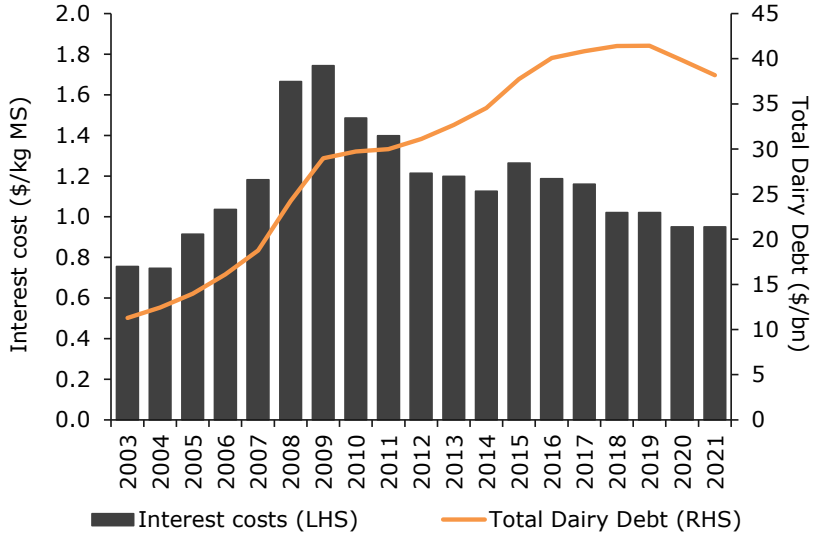
Dairy Update

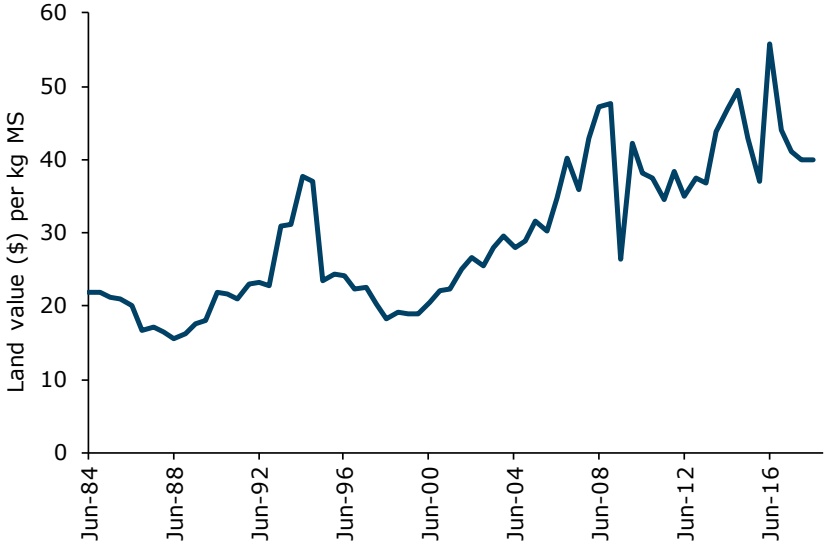
Turning the corner on dairy's list of challenges

- Environmental footprint – namely nutrient loss to waterways and carbon emissions.
- Debt overhang reduced 10% in last two years. Strong cashflow and better land market to help clear.
- Flag bearer of Fonterra in turn around mode.
- Social license to operate improved in current environment
- New Zealand still world class producers and exporters of dairy products. Shouldn't lose sight of this.

Debt and servicing costs



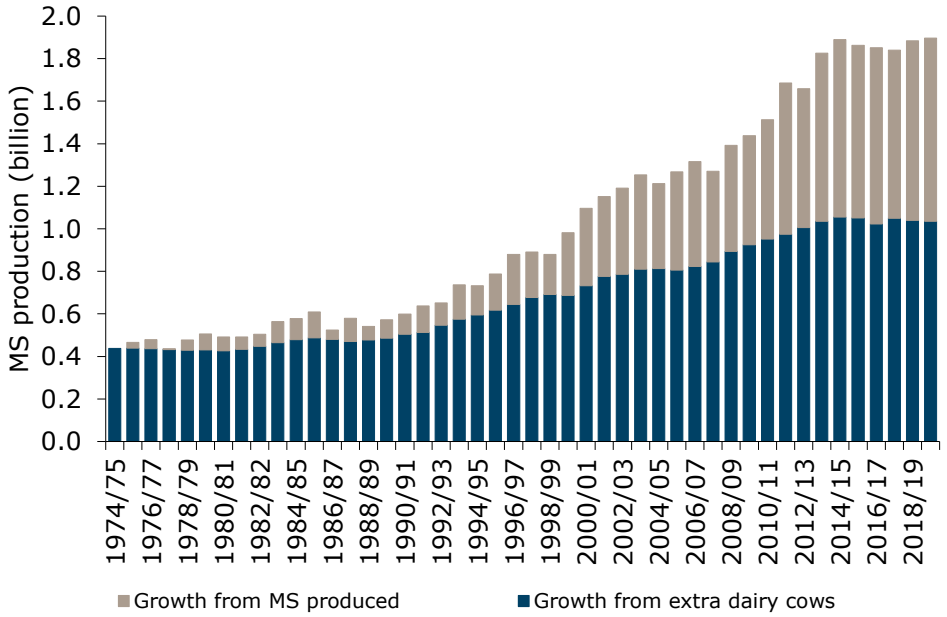
Dairy land price



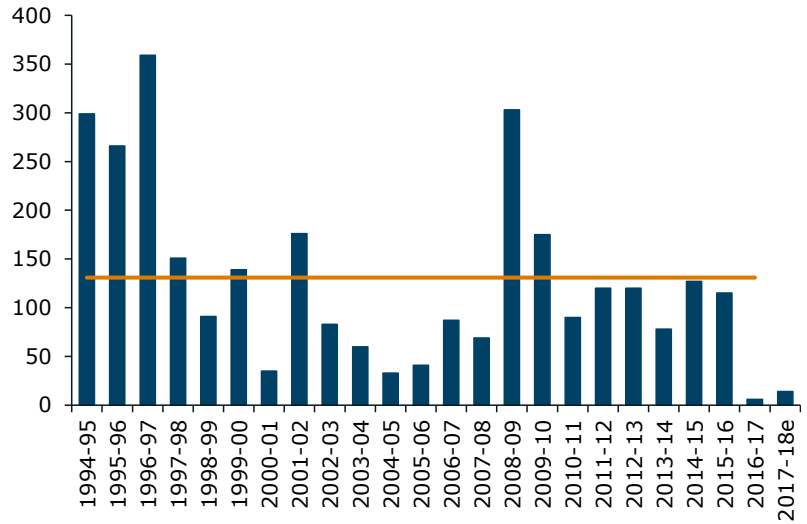
Dairy production – the trends

- Milk production, cow numbers and new dairy farm conversions have all plateaued recently. Driven by lack of suitable land (best land already converted), slowdown in irrigation development, environmental regulation and two year dairy downturn.
- Long-term milk production growth has averaged 4.3% y/y since Fonterra's formation. Extra cows have accounted for 2.3% y/y of increase and gains in per head production the remaining 2.0% y/y.
- Forward looking forecasts are only factoring in productivity gains of 1.0-1.5% y/y.

New Zealand milk production



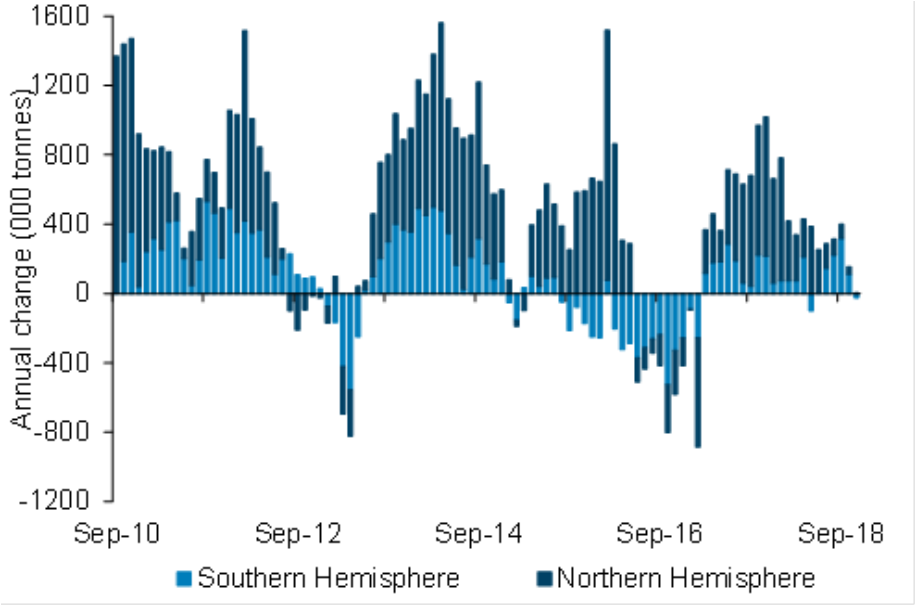
New dairy farm conversions



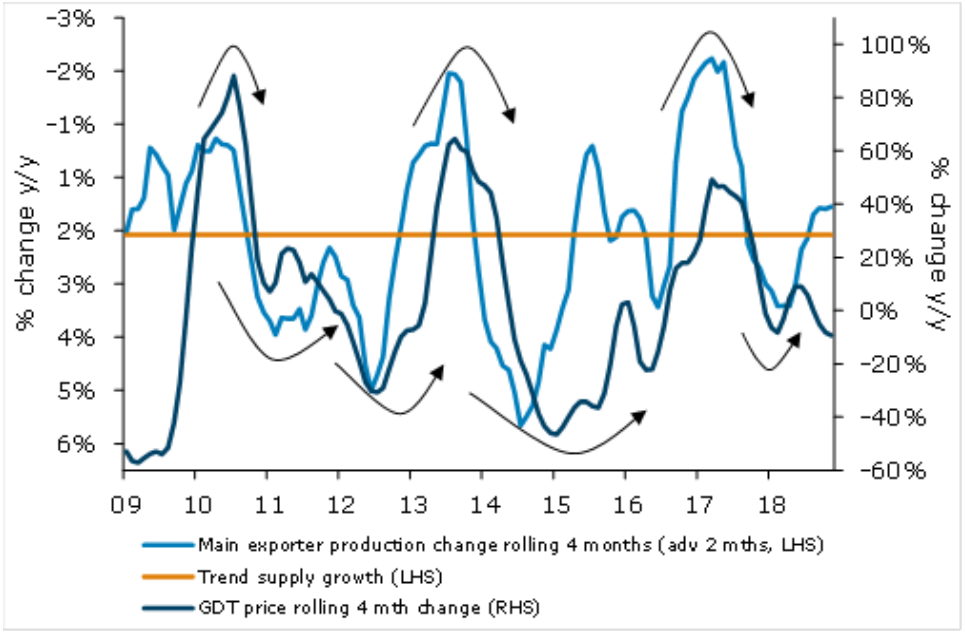
Dairy production – the cycle

- The cycle in dairy product prices is often driven by supply dynamics.
- Milk flows in the main dairy-exporting nations (aside from New Zealand), have eased to a level where demand is exceeding supply and there is limited stocks.

Global milk production



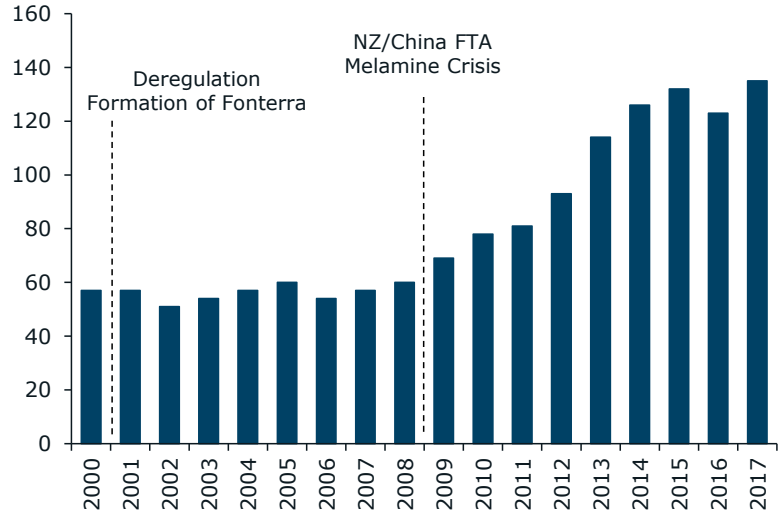
New dairy farm conversions



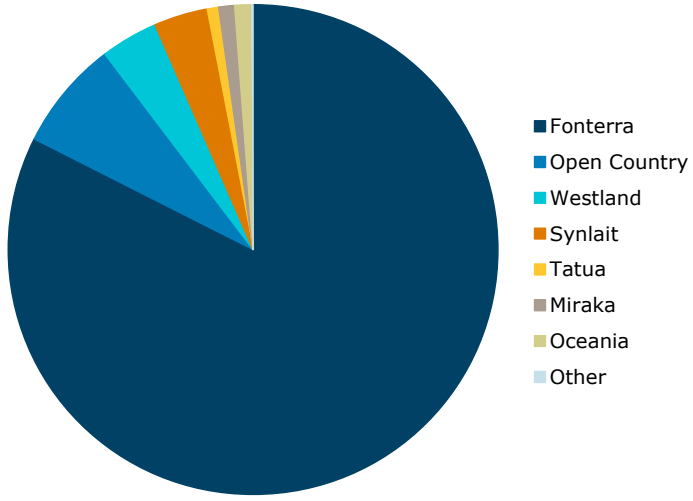
Major dairy processors in New Zealand

- Fonterra still dominate milk processor with around 80% market share. Other independents companies have gained market share but this now more stable.
- While the New Zealand dairy industry has a range of owners, ~85% of the industry is still owned by farmers. All the independent milk processors have some foreign investment and product off-take agreement in place.

Number of dairy processing enterprises



Market share of milk collections

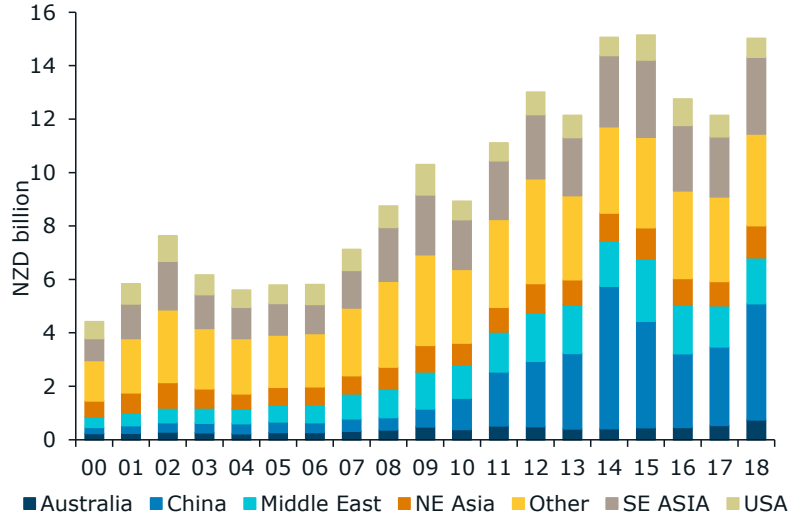


New Zealand export oriented

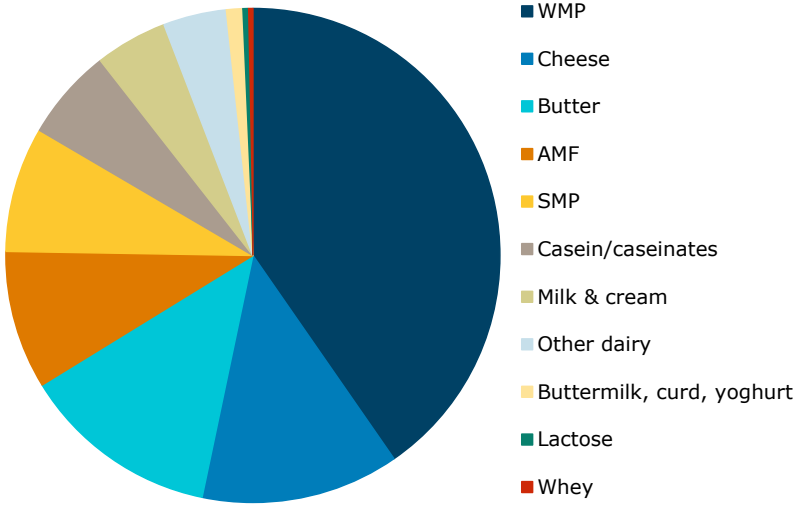
MYFARM INVESTMENTS

- New Zealand accounts for around 3% of global milk production, but around 25-30% of global trade in dairy products.
- Major product groups are WMP, Cheese, Butter, SMP, AMF, Casein/Caseinates and Milk & Cream.
- Major export markets are China, South-East Asia and Middle East.

Exports – By Country



Exports - Value

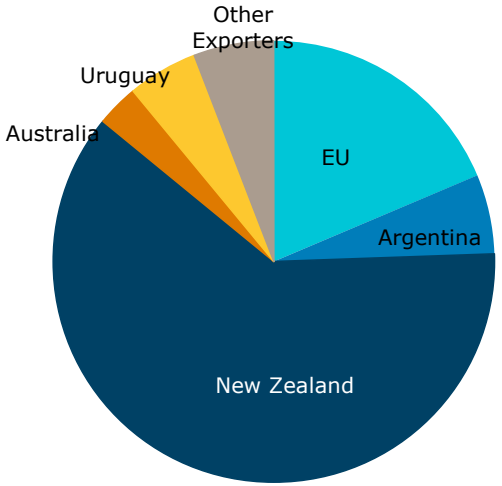


Trade flows for wholemilk powder

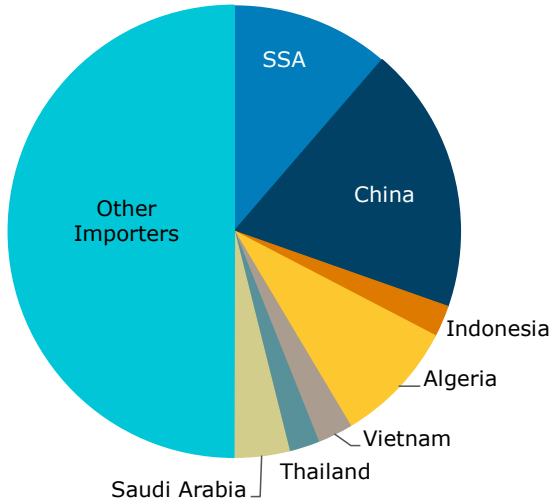
MYFARM INVESTMENTS

- The top four exporters NZ, EU, ARG & AU account for ~95% of WMP exports. NZ, ARG & AU are largely geared for exports. EU produces it for export and own food industry. Future EU production to be targeted toward export markets.
- China, Brazil, Mexico and Russia produce WMP to store excess milk and use in lean times, to conserve quality for storage and transportation purposes, and to use in growing food manufacturing sectors.
- Reconstituted milk, foodservice/bakery and infant formula categories the three most important for China. Foodservice/bakery to grow, infant formula to be shaped by regulation and reconstituted milk to face more competition from fresh local supply and imported UHT product. Domestic supply not price competitive with imported product.
- South-East Asian countries are increasing their reliance on WMP imports, especially where there is supply-demand imbalance with local industry.

Exports



Imports

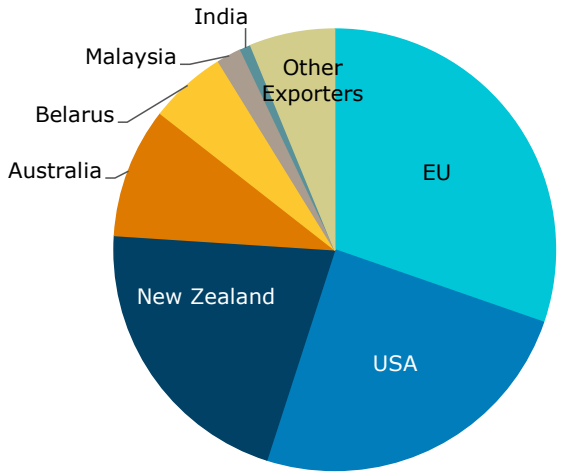


Trade flows for skimmilk powder

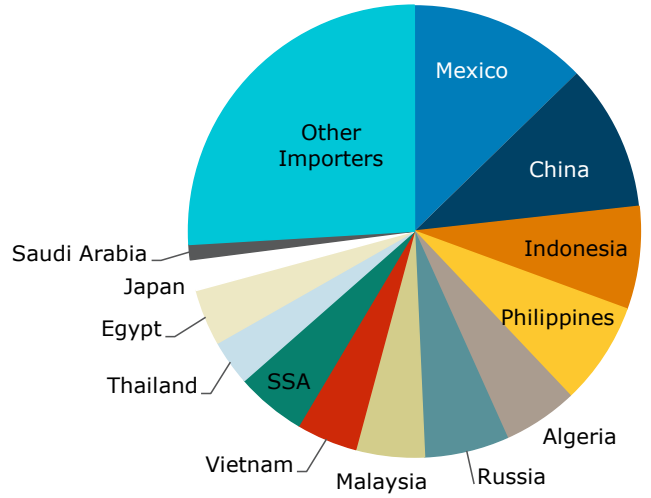
MYFARM INVESTMENTS

- The top four exporters NZ, EU, US & AU account for ~85% of SMP exports. NZ & AU mainly export focused. EU & US becoming more export focused.
- EU has expanded capacity in recent years to become number one producer. The EU has recovered from loss of export market share, although volumes declined in 2016 as product was sent into intervention and private stocks.
- SMP consumption and end uses is more widely spread than the other dairy commodities. There is complete reliance on imports in some South-East Asian countries, such as Indonesia, Philippines and Malaysia. Algeria is also completely reliant on imports.
- Mexico-US trade could be disrupted if relationships between the two countries deteriorated.

Exports



Imports

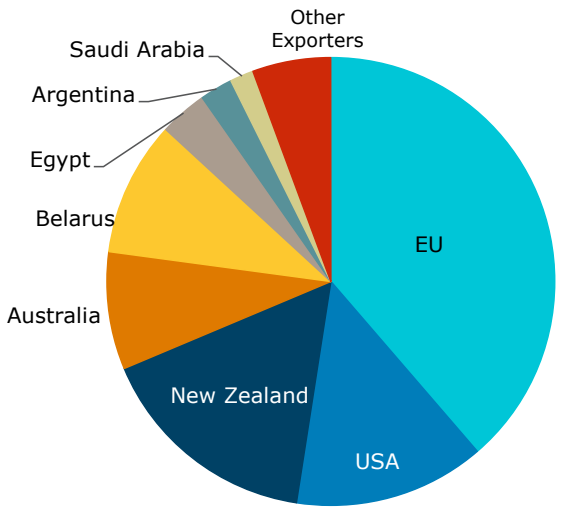


Trade flows for cheese

MYFARM INVESTMENTS

- The top five exporters NZ, EU, US, AU & Belarus have an increasing share of exports and currently account for ~85% of global trade. NZ & Belarus mainly export focused, with the later focused on Russia. EU & US strongly domestic focused, but given mature nature any increase in supply to be export bound.
- NZ has re-oriented its trade from Europe/Russia towards Asia. Japan is the main export destination. Fonterra has invested in capacity for the growing foodservice channel in Asia which will grow cheese demand.
- Globally main growth areas appear as industrial ingredient, foodservice and speciality retail categories (although these are in developing countries, as opposed to traditional markets).

Exports



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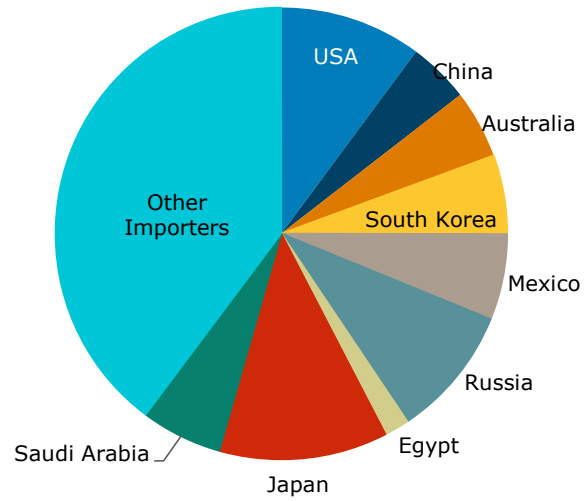
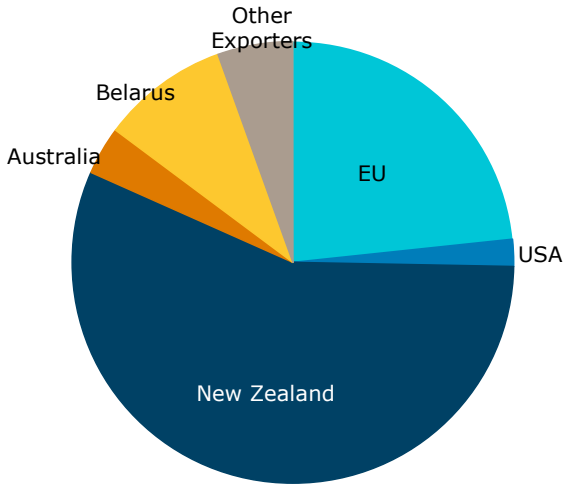


Trade flows for dairy fats

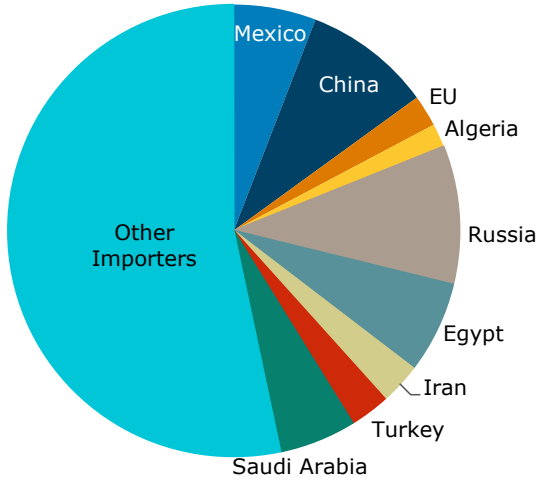
MYFARM INVESTMENTS

- The top producers are India, EU and US. NZ ranks fourth, but is the largest exporter. The top four exporters (NZ, EU, AU & Belarus) account for ~90% of global trade. EU share of exports expected to increase, but no other major changes expected.
- Since early 2016 the butter market has been driven by western consumers moving back toward natural products with new research and health practitioners increasingly saying it's a better choice than other alternatives which had taken market share over past decades. High tariff barriers and quotas limit the amount of butter than can be imported into the US with Europe having significantly better access to this market than New Zealand does. UK FTA should provide opportunity for NZ.
- India accounts for ~50% of global consumption for clarified, concentrated butter or ghee used in a wide range of local cuisine.
- Consumption growth in South-East Asia is expected to be greater than 7% per year over medium term.

Exports



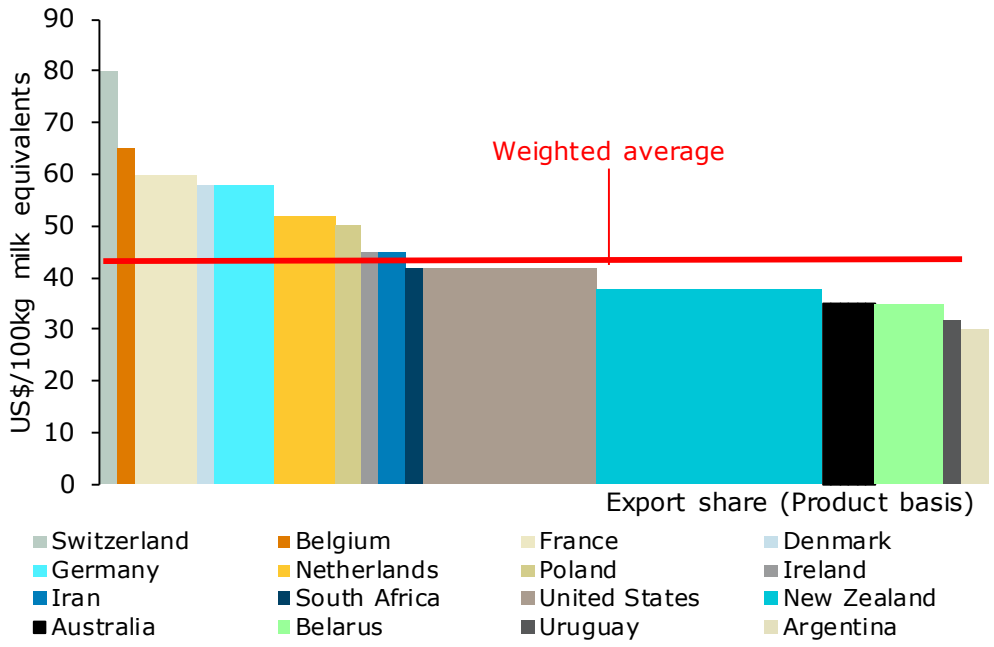
Imports



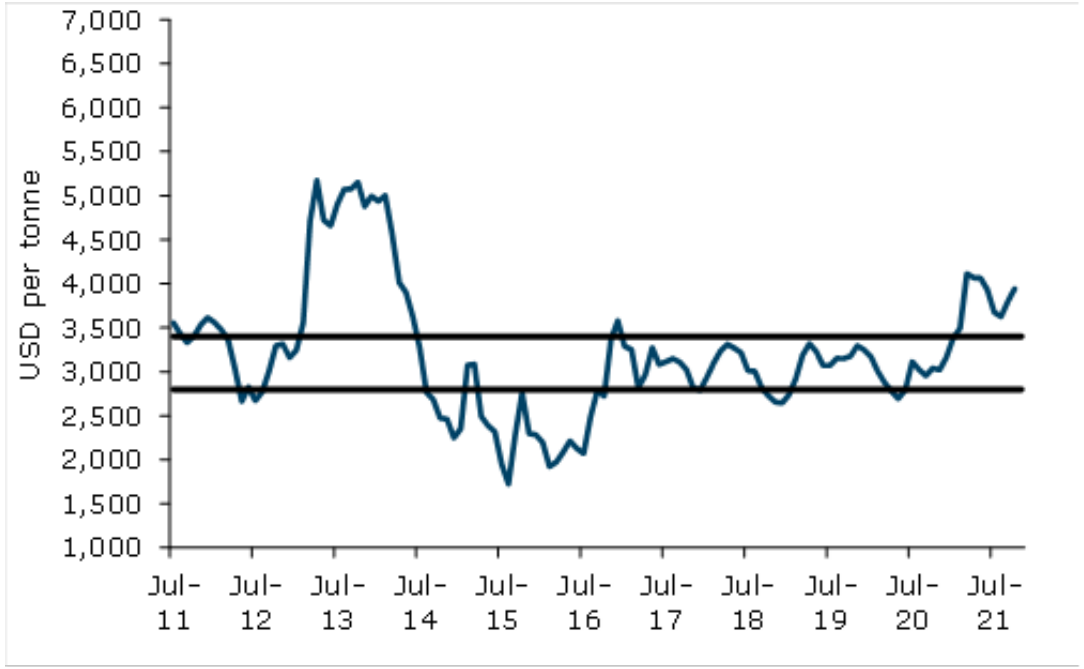
Top exporters production costs & prices

MYFARM INVESTMENTS

Average cost of production for 16 top export countries



Global Dairy Prices



Land use change in New Zealand

MYFARM INVESTMENTS

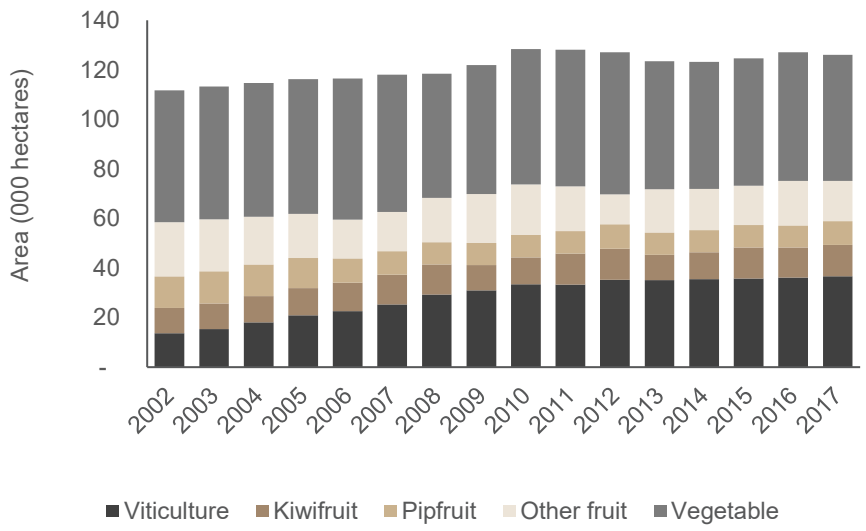
- Dairy land use change had dominated since early-90's. This all changed in 2014/15.
- Horticultural and forestry sectors currently have brightest prospects.
- Horticultural land area in New Zealand has been fairly stable, but could expand by 5% per year into foreseeable future.
- Forestry area could expand by 0.5 million hectares if government's goal to plant 1 billion trees is achieved. This would expand the planation area by nearly a third.

Land use change in New Zealand (1000 ha's)

	1990-91	2017-18	ha chg.	ha % chg.
Dairy	1,349	2,284	935	69%
Sheep + Beef	12,085	7,956	-4,129	-34%
Deer	379	334	-43	-11%
Pastoral	13,814	10,577	-3,237	-23%
Horticulture	88	126	38	44%
Forestry	1,304	1,713	408	31%

Source: Beef + Lamb NZ, Fresh Facts, Statistics New Zealand

Horticultural land area in New Zealand



What drive's land use change?

MYFARM INVESTMENTS

- Range of sectoral, business practice and market changes leading to attractive growth and return prospects – **value investing.**
- Attractive total returns, but particularly cash component.
- **Availability of suitable land and water** continuing to diminish – i.e. Marlborough SB.
- **Environmental regulation** – especially carbon trading and water quality.
- Everyone wants to be apart of something that is growing – **momentum investing!**
- **Diversification** – each sector has different market and industry structure reducing the correlation in returns between them.