



Presentation on Indian Dairy

Opportunities and Trends

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Rabobank

Rabobank is the financial link in the global dairy sector



17/20

global dairy players are Rabobank clients



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Global Dairy Industry



Rabobank

The top 20 global dairy players – started to recover after two years of significant downturn

Key observations

- Top dairy players are relatively entrenched, with no new entrants in the list this year.
- For many companies, it is a question of whether to move into or out of adjacent sectors (e.g. Arla and FrieslandCampina)
- Whereas some listed companies have moved into non-core/non-dairy segments (e.g. Danone/WhiteWave, Dean Foods/juice)

Global dairy top 20 for the fiscal year 2016

Rank	Last year	Company	Dairy sales (USD bn)
1	1	Nestlé	24.0
2	3	Danone	18.3
3	2	Lactalis	18.0
4	4	Dairy Farmers of America	13.5
5	6	FrieslandCampina	12.5
6	5	Fonterra	12.0
7	7	Arla Foods	9.9
8	8	Yili	9.0
9	9	Saputo	8.4
10	11	Mengniu	8.2
11	10	Dean Foods	7.4
12	12	Unilever*	6.9
13	13	Kraft Heinz	6.4
14	17	Meiji	6.1
15	16	DMK	5.6
16	14	Sodiaal	5.3
17	18	Schreiber Foods	4.9
18	19	Savencia	4.9
19	15	Muller	4.9
20	20	Agropur	4.6

Source: RaboResearch Food & Agribusiness, 2019

Note 1: Turnover data is dairy sales only, based on 2016 financials. Mergers/acquisitions not incorporated in dairy sales figure include Lactalis's acquisition of Omira and StonyField

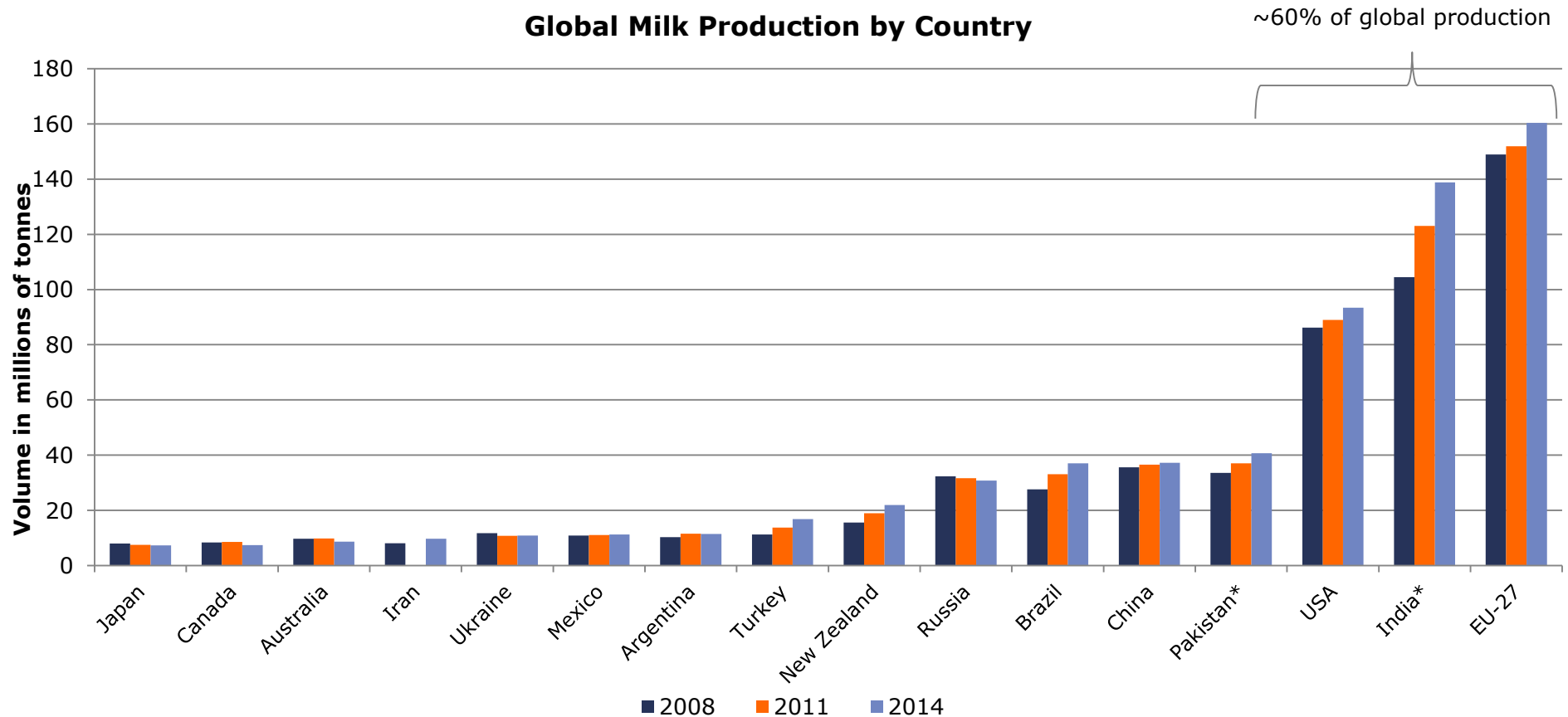
Note 2: M&A transactions completed between 1 January 2017 and 30 June, 2017

* Estimates

India – Growing share in global milk production

- Global Milk Production is growing at a CAGR of ~2.2%
- India contributes ~17% of the total milk production; milk production growing at ~4%

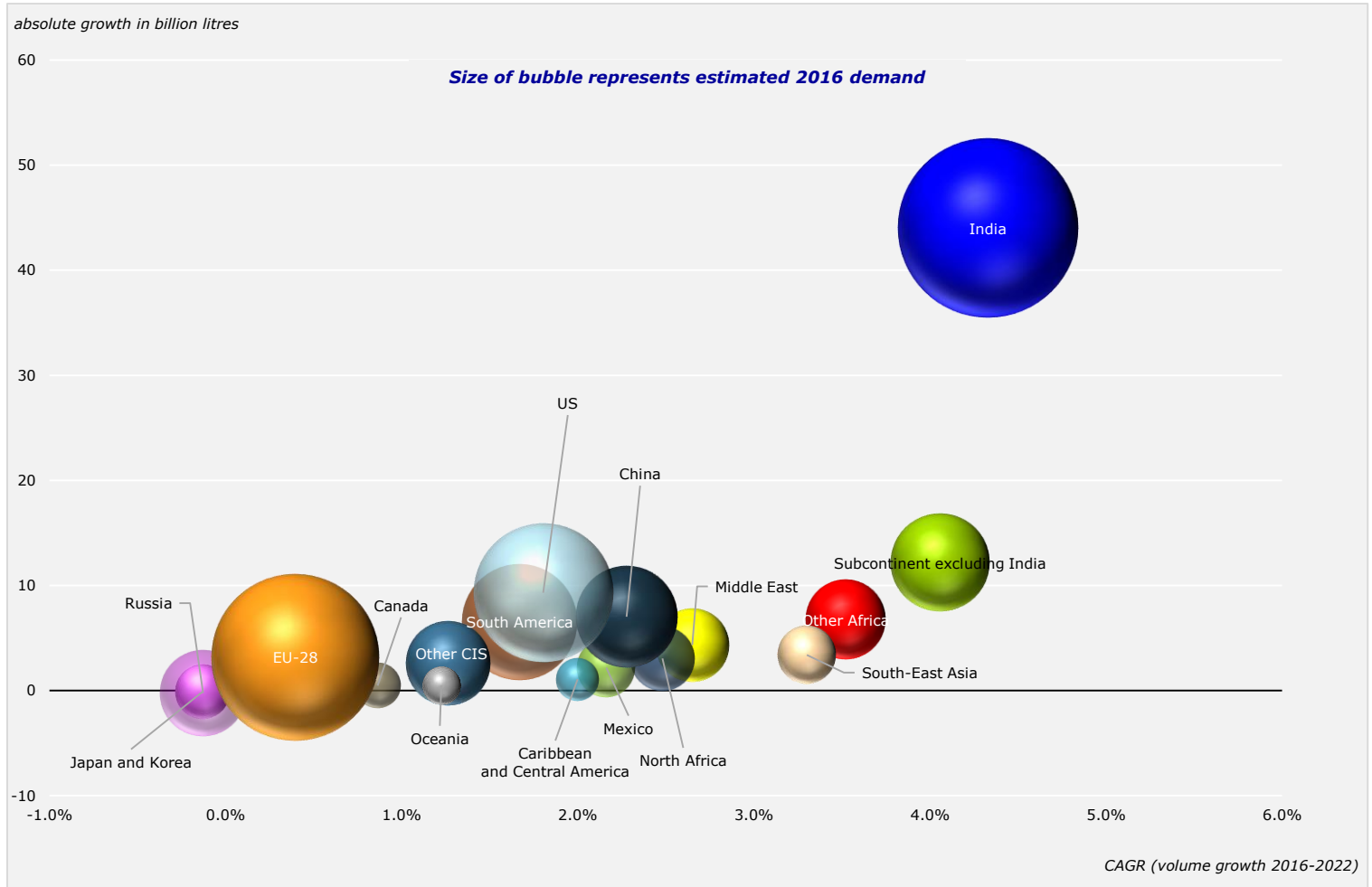
Global Milk Production by Country



Overall dairy demand is a growth story

Absolute and CAGR demand change 2016-2022

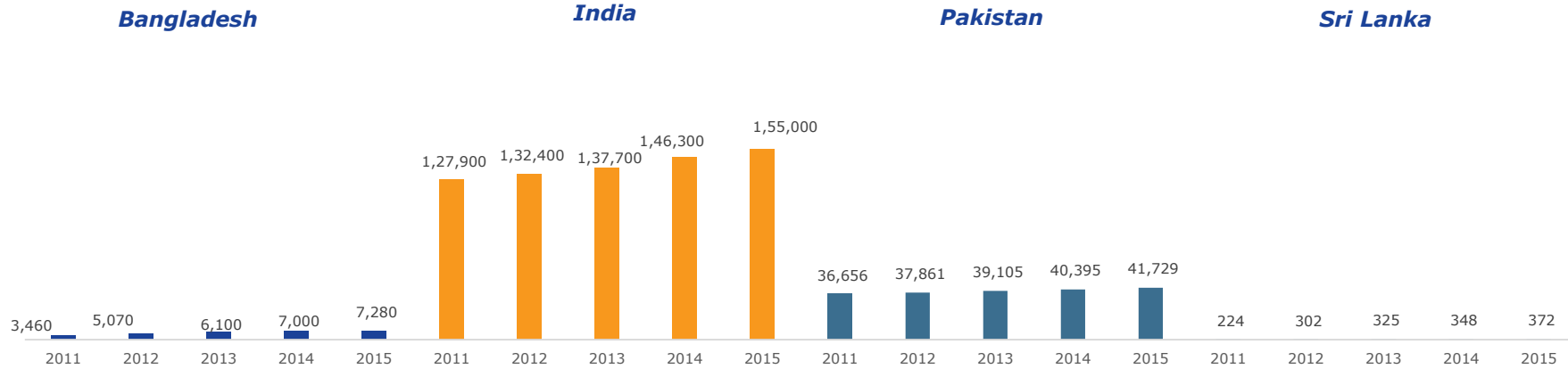
- India remains the standout, as it continues to grow in population with rising per capita consumption, but remains nearly 100% self sufficient
- Other regions are split between faster-growth emerging markets—normally from a low base but with consumption and population growth—and slow-growth mature markets, with slow or no population growth and more stable higher consumption



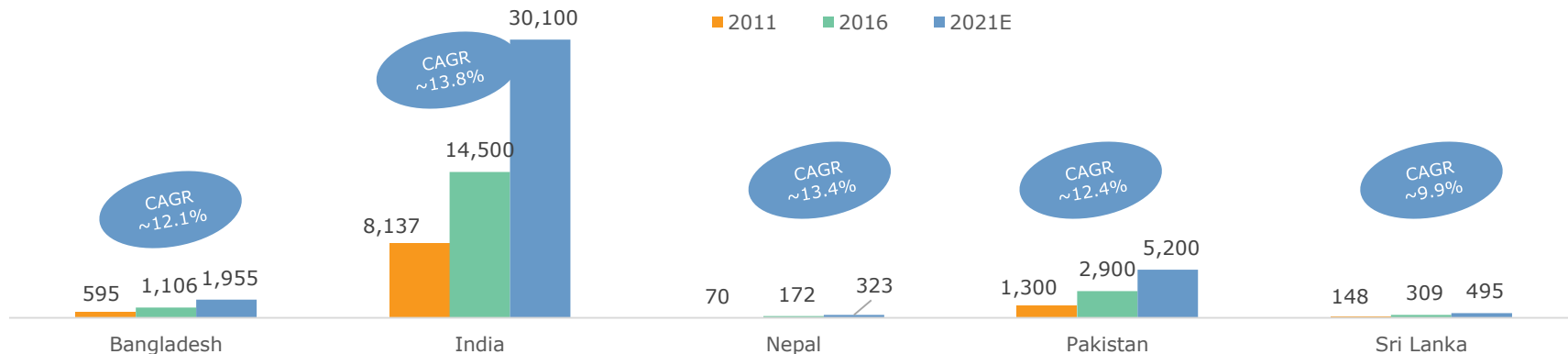
Source: Various sources, Rabobank
China include Taiwan and Hong Kong

South Asia - Growing Local Markets for Dairy products

Milk Production trends ('000 tonnes)



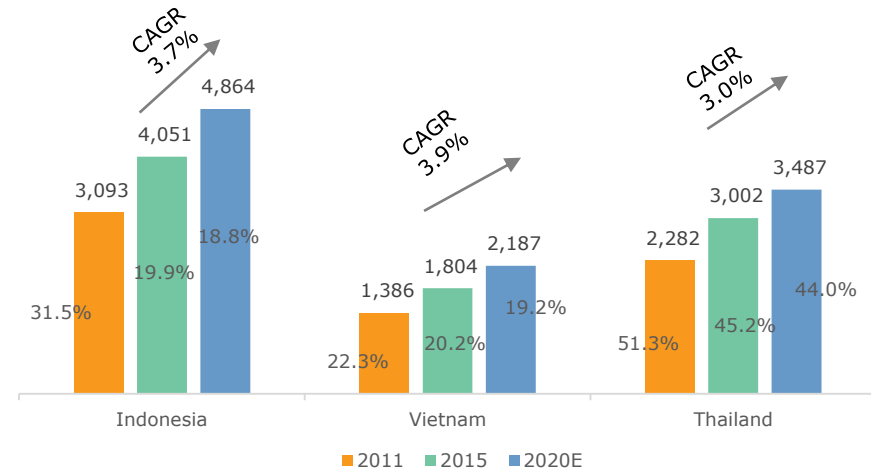
Dairy market size in USD mn



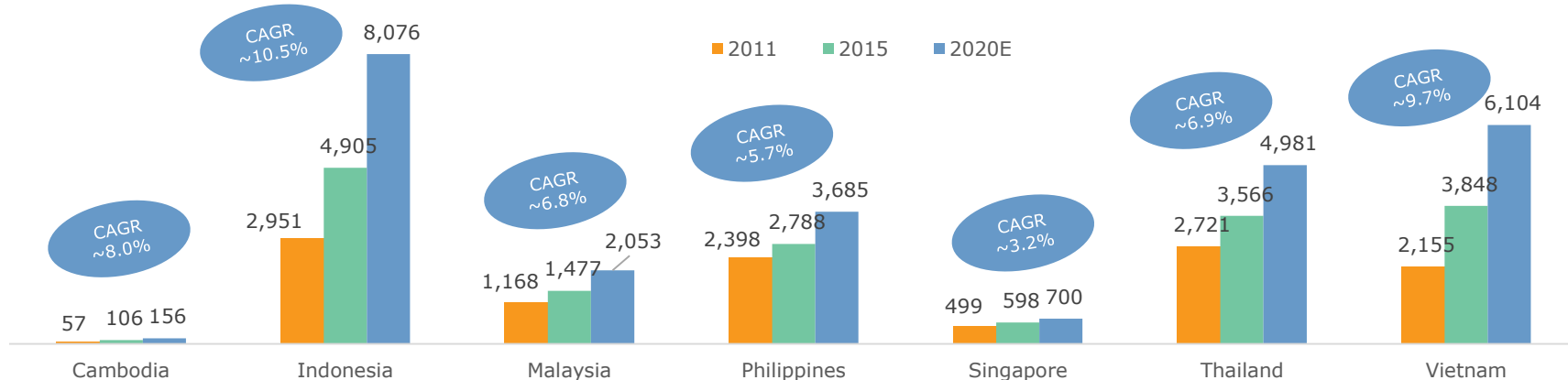
Growth and Potential Evident in Dairy Markets in South East Asia

- Milk supplies in most regions not able to grow at the pace of growth in dairy demand
- Lower level of self-sufficiency with limited supply improvement expected in near-term
- Dependence on imports have grown over the years
 - Notably for SMP, WMP and whey powder
 - Indonesia's import dependence has grown significantly

SEA Dairy Consumption ('000 tonnes) and self sufficiency (%)



Indonesia and Vietnam are expected to continue strong growth in dairy business (dairy market size in USD mn¹)



Source: IMF, USDA, 2015, Euromonitor, Rabobank Analysis

Note 1: For CY 2015; *Food includes non alcoholic beverages

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Indian Dairy Overview



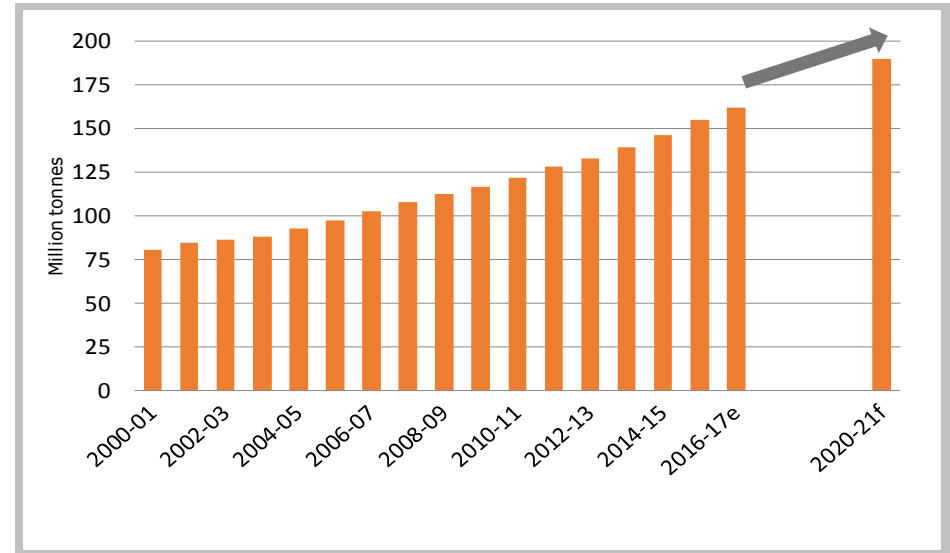
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In India, Dairy products form a significant part of daily food expenditure

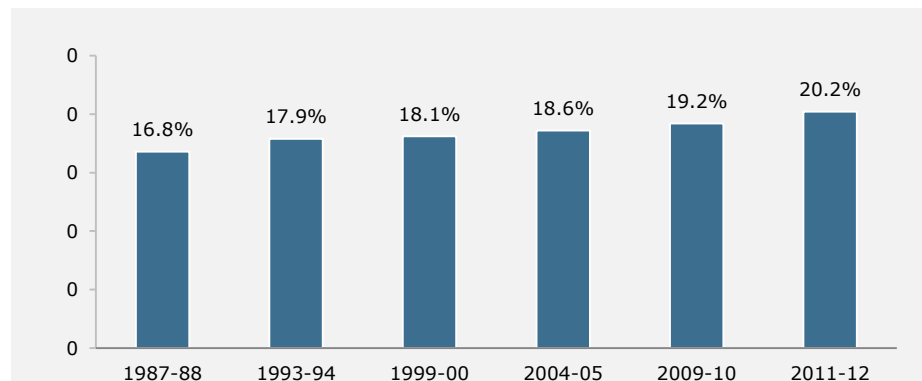
Market Structure

- 155 mn tons of milk produced in year 2015-16
- Estimated demand to be ` 200 mn tons by 2020-21
- Milk production is growing at the rate of 4% per annum; however demand growth is higher at 4%-4.5%
- Continual increase in dairy contribution to household food expenses; largest contributor after cereals
 - 80% of the milk produced in India by small & marginal farmers
 - Farmers owning 1 to 2 ha of land; 2 to 3 cattle and producing 5 litres of milk per day
 - Large scale dairy farming model (>500 cattle) has not developed in India so far

Estimated milk demand by 2020-21

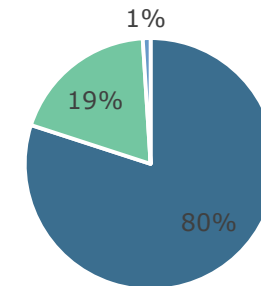


Share of dairy products in urban household food expenditure



Source: National Sample Survey Organization

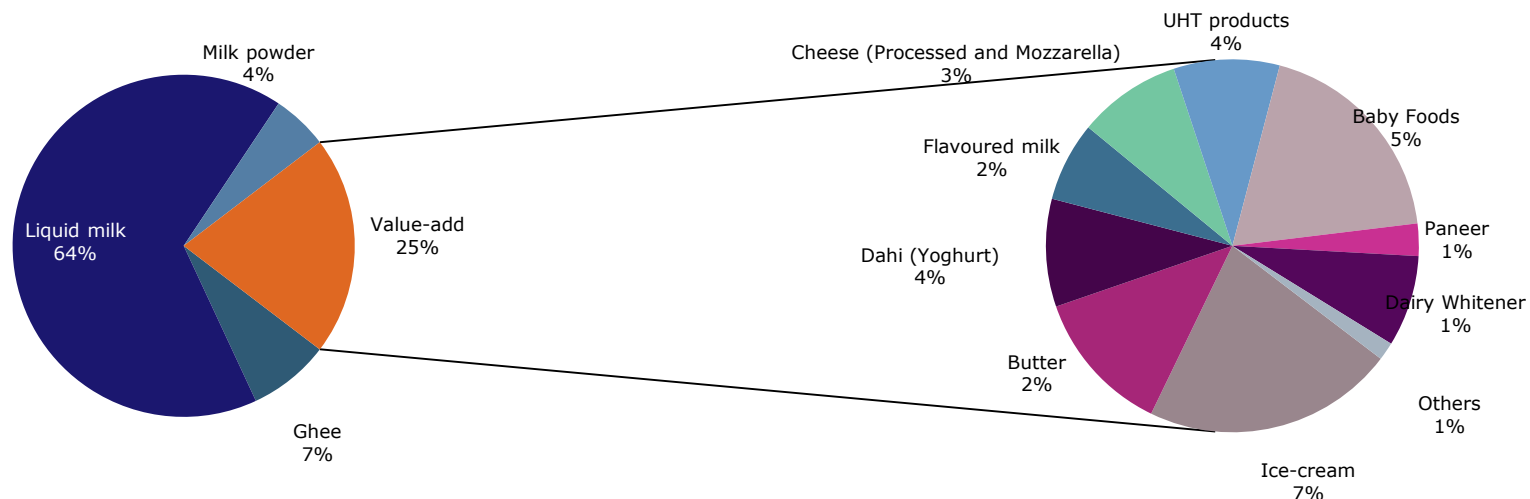
Milk Sourcing at farm level



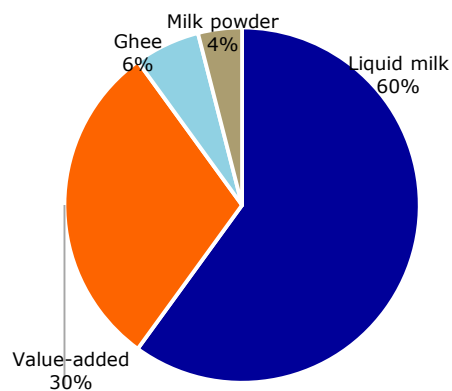
- Small/ marginal (<5 cattle)
- Medium scale (5-500 cattle)
- Large scale (>500 cattle)

Value-added dairy segment to maintain higher growth

Organized dairy market size in India, 2016-17 (% of total market) – USD 14.5 bln



2019-20f (USD 24 bln)

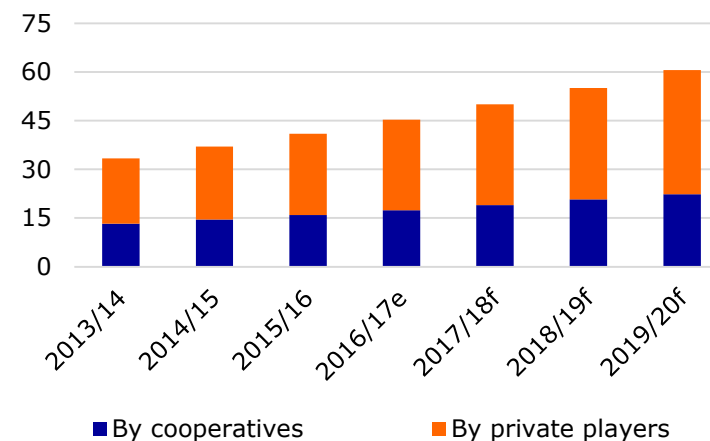


- Organised market is expected to grow at 13% to 15% for next 5 years.
- Packed liquid milk to remain a key growth driver
- Value-added products to grow at 15% to 20% with expected growth in cheese, UHT milk, ice cream, baby food segments
- Value-added share to reach 30% of total organised market by 2020

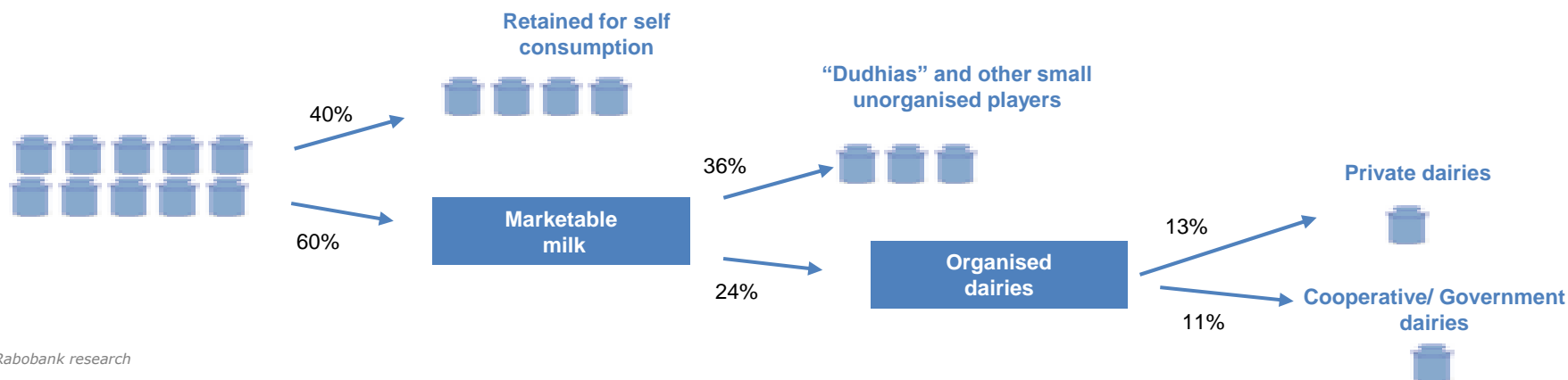
Growing Opportunities for Organised players

- Organised segment; comprising coops and private players; account for 24 percent of total milk produced in India
 - Most of them have set up milk procurement infrastructure to source milk from farmers
- Share of Private players is ~60% of the total milk procured by organised
 - Expected to increase with increasing private investments in the sector
- Agents / intermediaries provide raw milk supply in areas where
 - Dairy farmers have limited market access, and
 - Organized segment have limited reach owing to huge transaction costs

Milk handling by organised sector (million tonnes)



Milk handling from farm to market (2016-17)



Indian dairy: Key Success Factors in the Upstream link

1

**Long term
focus on
procurement**

- Critical to strengthen upstream linkages
- Capital investment
- Long gestation period, lower initial utilisation

2

**Access to dairy
farmers**

- Reaching out directly to dairy farmers to secure milk supplies
- Setting up milk procurement infrastructure (village collection points, bulk milk coolers, milk chilling centres)
- Reduce dependence on agents/ intermediaries to source milk

3

**Increasing use of
services &
Technology**

- Dairy companies to create a platform for service providers
- Provide information and training to dairy farmers
- Connecting farmers/ cattle through IT services

Emerging Trends in Indian Dairy Farming

Medium-scale dairy farming (50 to 300 cattle)

Large-Scale Corporate backed dairy farming – a non-starter

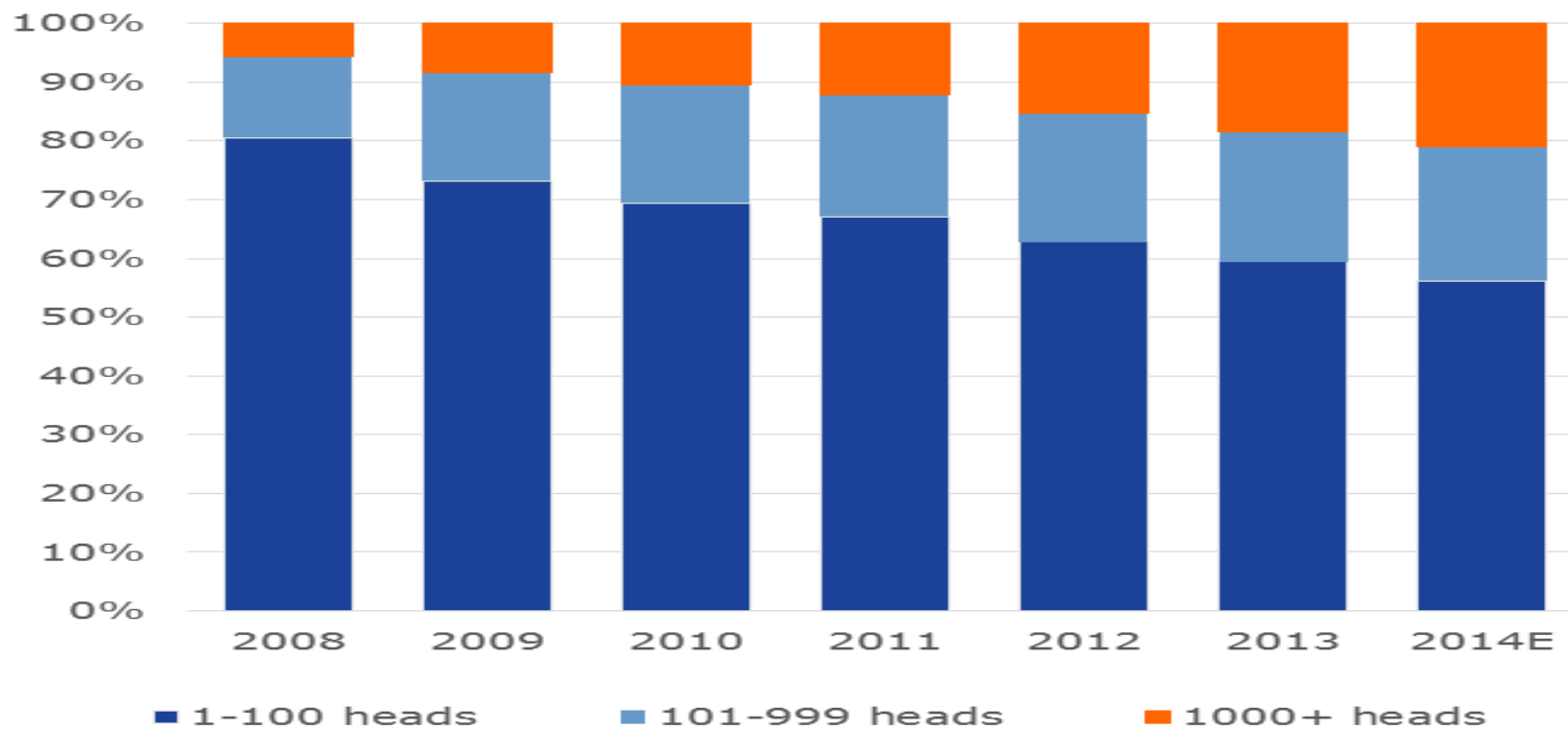
Increasing application of Artificial Insemination

Focus on nutrition

Role of Mechanisation/ IT

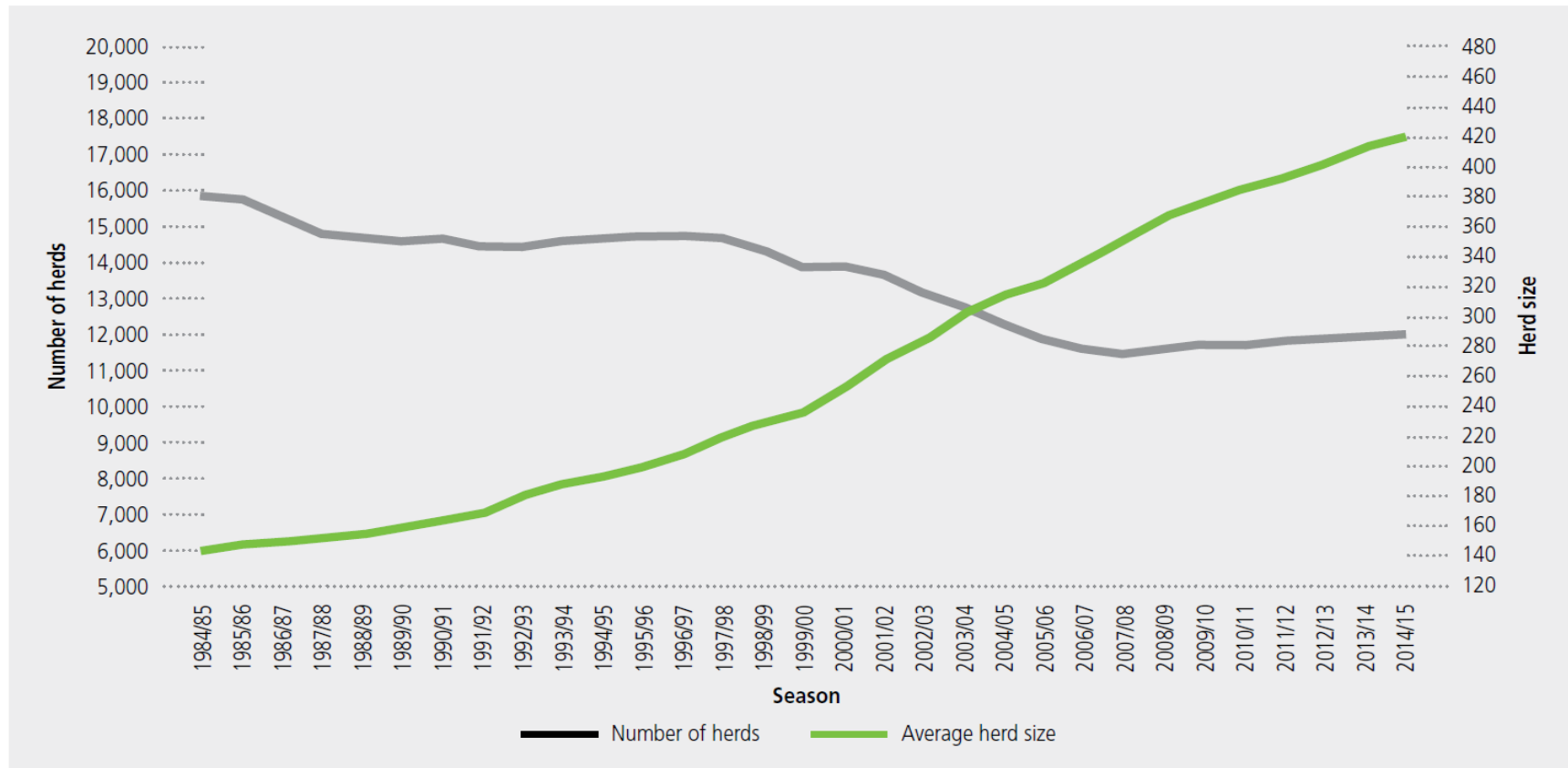
Transformation in Dairy Farming globally - China

China - Dairy cow distribution by farm size



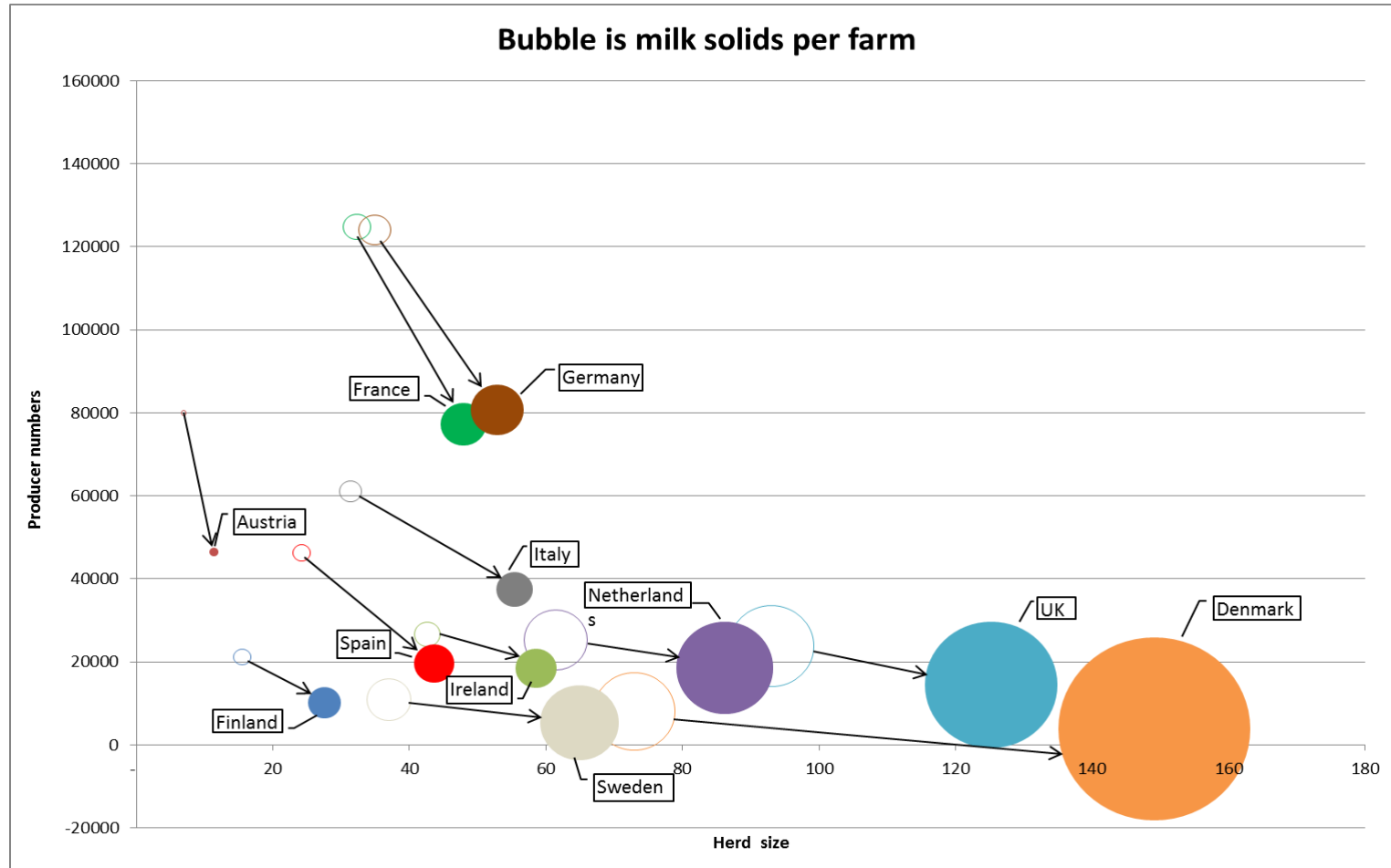
Transformation in Dairy Farming globally – New Zealand

NZ - Number of Herds and average herd size



Consolidation across EU

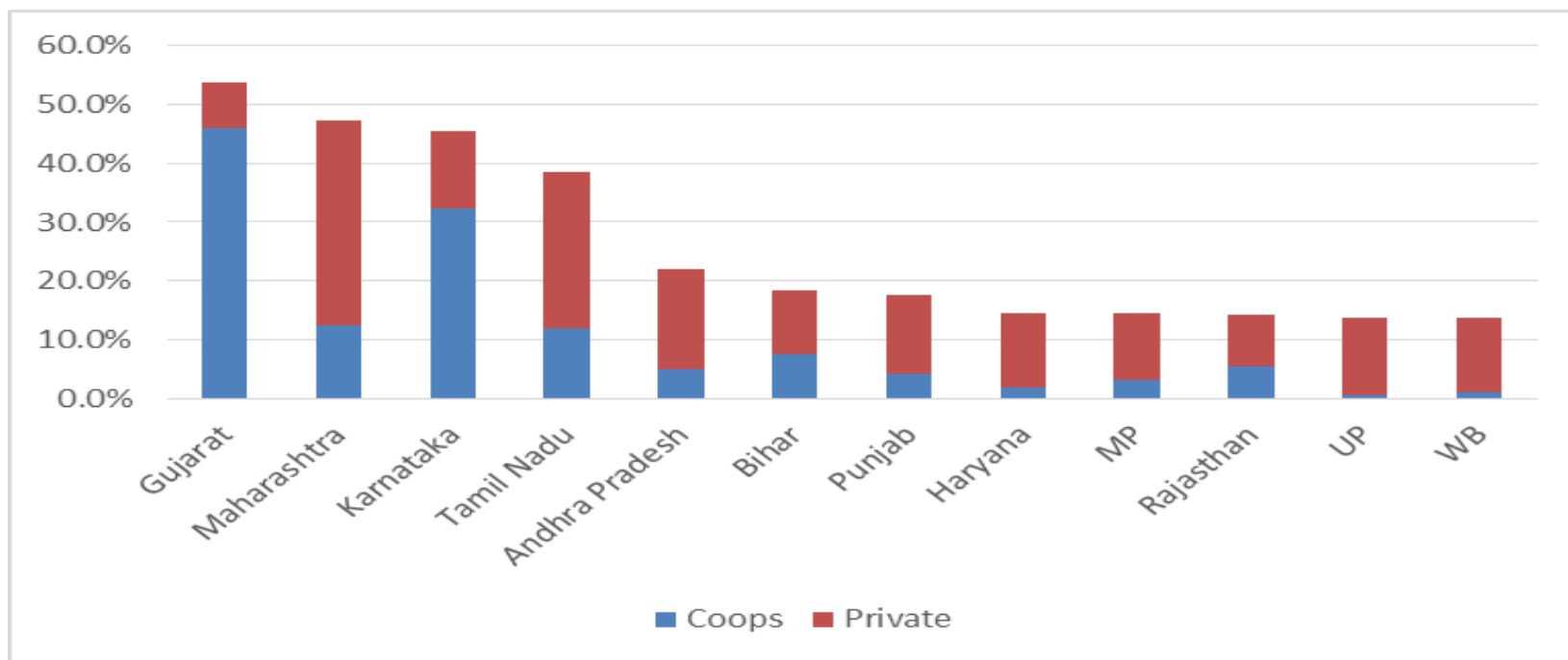
Comparison of consolidation progression in Europe (2002/03 v 2012/13)



Organised players to encourage medium scale dairy farming

- Some of the states have shown encouraging trends (e.g. Punjab, AP, Gujarat, Maharashtra)
- While a few like UP and WB have lot much to do

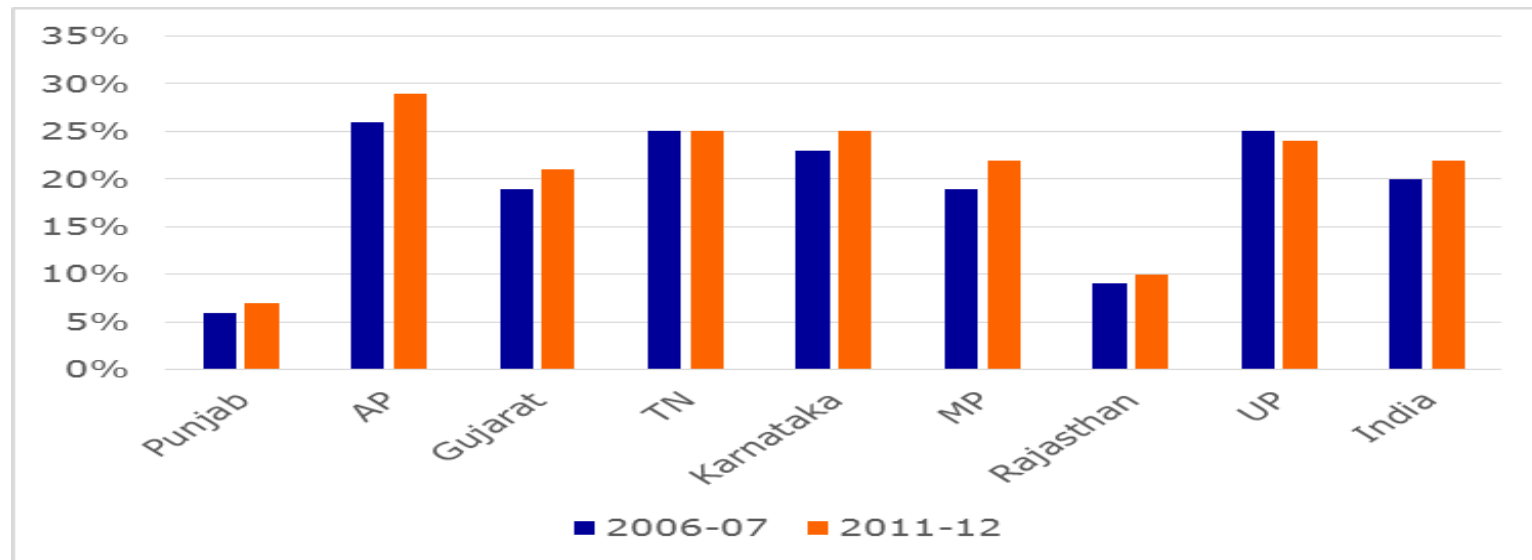
Share of organised segment (cooperatives and private companies) in key Indian states in milk handling (2013-14)



Small agri landholders to drive medium-scale dairy farming

- Share for farmers, owning 1 to 2 ha, is increasing in the total agriculture area
- These farmers will be the key stakeholders for medium scale dairy farming

Share in total agriculture area for farmer segment owning land between 2.5 to 5 acres



Concluding Points

1 Procurement from small farmers to continue; emergence of medium-scale dairy farming

2 Liquid milk and perishables remains the largest driver of growth; with increasing formalization

3 Value added products are gaining acceptance thereby changing the nature of the industry from bulk food to consumer food; innovations will be focus area

4 Newer player entering / looking to enter the Indian dairy market (International, Domestic Food-FMCG companies)

5 Consolidation in the organised segment will gain momentum

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