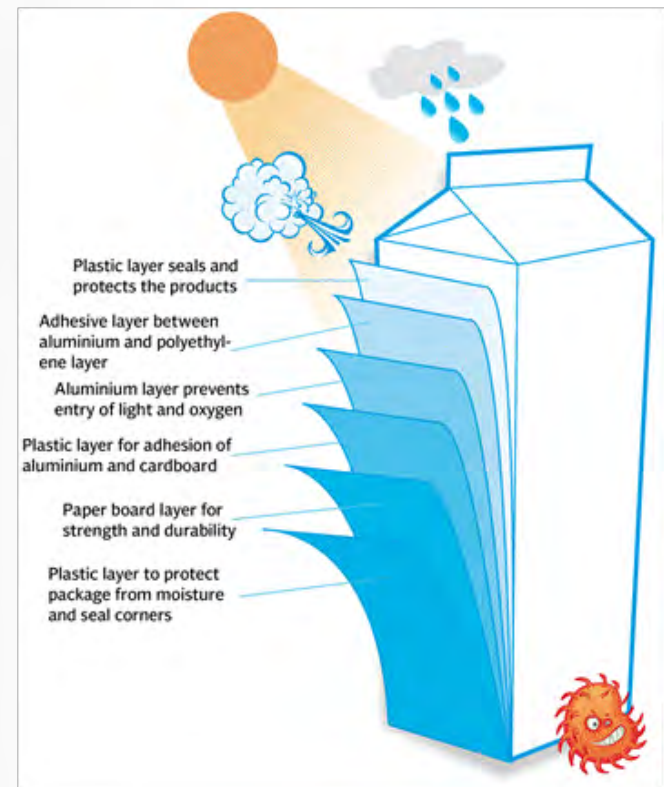


Market trends in UHT milk products

Ranjan Sharma

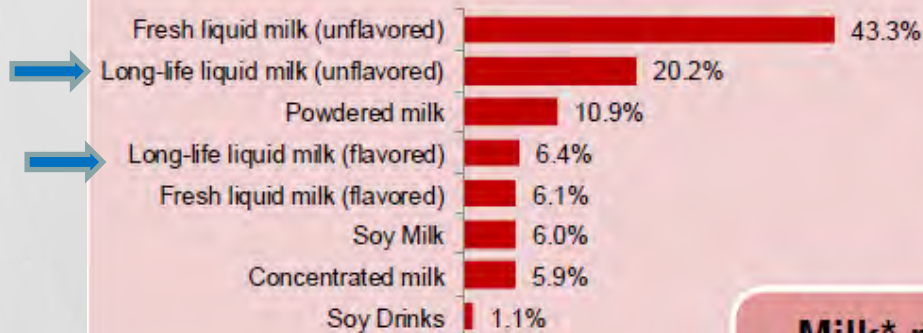


Contents

- Global drinking milk market snapshot
- Market size and growth – Asia Pacific (APAC)
- UHT milk markets in Australia and China
- Product innovation examples
- Conclusions

Global milk market, 2012

Global: market share by category, 2012













Global: fastest growing categories by value, CAGR 2012-17

Worth
\$1.5bn in
2012.











Soy drinks	+ 6.9%
Soy milk	+ 6.9%
Long-life liquid milk (flavored)	+ 6.2%
Powdered milk	+ 3.3%
Long-life liquid milk (unflavored)	+ 2.9%

Milk* represented
\$135bn in global**
spending in 2012

Top 10 markets: by value (\$bn), 2012

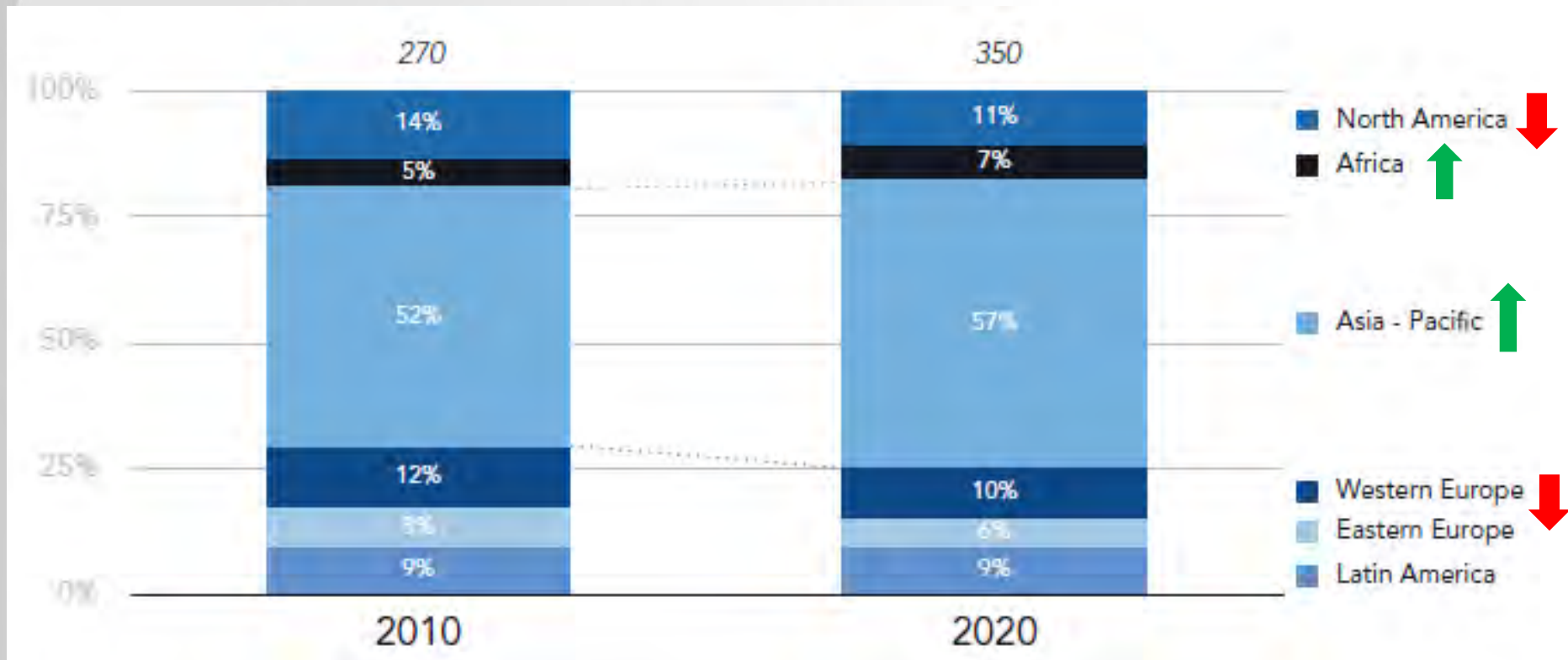
Brazil		17.9	Germany		5.4
US		17.6	UK		5.4
China		13.0	Italy		4.9
Japan		10.9	France		4.1
India		5.5	Canada		3.9

Top 10 markets: by per capita expenditure (\$), 2012

Norway		179.6	Belgium		124.4
Finland		176	Denmark		120.1
Ireland		158.1	Australia		119.9
Switzerland		151.8	Greece		119.7
Sweden		142	Canada		112

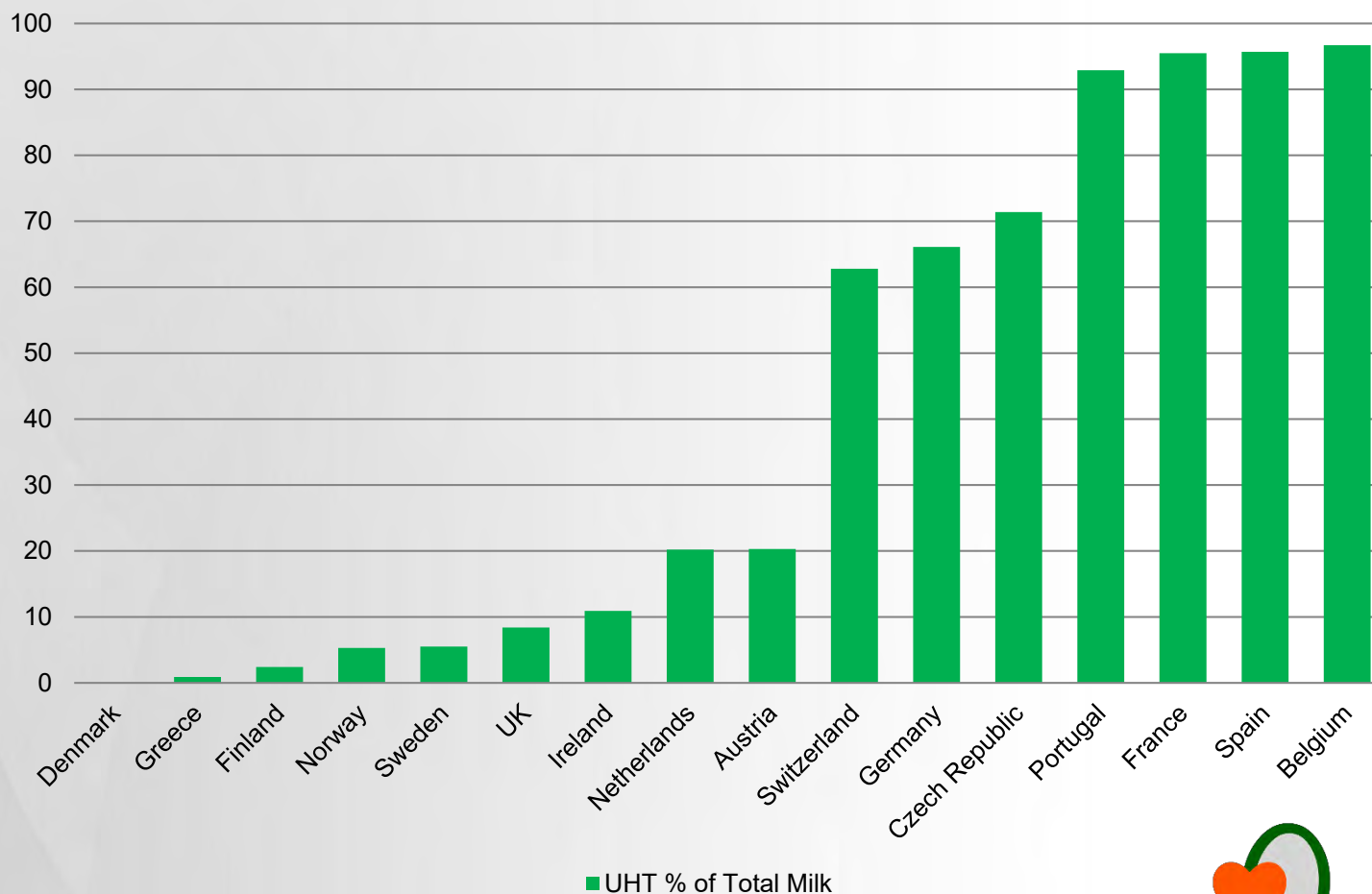
UHT milk global market – USD\$36 billion

Liquid milk consumption to grow 30% between 2010 and 2020



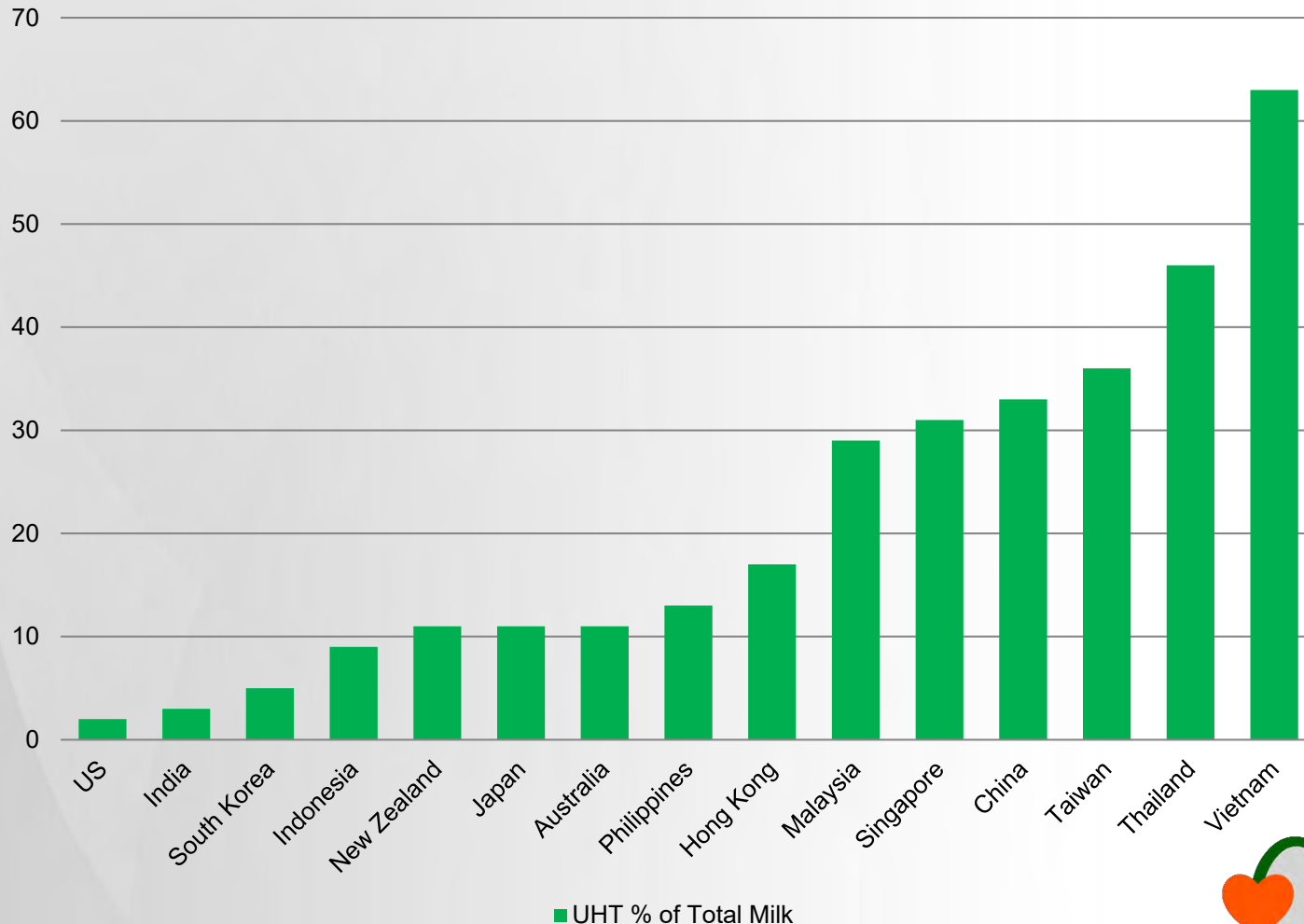
W. Europe – UHT milk consumption

W. Europe - UHT milk consumption



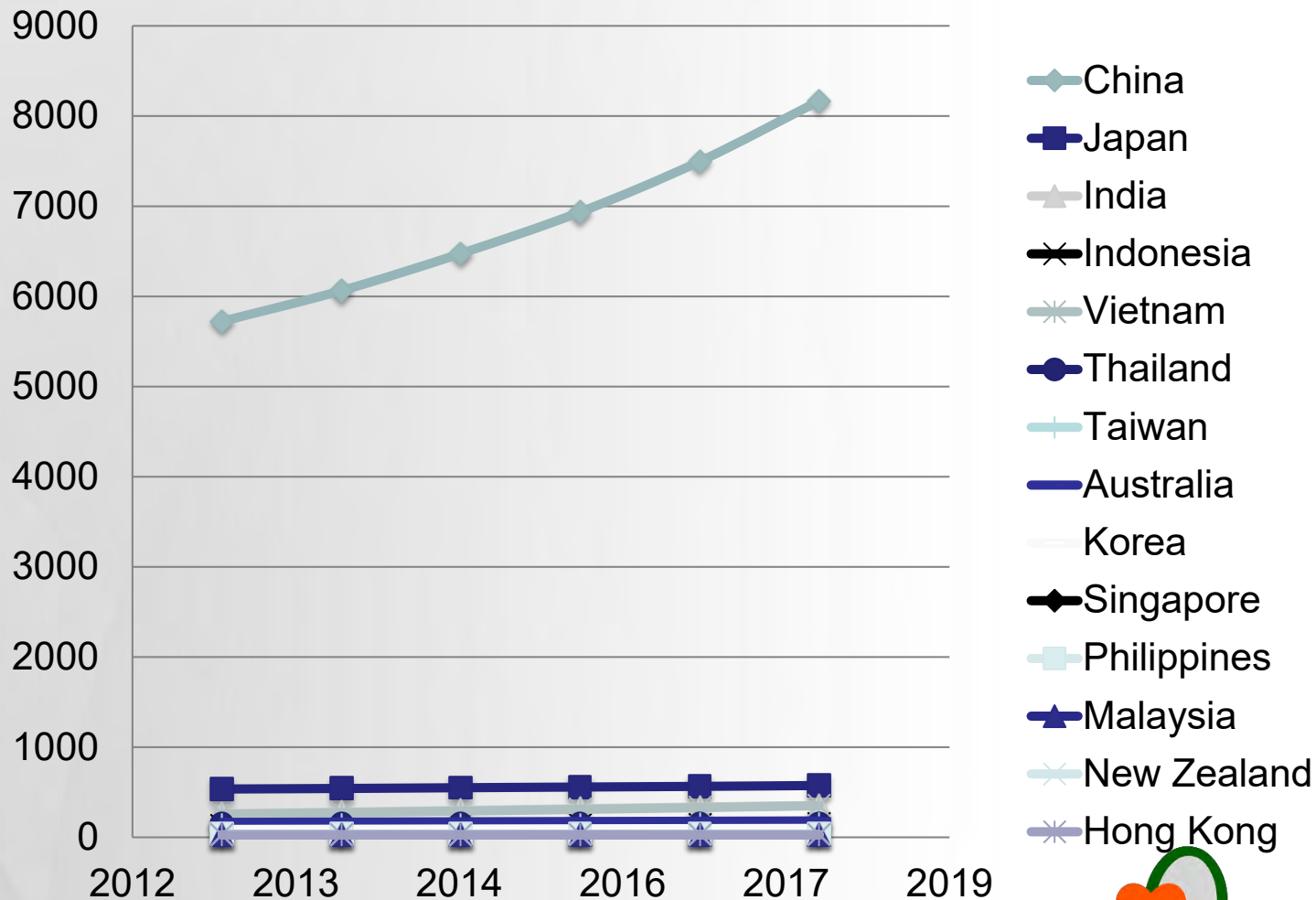
APAC – UHT milk consumption

APAC - UHT milk consumption



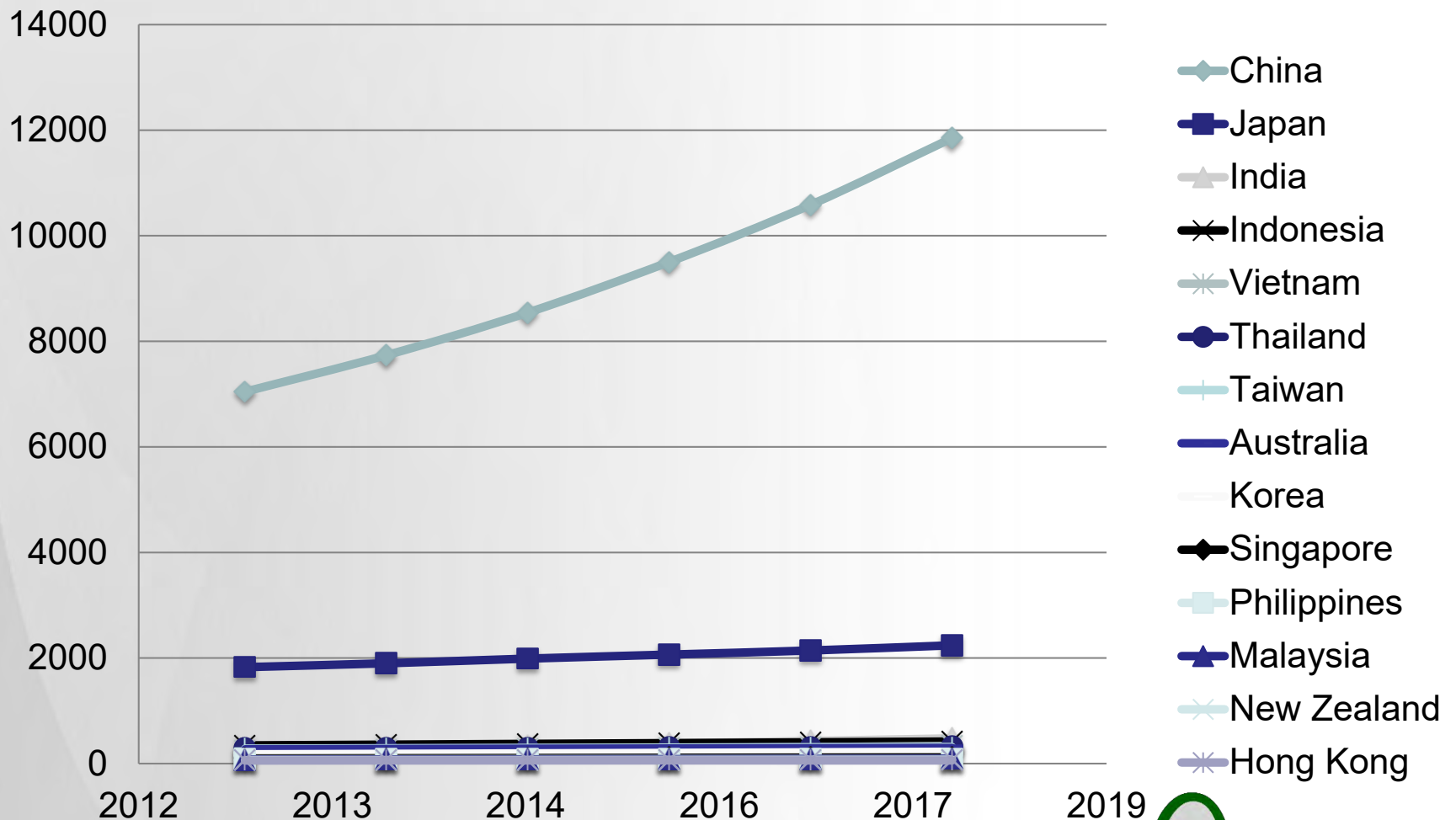
APAC – UHT market volume, 2013-18

UHT Market Volume - 2013-18, ML



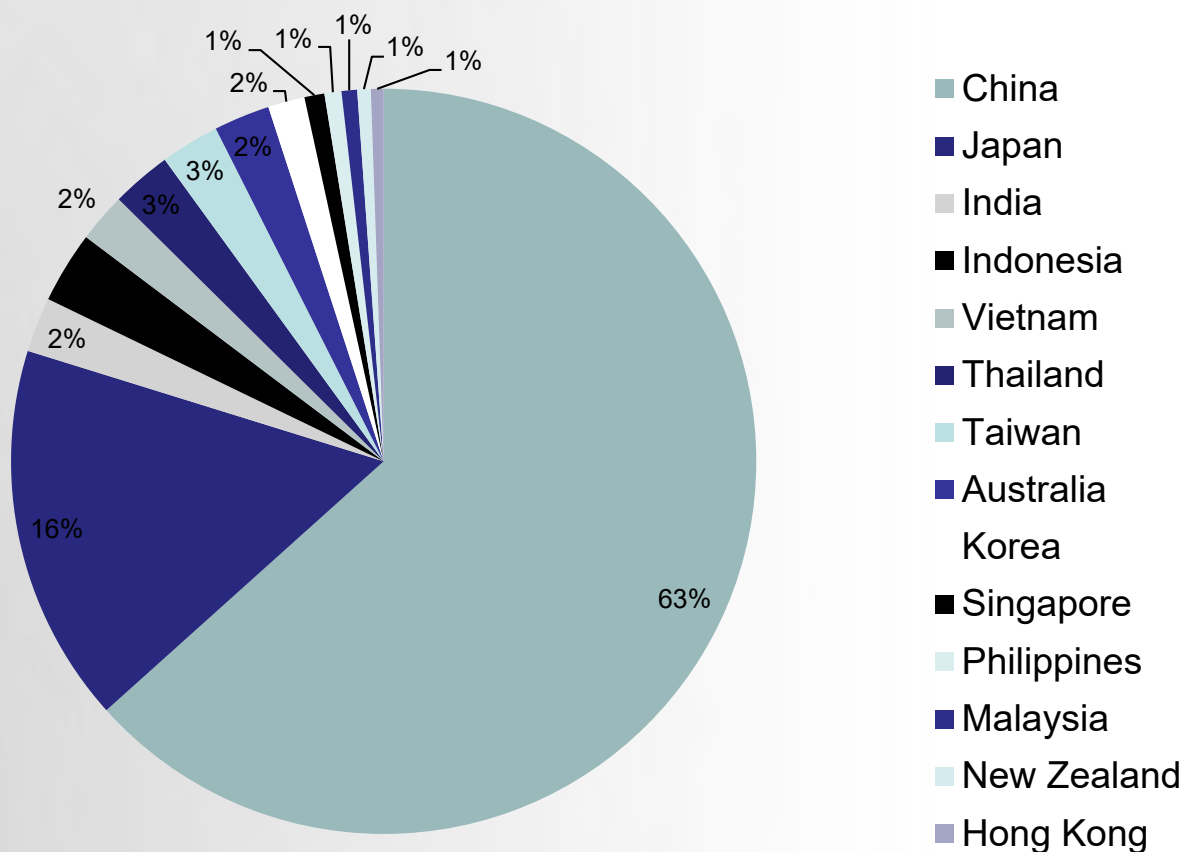
APAC – UHT market value, 2013-18

UHT Market Value - 2013-18, US\$M



UHT Milk Market Size – Asia-Pacific, 2013

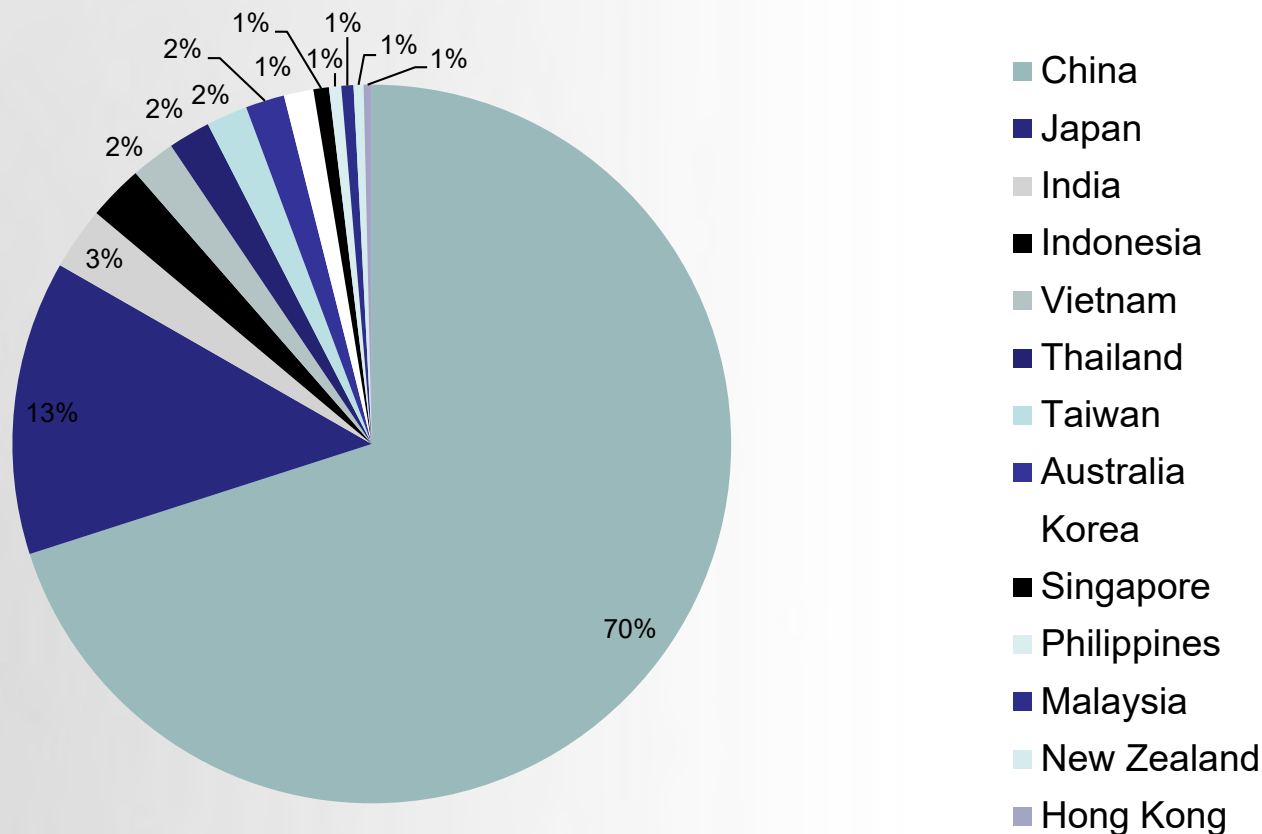
UHT milk: Value 2013 - US\$11B



US\$
11B

UHT Milk Market Size – Asia-Pacific, 2018

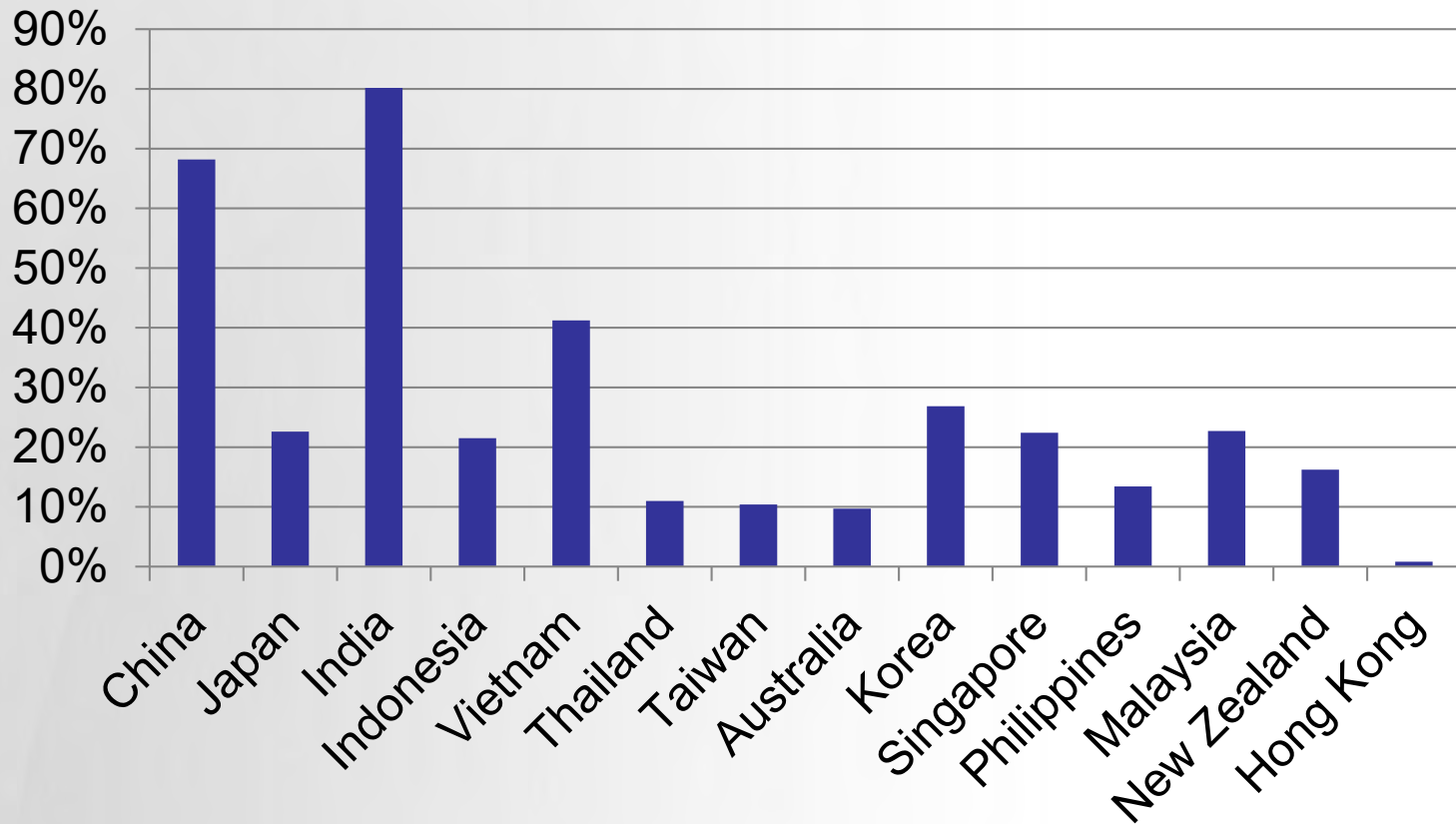
UHT milk: Value 2018 - US\$17B



US\$
17B

UHT Value growth forecast 2013-18

UHT Value growth forecast 2013-18

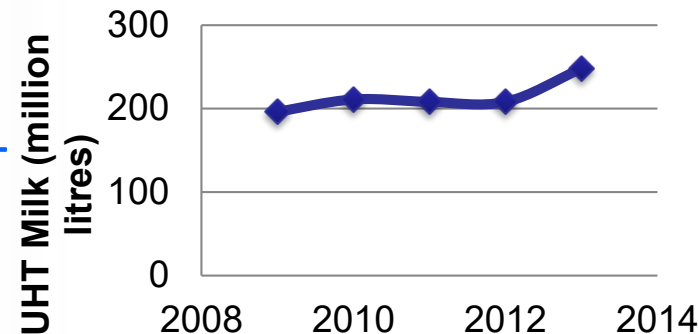


UHT milk market - Australia

Key market trends - Australia

- UHT milk - ~10% of liquid milk market
- Some growth seen from 2012
 - Supermarket \$1/L fresh milk price wars
- Typical consumer – household with low levels of milk consumption – concerned that they may not be able to finish 2 or 3L before it goes off
 - Older households or younger singles
- Growth (2%) predicted due to increase in “empty nesters”

UHT Milk consumption - Australia



Key market trends - Australia

- UHT Market leader - MG – Devondale – increase in value market share from 46% in 2012 to 48% in 2013
- “Liquid breakfast” – UHT dairy beverage with fibre or cereals – several launched in 2012-13 riding on the success of “UP & Go” – wider consumer acceptance unknown
- Devondale UHT dairy-fruit smoothie launched in 2014 – targeting school kids

Consumer perception of UHT milk

- Consumers not well tuned to the flavour and taste
- Slightly cooked flavour to western pallet

Consumer perception – Australia 2001

Opinion of UHT milk flavour	Response rate (% of population who were users of UHT milk)	
	Brisbane	Melbourne
Better than pasteurised milk	5.8	9.8
Same as pasteurised milk	48.7	40.7
Worse than pasteurised milk	45.5	49.5

UHT milk Consumer perception – Australia 2011

Brand	Overall	Price	Taste	Health benefits	Packaging
ALDI	★★★★	★★★★★	★★★★	★★★★	★★★★★
Farmdale	★★★★	★★★★★	★★★★	★★★★	★★★★★
Brownes	★★★	★★★	★★★	★★★	★★★
Coles	★★★	★★★★★	★★★	★★★	★★★
Dairy Farmers	★★★	★★★	★★★★	★★★★	★★★★
Devondale	★★★★★	★★★★	★★★★★	★★★★★	★★★★★
Harvey Fresh	★★★★	★★★★	★★★★★	★★★★	★★★★
Pauls	★★★	★★★	★★★★	★★★	★★★★
PhysiCAL	★★★	★★★	★★★	★★★★★	★★★★
PURA	★★★	★★★	★★★★	★★★	★★★★
Woolworths	★★★	★★★★	★★★	★★★	★★★



Will Australian consumer switch to UHT milk anytime soon?

Some consumer feedback (2012):

Anyone thinking UHT is the same as fresh milk thinks that eating McDonald's salads is a great diet. Insanity

Its tastes YUK
YUK YUK no other word for it

I agree most peoples comments on UHT – YUK! however, I do purchase Devondale butter which is GREAT

Never will I drink UHT, I would rather buy a cow or go without

Tried UHT milk once, it tasted like cat piss. Threw the whole bottle away

UHT tastes awful in tea. Coffee can mask the flavour but not the good old cuppa tea.

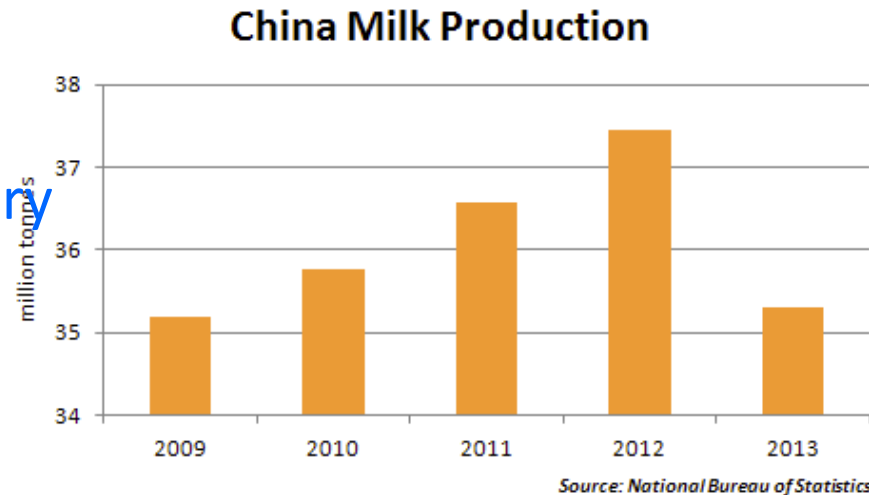
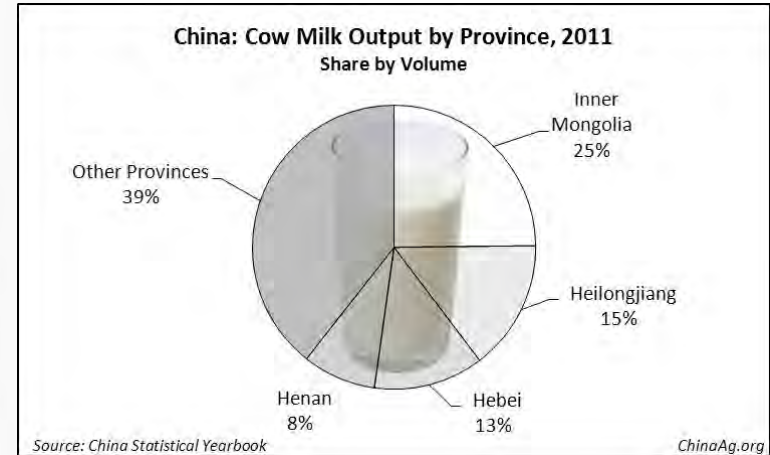
Consumer readiness important

- In 2007, the UK Department for Environment, Food and Rural Affairs circulated a discussion paper proposing an initiative to encourage consumers to switch from fresh milk to UHT.
- The aim was to cut greenhouse gas emissions by ensuring 90 per cent of milk would not need refrigeration by 2020.
- The strategy was immediately abandoned after public and industry outrage .

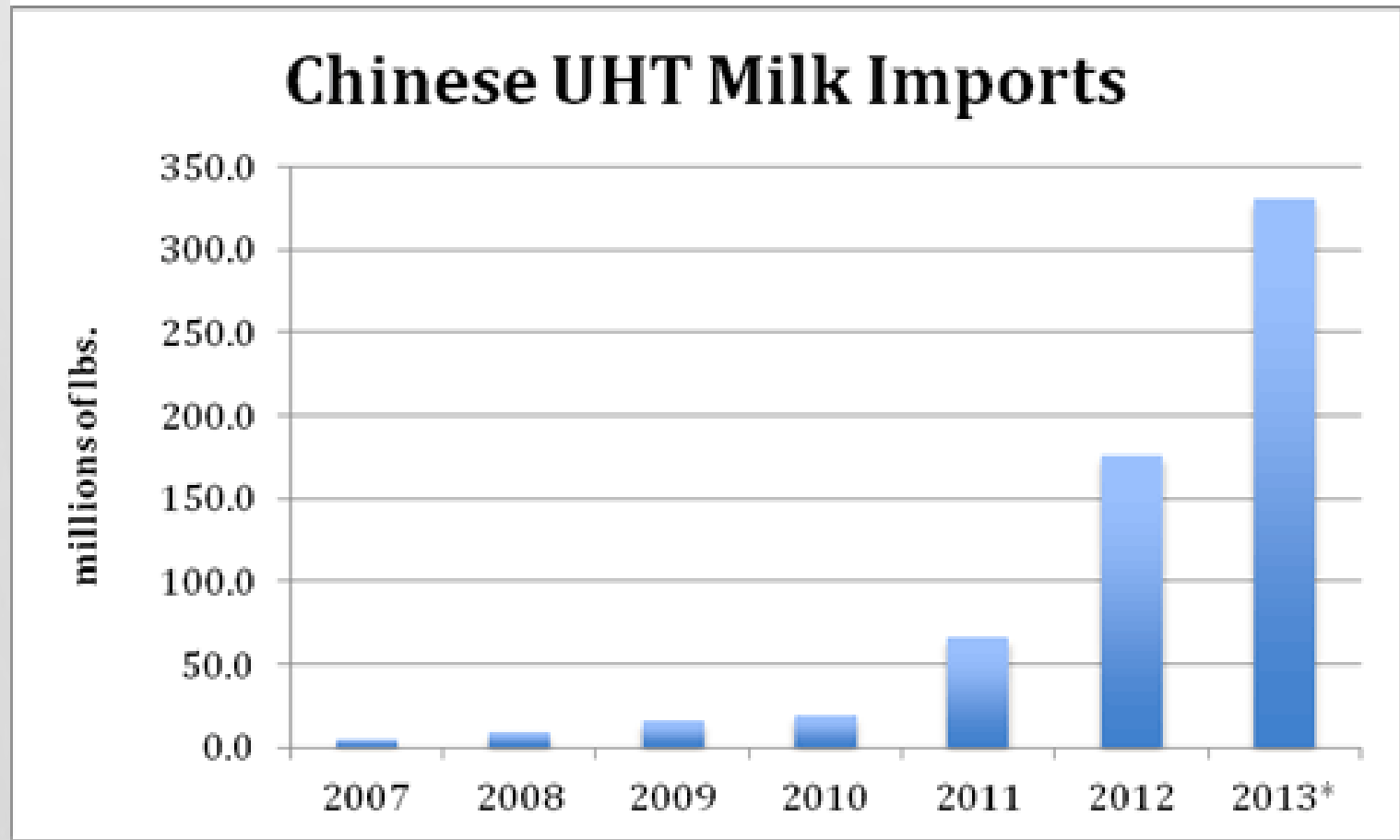
UHT milk market - China

China - dairy market snapshot

- Northern provinces produce most milk
- Most demand is in southern provinces
- Farm gate price highest in the world
- Number of large farms growing at the expense of small farms
- In 2013, milk production declined 5.7% due to poor weather, a lack of quality feed, and a reduction in cow numbers
- 2013- Large increase (30-50%) in dairy imports – mainly from NZ
- Food safety remains a key growth driver for dairy imports



China - UHT milk imports



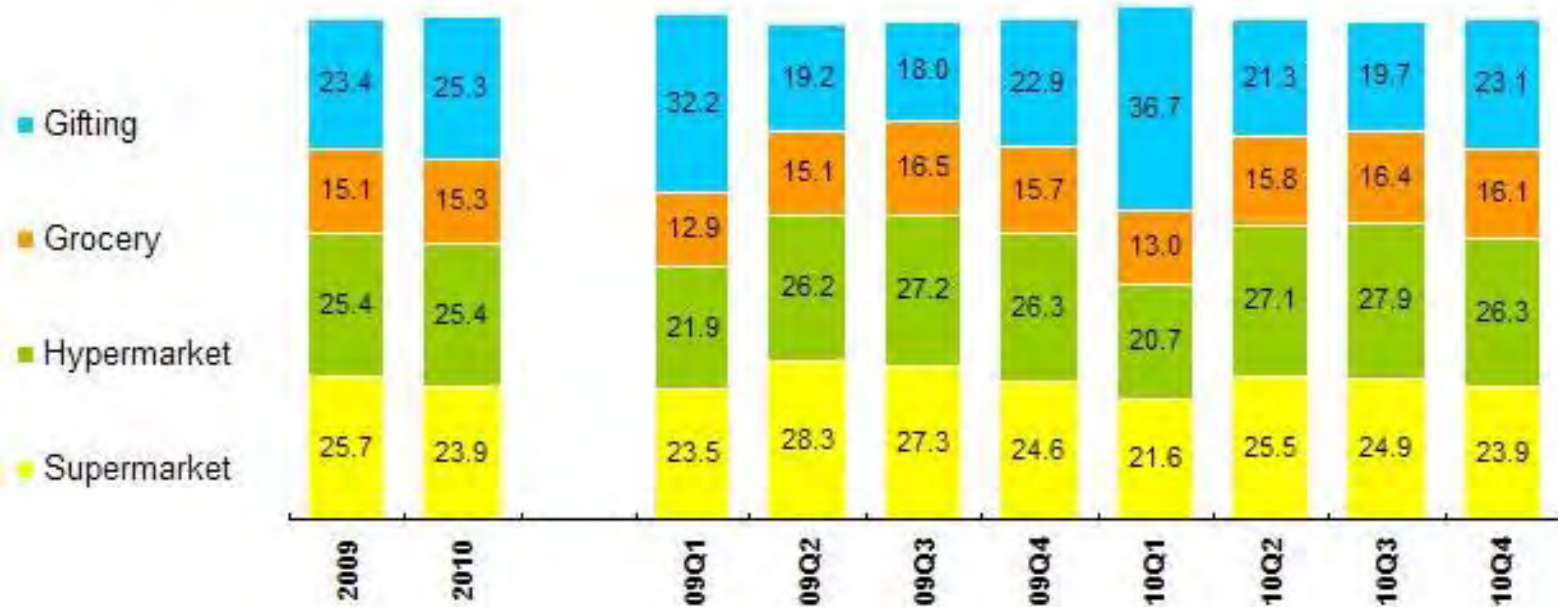
http://www.hoards.com/IB_US_Latest_Export_UHT_Milk

China - UHT milk distribution channels

- Hypermarket and Supermarket account for close to 50% of the market spend
- Gift channel is still an incredibly important channel for consumers.
 - In 2010, 25.3% of the market spend;
 - The key period is Chinese New Year where share reached 36.7
 - Gift pack for visiting friends and family members, together with chocolate and confectionery.
- 2010 - UHT reached over 80% families in capital cities – rural markets can grow further 30%

UHT milk market – channel spend, 2011

Figure 2: Key UHT Milk Market Channel Spend Share Evolution (value)



Source: Kantar Worldpanel China National Urban.

China - UHT milk market

Figure 1: Key UHT Milk Market Segment Spend Share % (value)

	2009	2010
Premium Milk	18.1	22.7
Plain Milk	53.6	41.4
Flavored Milk	13.9	14.1
Functional Milk	6.7	6.2
Kids Milk	7.3	12.5
Others	0.4	3.1

Source: Kantar Worldpanel China National Urban.

Premium milk and Kids' milk were two main segments that showed growth between 2009 and 2010, while rest declined



UHT milk in China

- Most of the imported UHT milk is white milk – Chinese seem to prefer flavoured milk with particulates such as cereals, beans, fruit bits
- Chinese also seem to prefer decorative (red and gold) and premium packaging, especially during the festival seasons

Dairy products safety in China – consumer research

- Affected by the income, respondent age, employment status, family composition
- Most important factors
 - Purchase venue
 - Brand
- Less important
 - Price
 - Appearance of product
 - Certifications



UHT milk product innovations

Packaging innovations - single serve



Traditional
- 30 mL pots



UK

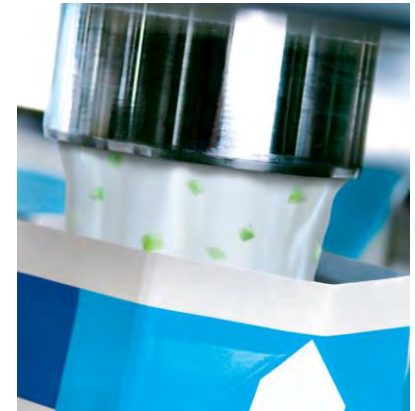
Claim – up to 50% less
packaging and 40% less
on transport than pots

Ryanair laps milk stick innovation, 24 April 2014



UHT milk drink with real fruit pieces

- Mengniu (China) - First company to launch UHT yogurt drink - with SIG Combibloc, 2007
- Specially-developed stabilisers make it possible for chunky ingredients such as fruit pieces (up to 7 mm) to 'float' in the milk
- Can be marketed as a beauty, a wellness or a health drink



UHT milks with chunky bits

- Technology
 - Filling machine adaptations for improved filling nozzles through a combination of tubular design in the inlet and segment design at the outlet.
 - UHT/Upstream: special mixing unit to mix the ingredients, which are separately sterilised or pasteurised, before they are filled.

UHT milk with cereal grains

- Yili, China launched UHT milk with rice grain – 2008
- “Gu Li Duo” - The cereal milk drinks with Thai rice or Euro wheat (10%)



UHT milk with cereals

- Mengniu, China – UHT milk with oat cereals – 2008
- “Miao Dian” with real oat particulates catering to the Chinese consumers’ growing awareness of health and nutritional issues



Black cereal milk - China



- Guangxi Huangshi Dairy Co., Ltd
- Contains: Raw Milk; Water; White Sugar; Black Sesame Seeds; Black Rice; Black Beans; Monoglycerides; Diglycerides; Gellan Gum; Xanthan Gum; Flavors

UHT dairy drink with peanuts (China)

- Milk & Peanut
Compound Protein
Drink



UHT milk – MF



August 2011 - Microfiltered UHT milk, Italy
Marketing – “Taste & Purity”

No transfat claim



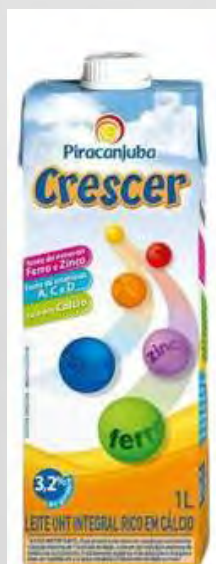
Brazil - Laticínios Bela
Vista Ltd, June 2011
Skim milk, No trans fat
with fibre, 500 mL

Functional UHT milk - high Magnesium



Poland - SM Mlekovita,
High Mg (for stress
relief) UHT light
condensed milk, low
fat, 375 mL

Functional UHT milk – high iron



Brazil - Laticínios Tirol Ltda
High Calcium; High Iron; High
Vitamins; Low Lactose



Devondale Smart Plus
Fe and Ca

Brazil - Laticínios Bela Vista Ltda
High Calcium; High Iron; High Vitamins, Zinc

Functional UHT milk - prebiotics



Columbia - Productos Naturales de la Sabana S.A

Whole Milk with Prebiotics

Claim: growth of beneficial intestinal bacteria and help improve intestinal function and natural defences.

UHT milk with fibre



Columbia - Nestle Svelty -
Leche – Digestion
High Fiber; High Vitamins;
Low Fat (Sept 2011)

UHT milk kids market trends

- High calcium
- High iron
- High vitamins
- High omega 3

Kids market



Columbia - Nestle Klim - Leche – Fortificada (Sept 2011)
High Iron; High Protein; High Vitamins; Kids. For muscle development



Peru - Gloria S.A - High Calcium; High Iron; High Vitamins; Kids



New Zealand – Goodman Fielder; High Calcium; High Vitamins; Kids



Indonesia – PT. Greenfields; High minerals, high vitamins, prebiotics, 125 mL



Bolivia - PIL Andina, S.A , Jul 2011 - Vanilla, Strawberry and Chocolate 110 mL Pyramid

Kids milk – vitamins, minerals, omega -3, GOS



USA - CFM
Beverages,
High
Vitamins;
Kids; Low Fat



Argentina - Kasdorf
S.A, High Calcium;
High Iron; High
Minerals; High
Vitamins; Kids; No
Gluten



Romania -
Dorna
Lactate S.A
6 Vitamine,



Argentina - Kasdorf S.A, Apr
2011; High DHA; High
Omega-3; Kids; No Gluten,
Immunofortis (9:1 mixture of
short-chain galacto- GOS
and long-chain fructo-
oligosaccharides, FOS)

Kids UHT milk - Dairy-fruit smoothie



FrieslandCampina, Malaysia; age-specific kids UHT milk



Kid

Age 1-6

Magnesium, Calcium, Vitamin D, Vitamin A and Protein (125 mL)



School

Age 6-12

Omega 3, Omega 6, Vitamin B3 and Vitamin B6 (200 mL)

Cultured beverages



Indonesia – Friesland-Campina -
Dutch Lady - Sua Chua Tiet Trung -
Huong Cam; "mildly sour, mildly
sweet" cultured dairy beverage



Vietnam – Dutch Lady
High Antioxidants; High
Fibre; High Vitamins
Claim: glowing complexion

Innovation – aerated flavour (Nestle)



UHT milkshake that changes its taste and texture with each shake (Brazil)

Liquid breakfast



UHT liquid breakfast – Australian supermarket 2013



Liquid breakfast



Why eat breakfast when you can drink it?

Sports-oriented liquid breakfast



20 g protein, 1% fat, 5 g fibre, vitamins
In 330 mL



2x the protein of regular Up&Go

UHT infant formula in ready to drink formats



Easy feed
bottle
OzScientific

Recent investments in UHT milk processing in Australia/NZ

Year	Company	Product & Investment
2014/15	Fonterra	To install its own UHT processing plant in China
2014	Pactum Dairy Group (JV – Freedom Foods & Aust Consolidated Milk), Shepparton	A\$40M – Brand and contract processing 250ml, 330 ML, 1L, Mainly for China (100 million litres capacity, potentially 300 million litres); +large 20,000L bladders for repackaging in China, HK & Singapore
2014	Fonterra, Waitoa	A\$110M, Anchor brand UHT white milk and cream, 5 UHT processing lines; 90 million litres
2014	Murray Goulburn	A\$13M Edith Creek (Tasmania) UHT milk plant upgrade to increase output to 79 million litres
2014	Parmalat	Purchase of West Australian company Harvey Fresh for \$120M – securing UHT milk supply to Asia
2013	Murray Goulburn	A\$19M Leongatha (Victoria) UHT milk plant upgrade

Recent investments in UHT milk processing

Year	Company	Product & Investment
2013	Parmalat	Installation of UHT processing plant at Rowville, Victoria for export to Asia and China
2010	Fonterra, Takanini	NZ\$8M to expand Auckland UHT milk plant for export to Asia

Summary - UHT milk in Australia

- Gradual shift from fresh to UHT milk in Australian supermarket isles?
 - Storage and handling short shelf life
 - \$1/L fresh pasteurised milk
 - 7 out of 10 Europeans drink UHT milk regularly
 - UHT milk greener (no refrigeration required)
 - Flavour and taste – Australians still prefer fresh, pasteurised milk
 - Packaging innovation required – to attract more consumers

Summary - UHT milk in China

- Opportunities in China
 - Continued demand for UHT white milk
 - Great opportunity in flavoured and milk filled with particulates such as beans, grains, fruit chunks etc
 - requires market research and modifications to the UHT filling machine in Australia
 - Growing kids market – one child policy abolished in China
 - UHT RTD infant formula – still largely untapped market in APAC