

# Tetra Pak Dairy Index

An annual news and information  
source about the dairy industry

Issue 6 – June 2013

## Flavoured Milk

### Inside

Letter from the CEO

Driving Growth and Value:  
Flavoured Milk

Market Spotlights:

USA

Indonesia

China



# Letter from the CEO



## Dear Readers,

Prosperity, urbanisation and the mobile telecommunications revolution have empowered consumers to make increasingly informed choices about what they eat and drink. The sixth Tetra Pak Dairy Index focuses on flavoured milk, which is poised to become one of the growth engines of our industry by the middle of the decade. For consumers unwilling to compromise on taste, health or convenience, flavoured milk is proving an ever more popular alternative to other beverages.

Although consumption of flavoured milk globally remains low relative to white milk, carbonated soft drinks and fruit-flavoured still drinks, demand for flavoured milk has truly taken off. Flavoured milk - the second most widely consumed liquid dairy product (LDP) after white milk - is expected to enjoy compound annual growth rates of at least double those of white milk and more than triple those of carbonated soft drinks between 2012 and 2015.

Growing demand for flavoured milk reflects shifting consumer preferences in a dynamic and globalized world. While flavoured milk has traditionally been consumed by kids who enjoy its taste, Tetra Pak has identified opportunities to significantly broaden and deepen its appeal.

That means going beyond kids to teens and adults, and beyond taste to hit the "sweet spot" where taste and health meet. Flavoured milk is an excellent vehicle to drive liquid dairy consumption across the generations and at different consumption occasions.

Whether they live in Seattle or Shanghai, Milan or Mumbai, consumers are seeking flavoured milk products which make their lives easier and better as their lifestyles change. Given its convenience, taste and nutritional profile, flavoured milk is emerging as a beverage to be enjoyed by everyone, anytime, anywhere.

Whether it's as a breakfast-replacement, a post-workout drink or for a spot of indulgence, flavoured milk is enhancing the consumer experience of liquid dairy products. It is offering variety, versatility and adding value.

And in today's world of increasing competition, raw material price rises and product commoditization, flavoured milk offers an opportunity to provide value to consumers and to the industry's bottom line.

Sincerely,  
**Dennis Jönsson**  
President and CEO Tetra Pak Group

## About the Tetra Pak Dairy Index

The Tetra Pak Dairy Index is an annual report designed to help dairy producers identify new opportunities for growth while offering all industry watchers information on the latest facts, figures and trends related to the global dairy industry.

The data contained in this report are collected from a variety of Tetra Pak and external sources and analysed by Tetra Pak's dairy market experts. The Tetra Pak Dairy Index also includes Tetra Pak's analysis of the industry based on its day-to-day work with dairy customers, governments, non-governmental organisations and local communities around the world supporting every aspect of the dairy value chain.

# Flavoured milk to help spur dairy industry's growth



Consumers across the world seeking taste, convenience and nutrition are set to make flavoured milk one of the growth engines of the global dairy industry by the middle of the decade, Tetra Pak research shows.

Today, flavoured milk is the second most widely consumed Liquid Dairy Product (LDP) after white milk and it is forecast to grow at more than double the rate of white milk between 2012 and 2015, creating opportunities for dairy companies to boost revenues and profits.

Flavoured milk is expected to grow by 4.1% compound annual growth rate (CAGR) between 2012 and 2015, outpacing forecasted growth of 1.7% for white milk and 2.4% for LDP as a whole during the same period, according to Tetra Pak.

White milk consumption is expected to grow from around 208.5 billion litres in 2012 to 219.5 billion litres by 2015. Total

LDP consumption is forecast to increase from 280.3 billion litres in 2012 to 301.3 billion litres in 2015.

Flavoured milk is expected to grow by 13% worldwide between 2012 and 2015, from 17 billion litres to 19.2 billion litres. That growth will be driven by developing countries, led by China, India, Indonesia and Brazil.

## Flavoured Milk

## Window of opportunity

Today, white milk accounts for roughly 70% of LDP consumption. Tetra Pak research shows that white milk is heavily consumed by children aged 3-12, after which milk consumption starts decreasing with age. Moreover, a majority of milk consumption happens during breakfast and then tapers off as the day progresses.

In this context, flavoured milk can be an excellent vehicle to drive consumption from an early age through adolescence and into adulthood, according to Tetra Pak. It can help expand consumption occasions beyond breakfast, serving as a snack, energiser or meal accompaniment. And it can help dairy companies find the 'sweet spot' encompassing both health and taste.

Consumption of flavoured milk globally remains low relative to white milk, carbonated soft drinks and fruit-flavoured still drinks, further highlighting its growth potential, according to Tetra Pak. In 2012, the average person globally consumed 32.7 litres of white milk, compared to 2.7 litres of flavoured milk, Tetra Pak figures show. Average per capita consumption of carbonated soft drinks was 32.7 litres, 12.4 litres for fruit-flavoured still drinks and 6.3 litres for tea-based drinks.

"We see a real opportunity to widen and deepen the appeal of flavoured milk across consumer segments, to increase consumption occasions and to leverage the healthy profile of flavoured milk," said Dennis Jönsson, President and CEO of Tetra Pak Group. "Flavoured milk is enormously versatile and adaptable to different palates, cultures and generations."

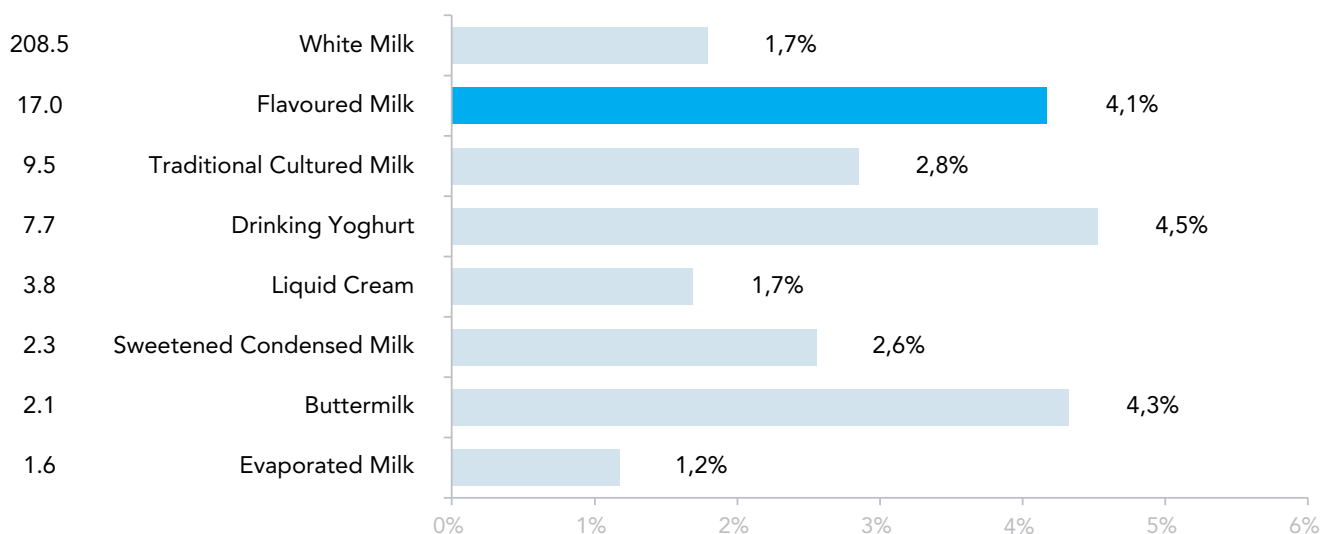
"With plain white milk increasingly commoditized, flavoured milk offers dairies an opportunity to provide value not only to consumers but also to their bottom line," said Jönsson.



## Liquid Dairy Products

2012  
Bio L

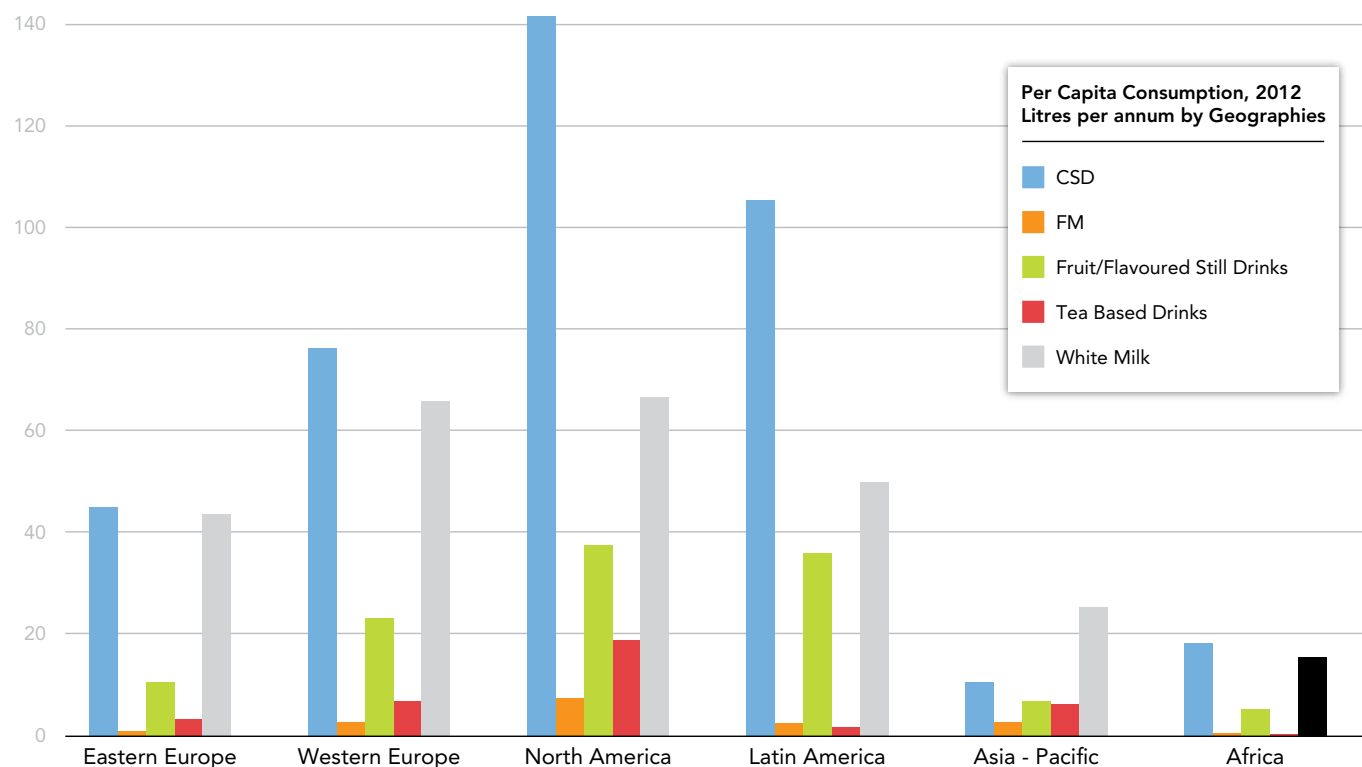
### CAGR 2012 - 2015



Source: Tetra Pak 2012



## Consumption of flavoured milk globally remains low relative to other impulse beverages



Source: Tetra Pak 2012

## Developing markets race ahead

These opportunities will be most pronounced in developing countries, where economic growth, urbanisation and rising disposable incomes are helping to fuel increased overall LDP consumption. Indeed, economic growth in developing countries also remains well ahead of developed countries. The International Monetary Fund earlier this year projected global growth would strengthen in 2013 to 3.5% from 3.2% in 2012, with developing countries being the main contributor.

Demand for flavoured milk in China grew by 9.9% (CAGR) to 4.2 billion litres between 2009 and 2012 and in Brazil – another major developing country – by 14.5% (CAGR) to 503 million litres during the same period, Tetra Pak research shows. Through 2015, China's flavoured milk consumption is expected to grow by a further 5.5% (CAGR) to 4.9 billion litres. Brazil is forecast to see growth of 7.5% in that period with consumption hitting 624 million litres.

In developed countries growth has been more modest. The United States, the world's second biggest flavoured milk market, saw demand for flavoured milk grow by 1.0% (CAGR) between 2009 and 2012 with the market expected to remain more or less steady between 2012 and 2015, Tetra Pak figures show. Flavoured milk consumption in Germany rose 1.7% (CAGR) between 2009 and 2012 and is set to increase by a further 1% (CAGR) to 2015, according to Tetra Pak.

Tetra Pak figures show that growth in demand for flavoured milk in developing countries in Asia and Latin America will continue to significantly outpace growth in developed

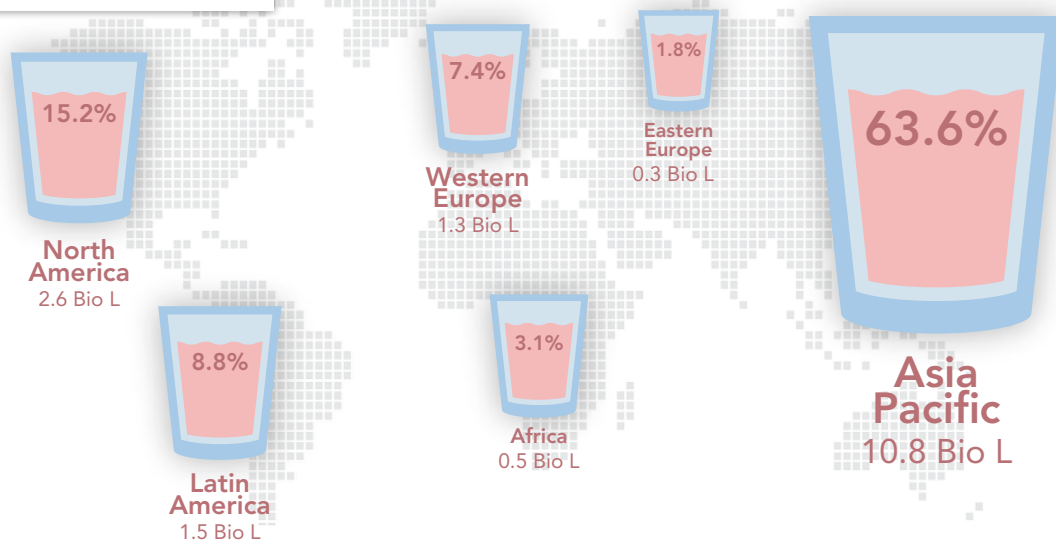
countries in North America and Europe, highlighting emerging economies as the growth engines of the dairy industry.

In fact, seven of the world's top 10 flavoured milk consumers are developing countries, led by China. Increased demand for flavoured milk between 2009 and 2012 was driven primarily by four emerging countries: Brazil, China, India and Indonesia. That trend is set to continue between 2012 and 2015, according to Tetra Pak forecasts.



## Asia Pacific is the world's biggest flavoured milk market

Total Flavoured Milk (2012) = 17 Bio L  
CAGR 09-12 = 5.3%



Source: Tetra Pak 2012

While developing countries accounted for 66% of flavoured milk consumption in 2012, this is expected to rise to 69% by 2015. China, South Asia and Southeast Asia drink more than half the world's flavoured milk. In fact, just six Asian countries – China, India, Indonesia, Malaysia, the Philippines and Thailand – consume 47% of the world's flavoured milk.

Still, per capita consumption of flavoured milk in many developing countries – where growth is expected to be strongest – remains low relative to developed countries, where growth will be modest or demand is set to plateau. That creates potential for significant growth in per capita consumption of flavoured milk in developing countries, according to Tetra Pak.

Average annual consumption of flavoured milk in Brazil was 2.6 litres per person in 2012 whereas average annual consumption of flavoured milk in the United States was 7.4 litres, according to Tetra Pak

## Facing challenges

While growing demand for flavoured milk is creating opportunities for dairies, it is also presenting some challenges.

Increased pressure on water, land and agricultural resources is driving up the cost of raw materials. High feed prices are a worldwide problem for the dairy industry. Farmers' costs, overall, increased by around 5% in 2012, according to the Food Outlook report published by the Food and Agriculture Organization in November 2012. The industry is also facing concerns about adequate supplies in the wake of strong demand for milk.

Dutch financial services group Rabobank, a co-operative bank which specialises in food and agri-business, highlighted in its Dairy Quarterly Q1 2013 report that the dairy industry will see

a fine demand supply balance in 2013 with possibilities of milk scarcity in the longer run. High costs, bad weather and low milk prices could potentially slow milk production in export nations such as the US, Europe, Australia and New Zealand, translating into further upward movement in prices for high import countries like China as well as parts of Southeast Asia and North Africa.

In a bid to secure milk supply as well as to expand geographical footprint many dairies have embarked on mergers and acquisitions. That's making for an even tougher competitive environment.



"With milk shortages and rising costs, shifting some production to high value segments such as flavoured milk is a way dairies can make a positive impact on their bottom line as well as meet consumer demand for added-value products," said Libby Costin, Global Portfolio Marketing Director, Tetra Pak.

Consumers are also trying to tackle both food price inflation and economic uncertainty by shopping smart and saving money, using coupons, switching brands and shopping at discount stores. Consumers surveyed in 25 countries by Roper Reports Worldwide cited recession, inflation and money as their top three concerns in 2011-2012. Some 88% said they employed several strategies to save money including using coupons, buying in bulk and waiting for promotions.

While price is important for consumers seeking "value," other factors also come into play. Focusing on the four key value elements of quality, convenience, price and brand, it is

# Consumers are balancing quality and convenience with price and brand.

clear that the first two are most important and rated similarly in developed and developing countries. However, price is noticeably more important in developed countries, while brand plays a more significant role in developing countries, according to Roper Reports Worldwide.

Despite different perceptions of value in developed and developing countries, Tetra Pak has identified four universal drivers fuelling a rise in flavoured milk consumption across the globe. First, urbanisation, rising prosperity and the pace of modern life in many countries has increased "on-the-go" consumption of ready-to-drink (RTD) flavoured milk in convenient portion packs. Second, in a globalised and interconnected world, consumers are eager to try new food and drinks, and flavoured milk is well poised to meet that need with its taste profile.

Third, milk is widely regarded as a nutritious and healthy drink, particularly in developing countries where dairy is a key part of the diet. And fourth, economic uncertainty has not dented the desire of many consumers to escape the daily grind by enjoying "indulgent" food and drinks.

## Convenience and on-the-go create opportunities

While global consumers remain keen to save money in the wake of an economic down-turn, many of them are also ready to spend money on convenient products which make their lives easier.

With more people living busy, stressful lives in cities, convenience has become a growing trend, particularly in developing countries where infrastructure development often lags behind economic growth, leaving workers with long commutes and less time to eat and drink at home.

Over a third of global consumers say they are willing to pay extra for products which make their lives easier, according to Roper. That underscores the importance of convenience and creates opportunities for dairy companies to sell value-added and functional products, according to Tetra Pak.

The desire for convenience is more pronounced in developing than in developed countries. While only 27% of consumers in developed countries were willing to spend more on products which make their lives easier, this rose to 45% in developing countries, according to Roper Reports Worldwide.

Demand for time-saving products is also most pronounced in developing countries, particularly in Asia, Latin America and the Middle East.

On-the-go consumption has risen steadily in the past five years, according to Roper Reports Worldwide. The proportion of consumers who eat on-the-go at least once a week has climbed from 21% in 2008 to 31% in 2012, with the percentage of consumers who sip a drink while walking or driving at least once a week has risen from 22% to 28%.

This is reflected by rising consumption of flavoured milk throughout the day in the United States. Today, Americans consume more flavoured milk at lunchtime (31%) and between lunch and dinner (21%) than at breakfast time (13%), according to Tetra Pak research.

"Flavoured milk offers a wide spectrum of consumption occasions in LDP, going beyond the breakfast table into handbags and back packs as more of us drink on the go,



particularly in the world's big bustling cities," said Sumit Khatter, Director of Category Management at Tetra Pak.

On-the-go consumption has risen steadily in line with urbanisation. More than half the world's population now live in towns and cities, and this is forecast to increase to two-thirds in just over a generation by 2050, according to UN Habitat. That is likely to further fuel on-the-go consumption and demand for convenient, time-saving products, according to Tetra Pak.

## Ambient growth outpaces chilled

In dairy, that trend is translating into rising demand for ready-to-drink (RTD), flavoured ambient milk in portion packs, particularly of 200 ml and below.

Cartons have increasingly become the established packaging for flavoured milk, accounting for 46% of flavoured milk packaging in 2012, up from 41% in 2009, according to Tetra Pak. That trend is even more pronounced in RTD flavoured milk. In 2009, cartons accounted for 57% of flavoured milk packaging. By 2012, this had climbed to 62%, Tetra Pak research shows.

Portion packs accounted for 78% of RTD flavoured milk consumption in 2009 and this is expected to rise to 81% by 2015, Tetra Pak forecasts.



In 2009, ambient RTD flavoured milk accounted for 39% of global flavoured milk consumption compared to 32% for chilled flavoured milk. By 2015, ambient RTD's share is expected to rise to 49%, with chilled dropping to 27%. At the same time, powdered flavoured milk is set to drop from a 27% share of the market in 2009 to 23% by 2015, according to Tetra Pak.

This gain in share for ambient RTD flavoured milk will be driven almost wholly by

Asia and Latin America. In fact, 92% of consumption growth in 2012 came from China, South and Southeast Asia and Latin America. Ambient RTD flavoured milk, which holds a larger share in developing countries, is expected to continue gaining share on chilled and powdered flavoured milk, Tetra Pak research shows.

Some markets are either predominantly ambient or chilled. China, for example, is virtually an ambient milk market, where flavoured milk is predominantly sold in portion packs. The United States, on the other hand, is mainly a chilled market where larger family packs remain popular because milk is still predominantly consumed at home. While portion packs are popular for on-the-go consumption, multi-serve options from large packs stored in the fridge at home are a big part of daily consumption.

Developing countries have traditionally favoured ambient milk while many developed countries prefer chilled milk. That's largely because chilled milk requires refrigeration and efficient transport networks, which are not always available in developing countries. Ambient milk, on the other hand, offers dairies and consumers the convenience of a long shelf life without refrigeration.

## Taste of things to come

In addition to seeking convenience, consumers are also eager for new experiences and tastes, with 65% of global consumers saying they like making new things to eat and trying different foods, according to a 2011 Datamonitor Consumer Survey. In India, 78% of consumers said they liked trying different foods or making new things to eat, compared to 68% in China and 65% in the United States.

Taste is a key driver for flavoured milk consumers, according to Tetra Pak. A majority of consumers in China and the United States, for example, cite taste as their number one criteria for drinking or buying flavoured milk.

"Consumers clearly have the desire to explore new things. That's creating demand for new flavours and taste experiences among consumers. It's also creating opportunities for dairy companies to innovate to make their products stand out from the crowd," said Tetra Pak's Khatter.

New flavours and combinations have emerged to tickle the taste-buds of consumers, from marshmallow-flavoured milk in Switzerland to honey and banana-flavoured milk in Australia.

In response to growing curiosity about new tastes, for example, the dairy industry has seen fast growth in the launch of diverse flavours between 2009 and 2012, according to Mintel Global New Products Database (GNPD) 2012. Chocolate, strawberry and vanilla remain the most popular flavours. But more diverse flavours such as peach, mango, pineapple and green tea are emerging.

In fact, launches of conventional flavours like chocolate are slowing down while launches of new flavours like citrus fruit, cereal and nuts are accelerating, according to Mintel GNPD.





New flavoured milk product launches between 2009 and 2012 for citrus fruit, for example, rose by around 33% (CAGR) while for chocolate the rate of growth was around 4%. There was also an increase in product launches targeting adults, according to Mintel GNPD.

Regional taste preferences also vary. In Asia, nut and bean-based flavoured drinks, such as flavoured milk with pecan, almond, peanut and red beans figure often. In Europe, flavours now include a tropical milk smoothie in the UK and hazelnut-flavoured milk in Germany. Chocolate remains popular in the United States.

## Health-conscious consumers

THEY'RE CALLED **ESSENTIAL** FOR A REASON.

**AN 8-OUNCE SERVING OF MILK, FLAVORED OR NOT, GIVES KIDS AS MUCH...**

- Potassium** as one small banana
- Protein** as 1 1/2 medium eggs
- Riboflavin** as 1/2 cup of whole almonds
- Vitamin A** as 1/4 cup of broccoli
- Vitamin D** as 1/4 ounce of cooked salmon
- Niacin** as 10 cherry tomatoes
- Calcium** as 10 cups of raw spinach
- Vitamin B-12** as 3 ounces of turkey
- Phosphorus** as 1 cup of canned kidney beans

*Milk's nine essential nutrients can help kids and teens grow healthy and strong.*

- 1 Calcium 300 mg, 30% DV**  
Helps build and maintain strong bones and teeth. It helps reduce the risk of stress fractures and osteoporosis later in life. Plays a role in promoting normal blood pressure.
- 2 Vitamin D 100 IU, 25% DV**  
Helps absorb calcium for healthy bones.
- 3 Phosphorus 245 mg, 20% DV**  
Works with calcium and vitamin D to help keep bones strong.
- 4 Riboflavin 0.46 mg, 20% DV**  
Helps convert food into energy. Plays a vital role in the development of the central nervous system.
- 5 Protein 8 g, 16% DV**  
Helps build and maintain lean muscle. Contains all the essential amino acids (the building blocks for protein).
- 6 Vitamin B-12 1.2 mcg, 13% DV**  
Helps build red blood cells and helps maintain the central nervous system.
- 7 Potassium 370 mg, 11% DV**  
Helps regulate the balance of fluids in the body and plays a role in maintaining a normal blood pressure.
- 8 Vitamin A 400 IU, 10% DV**  
Important for good vision, healthy skin, and a healthy immune system.
- 9 Niacin 2 mg, 10% DV\*\***  
Helps the body's enzymes function normally by converting nutrients into energy.

USDA National Nutrient Database for Standard Reference, Release 23, 24.  
Percent Daily Values reflect current nutrition recommendations for a 2,000 calorie per day diet.  
\*\*As niacin equivalents.

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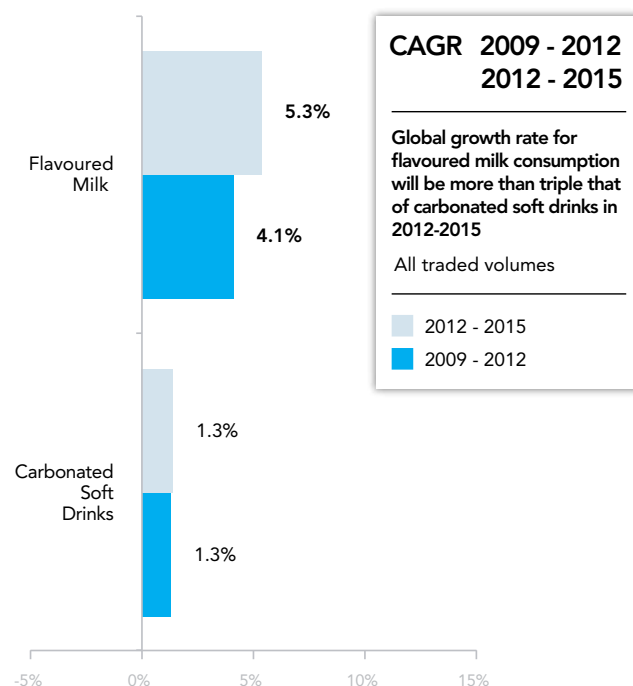
**got milk? MilkPEP**  
100 Processor Education Program

With consumers increasingly pro-active about safeguarding their health and wellbeing, positive perceptions around the nutritional benefits of milk have also boosted demand for flavoured milk, particularly in developing countries.

According to the National Dairy Council in the United States, flavoured milk is a nutrient-rich beverage providing the same nine essential nutrients as unflavoured milk. Those nutrients include calcium, potassium, phosphorus, protein, vitamins A, D, B12, niacin and riboflavin, which are essential in the daily diet. Moreover, according to the United Nations Food and Agriculture Organization's recently devised method of protein quality measurement, called the Digestible Indispensable Amino Acid Score, dairy protein rates 10-30% higher than the highest refined vegetal protein, which is soy isolate.

Though flavoured milk consumption is still low compared to consumption of carbonated soft drinks, positive consumer perceptions about the health benefits of milk create opportunities to significantly increase flavoured milk consumption, according to Tetra Pak, which forecasts that the global growth rate for flavoured milk consumption will be more than triple that of carbonated soft drinks between 2012 and 2015. During that period carbonated soft drinks are expected to grow by 1.3% (CAGR) compared with an estimated growth rate of 4.1% (CAGR) for flavoured milk.

## Flavoured milk growth outpaces CSD



Source: Tetra Pak 2012

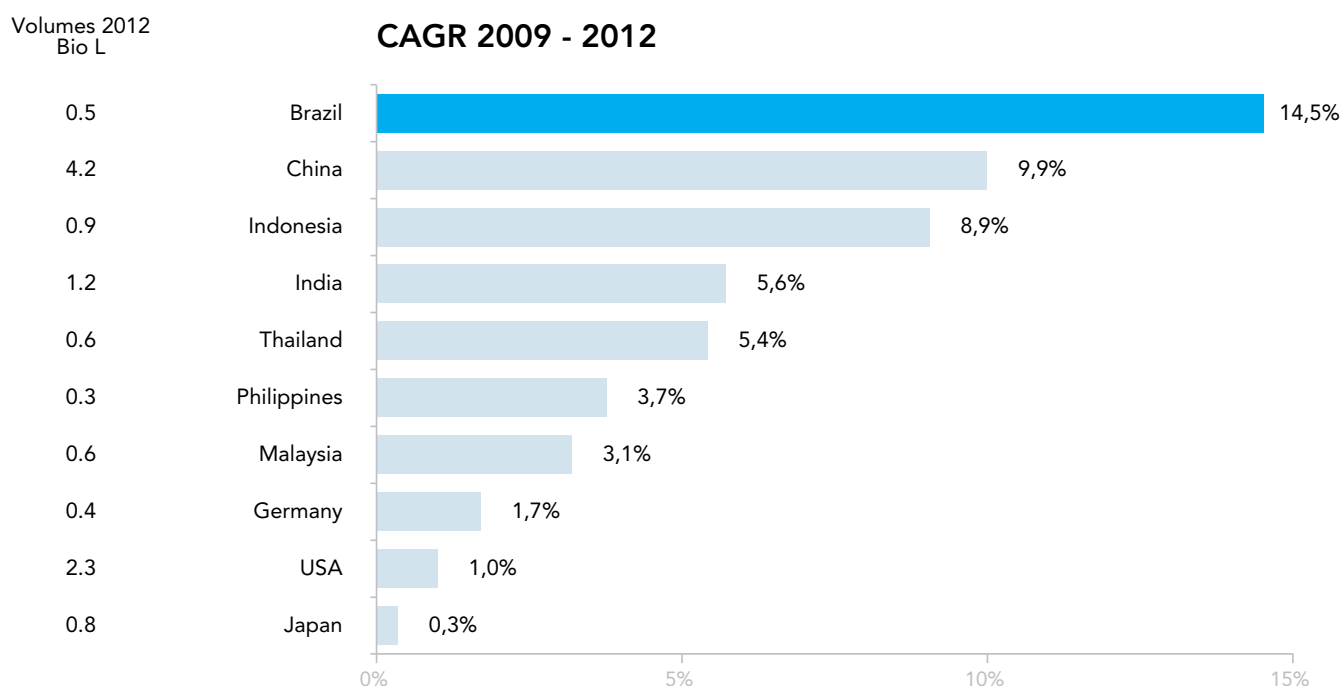
Health is very much on the minds of many consumers. In fact, 38% of consumers worldwide said they actively look for products that help them live a healthy lifestyle, according to Roper Reports. While only 28% of consumers actively look for such products in developed countries, this rises to 49% in developing countries.

"In developing countries we notice that consumers take a more holistic approach to general well-being. There is a stronger focus on fresh and natural products in developing countries which can be linked with cultural traditions," said Tetra Pak's Khatter. "In many developed countries products to help live a healthy lifestyle are more associated with the fight against obesity," he said.

Datamonitor showed that 56% of consumers who were surveyed worldwide appreciated food and beverages formulated to appeal to specific nutritional needs. The number of consumers who found food and drinks appealing where nutrients had been added during processing was even higher at 64%.

That has translated into most new flavoured milk launches in the period from 2009 to 2012 centring on health claims, according to Mintel GNPD 2013.

## Top 10 Flavoured Milk Markets by Volume



Source: Tetra Pak 2012

## Indulgence fuels demand

While many consumers focus on health, others want to treat themselves with tasty food and drinks to escape the stresses and strains of daily life.

In fact, 40% of consumers worldwide agree that "it's important to indulge and pamper themselves on a regular basis," according to a Roper Reports Worldwide 2012 survey in 25 countries.

With indulgence a key driver for consumption, demand for "indulgent" flavoured milk products has grown – from creamy chocolate and coffee-flavoured products such as the Galaxy® Café Mocha-Latte sold by Mars in the UK to Frappuccino® sold worldwide by Starbucks.

Flavoured milk can play a role blending indulgence with health and well-being. In Mexico, for example, 61% of consumers regarded flavoured milk as healthy and 19% as indulgent, according to Tetra Pak research. But 20% saw flavoured milk as a mix of both: healthy and indulgent.



While taste, convenience, health and indulgence are propelling flavoured milk consumption worldwide, each market has unique characteristics. Whether it's British consumers taking breakfast on-the-go, Germans indulging in frothy coffee drinks, Filipinos seeking affordable portion packs or Brazilians enjoying the dietary benefits of milk with fibre, no two countries are alike. But one characteristic cuts across all markets: developing markets, such as Brazil, are growing more strongly than developed ones.

## Brazil leads surge in flavoured milk demand

Brazil, the top flavoured milk market in Latin America, is forecast to see the highest rate of growth among the world's top 10 flavoured milk markets, Tetra Pak research shows.

That growth is being driven, in part, by rising disposable incomes, a burgeoning middle class and falling unemployment in Brazil, which in 2011 overtook the UK as the world's sixth biggest economy. And there is tremendous opportunity for further growth. Penetration of white milk in Brazilian households – defined as consumption at least once a year – is 100% for white milk, 82% for liquid cream and 67% for flavoured milk, according to Kantar World Panel 2012 data.

Average consumption of flavoured milk is also much lower than consumption of white milk. Average per capita consumption of white milk in Brazil stands at more than 56 litres a year compared to less than three litres for flavoured milk.

Flavoured milk penetration has risen rapidly from just over 48% in 2007 to more than 67% in 2012, Kantar World Panel research shows.

In Brazil, children under the age of 12 consume 52% of the country's flavoured milk – with chocolate the dominant flavour. Teens up to 18 account for 23% of consumption, followed by 18-34 year olds with 19%. Adults aged 35 and above make up just 6% of flavoured milk consumption, according to the latest market research report by GFK Liquimetric.

"Children drink flavoured milk because they like the taste and mothers buy it because they like the nutrition it provides. Convenience is vital for parents as flavoured milk traditionally goes into a kid's lunchbox for school," said Vivian Leite, Marketing Manager for White Milk at Tetra Pak in Brazil. Almost 80% of flavoured milk sold in Brazil comes in 200 ml portion packs with cartons making up 97% of sales.

Popular flavoured milk brands in Brazil include Nestlé's Nescau® and PepsiCo's Toddynho®, which introduced whey-based flavoured milk to the market and has been the market leader for 27 years.

While kids remain the key consumers of flavoured milk, some dairy companies are also finding growth opportunities by offering adults nutritional flavoured milk focused on health and wellbeing.

Brazilian food company Trio Alimentos in 2012 launched RTD flavoured milk with low calories and vitamins in 200ml for on-the-go consumption under its Trio brand targeting young adults. Dairy company Bela Vista in 2011 launched flavoured

milk drinks with quinoa and flaxseed – bringing the dietary benefits of fibre to milk – in flavours including papaya, apple, banana and plum in 200ml and 500 ml cartons under its Piracanjuba brand.

"We have seen a range of value-added products launched which are more functional, offering nutrition, fibre and vitamins to health-conscious adults," said Flavio Lopes, a dairy category manager at Tetra Pak in Brazil.

## South Asian markets to see robust growth

In the South Asian markets of India, Bangladesh and Sri Lanka, flavoured milk consumption is set to rise by 5.1% (CAGR) between 2012 and 2015. That increase will be spurred by economic growth, urbanisation and rising prosperity.

On-the-go lifestyles in India's thriving cities have triggered increased consumption of RTD ambient milk, including flavoured milk consumed by kids, teenagers and young adults. Shopping at roadside kiosks and convenience stores is further fuelling the growth.

Kids and teenagers consume the majority of packed flavoured milk in India, at home or in school, with parents opting to buy flavoured milk for younger kids because they value its nutritional benefits. While chocolate remains the dominant flavour, new flavours are emerging to tap buoyant demand.

"While nearly every household consumes milk in India, consumption of flavoured milk still has plenty of room to





grow,” said Kandarp Singh, Managing Director Tetra Pak South Asia Markets.

Indian dairy co-operative Amul and Indian conglomerate CavinKare have the top flavoured milk brands in India with 200 ml portion packs the size of choice for consumers.

In February 2013, India’s Tamil Nadu Co-op Milk Producers Federation Ltd. launched a milk shake in seven different flavours under its Aavin brand targeting all age groups.

In January 2013, Nestlé Lanka launched Sri Lanka’s first ever nutritious milk based glucose drink enriched with energy releasing B Vitamins. SHAKTIGEN comes in a tangy fruit flavour, specifically designed for children aged from 8 to 15.

## Taste is key in Malaysia

Malaysia, one of Southeast Asia’s most vibrant economies, has the highest per capita flavoured milk consumption in the region at 21.3 litres a year per person compared to around 2.7 litres globally, Tetra Pak research shows.

Taste is the key reason most Malaysians drink flavoured milks, including chocolate, vanilla, strawberry and coffee. Flavoured milk accounts for 41% of liquid dairy consumption, compared to 21% for white milk and 20% for baby and toddler milk, according to Tetra Pak.

“Malaysians love tasty food and drinks. With its ethnic Malay, Chinese and Indian population, Malaysia has been influenced by tastes from around the world. We are always looking out for something new and exciting.

So we expect dairy companies will continue launching new and different tastes which appeal to that demand for variety as well as health and nutrition,” said Kenny Lim, Marketing Manager for Dairy at Tetra Pak in Malaysia.

RTD ambient flavoured milk has notched up growth of more than 13% (CAGR) between 2009 and 2012 with 151-200 ml portion packs growing fastest. In contrast, demand for powdered flavoured milk – which takes time to prepare -- is rising by only about 1%.

Growing RTD consumption has been fuelled by demand for Tonic Food Drinks, like Nestlé’s MILO®. MILO® was introduced in Malaysia as a Tonic Food Drink in 1950. It was enhanced with B Vitamins in 1999 and ACTIGEN-E was introduced, a unique combination of 8 vitamins and 4 minerals, that helps optimize the release of energy from food. MILO® was further improved with PROTOMALT in 2006, a special malt extract proprietary to MILO®, providing the energy and nutrients the body needs.

Royal FrieslandCampina, for example, offers flavoured milk specially formulated for kids aged 1-6 and 6-12 under the Dutch Lady brand. Its flavoured milk for 1-6 year olds contains vitamin D, vitamin A and is formulated to promote rapid growth and development. For older kids, its flavoured milk contains Omega 3 and 6, Vitamin B3 and Vitamin B6, formulated to improve attention spans and to enhance brain development.







## Affordability is key in the Philippines

In the Philippines, powdered flavoured milk still accounts for the majority of consumption with affordability the key for millions of less affluent consumers. However, as the economy grows and wealth increases, demand for RTD flavoured milk is set to grow more strongly than for powdered milk, according to Tetra Pak.

Consumption of RTD flavoured milk is forecast to grow by 1.8% between 2012 and 2013, outpacing growth of 1.1% in powdered flavoured milk. Total consumption of flavoured milk, which is predominantly prepared for kids using chocolate powder mixed with white milk, is expected to grow by 1.1% (CAGR) between 2012 and 2015, Tetra Pak data shows. Powdered milk dominates liquid dairy consumption in the Philippines, accounting for 77% of total LDP consumption in 2012.

With affordability the key, there has been a shift towards smaller 125 ml portion packs and away from one litre packs, Tetra Pak research shows. Demand for family packs of RTD flavoured milk is forecast to fall by 5% between 2012 and 2013 but packs under 150 ml are expected to grow by 6%.

"There is real potential in the flavoured milk market in the Philippines for companies that create mass market appeal – particularly lower in the pyramid – for products which promote health and well-being, offer convenience and are suitable for kids," said Christopher Lazaro, Marketing Manager for Dairy at Tetra Pak in the Philippines.

While developing countries have become dynamos of consumption for the world's dairy industry, some developed countries, like Spain, the UK and Germany, are also experiencing growth in flavoured milk consumption

## Coffee flavours take off in Germany

In Germany, demand for flavoured milk grew by 1.7% (CAGR) between 2009 and 2012 and is expected to grow by 1% between 2012 and 2015, according to Tetra Pak research. Growing demand for flavoured milk will help offset declining demand for white milk and a flat overall Other Liquid Dairy Products (OLDP) market in Germany.

White Milk consumption is forecast to drop 0.3% (CAGR) between 2012 and 2015 to 3.9 billion litres. OLDLP demand is set to remain more or less steady, edging just 0.1% (CAGR) lower to 1.6 billion litres, Tetra Pak research shows.

While flavoured milk is typically consumed in German households with children under the age of 12, the increasing popularity of chilled coffee-flavoured milk among teenagers and young adults is helping to stimulate growth.



"The popularity of coffee-flavoured milk reflects a growing taste for more milky Italian-style coffee popularised by US coffee chains around the world. Germans traditionally drink coffee with a dash of condensed milk. That's changing with people opting for more indulgent tastes like latte, cappuccino, macchiato and iced coffees," said Lars Hueck, Marketing Manager for Dairy at Tetra Pak in Germany.

Chilled coffee-flavoured milk, which contains more than 50% dairy, is forecast to further increase its share of the German flavoured milk market, according to Tetra Pak. In traditional chilled flavoured milk, the trend is towards family size packages. Within chilled flavoured milk, the share of family size 1000ml packages doubled from 5% in 2011 to 10% in 2012, according to Tetra Pak.

"In the past people drank coffee to wake up in the morning and keep going at work. Coffee was more functional and formal. That's changing. It has definitely become more indulgent," he said.

## Spain balancing health and taste

Flavoured milk consumption in Spain is expected to grow by 1.6% (CAGR) between 2012 and 2015, compared to relatively flat white milk consumption. White milk consumption edged lower by 0.7% (CAGR) between 2009 and 2012 and is forecast to slip 0.1% (CAGR) between 2012 and 2015, Tetra Pak research shows.

Three key flavoured milk trends have helped to fuel growth. Firstly, parents are trying to balance their children's expectations on flavour with their own emphasis on kids' health. Secondly, the emergence of milk and juice blends has opened up opportunities for dairy companies to increase consumption occasions. Thirdly, dairy companies are tapping into demand from adults for indulgent dairy drinks.



"Flavoured milk for kids must strike a balance between parents' desire to provide the best nutrition for their kids and kids' need for flavour and fun," said Jose Luis Velilla, Category Manager for Liquid Dairy Products at Tetra Pak in Spain.

"Milk-juice blends offer the opportunity to widen consumption occasions, to go beyond enjoying flavoured milk as a mid-morning or mid-afternoon snack. It acts as a healthy, thirst-quenching drink which appeals to adults and kids and goes beyond the traditional flavours of chocolate, strawberry and vanilla," he said.

While Spain has been hit by recession, unemployment and austerity, there is potential for premium brands to tap into the desire among many consumers for small indulgences in tough economic times as "frugality fatigue" sets in.

Adults are looking for a healthy, delicious reward which is low in calories. The key is to provide quality and innovation at the right price to differentiate branded products from retail brands, said Velilla.

## Population change shapes opportunities in Japan

Japan, whose population is shrinking, has seen demand decline in many areas, including flavoured milk sales. Consumption of white milk and flavoured milk fell by 2% and 1.4% respectively in 2012 compared with 2011.

But while the population is projected to decline by a third, from 128 million to 87 million people by 2060, according to the government, the population aged 65 and older is expected to double to 40% during that period. That's having a profound impact on LDP consumption trends, creating opportunity for dairy companies to develop niche products to enhance the health of the elderly.

"Meeting the specific dietary demands and health needs of Japan's ageing population presents a real opportunity to reverse a decline in sales in many categories. That can be done by developing flavoured milk and drinking yoghurt formulated to promote the specific health-needs of older consumers," said Yuko Ohmori, Chilled Category Executive at Tetra Pak in Japan.

Working men in their 30s and 40s have traditionally been the main consumers of flavoured milk in Japan, often picking up a portion size on the way to work. Convenience stores are a major channel for sales with coffee a particularly popular flavour. With around 95% of flavoured milk sold chilled in Japan, on-the-go consumption has been driven by consumers seeking taste and convenience from recognised brands.

"The working population is waning and the number of people retiring is growing. That's a challenge for dairy companies but also a massive opportunity to innovate by developing a new segment targeting elderly people who are the main purchasers of white milk and extremely health conscious. Health-centric flavoured milk, with added vitamins and nutrients, is one way to promote a long, healthy and active life," said Ohmori.







## British breakfast-skipping trend creates opportunity

In the United Kingdom, predominantly a chilled market, flavoured milk consumption is forecast to grow by 1.0% (CAGR) between 2012 and 2015, compared to a flat market for white milk. Chocolate, strawberry and banana account for the majority of chilled flavoured milk sales. Kids under the age of 10 and teenagers tend to be the main consumers of flavoured milk, with young adults drinking flavoured milk more occasionally, often on-the-go.

"Breakfast skipping and indulgence are two big trends we see in the UK. People lead busy, often hectic lives, so they want to save time and treat themselves," said Andrew Smith, Marketing Manager at Tetra Pak in the UK. He noted an increase in sales of breakfast biscuits, cereal bars and flavoured milk drinks with a high-fibre and protein content positioned in the cereal aisles of shops. Indulgence has also continued to expand with new more indulgent flavours and new types of products such as cafe lattes.

While 99% of consumers in the UK regularly consume white milk, only 35% of consumers regularly drink flavoured milk, creating a significant potential market for dairy companies to tap into further growth opportunities. With per capita consumption of white milk at around 102 litres a year, consumption of flavoured milk averages just 3.9 litres.

"With margins squeezed on white milk due to retailer price wars, dairy companies have an opportunity to develop flavoured milk products which add real value. We see growth opportunities in breakfast replacements and indulgence," said Smith.

## Adding real value to consumers' lives

While flavoured milk is traditionally enjoyed by kids because they relish its taste, Tetra Pak sees opportunities to significantly broaden and deepen the consumption of flavoured milk in the next decade, creating new product formulations for new consumer segments and consumption occasions.

"Today, flavoured milk focuses largely on kids. But tomorrow, we have the opportunity to make flavoured milk a drink which every generation can enjoy, anytime and anywhere," said Tetra Pak CEO Dennis Jönsson.

"The right flavours, portion sizing and product formulation can bring real value to consumers seeking taste, nutrition and convenience. Flavoured milk is coming of age by appealing to more people in more places, enhancing the consumer experience of dairy and the sustainable profitable growth of our industry," said Jönsson.

## US consumers shift towards lower volume, higher value dairy



Changing consumer habits in the United States are presenting fresh challenges and opportunities for the dairy industry. On the one hand, per capita dairy consumption in the US, led by white milk, is forecast to decline by 6.5% between 2011 and 2015. On the other hand, consumers are moving towards higher value products such as flavoured milk, drinking yoghurt and traditional cultured milk, promising higher margins.

"When it comes to white milk, consumers are used to getting the largest volumes for the lowest prices. So innovation, differentiation and adding value is vital for companies seeking to grow in an intensely competitive market," said Alonso Prado, Marketing Manager Dairy & Nutrition at Tetra Pak in

the US. "The potential for growth in flavoured milk is huge if the industry gets this right."

In 2012, white milk accounted for 82% of US liquid dairy products consumption and flavoured milk 9.1%. By 2015, white milk consumption is set to edge lower to 81%, while flavoured milk consumption is expected to rise to 9.5%, Tetra Pak figures show. The best performing segments within white milk have been enhanced, value-added milk or organic milk.

Flavoured milk consumption is being driven by consumers seeking dairy products which offer taste, convenience and nutrition. Flavoured milk has gained ground partly thanks to its



widespread acceptance as a post-workout drink and because of reformulation as Americans seek healthier products.

While some school districts in the United States have prohibited flavoured milk which contains high-fructose corn syrup, others are taking alternative measures in order to offer a nutritious milk drink. They are replacing the corn syrup with more natural sweeteners and reformulating to comply with new regulations on calories and sugar. Consumers are also trading down in pack size, moving away from one gallon high-density polyethylene (HDPE) bottles to smaller cartons or containers.

"There is growing acceptance of flavoured milk in lunch boxes with a proliferation of multipacks and single serve drinking options. This is offering differentiation on the large size pack market in the United States," said Prado.

The bulk of flavoured milk is consumed by kids up to the age of 12, either at home from large family packs or in portion packs favoured for on-the-go consumption. Chocolate is the most popular flavour by far, followed by strawberry and vanilla.

"Flavoured milk is used increasingly by many consumers as a substitute for white milk, as it's a more accepted taste for kids than white milk. It's the main way parents can ensure their kids keep drinking nutritious milk," said Prado.

With more than 90% of white milk consumed at home during breakfast in the United States, a growing trend towards consumers skipping breakfast or having breakfast on-the-go highlights opportunities for dairy companies offering "grab and go" food and drinks which provide nutrition, convenience and taste for young and old alike.

On any typical day, one in five Americans – approximately 60 million people – do not eat or drink anything before 11AM in the morning, according to the NPD Group's Morning MealScape report.

About a third of that group miss breakfast because they are late risers. Many others miss breakfast because they don't feel hungry or thirsty or simply don't have time. "Converting skippers to consumers is a sizable opportunity," the NPD report said.

While the average American consumed more than 66 litres of white milk in 2012, they consumed just over 7 litres of flavoured milk.

That may be down to the fact that many consumers in their teens, twenties and thirties, are among the lowest consumers of liquid dairy products in the US. So-called "Millennials" – the generation born between 1980 and 2000 – represent a significant opportunity for savvy companies ready to innovate, Tetra Pak believes.

"They already represent 25% of the total US population, and their purchasing power is increasing. They are all about being practical, love convenient solutions and are always on-the-go. They are very global, so they not only accept but seek to experience new things," said Prado. "The market has a real opportunity to offer them something which speaks to their needs."

"Flavoured milk and other dairy-based drinks have huge potential in the millennial market: from juice-milk blends and smoothies to energy and recovery drinks. They are looking for sophisticated products – trendy, cool and modern – that really turn drinking flavoured milk into an experience," he said.

"The potential for growth in flavoured milk is still huge if companies in this category create differentiation and position their brands strongly," said Prado.



## Indonesia to set pace for growth in Asia's top flavoured milk markets



Indonesia isn't just Southeast Asia's biggest economy. It's also forecast to record the biggest growth rate in flavoured milk consumption among Asia's top markets by the middle of the decade.

An economic boom and rapid urbanisation are expected to help trigger a 6.7% (CAGR) rise in flavoured milk consumption between 2012 and 2015, a growth rate higher than that forecast in China, India, Malaysia, Thailand and the Philippines.

Around 60% of Indonesia's population are "Deeper in the Pyramid" consumers living in households with daily disposable income per capita of \$2- \$8 at Purchase Power

Parity, according to Boston Consulting Group. That is creating opportunities for dairies to provide conveniently packaged, healthy and nutritious dairy products at the right price, allowing consumers to switch from sweetened condensed milk to RTD ambient milk. Today's low-income consumers are also tomorrow's middle class. The emergence of a larger middle class, which is set to almost double by 2020 to 141 million people, according to Tetra Pak, is also helping to boost demand for liquid dairy products in Indonesia.

Rising numbers of Indonesian consumers are forecast to switch from powdered to ambient RTD flavoured milk. While demand for powdered liquid dairy products has grown at 2.6% (CAGR) between 2009 and 2012, it has increased at

almost quadruple that rate for ambient RTD liquid dairy, with growth of 10% in the same period, Tetra Pak research shows.

On the one hand, that is translating into modest growth for flavoured milk powder, which rose by 2.8% between 2009 and 2012 and is forecast to grow by 2.3% between 2012 and 2015. On the other hand, it has sparked growth of 19% in ambient RTD flavoured milk consumption between 2009 and 2012 with further growth of 12% forecast between 2012 and 2015, Tetra Pak research shows.

"We are witnessing economic growth, a boom in middle income households and increased demand for convenient ready-to-drink ambient milk products," said Siti Fauzia, Marketing Manager for Dairy at Tetra Pak in Indonesia. "Packaged milk is an aspirational product. This is a story about growth in consumption of ready-to-drink milk as people's incomes and lifestyles change."

"We are also seeing dairies creating opportunities to spur growth in demand for value-added ambient milk in Indonesia. Value-added dairy products can offer kids and teenagers healthy, nutritious and convenient products in portion packs that are easy to consume on-the-go: at school or as a treat between meals," said Fauzia. "The right formulation, packaging and pricing is vital to make the most of this opportunity."

One in four of Indonesia's population of 245 million are under 14 years of age. In Indonesia, kids aged 3-12 tend to be the main consumers of flavoured milk. Chocolate, strawberry and vanilla remain the top flavours, although new flavours such as mung bean and tiramisu are starting to emerge for consumers seeking new tastes.

In 2012, Indonesian food group Nutrifood, for example, launched Tiramisu and Orange Biscuit flavoured ambient milk, broadening a range which already featured mung bean. Tiramisu and Orange Biscuit flavours provide an innovative alternative to chocolate flavoured milk, according to the company. Its mung bean flavoured milk, with added vitamin B12, provides an alternative to soy bean.

"The increase in GDP and rising health awareness will help to accelerate dairy consumption," said Nutrifood. "Flavoured milk is very popular in this country and it is perfect for Nutrifood. We believe that health can go hand in hand with products that please our taste buds."

Consumption of packaged milk in Indonesia is particularly pronounced in more affluent urban areas where parents are eager to keep their children drinking milk as they get older. They see it as a convenient way to provide them with healthy nutrition. Within ambient milk there has been strong growth in sales of portion packs of up to 150 ml, including value-added flavoured milk for kids.

"Ready-to-drink milk – such as flavoured milk – provides a level of convenience you don't get with powder. Flavoured milk provides an opportunity for dairy companies to add value by promoting health and well-being by adding vitamins, minerals and offering a taste that appeals to kids and teenagers," said Fauzia.

"That's a real growth opportunity in our country right now. The economy is coming of age. The dairy industry is coming of age and so is the market for value-added flavoured milk."



## China's quest for convenience helps fuel flavoured milk growth



From Shanghai and Beijing to Guangdong and Chengdu, China's economic growth is reflected in the rise of cities, consumption and incomes. China, the world's biggest flavoured milk market, consumes more flavoured milk than the United States and India combined: 4.2 billion litres in 2012 compared to around 2.3 billion in the US and approximately 1.2 billion in India. The bulk of consumption is among busy, working adults fuelling China's economic boom.

Flavoured milk demand grew by 9.9% (CAGR) between 2009 and 2012 to around 4.2 billion litres. China's thirst for flavoured milk is set to continue growing, with consumption expected to jump by 5.5% (CAGR) between 2012 and 2015 driven by demand for products offering taste, nutrition and convenience, particularly among young and middle aged consumers who form a large part of China's workforce.

Some 63% of flavoured milk demand comes from those over 18 years of age, Tetra Pak research shows. Consumers aged 19-25 account for 13% of flavoured milk consumption, those

aged 26-35 consume 15%. The biggest consumers are 36-50 year olds who account for 23%, with older consumers aged 51-65 making up the remaining 12%.

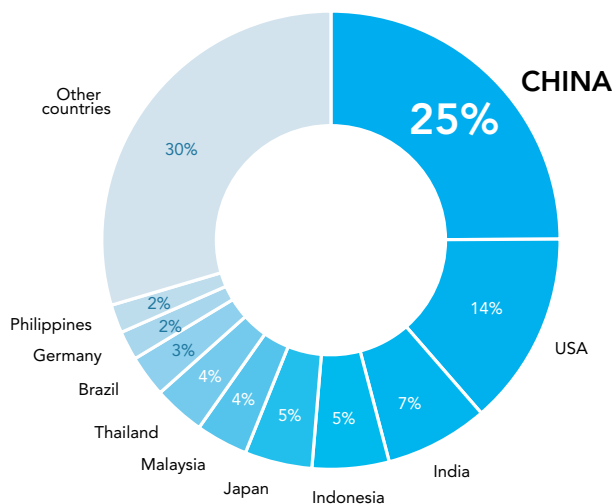
While 51% of Chinese consumers said they regarded flavoured milk as offering good taste, 49% also regarded it as nutritious and 47% as healthy, Tetra Pak research shows.

"Many affluent, young and middle-aged urban consumers are willing to pay a premium for products which offer quality, convenience and taste. That's where there is real opportunity for growth in the flavoured milk market in China," said Helena Kao, Category Management Director at Tetra Pak in China. "The bulk of demand is being driven by people aged 35 and younger with busy working lives, often with families, who have little time to shop and cook."

Common flavours popular abroad – such as chocolate, vanilla and coffee – are less common than the more traditional



## China is the world's biggest flavoured milk market



Source: Tetra Pak 2012

Chinese flavours such as walnut or Jujube – also known as red date – which is associated with traditional medicine. The Chinese drink flavoured milk not only in the morning – with or as their breakfast – but also in the afternoon for nutrition, energy and indulgence.

To capture the indulgence opportunity, Chinese dairy company MengNiu in 2007 launched a range of vanilla, chocolate and coffee premium flavoured milk under its Latte brand. Aimed at young adults, the premium product is available in 250 ml cartons. Another Chinese dairy, Yili, in 2012 launched their premium chocolate and papaya flavoured milk shakes under the WeiKeZi brand. The shakes are also available in 250 ml cartons.

“Convenience is the name of the game. China has urbanised rapidly. Life has become hectic. Many people have seen their disposable incomes grow. At the same time the amount of time they have to prepare meals has fallen. So we’ve seen a boom in convenience stores in big cities selling food and drinks for on-the-go,” said Kao.

“Convenience stores have become the drivers of consumption in big Chinese cities. That represents an enormous opportunity for dairy companies offering innovative new flavoured milk products. There is a lot of potential for dairy companies to tap into demand for flavoured milk among upwardly mobile consumers who are always connected and on-the-go,” said Kao.

Cartons accounted for the biggest share of flavoured milk packaging in China in 2012, with 50% of all flavoured milk packaged in cartons, according to Tetra Pak. In addition, Tetra Pak research shows that 47% of consumers surveyed regarded the packaging as easy to use, underpinning the importance of convenience. The preference for cartons is set to grow to around 57% of all flavoured milk packaging in China by 2015, according to Tetra Pak.

Traditionally, lactic acid drinks (LAD) have been China’s biggest selling dairy products, eclipsing sales of flavoured milk by more than two to one. LAD consumption in China rose by 9.2% (CAGR) between 2009 and 2012 to 10.2 billion

litres, according to Tetra Pak figures. Stiff competition, however, is squeezing margins as LAD becomes increasingly commoditized.

“Chinese consumers are embracing beverages they can drink on-the-go and that means that dairy companies tapping into that demand with flavoured milk can really grow their business by offering value to consumers, while also supporting their bottom line,” said Lisa Gong, Category Manager for Dairy at Tetra Pak in China.

With Chinese consumers on average drinking just over 3 litres of flavoured milk a year, compared to more than 6 litres of white milk, there is plenty of room for growth in the flavoured milk market in China, particularly as growth in demand for LAD slows, according to Gong.

## Rise of convenience & convenience stores

Rapid urbanisation and economic growth is opening up new opportunities and markets for global food and drinks companies. China’s urban population is expected to grow from 570 million in 2005 to 925 million in 2025, according to a report from the McKinsey Global Institute. McKinsey says that the 600 cities are expected to generate nearly 65% of world economic growth by 2025. Many of those cities are in China and attract millions of workers from the countryside.

In China’s biggest cities, convenience stores are popping up to meet rising demand for on-the-go consumption of hot and cold food, including liquid dairy products such as flavoured milk and LAD. Convenience stores are the source of the highest rates of growth in sales of fast-moving-consumer goods – from dairy products to toiletries – as Chinese consumers seek to shop 24 hours a day for products which make their lives easier and save time.

Typical convenience stores in China are open around the clock offering food, chilled drinks, confectionery, snacks, magazines and personal care products. Many have Wi-Fi hotspots for shoppers to stay connected to their smartphones and laptops. Major convenience store chains in China include 7-Eleven, the world’s largest convenience store operator, with more than 950 stores across China. In a city like Shanghai, there are six retailers with a strong presence. Those include 7-Eleven, South Korea’s largest convenience store chain Family Mart and Japan’s second largest convenience store chain, Lawson, according to a 2013 report by IGD Retail Analysis.

## About Tetra Pak

Tetra Pak® is the world's leading food processing and packaging solutions company. Working closely with our customers and suppliers, we provide safe, innovative and environmentally sound products that each day meet the needs of hundreds of millions of people in more than 170 countries around the world. With almost 23,000 employees based in over 85 countries, we believe in responsible industry leadership and a sustainable approach to business. Our motto, "PROTECTS WHAT'S GOOD™," reflects our vision to make food safe and available, everywhere.

More information about Tetra Pak is available at [www.tetrapak.com](http://www.tetrapak.com)

