

Investment Insight

NUTRITION: THE NEXT FRONTIER FOR THE CONSUMER AND HEALTH CARE INDUSTRIES

“Let food be thy medicine, and medicine be thy food”

Hippocrates

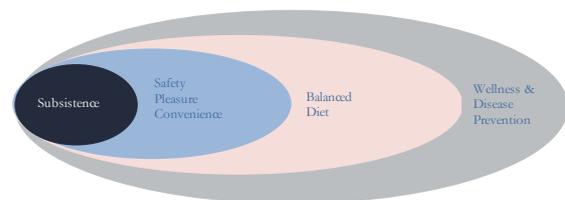
Nutrition is a personal journey for every one of us. From our carefree student days dominated by burgers and chips (and the occasional beer or two...) to the more health conscious approach we have in our 40s, it is a constant process of discovery. More poignantly as we see our parents and grandparents grow beyond their 70s and 80s questions of ageing, chronic disease and how to ensure the best possible quality of life take on a personal significance. This nexus of consumer need and personal engagement provides fertile ground for innovation and investment opportunities.

Since the advent of the industrial revolution momentous improvements in public health have meant that life expectancy globally has increased from 26 years in 1820 to 71 years by 2013. This advance has been achieved by the industrialisation of food production and by advances in medicine. The former has exponentially increased the supply of inexpensive, nutritious and safe food products, whilst the latter has provided similar progress in the fight against disease.

Yet as the abundance of food has increased, the limits of the previous paradigm of nutrition are being progressively tested. In the US chronic diseases are responsible for seven out of ten deaths and 86% of total health care costs. The majority of these diseases like cardiovascular disease, diabetes or cancer, can be attributed to a small number of risk factors, including alcohol consumption, obesity, high cholesterol, lack of exercise and smoking. Globally, nearly 1.5 billion people are overweight and more than 500 million are obese, 170 million of them children. At the same time, in every country across the range of economic development more people reach old age than ever before. The global population is expected to reach 9.7 billion by 2050. The number of over 60s which is now around 840 million is expected to grow to over 2 billion by that time. Of these 360 million are expected to be older than 80 years and 3 million will be over 100 years. As people live longer, they are at greater risk of suffering from one or several chronic diseases, including osteoporosis, diabetes, cancer, and dementia. Therefore the historical connection between higher calorific intake and increasing life expectancy has been levelling off with the industrialisation of food reaching its natural limits and diseases of affluence reversing the trend.

A NEW MARKET OPPORTUNITY

Most health systems are ill-equipped and under-funded to deal with this trend. Prevention is far cheaper than intervention, leading to an ever increasing need for proactive and cost effective solutions. This is why nutrition has become a key area of focus. The first response in this effort has been to make products more natural and reduce



Source: Nestle

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The Value of Long-Term Investing

the content of perceived unhealthy ingredients. Natural has been one of the most important trends with 27% of new product launches today having a natural claim, reflecting consumer desires for more authentic and traceable food and beverage products. This includes the demand for clean labels (i.e. those products denoting that the product is free from artificial ingredients, including preservatives, additives and colours) as well as organic products. At the same time, the reduced fat, salt and sugar replacement markets have burgeoned and the global food intolerance market (including gluten free, lactose free and diabetes friendly products) is now worth over \$8.4 billion growing at an 8%.

But the last few years have seen the development of a new response. Advances in nutrition science and food manufacturing are moving the industry beyond identifying and correcting nutritional deficiencies toward creating foods that promote optimal health and wellness as well as reduce the risk of chronic disease. As a consequence a new field has been developing between the boundaries of brand led consumer goods companies and the scientific world of pharmaceutical firms and patients are now encouraged to take part in their own treatments. So-called “nutraceuticals” are expected to play a central role in preventative healthcare. The actual definition of the market is developing, with naturally occurring nutraceuticals including dietary fibres, probiotics, prebiotics, polyphenols, polyunsaturated fats and antioxidant vitamins. Their use ranges from functional foods and beverages aimed at maintaining wellbeing, to products aimed at managing or slowing down the progress of illnesses and specialist medical nutrition products that address patients with specific nutritional needs often administered under medical supervision. Key areas of therapeutic focus have been cardiovascular and heart health, brain health and ageing medical care, gastrointestinal wellbeing, endocrine health and metabolic condition. This convergence of medicine, food and technology creates a battleground in which food and pharma companies will compete for dominance.

	Everyday Food	Better-for-you & Organic products	Functional Foods & Nutritional Supplements	Core Nutraceuticals	Medical Nutrition	Prescription/ OTC Pharmaceuticals
Target Group		Healthy people seeking to preserve wellness	Healthy people seeking to preserve wellness	People with common health problems	Patients with special nutritional needs	
Examples		Organic products Free from sugar, fat, salt products Gluten, lactose free products	Probiotic yogurts Isotonic sports drinks Vitamin and mineral supplements	Cholesterol lowering products Products that slow the progression of dementia or age related muscle loss	Specialist infant feeding formulas Nutrition solutions for the frail or chronically ill	
Distribution		Mass market Online	Mass market Online	Mass market Online Pharmacies	Pharmacies Hospitals	
Regulation	Less	—————>				More
Functional Benefits	Less	—————>				More
Science Based	Less	—————>				More
Taste-driven	More	<—————				Less
Medical Supervision	Less	—————>				More

Source: A.T. Kearney, L.E.K. Consulting

The market for such products presents an enormous opportunity. It encompasses both developed and emerging markets. Annual sales in the narrowly defined core nutraceuticals market are approximately \$150 billion, or roughly one fifth the size of the global pharmaceutical industry. A broader definition that includes categories such as infant nutrition, food intolerance products, diabetes control, medical nutrition, and weight management solutions reveals a market size of about \$420 billion with a projected growth rate of about 7-8% over the next years.

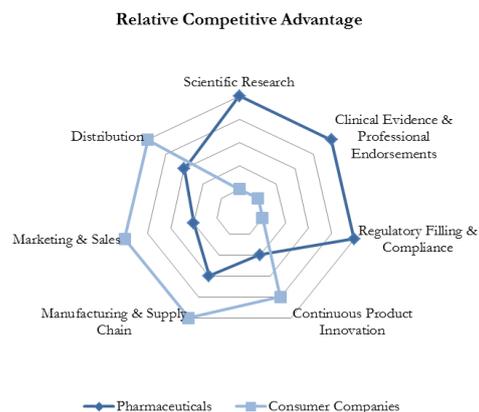
Both industries have strong incentives to participate. Consumer goods companies have been faced with slowing revenue growth rates as both private label offerings by retailers and smaller independent players are challenging their brand portfolios and discounters are limiting their ability to realise pricing. The high growth rates for nutraceuticals, their complementarity with existing product lines, their higher margin structures and scope for differentiation make them an interesting potential market. At the same time, for pharmaceutical companies facing patent expirations on core franchises, declining returns on investments in traditional R&D categories and reimbursement pressures, a new source of revenues, with lower R&D requirements, shorter development cycles and a less stringent regulatory environment offers a significant opportunity.

FUNDAMENTALLY DIFFERENT SKILLSETS

Food and pharmaceutical companies however bring different skill sets to the battle for nutrition and face competing challenges of their own. The difference stems from the fundamentally different areas where these industries find value. For a consumer goods company, the value lies in the brand and the articulation of its relationship with the consumer, encompassing personal aspirations, trust and promises of performance. To a pharmaceutical company, the value lies in the underlying science and the molecule.

Food companies have an inherent advantage in branding, an in depth understanding of nutrition and food formulation, proven marketing expertise, extensive relationships with mass-market retailers and decades of consumer research. Their manufacturing operations and supply chains are efficient at producing and delivering mass-market products. On the other hand, food companies' innovation has historically been more incremental in nature, driven by line extensions. They are weaker than pharmaceutical firms in breakthrough scientific innovation and regulatory issues and have no clinical trial experience in building the evidence to support product health claims, which has often resulted in a more cavalier approach to such claims. Additionally, consumer companies find it harder to penetrate specialist channels like pharmacies and often lack experience convincing health professionals about the medical benefits of their products. Whether shareholders will also be sufficiently patient over the longer development times associated with nutraceutical products is also yet to be determined.

Conversely pharmaceutical companies have strong research capabilities and entrenched ties to the broader scientific community that enable them to make breakthrough discoveries. They have a deep understanding of treatment pathways, which should enable them to position nutrition solutions as a means to improve overall optimal health outcomes. Existing relationships with healthcare professionals provide a platform to gain endorsements and drive product usage. Health economics capabilities can be used to create compelling arguments for nutraceuticals based on clinical cost-effectiveness. But pharmaceuticals companies also face difficulties of their own. An organizational culture devoted to long research cycles could struggle to adapt to the faster innovation pace of the consumer market. Despite their large sales and marketing capabilities, most of their efforts are aimed at medical professionals and



pharmacists rather than consumers. Only a small number of pharmaceutical companies have a consumer arm. The ability to understand consumers and their aspirations or the ability to adjust product mix and marketing to meet those desires while keeping costs low remains untested.

FINDING THE WINNERS

Creating nutraceutical products, convincing consumers that they will deliver on their health promises, finding the most effective distribution and marketing channels, and building repeat sales and consumer loyalty: the labour will be arduous but the rewards will be great. The best companies are adapting from their experiences, refining their approach and investing to position themselves as global leaders.

From an investment perspective we want to identify the winners, companies that can marry these divergent skillsets together. This means companies that:

- Have a record of developing products that have proven efficacy and credibility with both consumers and health professionals
- Are devoting the necessary resources to foster innovation leadership
- They have an intimate understanding of customer needs and behaviour
- Have strong brand portfolios with leading category shares
- Have a proven record in developing marketing strategies
- Have the inherent depth and flexibility in their supply and manufacturing chains
- They have access to both mass retail and specialist healthcare distribution channels

For now, food and beverage manufacturers have been more agile in developing the market through both organic investments and acquisitions. Coca-Cola and PepsiCo have been buying up players that specialize in functional beverages. General Mills bought organic producer Annie's Homegrown. Reckitt Benckiser bought infant nutrition player Mead Johnson in a move it says it sees as a potential footstep into the broader nutrition category. Danone acquired WhiteWave Foods, a leading plant based and organic dairy products player, and contrary to market speculation decided to hold on to its leading medical nutrition business, Nutricia. Yet, the issues it has faced in its core franchises Activia and Actimel, hampered by the inability to utilise past health claims or reposition the products with a novel message, is perhaps a useful reminder of the challenges facing players in developing the market.

The most advanced player in the field and the one with the most forward looking vision has been one of our core holdings, Nestlé. In 1997, Peter Brabeck, the company's CEO at the time, declared that Nestlé would become the world's leading "health, nutrition and wellness" company. Few people understood what he meant. Since then the company has invested billions of Swiss francs into its research and development. In 2011, under the stewardship of CEO Paul Bulcke, the company consolidated that effort by creating two new units, Nestlé Health Science and the Nestlé Institute of Health Sciences to deepen research into personalised nutrition solutions that take into account an individual's genetic and metabolic makeup and develop consequent market opportunities. The aim was "to pioneer a new industry between food and pharma". Investments in Vitalfo (focusing on metabolic disorders) Prometheus Laboratories (specialist in nutritional solutions for gastrointestinal diseases) and Seres Therapeutics (microbiome therapeutics) further

entrenched the company's position in the field. As he looked to retire from his long standing role as Nestlé's Chairman earlier this year, Brabeck summed up his vision for both the company and the broader industry in his book "Nutrition for a Better Life". The appointment of Mark Ulf Schneider, the former CEO of leading German healthcare provider Fresenius, as Nestlé's new CEO ensured the baton was passed on to a new generation of leadership that will take this vision forward.

Other important players in the field are the global food ingredients makers. These critical suppliers have been tapping into the nutrition and health opportunities as increasingly complex ingredients, formulations and processing technologies are needed. This includes value-added reformulation services which offer flavour and texture expertise as companies seek alternative ingredients and added benefit ingredients like fibre, protein or functional ingredients that command premium pricing. Our two main investments in the area, Givaudan and Symrise, have been at the forefront, with Symrise in recent years solidifying its presence in natural raw materials through its acquisitions of Diana Group and Pinova Holdings.

On the pharmaceuticals side, the strategic focus has been rather more ambivalent. Novartis and Pfizer sold their medical nutrition businesses, though the latter subsequently reinforced its franchise in vitamins and dietary supplements. GlaxoSmithKline too has nutritional and dietary supplements portfolios, though Abbott Laboratories is perhaps the most advanced in the nutritional field, with a comprehensive portfolio of infant and medical nutrition products, and constitutes one of our core investments in the healthcare space.

PERSONALISED DIET SOLUTIONS: THE ULTIMATE FRONTIER?

Looking into the future, the ultimate frontier will be increased personalisation of nutrition, with nutraceuticals to benefit from the trend of personalized medicine, and technology which aids this effort. Technology has been developing that allows companies to gather data and use that intelligence to personalize nutritional advice and supplement holistic lifestyles. At the same time, developments in genomics will also drive personalisation.

Both epigenetics and nutrigenomics highlight that each individual has different nutritional requirements and responds to food in different ways. Ultimately,

	Healthy	At risk	Exhibiting Symptoms	Diagnosed and Under Treatment
Today	Nutrition Lifestyle		Disease Intervention Medical Nutrition	
Future	Genetic Profiling Personalised Nutrition		Early Biomarkers & Diagnostics Personalised Therapeutics	

by linking diet to the genome it may be possible one day to not only boost health, but also reduce the chance of developing conditions like cardiovascular disease, or diabetes, whilst physicians will be able to predict patients' reactions to different compounds, and develop appropriate therapeutic regimes.

Will food be our medicine and medicine be our food as Hippocrates said? Will this provide the ultimate argument for an integrated consumer and pharmaceutical company? Could we one day see Nestlé acquiring Abbott Laboratories tapping into their pharmaceutical, medical nutrition and diagnostics expertise? We will keep you posted!

Katerina Kosmopoulou, CFA

June 2017

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