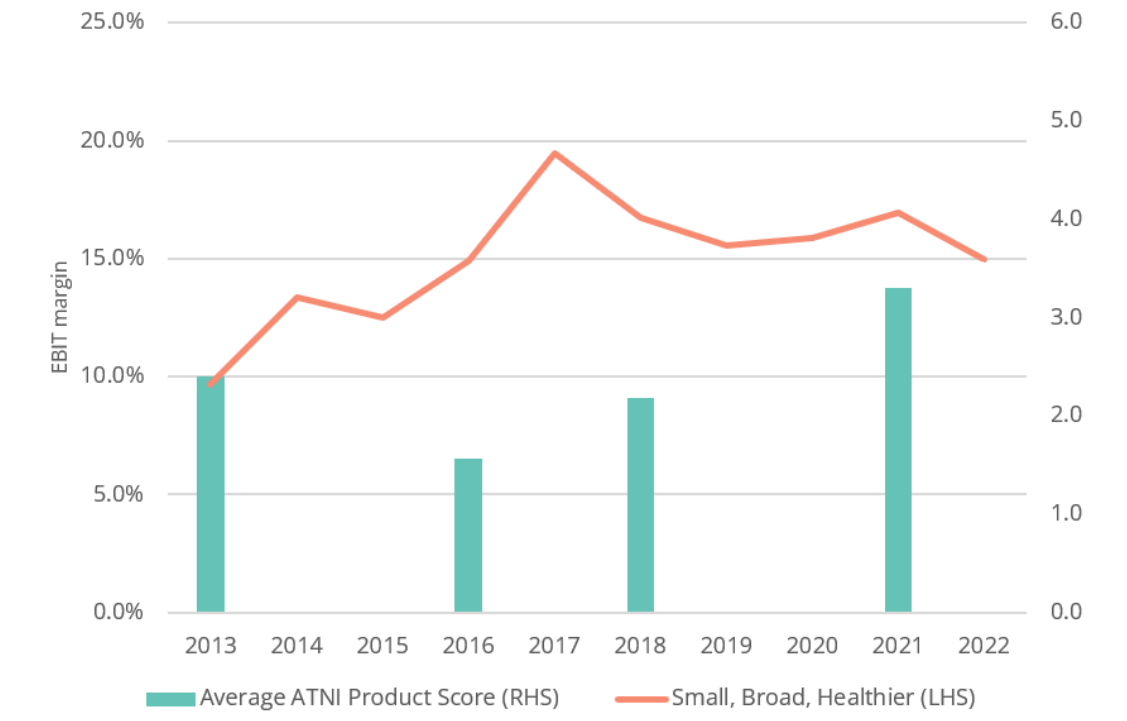


Figure 31b: *Comparison of EBIT margin to ATNI Product score (Source: ATNI and Refinitiv data, Planet Tracker analysis)*

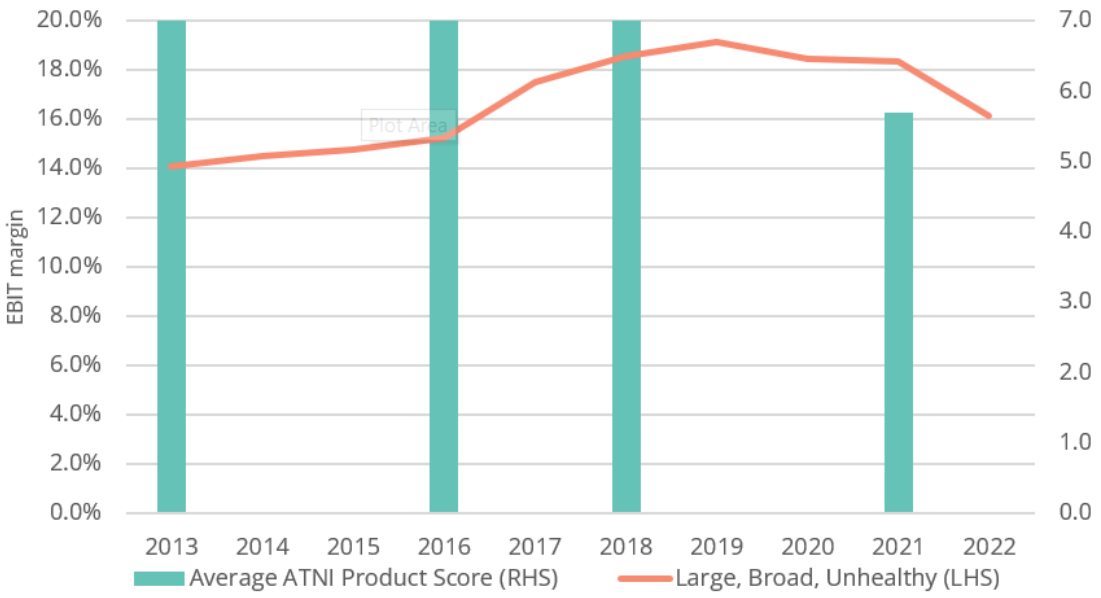


Figure 31c: *Comparison of EBIT margin to ATNI Product score (Source: ATNI and Refinitiv data, Planet Tracker analysis)*

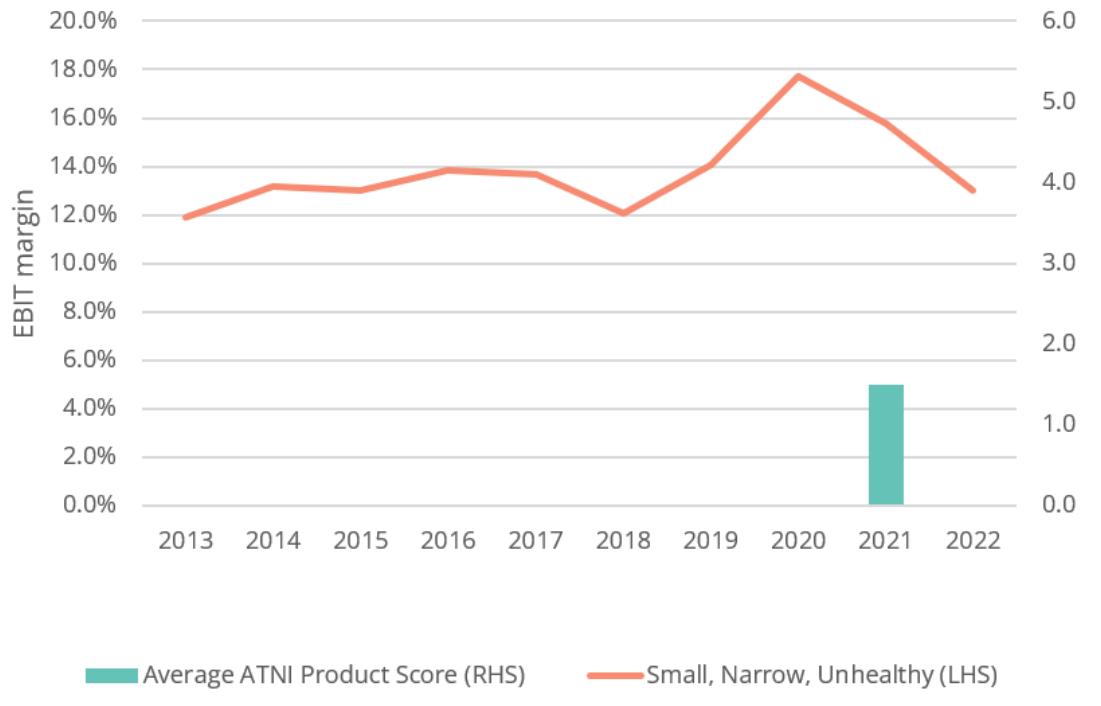


Figure 31d: *Comparison of EBIT margin to ATNI Product score (Source: ATNI and Refinitiv data, Planet Tracker analysis)*

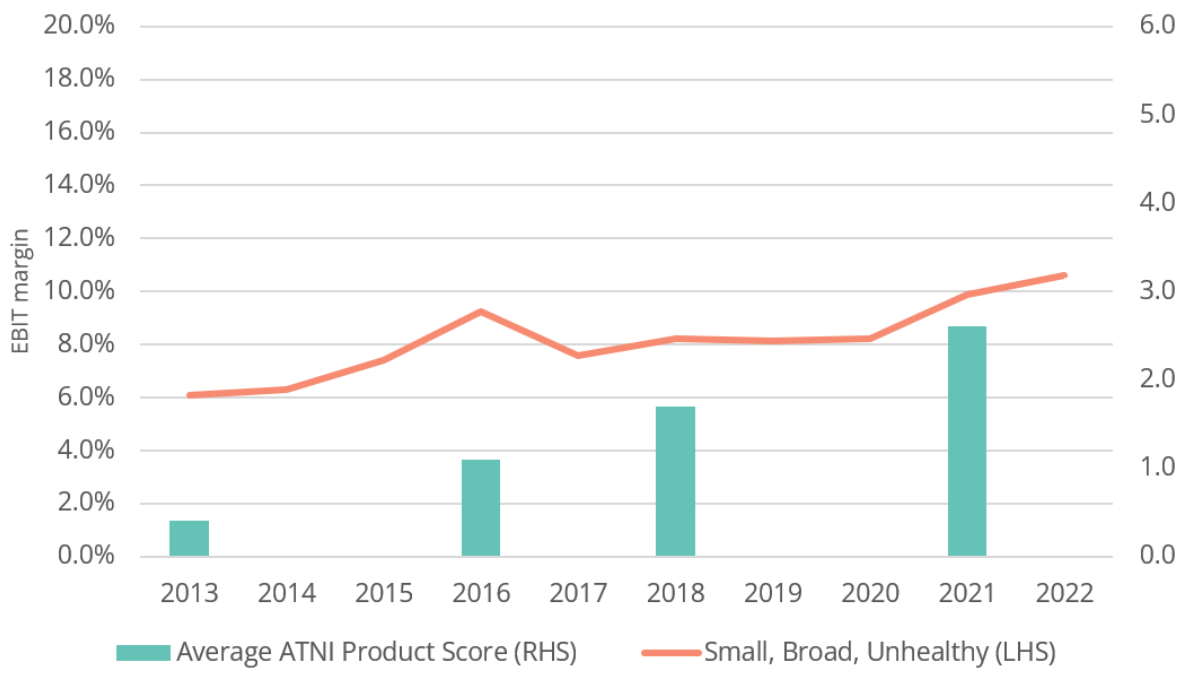


Figure 31e: *Comparison of EBIT margin to ATNI Product score (Source: ATNI and Refinitiv data, Planet Tracker analysis)*

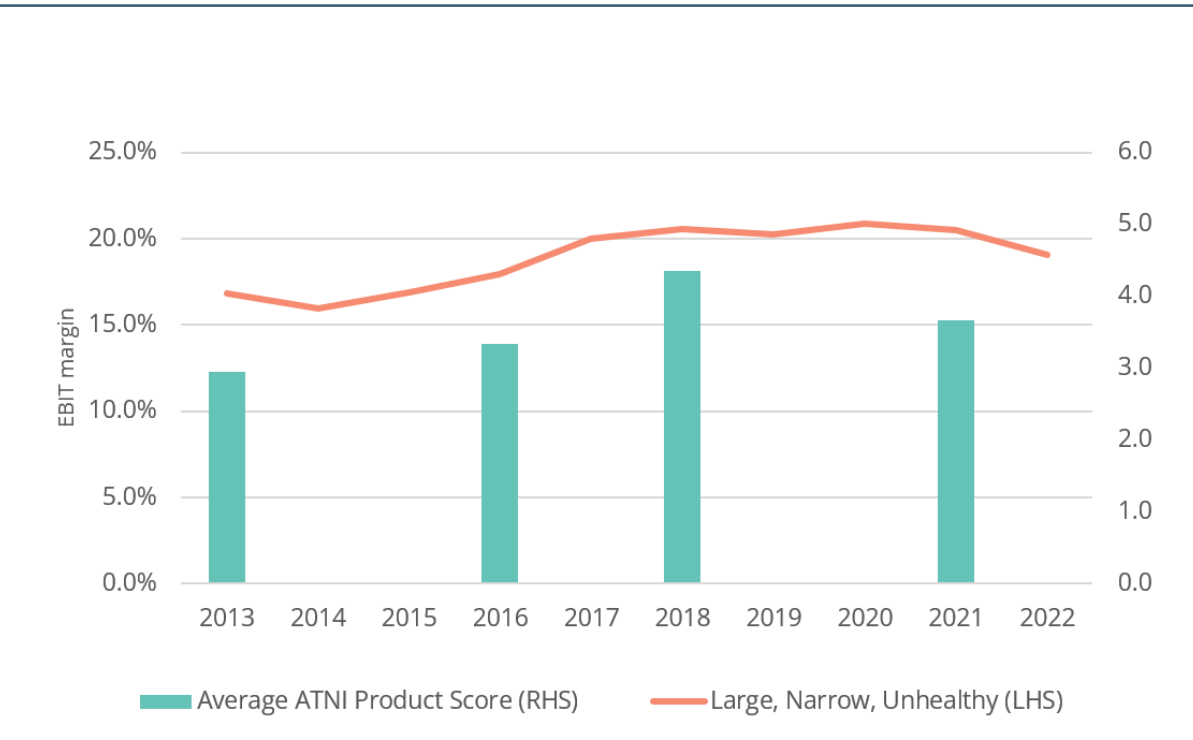


Figure 31f: *Comparison of EBIT margin to ATNI Product score (Source: ATNI and Refinitiv data, Planet Tracker analysis)*

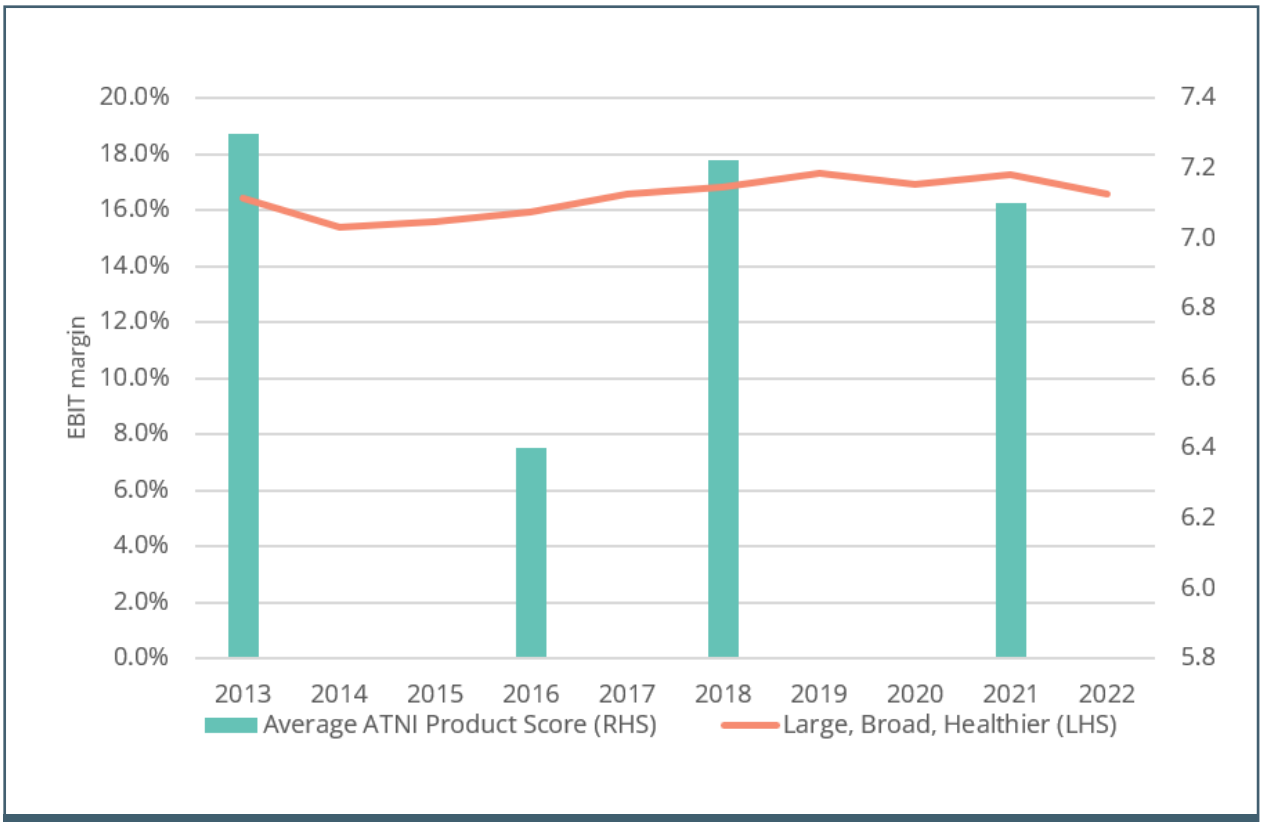


Figure 31g: *Comparison of EBIT margin to ATNI Product score (Source: ATNI and Refinitiv data, Planet Tracker analysis)*

APPENDIX 3
PLANET TRACKER'S RESEARCH METHODOLOGY

Sample selection

The 20 companies were selected from the 25 companies covered by the ATNI 2021 Global Index, filtered to ensure they were publicly listed and published detailed financial and sustainability-related information.

The textual analysis of annual reports and earnings calls was limited to a narrower sample to ensure that English language filings and transcripts were available, and to meet the resource constraints of the project.

Data sources

Company-reported financial and valuation data were taken from Refinitiv and compared to data from the ATNI Global Index series– see Figure 32.

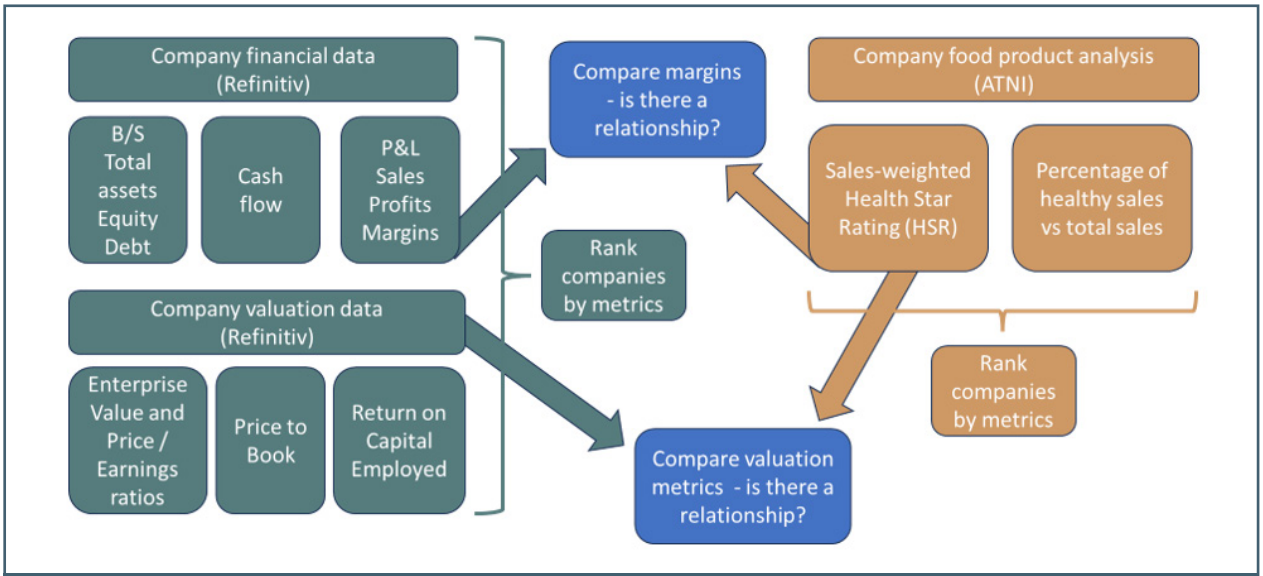


Figure 32: *Comparing financial data to the 'healthiness' of food product portfolios (Source: Planet Tracker analysis of Refinitiv and ATNI data)*

The financial data extracted from Refinitiv covered financial years ending in 2013 through to 2022 inclusive. Valuation multiples used 12 month forward forecasts taken from Refinitiv and market values as at 23rd February 2024.

The ATNI data was taken from the Global Indices published in 2013, 2016, 2018, and 2021.

In 2021 the ATNI Global Index assessed companies across seven categories: Governance (12.5%), Products (35%), Accessibility (15%), Marketing (20%), Lifestyles (2.5%, Labelling (10%), and Engagement (5%).

To test the extent to which financial markets are factoring in the 'healthiness' of the food product portfolios for food manufacturing companies the analysis underpinning this report focused on the HSR scores embedded within the Product category score rather than comparing financial and valuation metrics to the overall ATNI Global Index score.

Comparing years

The ATNI Global Indices are based on reported sales and other data relating to the period two years prior to the publication date of the Index report (e.g. the 2021 Global Index relies on sales figures and other information relating to 2019).

If the financial markets take account of the ATNI data, they will incorporate it when it is published and they will do so by including it in their assessment of the companies' future performance (i.e. future estimates for sales and profits) and thus into valuation multiples based on those forecasts.

Valuation data for the period immediately after the 2021 Global Index was published were not available for this project - given that the 2021 Global Index is the most recent data set at the time this report is being produced it is reasonable to assume that these data will still be influencing analysts' profit forecasts and valuation multiples. As a result, the valuation analysis in this report focuses on multiples based on the 12-month forward forecast figures available when the report was being prepared (FY2023/24 given the pricing date for the data used in this report), and compares them to HSR scores published as part of the 2021 ATNI Global Index.

Historic valuation multiples (i.e. multiples calculated using market prices in earlier years) were not available and so valuation analysis could only be undertaken in relation to the 2018 ATNI Global Index data.

When assessing the correlation between EBIT margins and ATNI HSR scores data from the 2018 and 2021 ATNI Global Indices, based on underlying sales and other information relating to 2016 and 2019 respectively, were compared to margins reported across several years to ensure all possible correlations were considered. The 2018 ATNI Global Index HSR scores were compared to 2016 (the same year as the data underlying the ATNI Global Index) and the following year (2017). The 2021 HSR scores were compared to EBIT margins from 2018 through to 2022 to cover the year the ATNI data related to (2019) and the years following.

Since EBIT margins reported for FY2018 fell between the periods obviously linked to either the 2018 or 2021 ATNI Global Indices they were compared to both.

The challenge of a small sample - grouping to compare like-with-like

The selected companies represent a very diverse group and overall a small sample. To help address this challenge, the companies were divided into four groups to increase the extent to which comparisons could be made on a like-for-like basis. Companies were grouped according to size (market capitalisation) and breadth of food portfolio based on initial analysis of the data that indicated these two factors were likely to be significant in terms of valuations and margins in addition to the main factor being examined: the healthiness of the food portfolio as shown by the HSR score.

The dividing lines (smaller vs larger, narrower vs broader, and 'healthier' vs 'unhealthier') were determined by ranking the companies according to these characteristics and observing natural breakpoints in these sequences that were close to the average values for the overall sample (charts demonstrating these observations are included in the main body of the report). The data used for determining these groupings related to the market capitalization at the pricing date of the report, and the food portfolio breadth and HSR scores relating to the 2021 ATNI Global Index. To ensure consistent comparisons and to keep the methodology reasonably simple, companies were not moved to different groups when making comparisons to ATNI data relating to earlier Global Index reports.

Excluding outliers

The diverse nature of the sample set in terms of financial and valuation metrics and the small sample size meant that it was not possible to identify and exclude outliers. The exception to this was BRF as discussed in the main body of the report. BRF's latest reported EBIT margin was 0% and the company was the only one in our sample that reported a net loss after tax for the year so it was excluded from both the margin and valuation analysis.

Selecting the profit margin to use

The margin analysis focuses on a measure of 'operating profit' - Earnings Before Interest and Tax (EBIT). This is a measure of profitability designed to be more comparable across companies and regions because it excludes the impact of differing debt levels (by looking at profit before interest is deducted) and different tax regimes (by also looking at profit before tax is deducted).

The alternative operating profit measure is Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA). This is a measure of profit that takes margins into account but ignores other factors that bear less relationship to the underlying operations of the company and/or might be easier for management to manipulate. As a result, there is an argument to be made that EBITDA allows for better comparisons between companies operating in different jurisdictions when used in a valuation multiple and so the analysis in this report considers EBIT and EBITDA multiples.

However, when it comes to comparing HSR scores to the operating performance of a company, it is important to include the extent to which a company is investing in its operations, and depreciation and amortization provide a reasonable accounting proxy for this economic activity. As a result, EBIT margins are used when comparing to HSR scores.

Annual Report and earnings calls review

14 companies were selected to have their annual reports and earnings calls examined. English language transcripts of earnings calls were not available for two of the companies (Ajinomoto and Tingyi) and so they were excluded from this part of the analysis.

The analysis was conducted manually and so was restricted to 14 companies rather than the full sample set of 20 due to project time constraints. The 14 companies were selected to ensure that all the seven groupings were represented and to ensure reasonable coverage of geographies.

Investor interviews

The five investors were selected by ATNI based on their nutritional expertise and knowledge of the ATNI and its Global Index methodology, as well as their availability and willingness to contribute to the research project.

Interviews were conducted virtually based around a standard agenda and set of questions but with the objective of encouraging the investor to contribute their views rather than seeking a structured, consistent response from all the interviewees.

Interviews lasted between 60 to 90 minutes and were conducted in January 2024.

DISCLAIMER

As an initiative of Tracker Group Ltd., Planet Tracker's reports are impersonal and do not provide individualised advice or recommendations for any specific reader or portfolio. Tracker Group Ltd. is not an investment adviser and makes no recommendations regarding the advisability of investing in any particular company, investment fund or other vehicle. The information contained in this research report does not constitute an offer to sell securities or the solicitation of an offer to buy, or recommendation for investment in, any securities within any jurisdiction. The information is not intended as financial advice.

The information used to compile this report has been collected from a number of sources in the public domain, investor interviews and from Tracker Group Ltd. licensors. While Tracker Group Ltd. and its partners have obtained information believed to be reliable, none of them shall be liable for any claims or losses of any nature in connection with information contained in this document, including but not limited to, lost profits or punitive or consequential damages. This research report provides general information only. The information and opinions constitute a judgment as at the date indicated and are subject to change without notice. The information may therefore not be accurate or current. The information and opinions contained in this report have been compiled or arrived at from sources believed to be reliable and in good faith, but no representation or warranty, express or implied, is made by Tracker Group Ltd. as to their accuracy, completeness or correctness and Tracker Group Ltd. does also not warrant that the information is up to date.

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.

ABOUT ACCESS TO NUTRITION INITIATIVE

The Access to Nutrition Initiative (ATNI) is a global nonprofit improving market performance by challenging key actors in the food system – starting with industry – to accelerate access to affordable, nutritious food for all, especially for society's most vulnerable. ATNI's vision is a world where markets contribute to providing access to nutritious and affordable diets for all, preventing deaths and illness from diet-related diseases. ATNI's strategic goal is to transform markets so that at least half of companies' food & beverage sales are derived from healthier products by 2030 and contribute to healthy, sustainable diets for all.

FOOD & LAND USE PROGRAMME

Programme goal: to align capital markets with a sustainable global food system. Before 2050, Planet Tracker's Food and Land Use Programme will highlight the investment risks and opportunities associated with the just and equitable transformation of the global food system that eliminates negative externalities with respect to climate, nature, and health so that it is fit to feed the world's growing population within planetary boundaries. By highlighting these risks and opportunities, Planet Tracker's Food and Land Use programme will influence financial markets actors to actively support and fund this transformation.

ACKNOWLEDGEMENTS

The ATNI and Planet Tracker team would like to thank The Foreign, Commonwealth & Development Office and The Bill & Melinda Gates Foundation as the primary donors of this report. The team would also like to thank the Global Alliance for Improved Nutrition as the secondary donor, in particular GAIN CEO Lawrence Haddad, and for the advice and support of Camilla de Nardi, Tarun Vij and Christina Nyhus Dhillon.

This report was co-produced by Access to Nutrition Initiative and Planet Tracker, consisting of Greg Garrett, Mark Wijne, Aurelie Reynier, Christopher Board on the ATNI side, and Peter Elwin, Dominic Lyle and their team at Planet Tracker.

Special thanks are also due to ATNI Investor consultant Katie Gordon, ATNI Investor on Nutrition and Health Co-Chairs Frank Wagemans, Cathy Rowan, Maria Ortino and Karianne Lancee, as well as Rachel Crossley, of the ATNI Expert Group, Lasse Romppanen, and other reviewers who wish to remain anonymous, for their invaluable contributions.

Author: Peter Elwin, Director of Fixed Income and Head of Food & Land Use, Planet Tracker
Researchers: Ailish Layden, Georgio Cozzolino, Chris Baldock.

Suggested citation: Elwin P., Materiality of Nutrition, Planet Tracker; ATNI, (2024).

REFERENCES

i Global Nutrition Report. 2022 Global Nutrition Report: The state of global nutrition. Bristol, UK: Development Initiatives. Available at: https://globalnutritionreport.org/reports/2022-global-nutrition-report/

ii Global Nutrition Report. 2022 Global Nutrition Report: The state of global nutrition. Bristol, UK: Development Initiatives. Available at: https://globalnutritionreport.org/reports/2022-global-nutrition-report/

iii https://www.who.int/publications/i/item/9789240094703

iv GBD 2019 Diet Collaborators, 'Health effects of dietary risks in 195 countries, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2017' (2020) The Lancet 396(10258): https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30752-2/fulltext

v OECD, The Heavy Burden of Obesity: The Economics of Prevention (2019, OECD Publishing, Paris) https://doi. org/10.1787/67450d67-en.

vi The World Bank, 'The World Bank and nutrition' (2019) https://www.worldbank.org/en/topic/nutrition/overview

vii Baraldi LG, Martinez Steele E, Canella DS, Monteiro CA. Consumption of ultra-processed foods and associated sociodemographic factors in the USA between 2007 and 2012: evidence from a nationally representative cross-sectional study. BMJ Open. 2018;8(3):e020574. doi:10.1136/bmjopen-2017-020574

viii Rauber, Louzada, Martinez Steele, et al. Ultra-processed foods and excessive free sugar intake in the UK: a nationally representative cross-sectional study. *BMJ* Open. 2019;9(10):e027546. doi:10.1136/bmjopen-2018-027546

ix Moubarak JC, Batal M, Louzada ML, Martinez Steele E, Monteiro CA. Consumption of ultra-processed foods predicts diet quality in Canada. *Appetite.* 2017;108:512-520. doi:10.1016/j.appet.2016.11.006

x Polsky JY, Moubarac JC, Garriguet D. Consumption of ultra-processed foods in Canada. *Health reports*. 2020;31(11):3-15.

xi Monteiro CA, Moubarac JC, Cannon G, Ng SW, Popkin B. Ultra-processed products are becoming dominant in the global food system. *Obesity Reviews.* 2013;14(S2):21-28. doi:10.1111/obr.12107

xii Baker P, Friel S. Food systems transformations, ultra-processed food markets and the nutrition transition in Asia. *Globalization and Health.* 2016;12(1):80. doi:10.1186/s12992-016-0223-3

xiii Mertens E, Colizzi C, Peñalvo JL. Ultra-processed food consumption in adults across Europe. *European Journal of Nutrition.* 2022;61(3):1521-1539. doi:10.1007/s00394-021-02733-7

xiv Haddad, L., Hawkes, C., Waage, J., Webb, P., Godfray, C. & Toulmin, C. *Food Systems and Diets: Facing the Challenges of the 21st Century.* Global Panel on Agriculture and Food Systems for Nutrition; 2016

xv Thomas Reardon, David Tschirley, Michael Dolislager, Jason Snyder, Chaoran Hu, Stephanie White. *Urbanization, Diet Change, and Transformation of Food Supply Chains in Asia.* Michigan State University: Global Center for Food Systems innovation; 2014. Accessed February 4, 2024. https://www.fao.org/fileadmin/templates/ags/docs/MUFN/DOCUMENTS/MUS_Reardon_2014.pdf

xvi Moubarac JC, Martins APB, Claro RM, Levy RB, Cannon G, Monteiro CA. Consumption of ultra-processed foods and likely impact on human health. Evidence from Canada. *Public Health Nutrition.* 2013;16(12):2240-2248. doi:10.1017/S1368980012005009

xvii Vandevijvere S, Jaacks LM, Monteiro CA, et al. Global trends in ultra processed food and drink product sales and their association with adult body mass index trajectories. *Obesity Reviews.* 2019;20(S2):10-19. doi:10.1111/obr.12860

xviii Hugh Waters & Marlon Graf, America's Obesity Crisis – The health and economic costs of excess weight (2018) milkeninstitute.org/sites/default/files/reports-pdf/Mi-Americas-Obesity-Crisis-WEB_2.pdf

xix Dunford E, Cobcroft M, Thomas M, Wu JH. Technical Report: Alignment of the NSW Healthy Food Provision Policy with the Health Star Rating System. Sydney, NSW: NSW Ministry of Health; 2015. Available at http:// www.health.nsw.gov.au/heal/Publications/health-star-rating-system.pdf

xx https://www.ft.com/content/4c98d410-38b1-4be8-95b2-d029e054f492

xxi https://www.Nestlé.com/sites/default/files/2022-04/barclays-ceo-fireside-chat-april22-transcript.pdf

xxii https://www.Nestlé.com/sites/default/files/2023-05/jp-morgan-fireside-chat-transcript-ceo-mark-schneider-may-2023.pdf

xxiii https://www.Nestlé.com/sites/default/files/2022-09/barclays-global-consumer-staples-conference-2022-fireside-chat-transcript.pdf [NB the transcript in question is from the September 2023 Barclays fireside chat]

xxiv https://shareaction.org/news/shareholders-file-health-resolution-at-nestl%C3%A9

xxv https://shareaction.org/news/nestl%C3%A9-shareholder-vote-on-health-resolution-shareaction-response

xxvi Table 5, https://accesstonutrition.org/index/global-index-2021/category-b/#category-b-figures-amp-tables

xxvii Table 6, https://accesstonutrition.org/index/global-index-2021/category-b/#category-b-figures-amp-tables

xxviii https://www.theguardian.com/business/2023/mar/13/leading-uk-food-businesses-call-for-clearer-rules-on-food-labelling

xxix https://www.theretailbulletin.com/food-and-drink/leading-uk-companies-unite-in-open-letter-urging-government-action-on-food-waste-18-03-2024/

xxx www.ssbtax.worldbank.org

xxxi https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002597

xxxii https://www.nature.com/articles/s41467-021-27645-2

xxxiii https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7528677/

xxxiv https://www.cambridge.org/core/services/aop-cambridge-core/content/view/2B4ED75FFBD5A965E60D471D8763D884/S1073110522000559a.pdf/chile-front-of-package-warning-labels-and-food-marketing.pdf

xxxv https://www.ncl.ac.uk/press/articles/latest/2024/01/energydrinksandchildrensmentalhealth/#:~:text=A%20number%20of%20countries%20have,%3A%20prevention%20in%20the%202020s'.

xxxvi https://www.sciencedirect.com/science/article/pii/S0033350623003189

xxxvii https://www.thedialogue.org/analysis/will-banning-high-calorie-foods-make-mexicans-healthier/#:~:text=The%20Mexican%20states%20of%20Oaxaca,obesity%20and%20diabetes%2C%20whose%20long%2D

xxxviii Collecting Evidence to Inform Salt Reduction Policies in Argentina: Identifying Sources of Sodium Intake in Adults from a Population-Based Sample - PMC (nih.gov)

xxxix Successful Sodium Regulation in South Africa - African Health Action Toolkit (ku.edu)

xl https://www.cambridge.org/core/journals/public-health-nutrition/article/frontofpackage-nutrition-labelling-policy-global-progress-and-future-directions/E24D6BBF326D3D78BFF28779457F5D6D

xli https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en#:~:text=EU%20law%20requires%20all%20large,on%20people%20and%20the%20environment.

xlii https://www.nationalfoodstrategy.org/wp-content/uploads/2021/07/National- Food-Strategy-Recommendations-in-Full.pdf

For further information please contact:
Nicole Kozlowski, Head of Engagement, Planet Tracker
nicole@planet-tracker.org

www.planet-tracker.org #planet_tracker

Planet Tracker