Food & Beverage Information Project 2011
Sector Stream – Meat

Final Report

October 2011; v1.72

www.foodandbeverage.govt.nz

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We address all the problems that are involved in growth: strategy, marketing, pricing, innovation, new product development, new markets, organisation, leadership, economic competitiveness.

We bring to our clients specialised industry and functional expertise. We invest significant resources in building knowledge. We see it as our mission to bring this knowledge to our clients and we publish much of it for the benefit of others.

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The Coriolis name

The coriolis force, named for French physicist Gaspard Coriolis (1792-1843), may be seen on a large scale in the movement of winds and ocean currents on the rotating earth. It dominates weather patterns, producing the counterclockwise flow observed around low-pressure zones in the Northern Hemisphere and the clockwise flow around such zones in the Southern Hemisphere. *To us it means understanding the big picture before you get into the details.*

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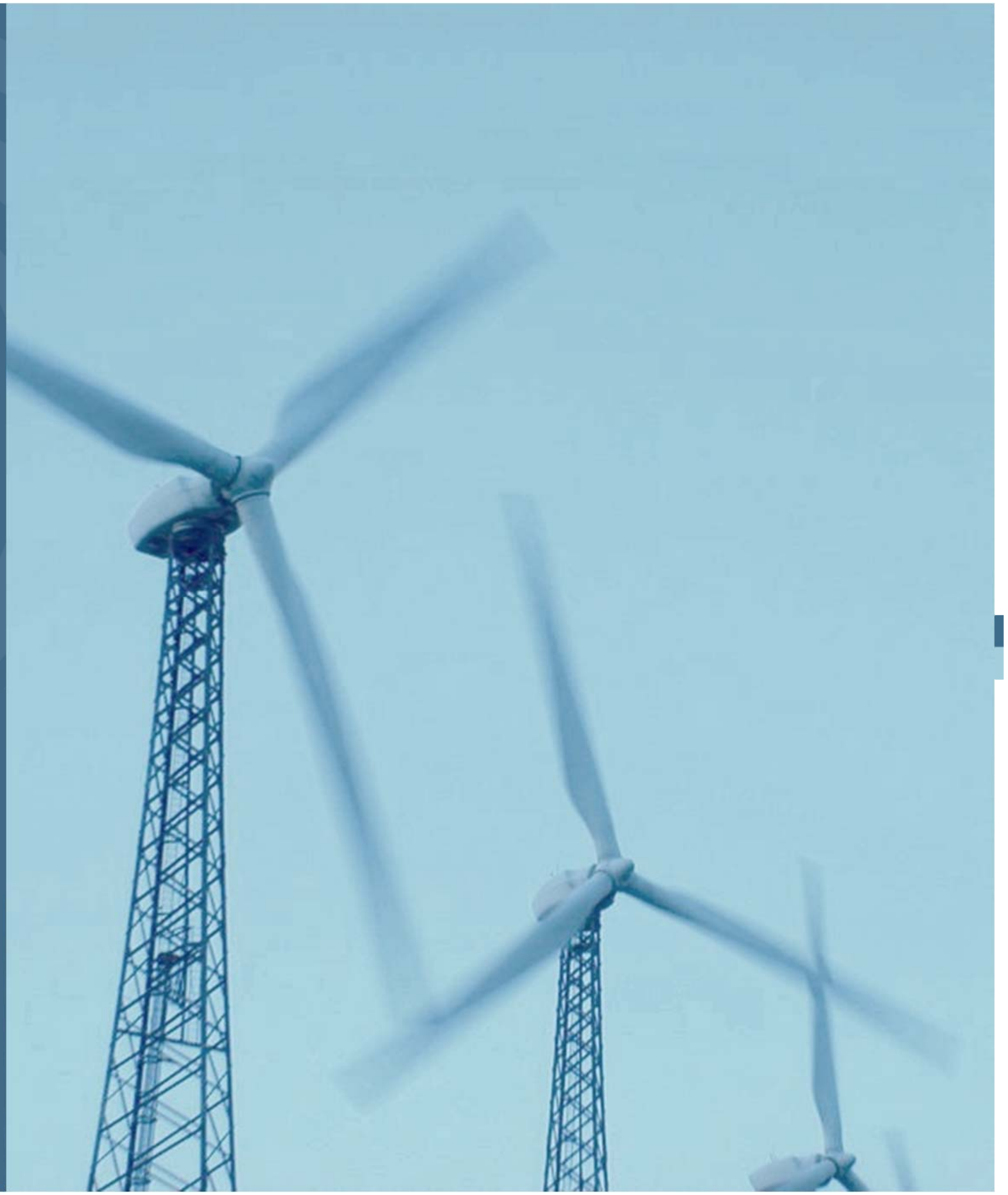

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The objective of this report is to provide a **factual** source of high quality **information** on the current situation in the New Zealand **meat** sector for four audiences:

- **Investors** (domestic or international)
- **Industry** participants (firms & individuals)
- **Government** (across all roles and responsibilities)
- **Scientific researchers** (academic, government & firm)

It creates a common set of **facts** and **figures** on the current situation in the industry.

It draws conclusions on potential industry **strategic directions** and highlights **opportunities** for further **investment**.

It forms a part of the wider Food & Beverage Information Project and will be updated annually.

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GLOSSARY OF TERMS

This report uses the following acronyms and abbreviations

A$/AUD	Australian dollar
ABS	Absolute change
ANZSIC	AU/NZ Standard Industry Classification
AU	Australia
Australasia	Australia and New Zealand
b	Billion
B,H&SG	Bacon, Ham and Smallgoods
CAGR	Compound Annual Growth Rate
C/S America	Central & South America (Latin America)
CRI	Crown Research Institute
CY	Calendar year (ending Dec 21)
E Asia	East Asia
EBITDA	Earnings before interest, tax, depreciation and amortization
FY	Financial year (of firm in question)
£/GBP	British pounds
JV	Joint venture
m	Million
n/a	Not available/not applicable
NA/ME/CA	North Africa / Middle East / Central Asia
Nec/nes	Not elsewhere classified/not elsewhere specified
N.H	Northern Hemisphere
NZ	New Zealand
NZ$/NZD	New Zealand dollar
R&D	Research and Development
S Asia	South Asia (Indian Subcontinent)
SE Asia	South East Asia
SS Africa	Sub-Saharan Africa
T/O	Turnover
US/USA	United States of America
US$/USD	United States dollar
UK	United Kingdom
YE	Year ending
YTD	Year to date

Sources

AR	Annual report
Ce	Coriolis estimate
Ci	Coriolis interview
K	Kompass
Ke	Kompass estimate

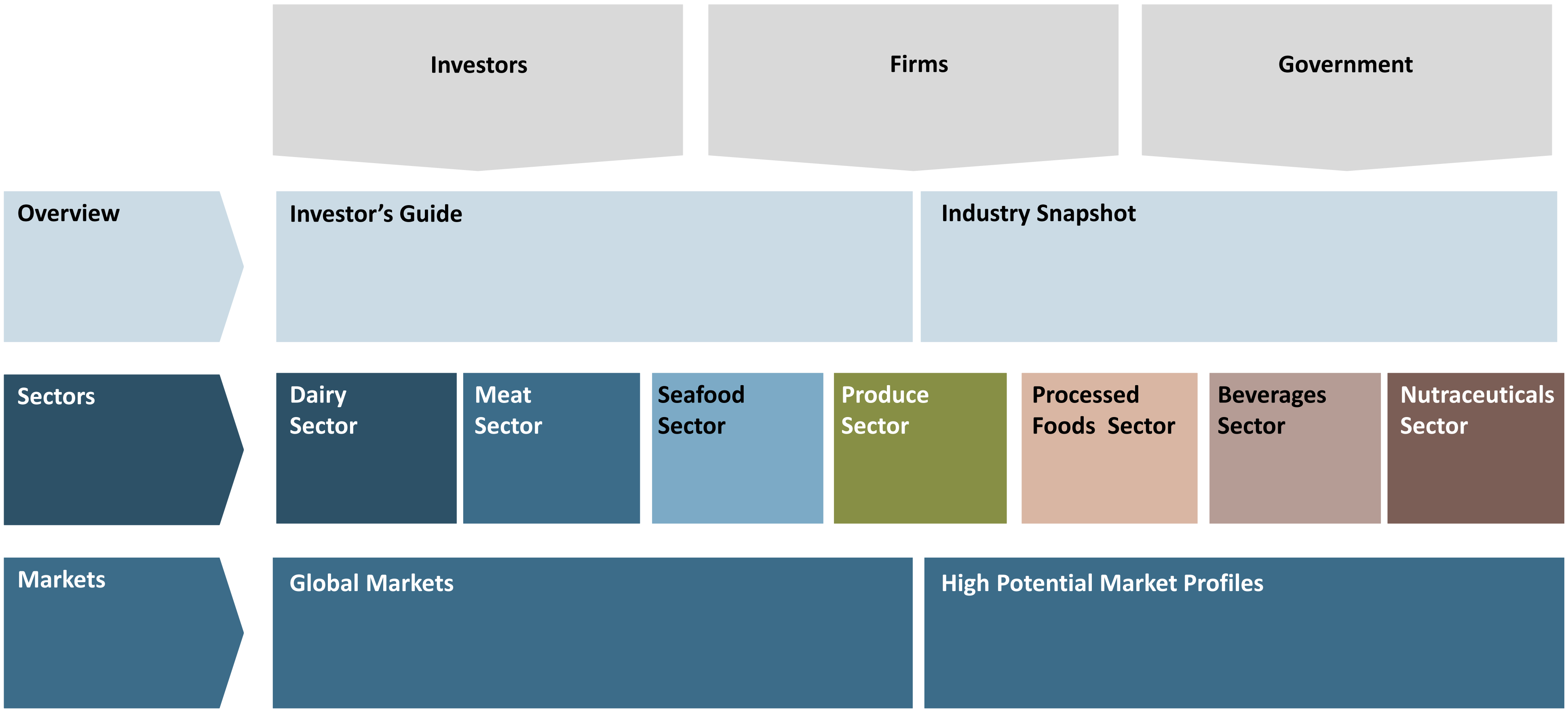
METHODOLOGY & DATA SOURCES

Data was from a variety of sources, and has a number of identified limitations

- This report uses a range of information sources, both qualitative and quantitative.
- The numbers in this report come from multiple sources. While we believe the data are directionally correct, we recognise the limitations in what information is available.
  - In many cases different data sources disagree (e.g. Statistics New Zealand vs. FAO vs. UN Comtrade).
  - Many data sources incorporate estimates of industry experts.
  - As one example, in many cases, the value and/or volume recorded as exported by one country does not match the amount recorded as being received as imports by the counterparty [for understood reasons].
- In addition, in some places, we have made our own clearly noted estimates.
- Coriolis has not been asked to independently verify or audit the information or material provided to it by or on behalf of the Client or any of the data sources used in the project.
  - The information contained in the report and any commentary has been compiled from information and material supplied by third party sources and publicly available information which may (in part) be inaccurate or incomplete.
  - Coriolis makes no representation, warranty or guarantee, whether express or implied, as to the quality, accuracy, reliability, currency or completeness of the information provided in the report.
- All trade data analysed in all sections of the F&B Information project are calculated and displayed in US$. This is done for a range of reasons:
  1. It is the currency most used in international trade
  2. It allows for cross country comparisons (e.g. vs. Denmark)
  3. It removes the impact of NZD exchange rate variability
  4. It is more comprehensible to non-NZ audiences (e.g. foreign investors)
  5. It is the currency in which the United Nations collects and tabulates global trade data
- The opinions expressed in this report represent those of the industry participants interviewed and the authors. These do not necessarily represent those of Coriolis Limited or the New Zealand Government.
- If you have any questions about the methodology, sources or accuracy of any part of this report, please contact Tim Morris, the report's lead author at Coriolis, on +64 9 623 1848

The New Zealand Food & Beverage Information Project is designed to be the foundation of facts and figures on which a range of audiences can build

Structure of the New Zealand Food & Beverage Information Project
(2011)

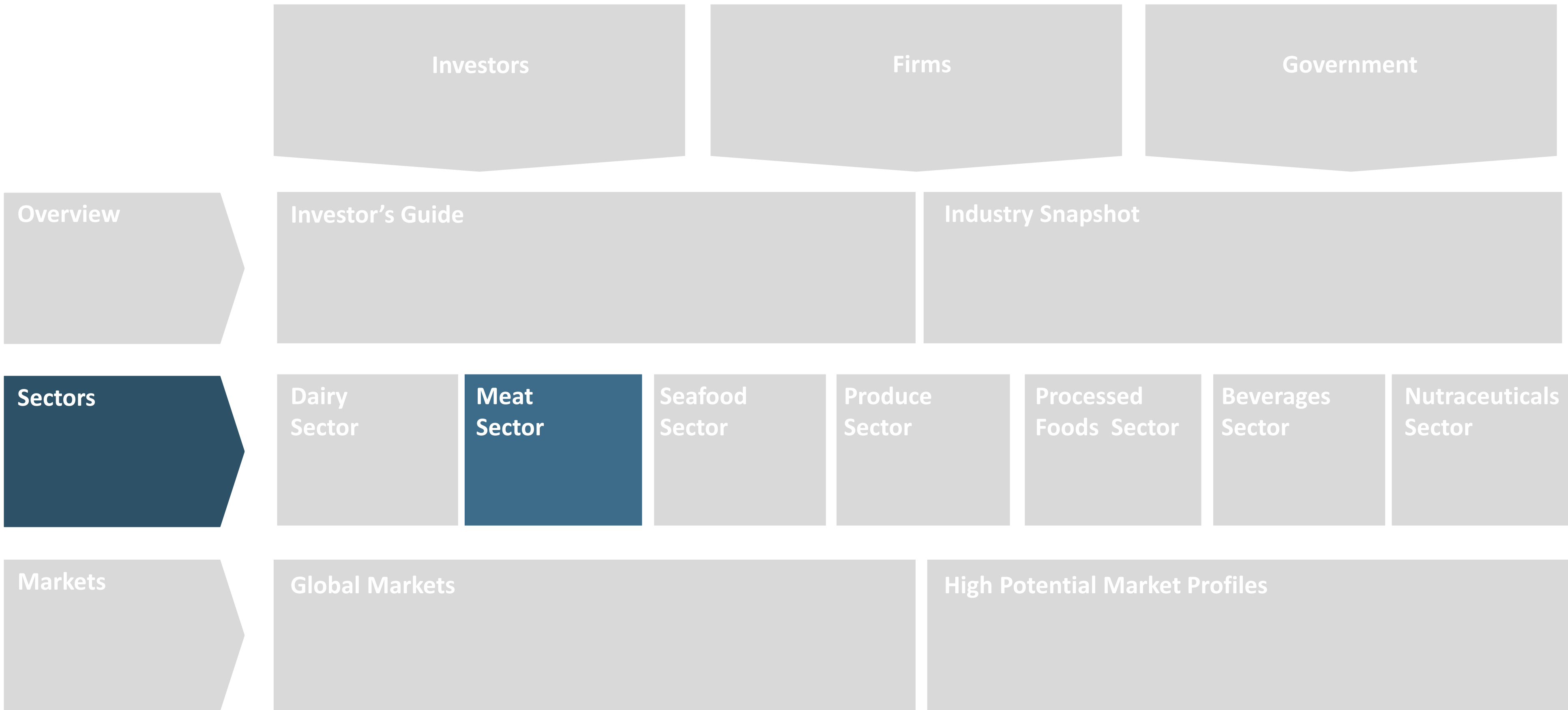


Note: Every year two subsectors are completed in more detail. Seafood and Nutraceuticals in 2011

MEAT SECTOR ANALYSIS

This analysis of the New Zealand meat sector forms a part of the wider Food & Beverage Information Project

Structure of the New Zealand Food & Beverage Information Project
(2011)



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MEAT – SITUATION

New Zealand has a strong position in global lamb exports, is secondary player in beef exports; remaining key species are almost exclusively for domestic consumption

Lamb

- The major lamb consuming countries are effectively the major lamb producing countries (i.e.. Regions that grow lamb eat lamb)
- Most lamb consuming countries are too poor to afford NZ lamb in quantity.
- Key markets for NZ/AU lamb are a handful of rich Western countries; primarily counter-seasonal supplier of lamb for consumption during religious holidays (e.g. Christmas, Easter and the end of Ramadan).
- Lamb production flat to falling in these countries and consumption per capita falling due to increasing price gap with other more efficient meats (e.g. chicken).
- China is an emerging market, but also massively growing producer. Unlikely to be a threat in key markets within medium term.
- NZ and AU lamb production flat for 40 years; falling domestic consumption making more available for export. New Zealand & Australia together account for 71% of global lamb exports
- Top four lamb meat processors account for 70% of NZ volume; Australian industry more fragmented than NZ. NZ lamb exporters primarily compete with each other and AU producers.

Beef

- NZ is a minor global producer of beef (~1%). NZ beef breeds (e.g. Angus) have declining numbers and not finished on grain as preferred by key premium markets. Growing proportion of beef production is a secondary product of the dairy industry not optimal for meat quality.
- Grassfed beef has achieved minimum consumer cut-through and sells at a discount to grain fed overall, despite healthy attributes. This low fat beef is however valued for patties in foodservice (e.g. supplying McDonalds)
- Brazil and Australia are both major producers and exporters of beef into key NZ markets; USA is increasing beef exports driven by the weak USD.

Pork

- NZ pork production has been flat for 40+ years; growing consumption of bacon, ham & smallgoods (B,H&SG) being filled by frozen imports
- Domestic industry now predominantly supplies fresh pork; recent moves to remove bio-security from fresh pork threaten industry as (1) NZ not a major grain producer and (2) NZ farms sub-scale.

Chicken

- NZ has an efficient, modern chicken industry with four processors (Tegel, Inghams, Brinks & Turks); NZ has high FCR[1] due to lack of key poultry diseases. Bio-security prevents imports due to threat posed to iconic native birdlife (e.g. kiwi, kea, etc.).

Deer

- NZ pioneered deer farming in the 1960's. Industry initially two income streams (venison and deer velvet); deer velvet impacted by success of Viagra. Number of animals in decline and long term economic viability unclear without major long-term breeding program to improve relative animal productivity.

1. FCR = feed conversion ratio (a measure of conversion of food input into meat output)

MEAT – QUANTITATIVE SCORECARD

The New Zealand meat sector has performed well in the last year driven by surging US$ prices

Key metrics	# (2010)	CAGR (00-10)	CAGR (09-10)	ABS (09-10)
Turnover	NZ$9.6b	N/A[1]	N/A[1]	N/A[1]
Exports	US$3,722m	8%	12%	$405m
Enterprises[2]	480	1%	2%	10
Employment	31,880	1%	-2%	-510
Turnover per employee	$302,500	N/A[1]	N/A[1]	N/A[1]

Key markets	% (2010)	US$m (2010)	CAGR (00-10)	CAGR (09-10)	ABS (09-10)
Europe	38%	$1,414m	8%	-3%	-$50m
North America	24%	$910m	4%	16%	$123m
East Asia	18%	$663m	13%	24%	$127m
SE Asia	7%	$270m	17%	68%	$110m
NA/ME/CA[3]	6%	$203m	12%	27%	$43m
Australia/PI	5%	$176m	12%	21%	$31m
Other	2%	$85m	9%	35%	$22m
Total	*100%*	*$3,722m*	*8%*	*12%*	*$405m*

Key products	US$m (2010)	CAGR (00-10)	CAGR (09-10)	ABS (09-10)
Beef, frozen	$1,177	7%	20%	$199
Beef, chilled	$198	11%	32%	$48
Sheep/Lamb frozen	$1,326	7%	5%	$60
Sheep/Lamb chilled	$612	14%	11%	$61
Offal	$299	9%	7%	$18
Processed meat	$102	14%	21%	$18
Other	$7	5%	15%	$1
Total	*$3,722*	*8%*	*12%*	*$405*

Key firms	Employ (#; 10)	Turnover (NZ$m; 10)
Silver Fern Farms	5,500	$1,897
Alliance Group	5,000	$1,387
Anzco	2,500	$1,167
Affco	2,800	$1,085
Tegel	1,700	$402
Ingham	900	$299

Key competitors country	Key firms
Australia	JBS Australia
	T&R
	Fletcher
	Cargill
	Others
	JBS
Brazil	Mafrig
	Others

1. Cannot be calculated due to Statistics NZ data issues; will be calculated in future years; 2. Processing and wholesaling; 3. North Africa/Middle East/Central Asia; Source: various company annual reports; various company websites; Kompass; Coriolis analysis

MEAT – SWOT ANALYSIS

The global meat industry is undergoing fundamental shifts and consolidation; New Zealand's competitive position is changing as a result

Strengths	Weaknesses
- Natural environment favourable to pastoral agriculture - Low cost, grass fed beef and sheep production systems - Biosecurity high in New Zealand and presence of key diseases low - High standards of food safety and animal welfare - Regulatory credibility allowing exporters flexibility - 130 years experience exporting meat long distances - Strong position in global lamb trade in counter-seasonal window to Northern Hemisphere - Successful dairy industry generating large numbers of surplus stock - Preferential access into Europe for some products for historical reasons	- High tariff barriers into key markets limits access to Japan, Europe, and Korea (e.g. Korean beef tariff is 40%) - Limited experience with branded and high value processed meats or meal solutions - Labour shortages both on farm and in processing - Limited in-market knowledge, few firms close to customer/consumer, especially in growth markets of Asia - Inefficient use of meat plants (declining stock numbers) and inefficient procurement of stock (competitive, not coordinated) - Lack of in-market co-ordination - Pork and beef farm prices all decreasing - Playing catch up with other countries with onfarm tracking technology; beef and venison proposed, no lamb
Opportunities	**Issues/Threats/Risk**
- Negotiating Free Trade Agreements with key markets and on-going improvements in access to markets via WTO Doha Development Round - Scientific research showing superior health properties of free range, grass fed animals - Genomics research for lamb and beef to optimise output quality, growth rates etc. - Ability to extend shelf life of chilled product (extend season window) - Increased demand for protein globally - Move from frozen with chilled; position/develop brands and case-ready, convenience foods products for retail and hospitality and for the younger convenience focused consumers - Removal of EU/UK farm subsidies in the medium tern - Livestock identification extended to farm management and consumer market (use of smart phone apps etc.) - Encourage innovative on-farm practices to minimise green house gases	- Continued conversion of beef and sheep land into dairy - Market access reduced due to import restrictions (e.g. Indonesia) - Continued decline in consumption of lamb in Europe - Disease outbreak affecting stock numbers and or trade access - ETS, climate change legislation affecting cost of business - Increasing pork imports threatening the viability of New Zealand pork industry - Southern South America adopting the AU/NZ pasture system (e.g. Argentina, Uruguay, S. Brazil)

ETS – Emissions Trading Scheme; Source: various company annual reports; various company websites; interviews; Coriolis analysis

MEAT – POTENTIAL STRATEGIC DIRECTIONS

Research suggests five "big picture" potential strategic directions for the New Zealand meat industry; major opportunities primarily revolve around lamb due to NZ strength in this area

Situation creating opportunity	Resulting potential strategic direction	Opportunity	Challenges
- Lamb a very minor meat for most supermarket retailers globally - Retailers lack experience and knowledge handling lamb - Retailers often don't stock lamb due to low volume	1. Manufacture case-ready lamb in-market in key markets	- Build case-ready lamb packing plants in market (potentially JV with in-market processors) - Supply retailers with a solution to a problem	- Others already doing case-ready lamb in some key markets (often from NZ lamb) - Need to source lamb year round (limited NZ capabilities in flattening the peaks and troughs) - Capital cost
- Millions of calves slaughtered as a by-product of milk production	2. Utilise this raw material in beef production; develop higher yield, profitable lifecycle for calves[2]	- Currently poorly utilised and often wasted - Typical outcomes vary by country	- Mindset and attitudes - Likely marginal economics currently
- Reduction in animal throughput has left NZ over-capacity in processing	3. Industry mega-merger to consolidate NZ lamb processing/exports	- NZ does not fully leverage its size in lamb exports - Rationalisation of domestic capacity required	- Limited industry buy-in - The cost of redundancies, etc. - Egos and personalities - Agreeing on relative value
- New Zealand & Australia together account for 71% of lamb exports globally - Top 8 NZ+AU firms ~50% global lamb trade - Australian industry more fragmented than NZ	4. Major NZ firms take strong position in AU processing/exports	- Build a strong position across major lamb exporting countries - Leverage scale and transferrable skills	- Lack of capital - Limited experience under Australian conditions - AU consolidation underway; NZ late to the party
- World full of sandwich shops (e.g. Subway) with no pre-sliced lamb product - 100,000+ supermarkets, most with a deli; no convenient, pre-sliced formed lamb product for sale - People worldwide making sandwiches from sliced meat	5. Develop convenient processed meats based on lamb (e.g. salambi[1], lambloni[1])	- Convenience oriented consumers - Un-served market niche - Use of secondary cuts, trimmings, and offal (optimise carcass utilisation)	- Hypothetical - Cost of product development (role for government?) - Not an area of NZ beef/lamb processors expertise (but is for B,H & SG manufacturers)

1. Coriolis originals (google if you don't believe); licensing of IP available for a fee; 2. alternatively only use sexed semen to increases proportion of females (e.g. centrifuge seedstock)

MEAT – POTENTIAL AREAS FOR INVESTMENT

Potential areas for new and/or external investment primarily transforming ingredients rather than producing more ingredients

Lamb and Beef

- Ownership of top 4 processors (~75%) locked up with limited opportunity for new outside capital to participate
  - 2 farmer coops (Alliance & SFF)
  - 1 family owned (Talley's)
  - 1 Japanese owned (Itoham & Nissui)
- Returns historically poor; numerous exits from industry (particularly by listed players)
- Some opportunity for further consolidation among second tier beef & lamb processors (particularly in North Island)
  - Large number of small regional players each with one plant
  - Global experience shows single plant operators need to be above average size to achieve economies necessary for success

Pork and pork products

- Domestic production flat last 40 years; industry sub-scale by global standards (e.g. Canada, USA, Denmark); risk of throughput decline due to recent fresh imports decision
- Opportunities for further consolidation among bacon, ham and smallgoods producers (B,H&SG); already major users of imported frozen pork; unlikely to be impacted by fresh imports

Chicken

- #1 Tegel recently changed hands (private equity)
- #2 Inghams is AU #2 and long-term family owner
- #3 Brinks was for sale; acquisition by Tegel rejected by NZCC; no other bidders emerged

Meat-based processed foods

- New Zealand exports significant quantities of manufacturing beef as raw material for processors in other country's; opportunity to make more in New Zealand (NZ has the advantage of relatively low labour costs compared with key markets (e.g. US))
- Significant further opportunities for growth across a range of sectors, including canned meats & meals, frozen meals, soups, jerky, pet food, formed hamburgers for chain fast-food
- See "Processed Food" report for more details

SFF = Silver Fern Farms; NZCC = New Zealand Commerce Commission

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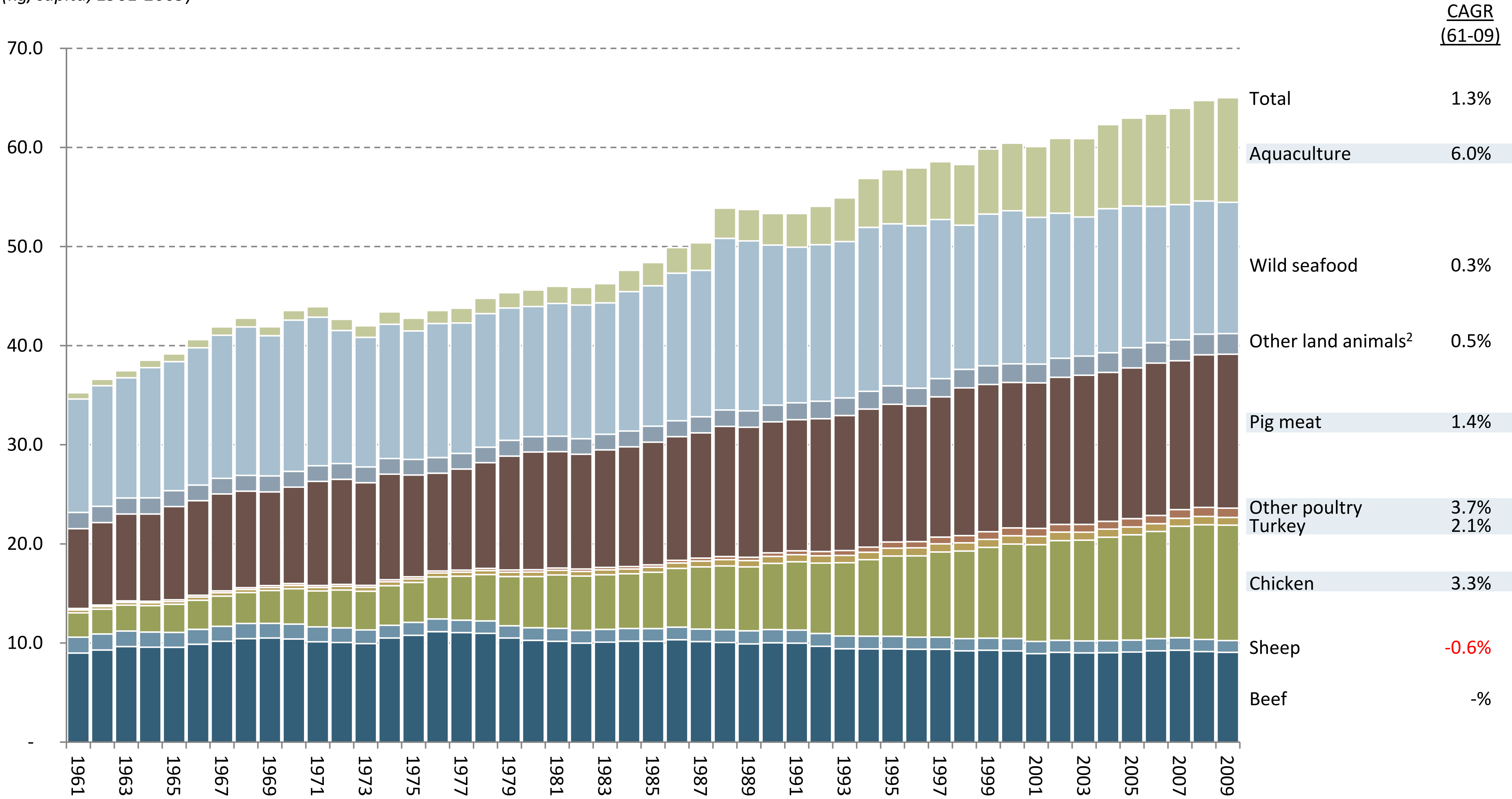
GLOBAL ANIMAL PROTEIN CONSUMPTION PER CAPITA

Globally vertically-integrated, intensively farmed species (high FCR[1] species chicken, pork and aquaculture) growing while fully/partially pasture-raised flat to declining

Global per capita animal protein consumption by major species/type
(kg/capita; 1961-2009)



1. FCR = Feed Conversion Ratio; 2. Includes Goat, Buffalo, Game, Rabbit etc. Note: fish/aquaculture is bone-in weight; others bone-out; Source: UN FAO AgStat database; UN FAO FishStat database; Coriolis analysis

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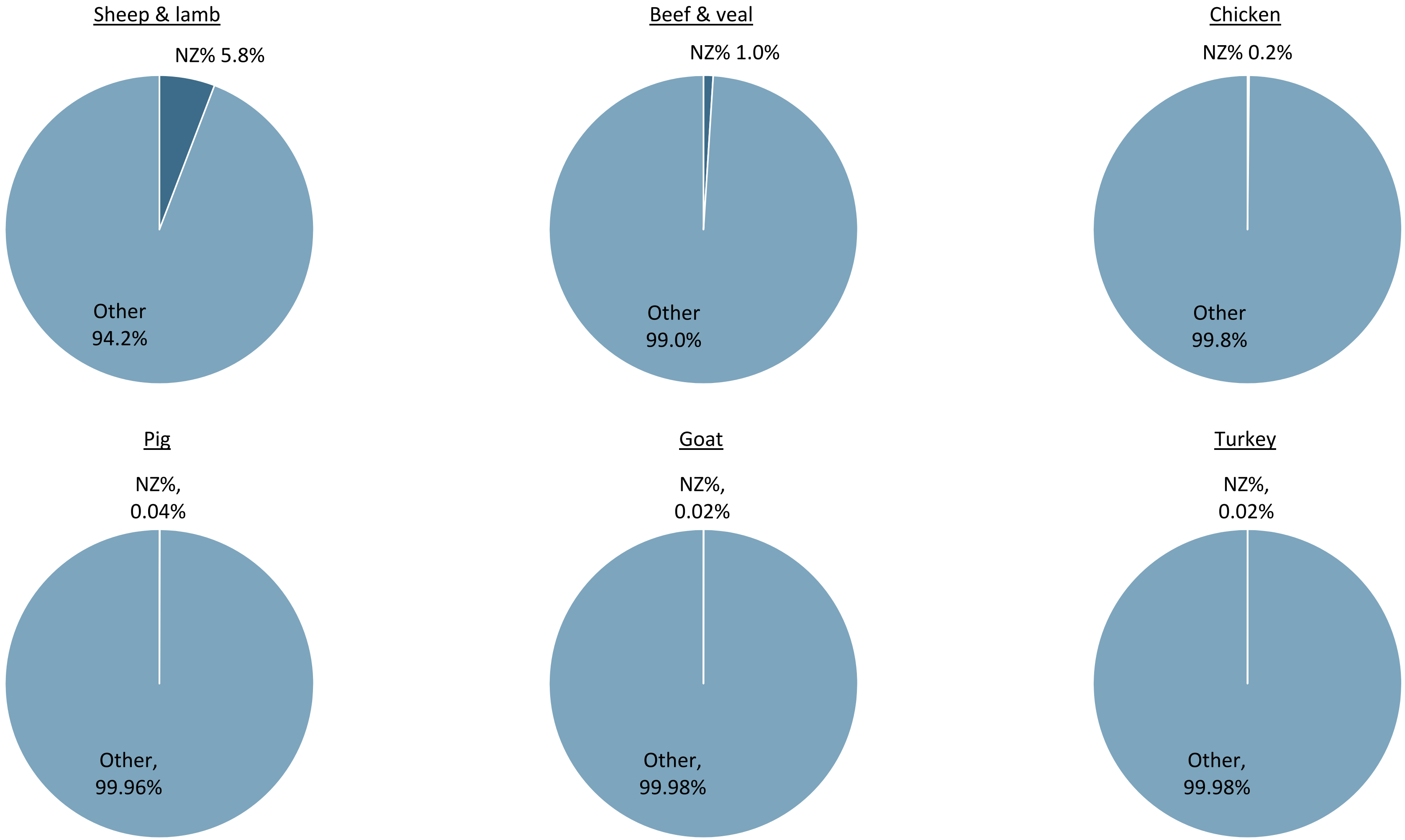
NZ % OF GLOBAL PRODUCTION

New Zealand is a minor meat producer from a global point-of-view; it has a reasonable position in sheep & lamb and a small position in beef, both based on pasture feeding

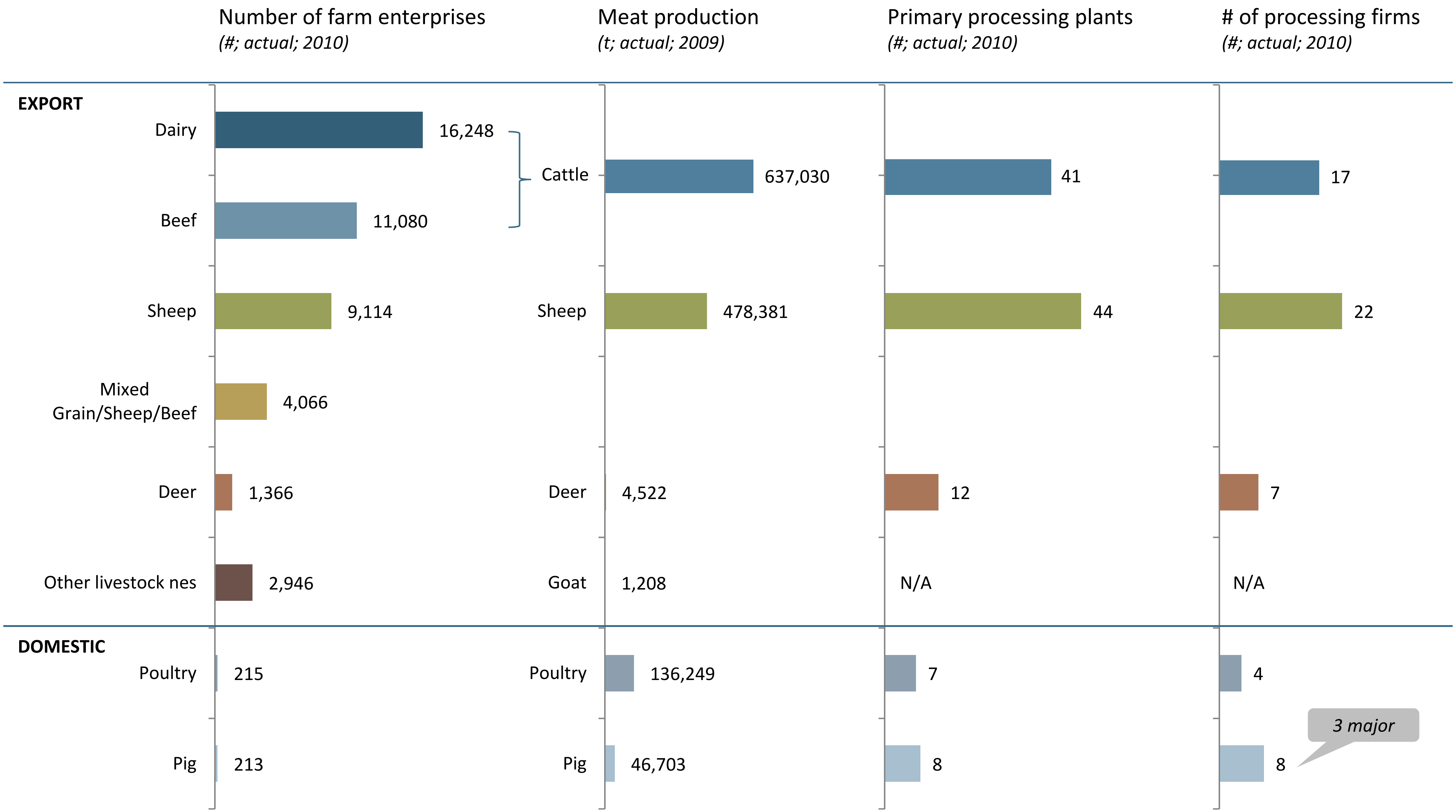
New Zealand meat production as a percent of global production: key/secondary species
(% of tonnes; 2009)



Note: NZ has a strong position in farmed deer, but no global data is available; Source: UN FAO AgStat; Coriolis analysis

MEAT – BASIC PRODUCTION METRICS

New Zealand produces two major (sheep & beef) and one minor (deer) pasture-based meats for export; vertically integrated grain based meats (chicken, pork) are fully/partially bio-secure and for domestic consumption

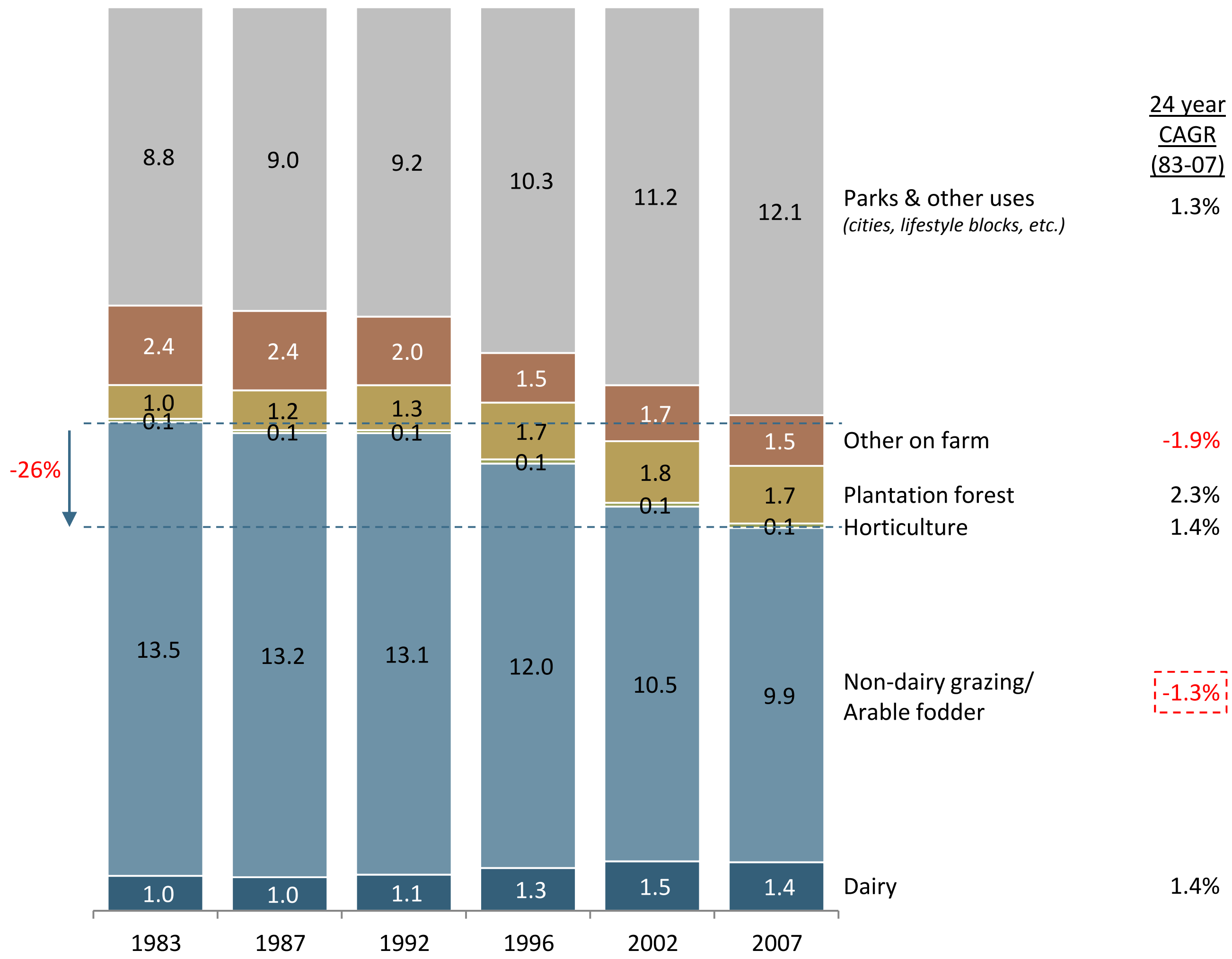


Source: UN FAO AgStat; SNZ Business Demographics; B+L NZ; Pork NZ; Coriolis analysis

PASTURE/FODDER LAND

The amount of land in non-dairy beef and lamb grazing has fallen at the rate of 1.3% per year for the past two and a half decades (a 26% total fall over the period)

New Zealand land usage by type
(ha; m; 1983-2007)



Comments

- Question: Will this decline continue? Are we heading for a -50% fall by 2030? Who will stop it?
- Question: Is this an active agenda or a passive unintended result of policies and decisions?
- Includes retirement of high country and marginal land and the increase in subdivisions and lifestyle blocks
- Arable fodder will include land growing feed for dairy

Notes/Definitions

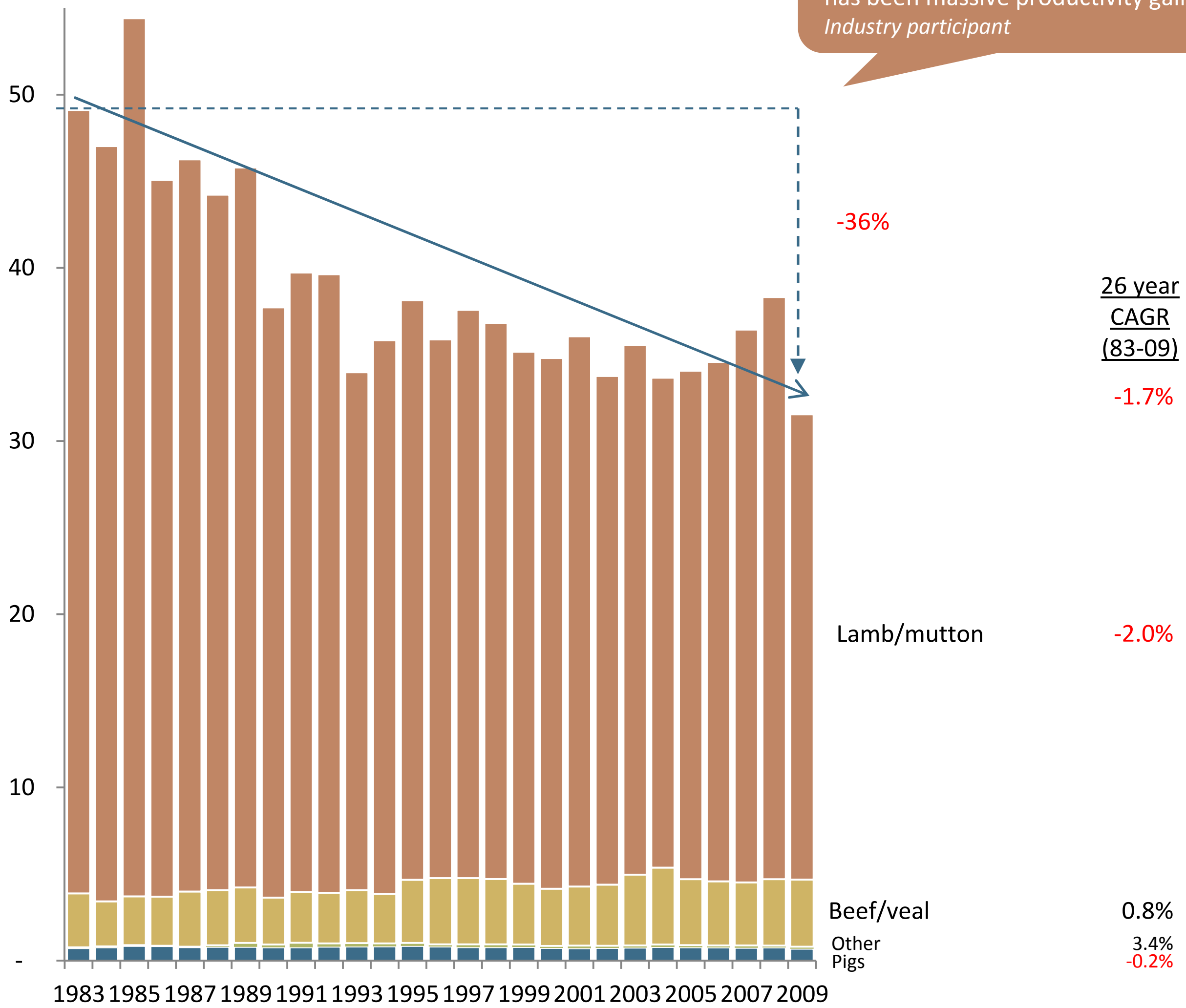
- We have removed 3.3m ha from "other" in 1983 to adjust the data for the 1986 removal of NZ Forest Service land from the agricultural census; this is a Coriolis estimate based on available data

Source: Statistics New Zealand; Coriolis analysis

ANIMALS PROCESSED

Over the past 26 years there has been a 36% reduction in the number of animals processed

Number of animals processed in New Zealand by key species
(head; m; 1983-2009)



"While this period has seen a large reduction in numbers processed, there has been massive productivity gains"
Industry participant

Comments

- If meat processing labour is proportional to number of animals throughput, this strongly implies the country has needed -36% plant capacity and -36% labour (excluding productivity gains) over the same period

Notes/Definitions

- Excludes chicken and turkey "head" from count to maintain scale
- Other includes goat/horse

Source: UN FAO AgStat; Coriolis analysis

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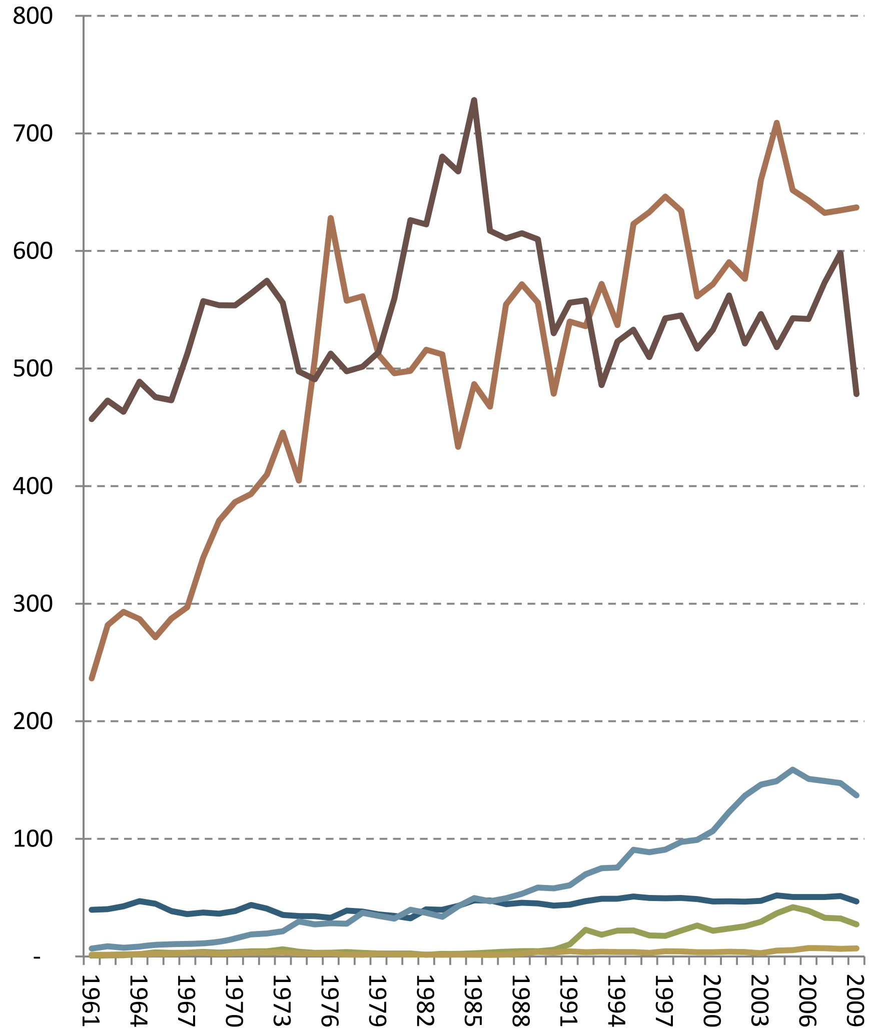
MEAT – PRODUCTION

Production of most New Zealand species is not growing significantly; with a downturn recently

Production of meat in tonnes by major species
(t; 000; 1961-2009)



	CAGR		
	48 year (61-09)	10 year (99-09)	1 year (08-09)
Beef	2.1%	1.3%	0.4%
Lamb	0.1%	-0.8%	-20.0%
Poultry	6.5%	3.3%	-7.1%
Pig	0.3%	-0.4%	-9.1%
Venison	8.7%	0.4%	-15.8%
Goat/other	0.8%	-5.7%	7.1%

Comments

- How much of the growth of beef is driven by dairy cull?
- Note: poultry and fresh pork protected by phyto-sanitary barriers from imports; pork rules recently changed
- Fresh pork – formerly kept out - recently allowed in; pork consumption growing reflecting increase in imports (used in bacon, ham & smallgoods)
- Question: Is our traditional global competitiveness in meat eroding? Effectively only ready opportunity for growth is from dairy industry surplus stock?

Notes/Definitions

- Venison uses "game meats"
- Poultry includes chicken, turkey, duck and others
- Goat/other includes horse

Source: UN FAO AgStat database; Coriolis analysis

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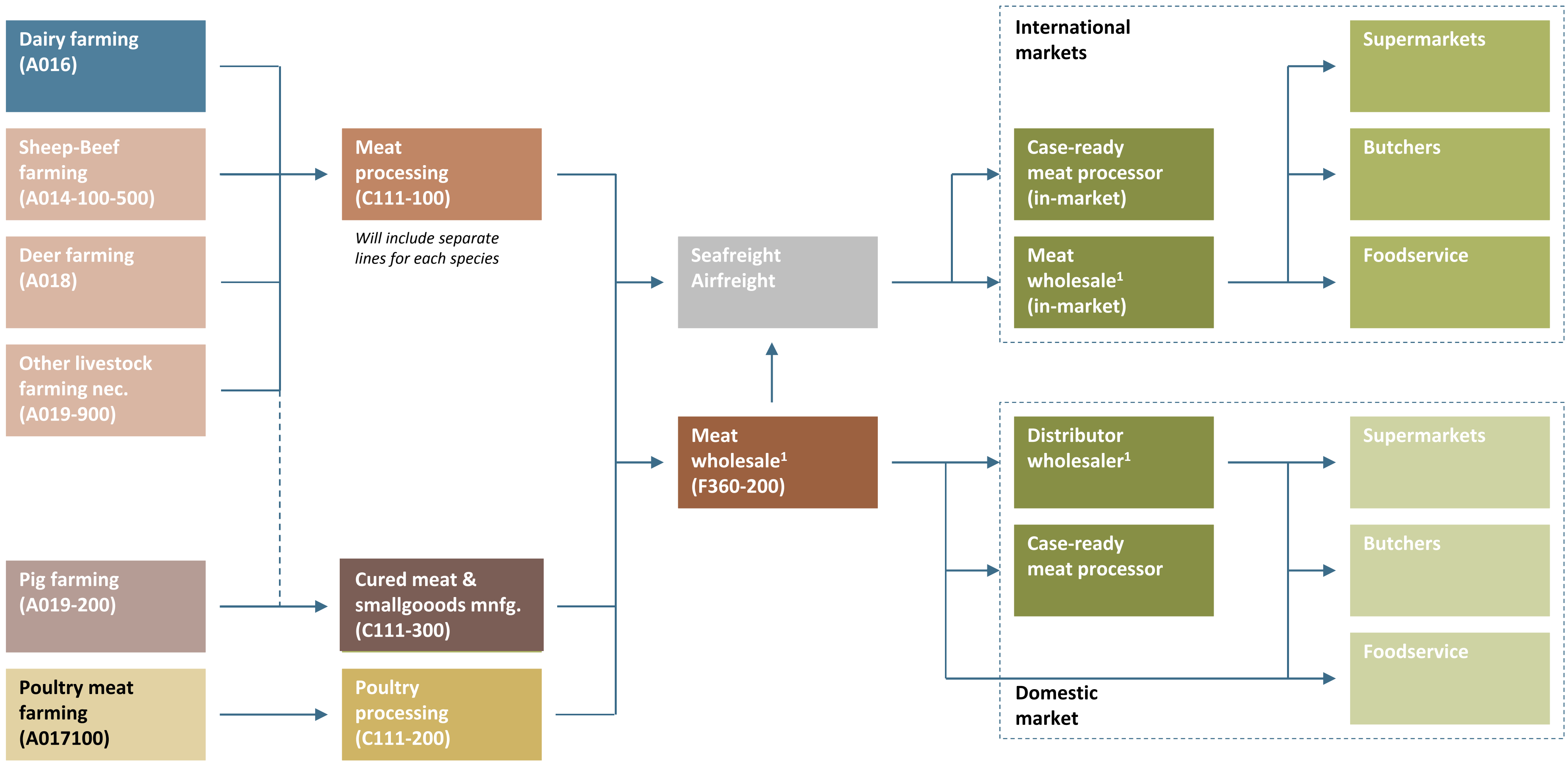
MEAT – SUPPLY CHAIN

The New Zealand meat industry supply chain is effectively segregated by species

Simplified model of New Zealand meat supply chain
(model; ANZSIC codes as available))

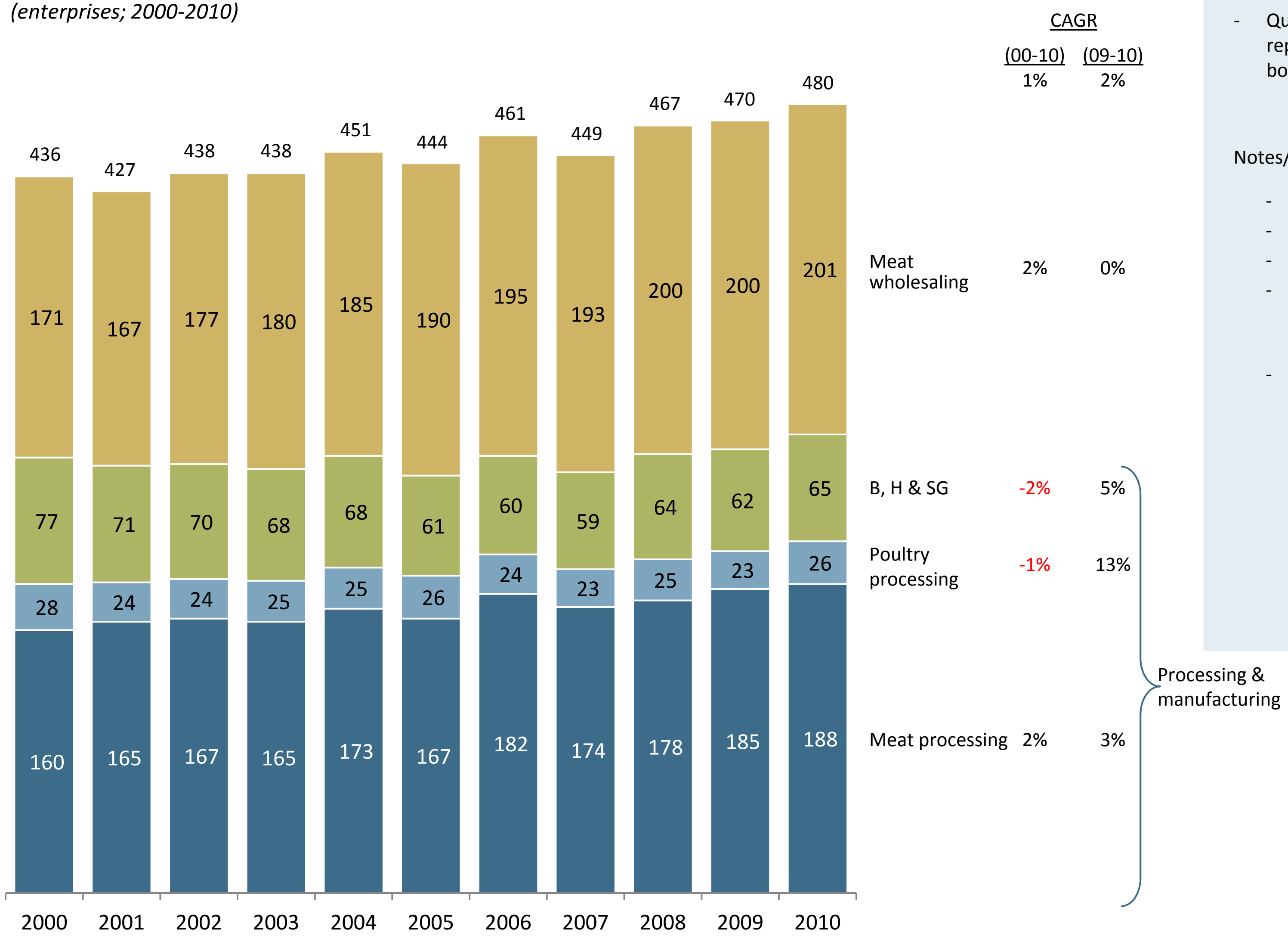


1. There may be one or more layers of wholesaling, depending on product or market; some wholesale functions may be captive inside retailers or foodservice operators; Source: Coriolis

MEAT – # OF ENTERPRISES BY TYPE

The number of enterprises involved in the meat industry has been growing slightly

Number of enterprise units in the meat industry in New Zealand
(enterprises; 2000-2010)



Comments

- Question: Does the growth of wholesalers represent the growth of foodservice or imports or both?

Notes/Definitions

- Meat processing (C111-100)
- Poultry processing (C111-200)
- Bacon, ham & smallgoods mnfg. (C111-300)
- Meat, poultry & smallgoods wholesaling (F360-200)

- An "enterprise" is a reporting entity for GST purposes; large companies may contain multiple GST reporting entities

Source: SNZ business demographics (detailed industry for enterprise units); Coriolis analysis

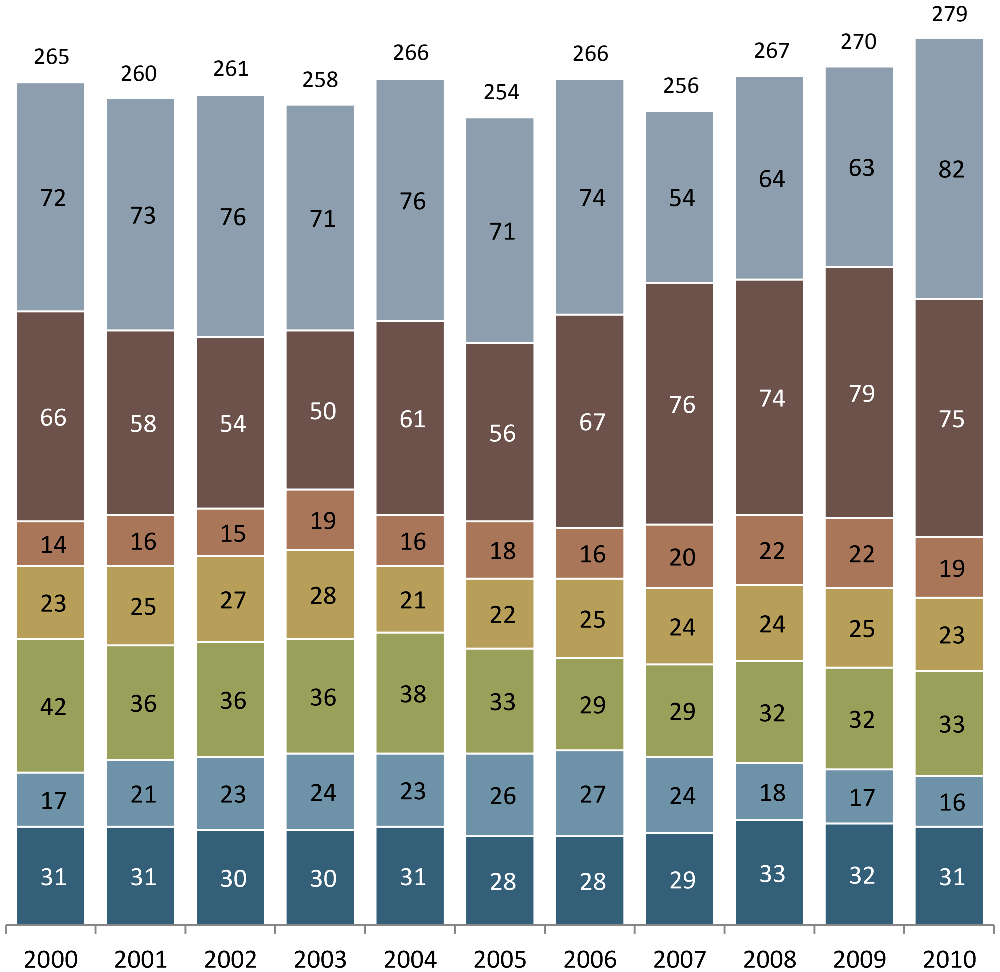
MEAT – # OF ENTERPRISES BY SIZE

The aggregate meat manufacturers (all species) by employment size indicates that growth over the last decade in enterprise numbers is coming at the small end of the spectrum

Number of enterprise units in the meat industry in New Zealand by number employed[1]

(enterprises; 2000-2010)

Data excludes meat wholesale as no data is available



	CAGR (00-10)	CAGR (09-10)
Total	1%	3%
No employees	1%	30%
1 to 5	1%	-5%
6 to 9	3%	-14%
10 to 19	0%	-8%
20-49	-2%	3%
50 to 99	-1%	-6%
100+	0%	-3%

Comments

- The bottom end of this group likely catches some businesses that are closer to retail butchers than large meat processors
- Looking at enterprises with over 100 employees we find no signs of consolidation

Notes/Definitions

Aggregates/includes (sub-aggregation not available)

- Meat processing (C111-100)
- Poultry processing (C111-200)
- Bacon, ham & smallgoods mnfg. (C111-300)

Excluded due to lack of data

- Meat, poultry & smallgoods wholesaling (F360-200)

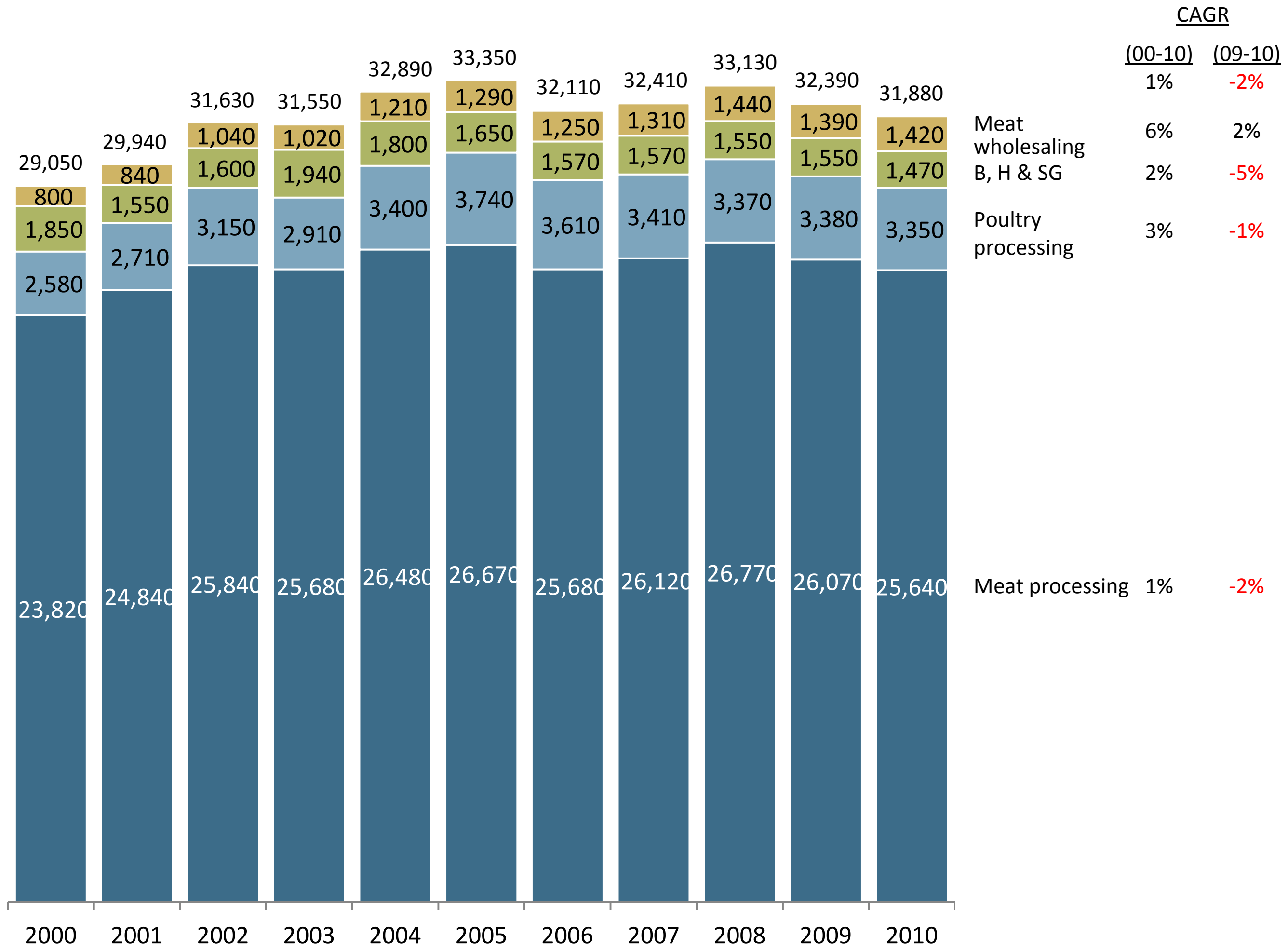
"No employees" includes holding companies, self-employed, sole traders in the meat industry

1. Uses persons employed by enterprise unit; Source: SNZ business demographics (detailed industry for enterprise units) and (detailed industry for geographic units); Coriolis analysis

MEAT – EMPLOYMENT BY TYPE

The number of people employed in the meat industry was stable-to-growing from 2000 through to 2008; since then employment has declined

Number of persons employed in the meat industry in New Zealand
(people; 2000-2010)



Comments

- Question: How quickly can industry react to changes in input volume across the cycle?

Notes/Definitions

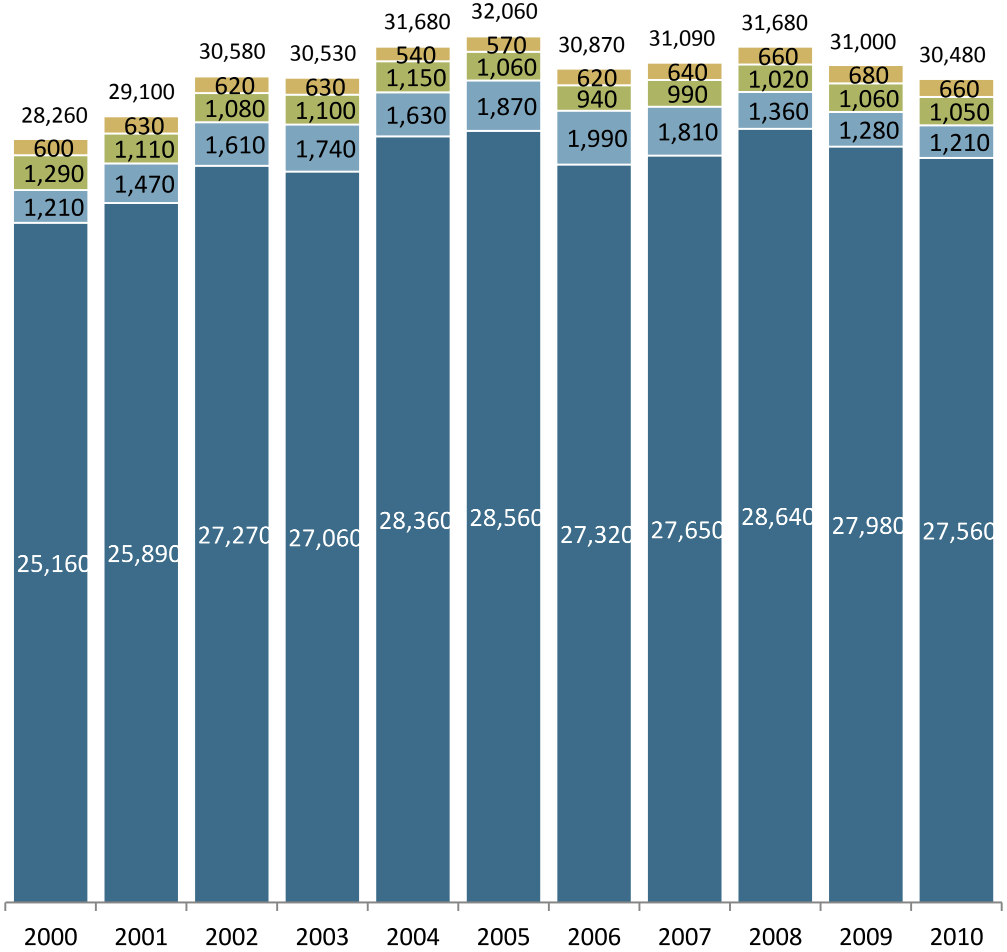
- Meat processing (C111-100)
- Poultry processing (C111-200)
- Bacon, ham & smallgoods mnfg. (C111-300)
- Meat, poultry & smallgoods wholesaling (F360-200)

Source: SNZ business demographics (detailed industry for enterprise units) and (detailed industry for geographic units); Coriolis analysis

MEAT – EMPLOYMENT BY SIZE

Looking at employment by firm employment size (1) highlights that most people are employed in large firms and (2) that industry employment is flat-to-down over the past five years

Number of persons employed in the meat industry in New Zealand by persons employed[1]
(people; 2000-2010)



	CAGR (00-10)	CAGR (09-10)
Total	1%	-2%
Under 20	1%	-3%
20 to 49	-2%	-1%
50 to 99	0%	-5%
100+	1%	-2%

Comments

- No clear productivity gains?

Notes/Definitions

Aggregates/includes (sub-aggregation not available)
- Meat processing (C111-100)
- Poultry processing (C111-200)
- Bacon, ham & smallgoods mnfg. (C111-300)

Excluded due to lack of data
- Meat, poultry & smallgoods wholesaling (F360-200)

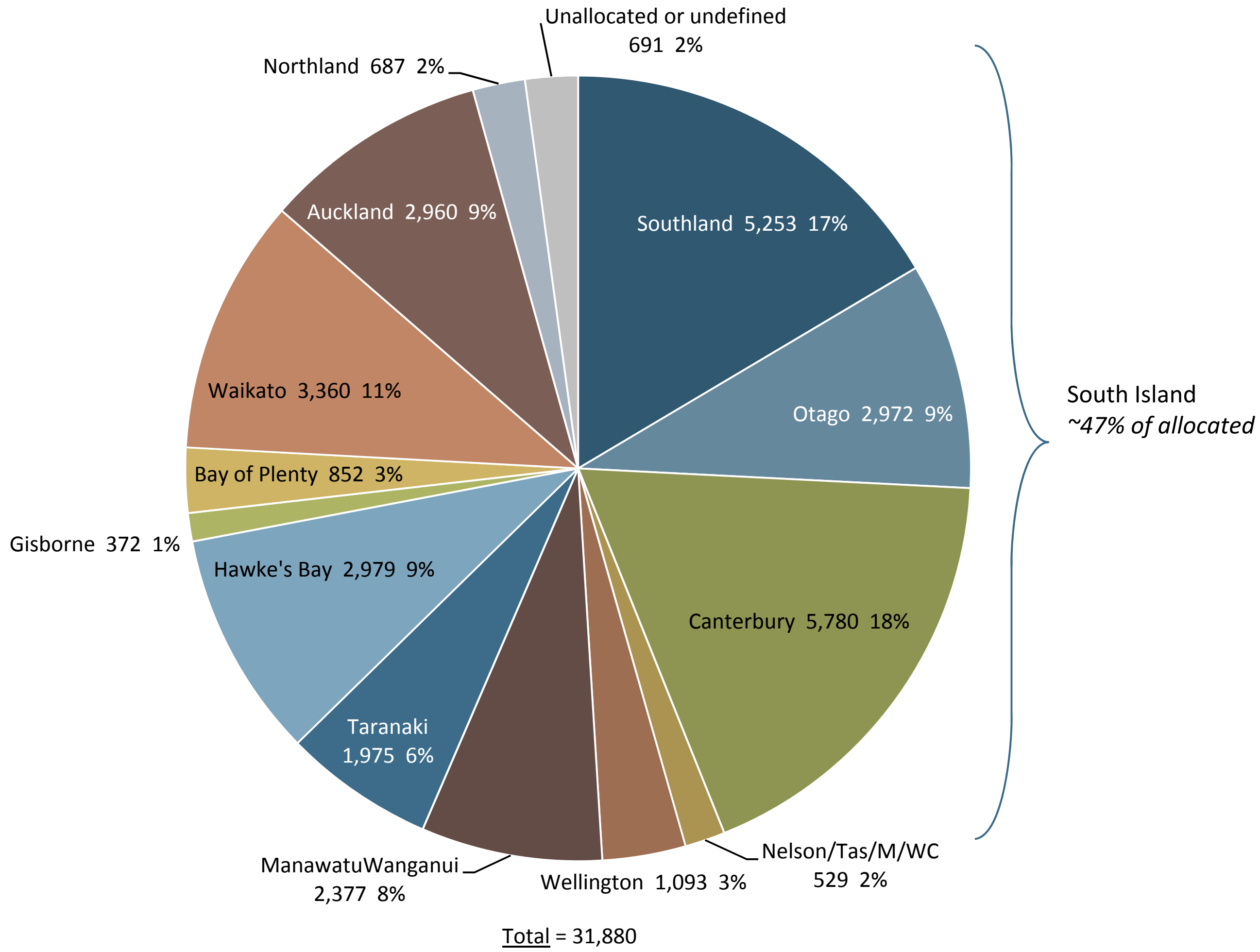
1. Uses persons employed by enterprise unit; Source: SNZ business demographics (detailed industry for enterprise units) and (detailed industry for geographic units); Coriolis analysis

CORIOLIS

MEAT – EMPLOYMENT BY REGION

Industry employment is spread across the regions

Number of persons employed in the meat industry in New Zealand by region
(people; 2010)



Comments/Notes

- Clearly proportional to animal production
- Also proportional to # of plants and average plant capacity

Notes/Definitions

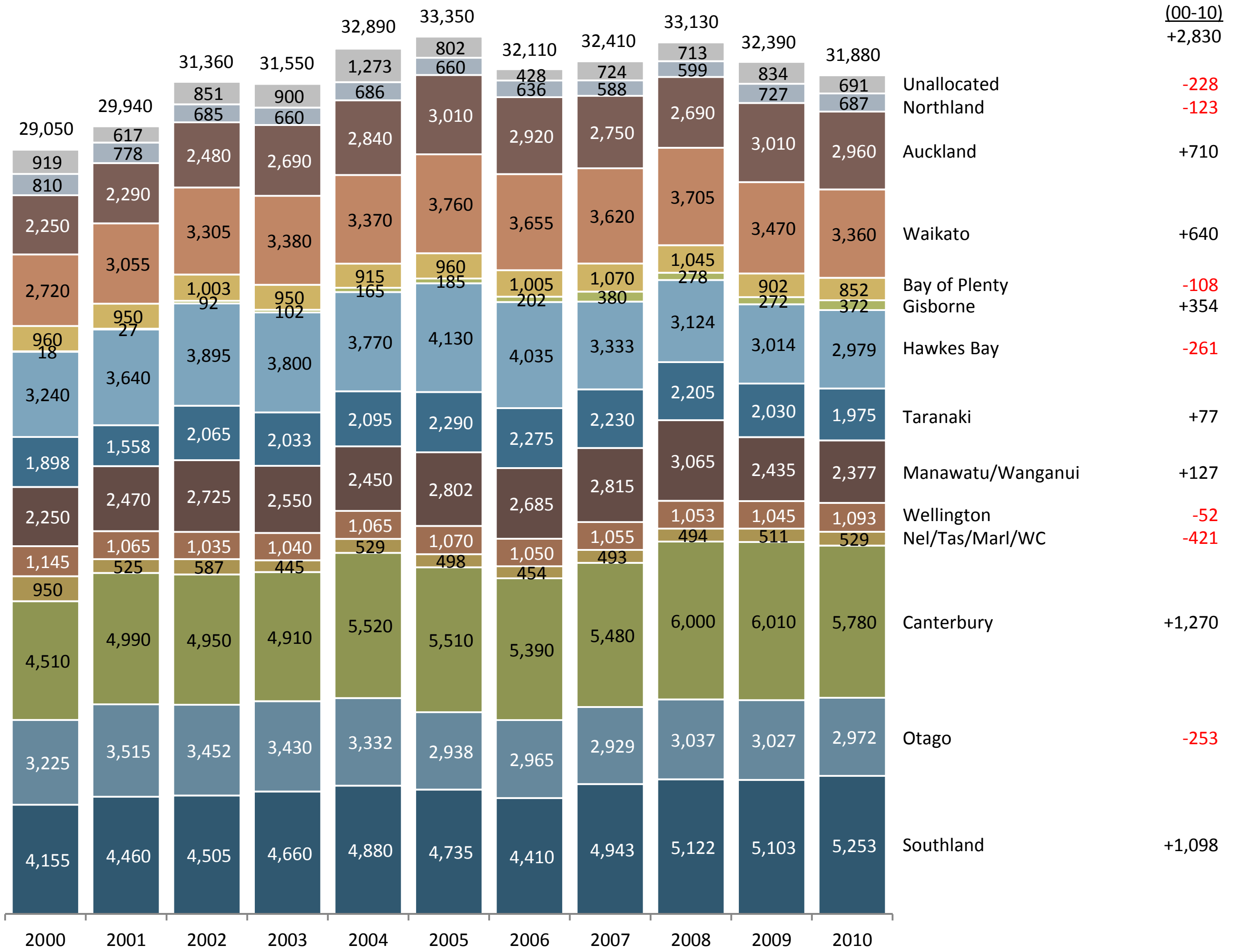
- Statistics New Zealand calculates its statistics based on the predominant business activity of the enterprise
- A firm that is defined as "beverage manufacturing" at the enterprise level may have a subsidiary at the geographic level that is classified as "grape growing"
- Data here is "geographic" units not "enterprise" units (pages prior)
- "Unallocated" is the difference between geographic unit employees and enterprise unit employees; it represents firm subsidiaries not involved in "beverage manufacturing," for example those classified as "grape growing" or "beverage wholesaling"
- Nel/Tas/M/WC = Nelson/Tasman/ Marlborough/West Coast
- Wellington region includes north to the Kapiti and Masterton districts

Note: Uses persons employed by geographic unit; Source: SNZ business demographics ; Coriolis analysis

MEAT – EMPLOYMENT BY REGION

Employment has grown overall over the past decade, though with strong regional variation, both up and down; Canterbury, Southland, Auckland and Waikato stand out for absolute job creation

Number of persons employed in the meat industry in New Zealand
(people; 2000-2010)



Region	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Unallocated	919	617	851	900	1,273	802	428	724	713	834	691
Northland	810	778	685	660	686	660	636	588	599	727	687
Auckland	2,250	2,290	2,480	2,690	2,840	3,010	2,920	2,750	2,690	3,010	2,960
Waikato	2,720	3,055	3,305	3,380	3,370	3,760	3,655	3,620	3,705	3,470	3,360
Bay of Plenty	960	950	1,003	950	915	960	1,005	1,070	1,045	902	852
Gisborne	18	27	92	102	165	185	202	380	278	272	372
Hawkes Bay	3,240	3,640	3,895	3,800	3,770	4,130	4,035	3,333	3,124	3,014	2,979
Taranaki	1,898	1,558	2,065	2,033	2,095	2,290	2,275	2,230	2,205	2,030	1,975
Manawatu/Wanganui	2,250	2,470	2,725	2,550	2,450	2,802	2,685	2,815	3,065	2,435	2,377
Wellington	1,145	1,065	1,035	1,040	1,065	1,070	1,050	1,055	1,053	1,045	1,093
Nel/Tas/Marl/WC	950	525	587	445	529	498	454	493	494	511	529
Canterbury	4,510	4,990	4,950	4,910	5,520	5,510	5,390	5,480	6,000	6,010	5,780
Otago	3,225	3,515	3,452	3,430	3,332	2,938	2,965	2,929	3,037	3,027	2,972
Southland	4,155	4,460	4,505	4,660	4,880	4,735	4,410	4,943	5,122	5,103	5,253

Comments

- Likely a mixture of increasing industry productivity through consolidation (fewer/larger) and changing regional activity (e.g. more dairy/less sheep)

Notes/Definitions

- Includes red meat, pork, chicken, BH&SG and all other meats
- This data aggregates meat processing and wholesaling.
- *"Unallocated" see note prior page*
- Nel/Tas/Marl/WC = Nelson/Tasman/ Marlborough/West Coast
- Wellington region includes north to the Kapiti and Masterton districts

Source: SNZ business demographics detailed industry for enterprise units; Coriolis analysis

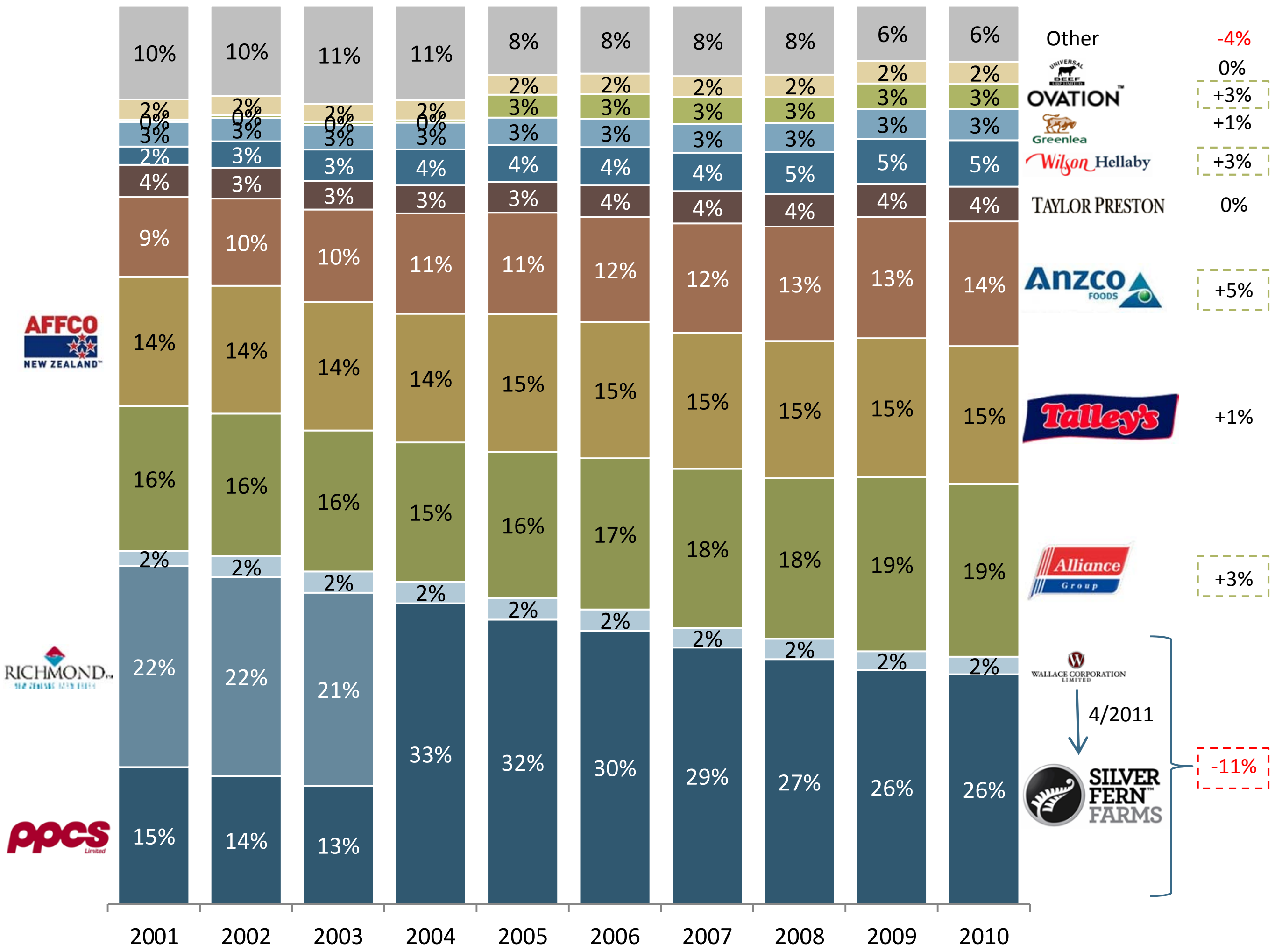
CORIOLIS

BEEF/LAMB – EXPORT SHARE

ANZCO, Alliance, Wilson Hellaby and Ovation have been the key gainers of beef/lamb processing share over the past decade; share has come from PPCS/SFF and other smaller players

New Zealand beef and lamb production market share

(% of production [see notes]; 2001-2010)



Comments

- Acquisitions and investments driving some of this change

Notes/Definitions

- Data is Coriolis from New Zealand Meat Board quota allocations for beef and lamb weighted by volume
- The data here can therefore be seen as a moving average for the three previous years
- Data available here: http://www.nzmeatboard.org/main.cfm?id=30
- Uses Total Quota Allowance (TQA) which includes Reserved Quota Allowance (RQA) rather than General Quota Allowance (GQA); RQA is minor and allows for new entrants and new products into EU market; difference is not material to data at this level of analysis

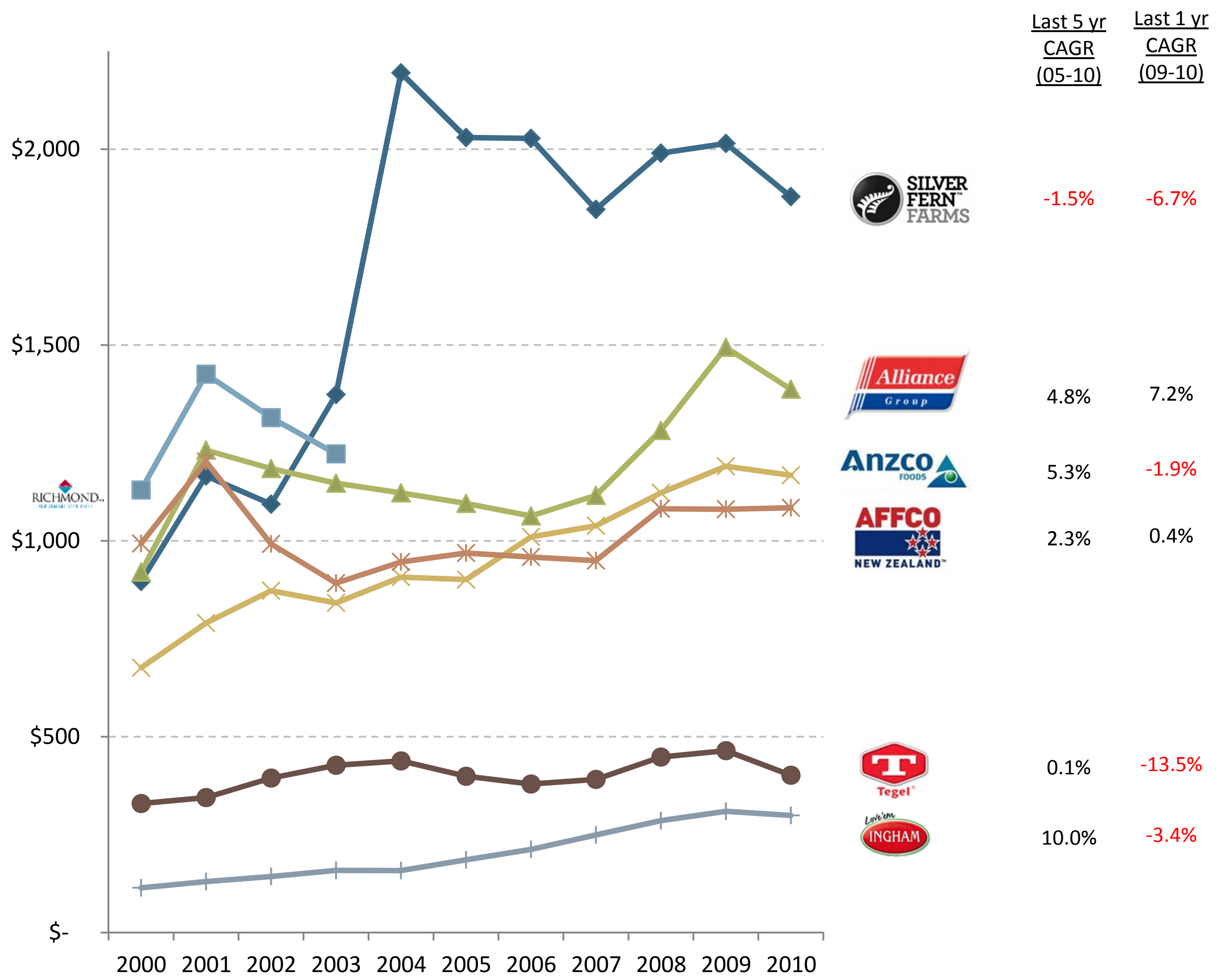
Source: New Zealand Meat Board EU Sheepmeat and Goatmeat TRQ Allocation data (http://www.nzmeatboard.org/main.cfm?id=30); Coriolis analysis

MEAT – TURNOVER OF KEY FIRMS

Turnover growth varies by firm; turnover declined for many in 2010

Turnover of select large meat industry firms

(NZ$m; 2000-2010 as available)



Comments

- Tough recent markets for the meat sector due to price competition between species and proteins
- NZ$ impact also an issue

Notes/Definitions

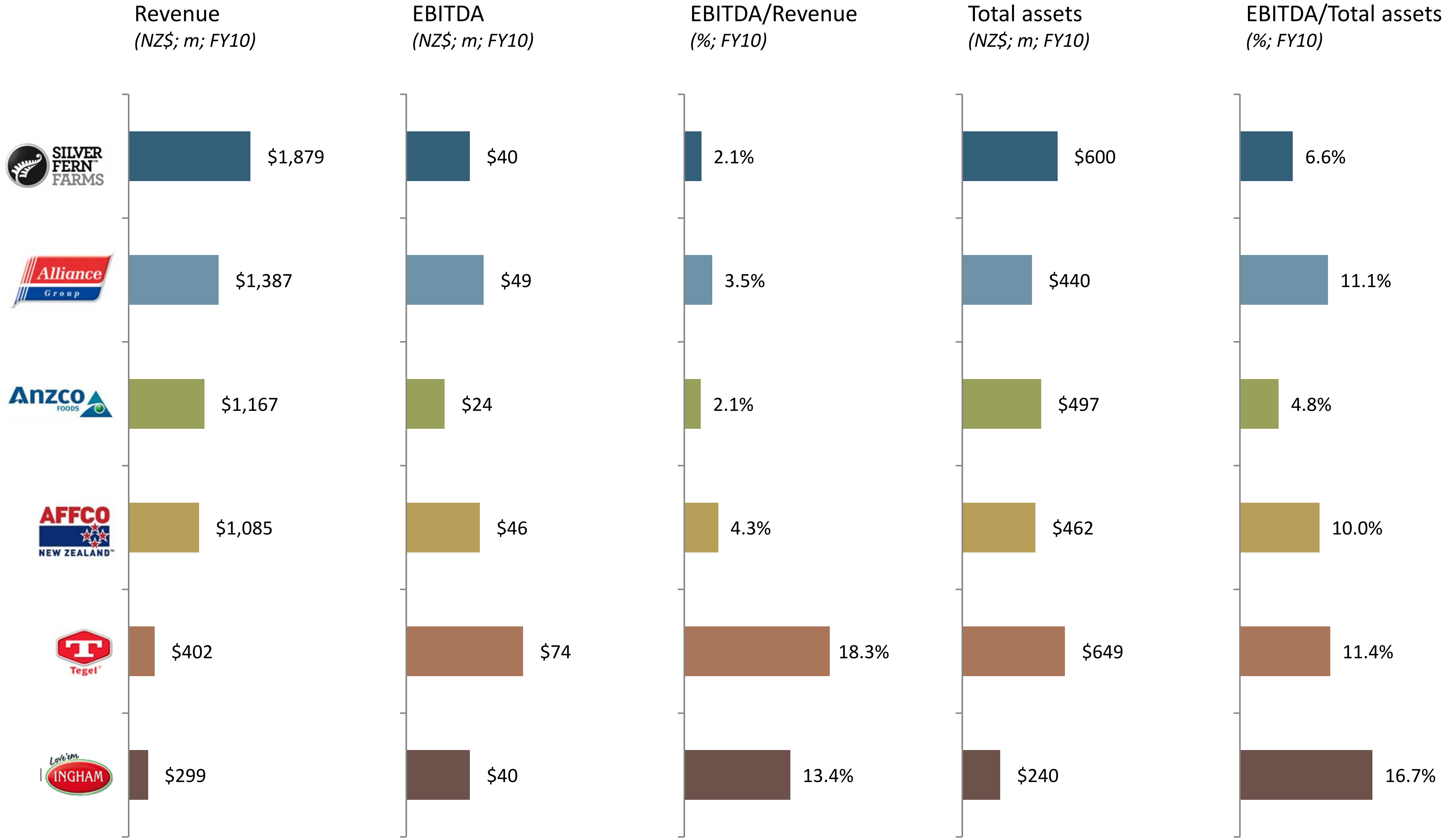
- Richmond acquired by Silver Fern Farms

Source: various companies annual financial statements (as filed with NZ Companies Office or available company website); Coriolis analysis

MEAT – FIRM PROFITABILITY BENCHMARKING

Financial performance of key firms varies

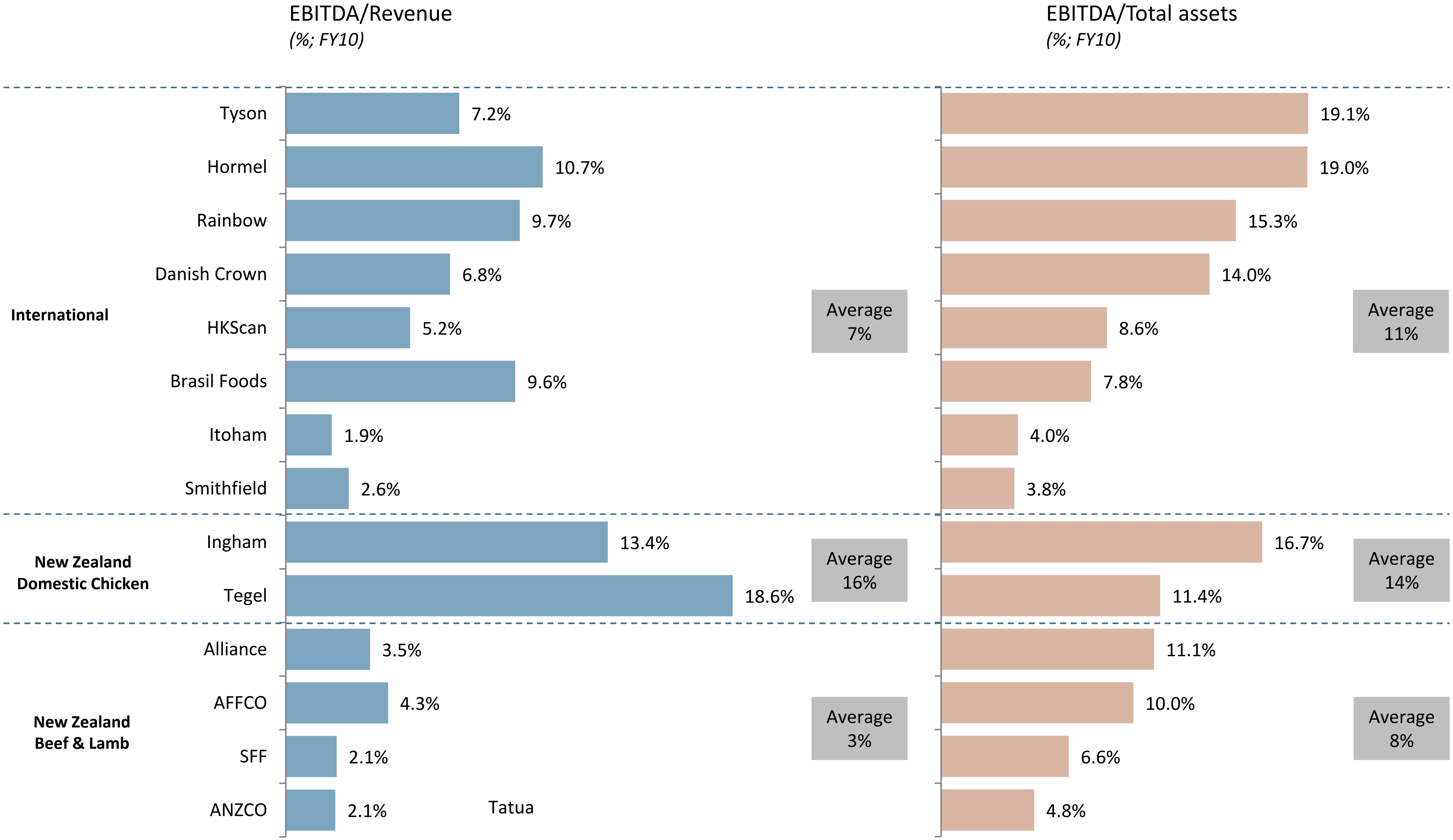
"In the last 12 months most farmers and processors should have reduced their debt to a manageable level" *Major meat processor, 2011*



Note: EBITDA is as given or calculated as OPBIT + depreciation; we are not accountants; data should be treated as directional; Source: various annual reports as published; Coriolis analysis

MEAT – FIRM PROFITABILITY BENCHMARKING

New Zealand firms perform below global peers on return on sales and return on assets except in chicken



Rainbow is a South African chicken processor; Note: EBITDA is as given or calculated as OPBIT + depreciation; we are not accountants; data should be treated as directional; firms chosen by Coriolis from past research with additions and subtractions suggested by NZ firm interviewees; Source: various annual reports as published; Coriolis analysis

MEAT – KEY FIRMS – BEEF, LAMB & VENISON

There are four firms in beef/lamb and venison processing with turnover over NZ$1b – Silver Fern Farms (SFF), Alliance, ANZCO and Talley's/AFFCO

Key firms in the New Zealand meat sector
(2010 or as available)

	Turnover[1]	% Export	Employees	Ownership	Year founded	Notes
Beef, lamb & venison						
Silver Fern Farms	$1,878.7m (2010)		5,500 (K)	New Zealand; co-operative (farmers)	1948	www.silverfernfarms.co.nz Formerly PPCS
Alliance Group	$1,387.1m (2010)	95% (AR)	5,000 (K)	New Zealand; co-operative (farmers)	1948	www. alliance.co.nz
Anzco Foods	$1,167.5m (2010)		2,500 (K)	Japan/NZ; mixed 48% Itoham (TYO: 2284) 25% Nissui (TYO: 1332) 27% NZ; private	1995	www.anzcofoods.com; www.cmp.co.nz www.riverlands.co.nz ;
Talley's / AFFCO New Zealand	$1,084.6m (2010)		2,800+ (ws)	New Zealand; private (Talley family)	1904	www.affco.co.nz; www.talleys.co.nz Originally co-op; then corporatised coop Owns Auckland Meat Processors Parent is now Talley's Food Group (100%)

1. Uses consolidated/group operating revenue; Source: various company annual reports (AR); various company websites (WS) ; Kompass (K); Kompass estimates (Ke); interviews (Ci); Coriolis analysis and estimates (Ce)

MEAT – KEY FIRMS – BEEF, LAMB & VENISON

There is also a group of other mid-large firms in beef/lamb and venison processing…

Key firms in the New Zealand meat sector

(2010 or as available)

	Turnover[1]	% Export	Employees	Ownership	Year founded	Notes
Beef, lamb & venison						
OVATION	$226m (Ke)		400 (K)	New Zealand; private (Craig Hickson[2] 64%; Signal Family; others)	1942	www.ovation.co.nz; formerly Bernard Matthews (UK) 2 lamb plants (Fielding and Gisborne)
Progressive Meats	$170m (Ke)	$550	300 (K)	New Zealand; private (Craig Hickson family 100%)	1983	No website 1 lamb plant in Hastings; packs for others (e.g. Lean Meats)
TK	$158m (Ke)		280 (K)	New Zealand; private (Craig Hickson 100%)	1992	www.tkmeats.co.nz 1 lamb/veal plant (Te Kuiti)
TAYLOR PRESTON	$135m (K)		800 (K)	New Zealand; private (Taylor, Preston & Grace families)	1991	www.taylorpreston.co.nz Former Wellington city abattoir ; purchased 1991
BlueSkyMeats New Zealand farmed, Southern fresh / HORIZON	$ 85.1m (2010)		360 (K)	New Zealand; public (Lowe family 17%; O'Donnell family 14%; others)		www.bluesky.co.nz
Greenlea	$180m (Ce)		N/A	New Zealand; private (Egan family)	1982	www.greenlea.co.nz Founder started as butcher in Gisborne 2 plants in Waikato (Morrinsville & Hamilton)
UNIVERSAL BEEF UBP LIMITED	$135m (2010)		300 (K)	Virgin Islands; private (Lin family)	1995	No website Changed hands 2006
Lean Meats Ltd	$113m (Ci)		200 (K)	New Zealand; private (Atkins, Hickson, Guscott)	1988	www.leanmeats.co.nz
Crusader Meats	$90m (Ke)		160 (K)	New Zealand; private (Ramsey family)	1992	www.crusadermeats.co.nz

1. Uses consolidated/Group; 2. Hickson family also owns part of a meat processing plant in Wales; 3. some ownership via Venison Packers is itself 50% owned by Hickson;
Source: various company annual reports (AR); various company websites (WS) ; Kompass (K); Kompass estimates (Ke) interviews (Ci); Coriolis analysis and estimates (Ce)

MEAT – KEY FIRMS – BEEF, LAMB & VENISON

… continued

Key firms in the New Zealand meat sector

(2010 or as available)

	Turnover[1]	% Export	Employees	Ownership	Year founded	Notes
Beef, lamb & venison						
Wilson Hellaby AMP Auckland Meat Processors	N/A		N/A	New Zealand; private (Hellaby family; Symington family)	1995	wilsonhellaby.co.nz/ amp.capitalrecruit.net/about-us.asp Sheep, beef, venison, goat and pork
Prime Range Meats Ltd	$29.5m (Ke)		100 (K)	New Zealand; private (Forde & Tulloch families)	1992	www.primerange.co.nz the largest multi species plant in NZ, killing over 200,000 Cattle, 600,000 Sheep and Lamb, and 150,000 Pigs per annum. The kill also includes venison and goats.
Davmet New Zealand Limited	N/A		N/A	New Zealand; private (Francis; McGarvie)	1988	http://www.davmet.co.nz/
Verkerks A World of Taste Ashburton Meat	$79m (Ke)		140 (K)	New Zealand; private (Aalt Verkerk 100%)	1956	www.verkerks.co.nz One factory (Christchurch); also owns Ashburton Meat Processors

1. Uses consolidated/Group; Source: various company annual reports (AR); various company websites (WS) ; Kompass (K); Kompass estimates (Ke); Interviews (Ci); Coriolis analysis and estimates (Ce)

MEAT – KEY FIRMS – POULTRY

The New Zealand poultry sector is highly consolidated across three large firms – Tegel, Ingham's and Brink's – and two smaller ones

Key firms in the New Zealand poultry sector

(2010 or as available)

	Turnover[1]	% Export	Employees	Ownership	Year founded	Notes
Poultry						
Tegel	$401m (2010)		1,700 (ws)	Singapore; private equity (Affinity Private Equity)	1875/ 1966	www.tegel.co.nz Originally stock feed manufacturer; moved into chicken in 60's; historically owned by Goodman Fielder and Heinz Recently sold by PEP (private equity) to Affinity (PE) 3 processing sites; fully integrated
Love'em INGHAM	$299.2m (2010)		900 (K)	Australia; private (Ingham family)	1990	www.inghams.co.nz
Brink's	$217m (09; Ce)		400 (K)	New Zealand; private (van den Brink family)	1950	www.brinks.co.nz Tegel attempted purchase of Brinks rejected by CCNZ
Turk's	$80m (Ce)		150 (K)	New Zealand; private (Turk family)	1968	www.turkspoultry.com Five locations; eggs & broilers; one plant (Foxton); feed mill; use contract growers
SANTA ROSA	$62m (Ci)		110 (K)	New Zealand; private (Dunn; others)	1950	www.santarosa.co.nz; parent is Santano Holdings Also owns Asado Food Solutions; one factory (Christchurch)
ProTen	$16.0m (Au) (ws)	100%	N/A	New Zealand; public; unlisted	2001	Consolidated broiler market in NZ; moved into AU and sold all NZ operations

Others (est. under $10m)

Heuvels · Crozier's Turkeys · Canter Valley · Aviagen Group

1. Uses consolidated/Group; Source: various company annual reports (AR); various company websites (WS) ; Kompass (K); interviews (Ci); Coriolis analysis and estimates (Ce)

MEAT – KEY FIRMS – PORK/PRODUCTS

The New Zealand pork and processed pork (bacon, ham and smallgoods) sector is comprised of two $100m+ firms (Hellers and Hutton's) and a range of mid-sized firms…

Key firms in the New Zealand meat sector
(2010 or as available)

	Turnover	Key brands	Employees	Ownership	Year founded	Notes
Pork, bacon, ham & smallgoods						
Hellers	$158m (Ci)	Hellers Peach Ryans Sensational Apex Cotswold's	280	New Zealand; private equity (Rangatira 50%; Todd Heller 30%; John Harris 20%)	1985	www.hellers.co.nz; www.rangatira.co.nz One factory (Kaiapoi); merged with Tasty Bacon (date) Purchased Vienna Sensational (date) 240t sausage/week capacity
Hutton's	~$150m (10; Ce) NZ group $1,114m (10)	Kiwi Hutton's Brooks Milano Sizzlers Tenderkist	3,000 (NZ group)	Australia; listed (Goodman Fielder)	TBD	goodmanfielder.com.au/index.php?q=node/65 One factory (Hamilton) Long and varied ownership history (Brierley; Mainland; ANZCO; etc); uncommitted owner; historically rumoured PEP for merger with Tegel
Premier	$68m (Ci)	Premier Beehive Freedom Farms Medallion	120	New Zealand; private equity (Sentinel Equities (Barry Reis) Bancorp Strategic Investments)	1991	www.premierebacon.co.nz Factory expansion 06 and 07
Verkerks	$79m (Ci)	Verkerks Pieter's	140	New Zealand; private (Aalt Verkerk 100%)	1956	www.verkerks.co.nz One factory (Christchurch); also owns Ashburton Meat Processors
FreshPork	$73m (Ci)	FreshPork	130	New Zealand; private (Glass family)	1985	www.freshporkfarmers.co.nz/
Fresh Meats NZ	$23m (Ci)	None	80	New Zealand; private (unclear in NZCO)	1989	www.freshmeatsnz.co.nz Sheep and pigs; previously Napier Abattoir

1. Uses consolidated; Source: various company annual reports (AR); various company websites (ws) ; Kompass (K); interviews (Ci); Coriolis analysis and estimates (Ce)

MEAT – KEY FIRMS – PORK/PRODUCTS

… continued

Key firms in the New Zealand meat sector
(2010 or as available)

	Turnover	Key brands	Employees	Ownership	Year founded	Notes
Pork, bacon, ham & smallgoods						
Goulds	$22m (09e)	Gould's	100	New Zealand; private (Gould family; others)		www.goulds.co.nz One factory (Lower Hutt)
Colonial	$20m (09e)	Colonial Luvit	N/A	New Zealand; private (Robert Corbett 100%)		www.colonialbacon.co.nz One factory (Manukau)
Leonard's	$13m (09e)	Leonard's	60	New Zealand; private (Leonard 50%; Kornman 50%)		www.leonards.co.nz Parent is Father's Holdings

Others (est. under $10m)

Hobson's Choice; Henderson's; NZ Deli Selected Meats; Swiss Deli; little boys

1. Uses consolidated; Source: various company annual reports (AR); various company websites (ws) ; Kompass (K); interviews (Ci); Coriolis analysis and estimates (Ce)

MEAT – TRANSACTIONS

The NZ meat industry is consolidating…

Recent major meat industry transactions
(1997-2011)

Date	Acquirer	Target	Price	Details
Sept 2011	Silver Fern Farms	Frasertown sheep plant	N/A	- Hawkes Bay single chain sheep processing plant, can process about 3,750 sheep/week - Central location will reduce transport costs. 40 employees
Apr 2011	Silver Fern Farms	Wallace Corp meat processing plant	N/A	- Purchased plant located at Waitoa ; processes beef and bobby calves; (along with Paeroa plant services the Waikato) Rationalisation needed to ensure the long term sustainability of the red meat processing sector
Aug 2010	Talleys Group	AFFCO Holdings	37c/share	- Takeover of AFFCO after
2008	Alliance	Levin Meats from Ovation	$15m	- Doubles sheep and lamb capacity in North Island; first NI beef chain; ongoing upgrades
2008	AFFCO/Dairy Trust	Open Country Cheese	Valuation $176m	- AFFCO subsidiary Dairy Trust announces takeover
Sep 2006	Lean Meats	ABCO Oamaru	N/A	- Lean Meats purchased the assets of ABCO Oamaru (in receivership)
Aug 2006	ANZCO	Rakaia River Meats	N/A	- To complement its existing lamb processing investments and to better service CMP producers
Jun 2006	Integrated Foods	Fresh Meats Napier	N/A	- Lamb processing plant
Jun 2006	Prime Hill International (Virgin Islands; US owners)	Universal Beef Packers (UBP Ltd.) from Skybright Intl. (Taiwan)	N/A	- Appears to be inter-family sales as many buyers and sellers have same last name - Domicile moves from Taiwan to Virgin Islands
May 2006	Talleys Group	Shareholding to 50.01% of AFFCO	N/A	- Increases shareholding to 50.01% after initial investment in 2001
Feb 2005	Bernard Matthews	50% of Lamb Packers' Fielding and Progressive Gisborne	N/A	- Leading turkey processor in UK market buys into NZ lab industry; later exits
2005	AFFCO	Dairy Meats	$31m	- At time of acquisition Dairy Meats was ~2% of NZ beef and veal
2004	PPCS (SFF)	Richmond Ltd	N/A	- Acquisition of Richmond a meat processor and distributor (~27% of beef & ~16% of lamb exports)
Jan 2002	Progressive	Te Kuiti Meat Processors	N/A	- From Allied Farmers
Dec 2001	Wallace Corporation	Coromandel Meat Processors	N/A	- Consortium of Richmond, AFFCO and Wilson Hellaby tried to buy and close - Acquired by Wallace from struggling Masterpiece Holdings - plant employs around 130 staff slaughtering sheep, goats, pigs and beef
2001	Canterbury Meat Packers	Phoenix Meat Company Limited	N/A	- Beef business (~1.5% of NZ beef exports); increasing premium and manufacturing beef capabilities
Aug 2000	PPCS	Mair Venison	N/A	

Source: various companies annual financial statements (as filed with NZ Companies Office or available company website); various press releases and news articles; Coriolis analysis

MEAT – TRANSACTIONS

… continued

Recent major meat industry transactions
(1997-2011)

Date	Acquirer	Target	Price	Details
1999	RIchmond	Waitotara Meat Company	N/A	- Wanganui lamb processing and cutting business; $100m turnover; to gain scale in lamb processing
Jun 1998	Wilson Foods	merged with Hellaby & Proctor Meat	N/A	- Wilson Foods Ltd merged with Hellaby & Proctor Meat Ltd, a manufacturer and producer of meats and meat products. Upon completion, the new entity was named Wilson Hellaby Ltd.
Oct 1997	Wilson Foods & Hellaby Proctor	Share in Auckland Meat Processors owned by Benmore	N/A	- Financially troubled firm into liquidation; receivers sell share in AMP to other shareholders
July 1997	Greenlea Meats	Waikato Beef Processors from Benmore Products	N/A	- Financially troubled parent sells Waikato plant
Nov 1997	Canterbury Meat Packers	Riverlands Blenheim operation	N/A	- Primarily for manufacturing beef, has afforded significant new opportunities in beef and co-products processing
Poultry				
Apr 2011 OIA approval	Affinity Equity	Tegel Foods from Pacific Equity Partners (PEP) and others	~$600m (article)	- Fully integrated breeding, hatching, processing, marketing firm with 52% of NZ chicken market - Industry is three players; no chicken imports allowed into New Zealand
2008	Avigen	Ross bird breeding program from Tegel	N/A	- www.aviagen.com - Acquired Tegel Ross breeding in 08 - Tegel on 20 year contract
	Tegel	Top Hat	N/A	
	Tegel	Mad Butcher sausage operation	N/A	
2003-2006	ProTen	Greenfields and acquisitions in AU	N/A	- ProTen moved into the AU broiler market; sold all NZ assets; includes 124 farming sheds over 6 farms . - Long term contract with Baiada #1 chicken company in AU to supply chickens under the Steggles, Lilydale brands
Bacon, Ham & Smallgoods				
N/A	Hellers	Tasty Bacon	N/A	
N/A	Hellers	Vienna Sensational Foods	N/A	

Source: various companies annual financial statements (as filed with NZ Companies Office or available company website); various press releases and news articles; Coriolis analysis

MEAT – ACTIVITY

There has been a move towards developing larger and more modern plants to increase efficiency

Recent major meat industry activity/investments
(1992-2011)

Date	Company	Activity	Investment	Details
Apr 2011	Alliance	Upgrade Mataura plant	$13m	$13m upgrade to increase cattle processing capacity from 34 animals per hour to 75
Apr 2011	Silver Fern Farms	New beef plant – Te Aroha	$10's of m.	Rebuilding fire damaged plant; will include latest technologies; traceability, yield collection systems etc.
2011	Silver Fern Farms	JV Vion	N/A	JV with Vion in Wales ; manufacturing plant for case ready meat for UK and EU
2010	Silver Fern Farms	Closes Brooks plant	N/A	Closes Brooks plant in UK (meat plant purchased in 1998 – inefficiencies with single species and low volumes
2009	Alliance	Upgrade Levin plant	N/A	Ongoing upgrades to plant including; rendering waste heat evaporator
2008	Alliance	Sector Consolidation	N/A	Proposed merger of the Big 5 meat companies into one entity to improve pricing. Entity would be 60% owned by farmers and have ~$5b in turnover
2008	SFF PGG	Proposed partnership	N/A	Proposed partnership between SFF and PGG; not completed due to lack of funding by PGG
2008	A. Verkerk	Plant closure (up to 22 jobs lost)	N/A	Smallgoods manufacturer A. Verkerk closes Christchurch beef slaughterhouse and consolidates production to Ashburton facility
2008	A. Verkerk	Plant upgrade	N/A	Verkerks abattoir in Ashburton will add beef and pork processing to its work to provide meat for the smallgoods
2008	Open Country Cheese (AFFCO)	Plant investment	N/A	Construction of dairy processing facilities in Invercargill
2007	AFFCO	Formed Dairy Trust Ltd	N/A	For the purposes of investing in dairy related businesses, later renamed Open Country Dairy Ltd.
2006	Alliance	Plant upgrade	N/A	Major upgrade to the Smithfield Plant
2005	AFFCO	refurbished Horotiu plant	$18m	Plant was rebuilt at a cost of NZ$18m; Horotiu is one of the largest beef slaughter and processing facilities in New Zealand.
2005	Canterbury Meat Packers	New plant - Rangitikei	N/A	Chilled lamb processing facility for lower north island
2005	Wallace Meats	Plant upgrade	"significant"	To enable the processing of in excess of 150,000 bobby calves
2005	AFFCO	South Pacific Meats plant built – Southland	N/A	Designed and built with ultra modern meat processing gear; lamb Joint ownership with Talleys Fisheries
May 2004	ANZCO/Itoham	Plant upgrade	$20m +70 new jobs	50/50 JV by Itoham and ANZCO; new company is Itoham NZ; will manufacture 20,000t+ of processed meat products, including beef patties, salamis, beef jerky and sausages (exporting back to Japan) Convert old Affco Waitara freezing works into state of the art meat processing plant
1992	AFFCO	Rebuilt plant	N/A	AFFCO Manawatu completely rebuilt; specialising in beef processing and is a major supplier of chilled product to Japan

Source: various companies annual financial statements (as filed with NZ Companies Office or available company website); various press releases and news articles; Coriolis analysis

MEAT – THEMES

A major focus of the meat industry is increased efficiency to ensure profitability and competitiveness

Identified firm level activity or investment themes – cost savings
(2010)

Theme	Details	Examples
Cost savings		
Increased efficiency Genomics	Targeting overall improvement in throughput per labour hour Genomics	- "Domestic competitive activity has intensified and although all companies will target initiatives to increase efficiencies, lower costs and advance market revenues, weaker players may struggle to compete." *Alliance Annual Report, 2006* - Fund for Ovine Automation - Genomics research, to increase yields, birth rates,
Plant closures/ consolidation	Plant consolidation to increase efficiency	- Since 2007 SFF has closed 8 processing plants or chains, closed UK plant in 2010 - Smallgoods manufacturer A. Verkerk closes Christchurch beef slaughterhouse and consolidates production to Ashburton facility
Consolidation		
Efficiency gains	Proposed industry wide	- "SFF and Alliance will merge in the future. There is no pot of gold, just more size and grunt." *large company, 2011* - "Consolidation was inevitable, but would happen over time. The present structure was established when national flock numbers were 70 million. Now they were at 32m." *David Carter, Minister of Agriculture*
Strategic Alliances		
Marketing Collaborations	Joint marketing efforts Innovation and growth	- The Wallace Corporation (Waitoa) formed a partnership with Te Kuiti Meat Processors to export nearly 500 tonnes of chilled sheep and beef worth more than $300 million to a high-end United Arab Emirates supermarket chain Spinneys - Alliance, SFF, CMP, small Au interest are partners in "New Zealand Lamb Company" a JV into North America - SFF, PGG Wrightson, Land Corp PGP plate to pasture collaboration

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THEME – CONSOLIDATION

Many attempts have been made, to encourage mergers in the NZ meat industry

- The Meat Industry Restructuring Group (MIRG), a group of South Canterbury farmers, first raised the idea of a merger between Alliance and PPCS in August 2006 due to "… weak selling by NZ meat companies servicing the EU wholesale trade triggered the slump in lamp prices, John Gregan and his colleagues believe. Meanwhile, the schedule crash has been due to early-season procurement battles and the ability of European bulk buyers to play the companies off against one another." *Farmers Weekly, August 2006*

- "Privately-owned ANZCO and NZX-listed AFFCO are the keys to the establishment of a dominant meat company able to deliver higher export market returns to New Zealand sheep and beef farmers. Between them, they have about 18% of the crucial sheepmeat market, and at least one of them will have to sign up to the concept plan floated by Alliance Group if it is to reach the target figure of 80% of the country's livestock supply. Big co-operatives Alliance Group and PPCS have about a 56%-57% market share between them and will provide the base of the new entity if it proceeds." *Farmers Weekly, Feb 2008*

- "Merger overtures by Silver Fern Farms to fellow meat co-operative Alliance have been rejected by Alliance's board and Silver Fern is appealing directly to shareholders in advertisements placed in newspapers." *October 2010*

- "Industry consolidation could begin with more co-operation in international markets." *David Carter, Agriculture Minister, Oct 2010*

- "Joint efforts are now under way towards better coordination of the meat industry. SFF, NZ's biggest meat processor, has "partnered with the largest rural services firm PGGW and State-owned farmer Landcorp" in order to try and turn round the fortunes of the red meat sector." *Press, August 2010*

-

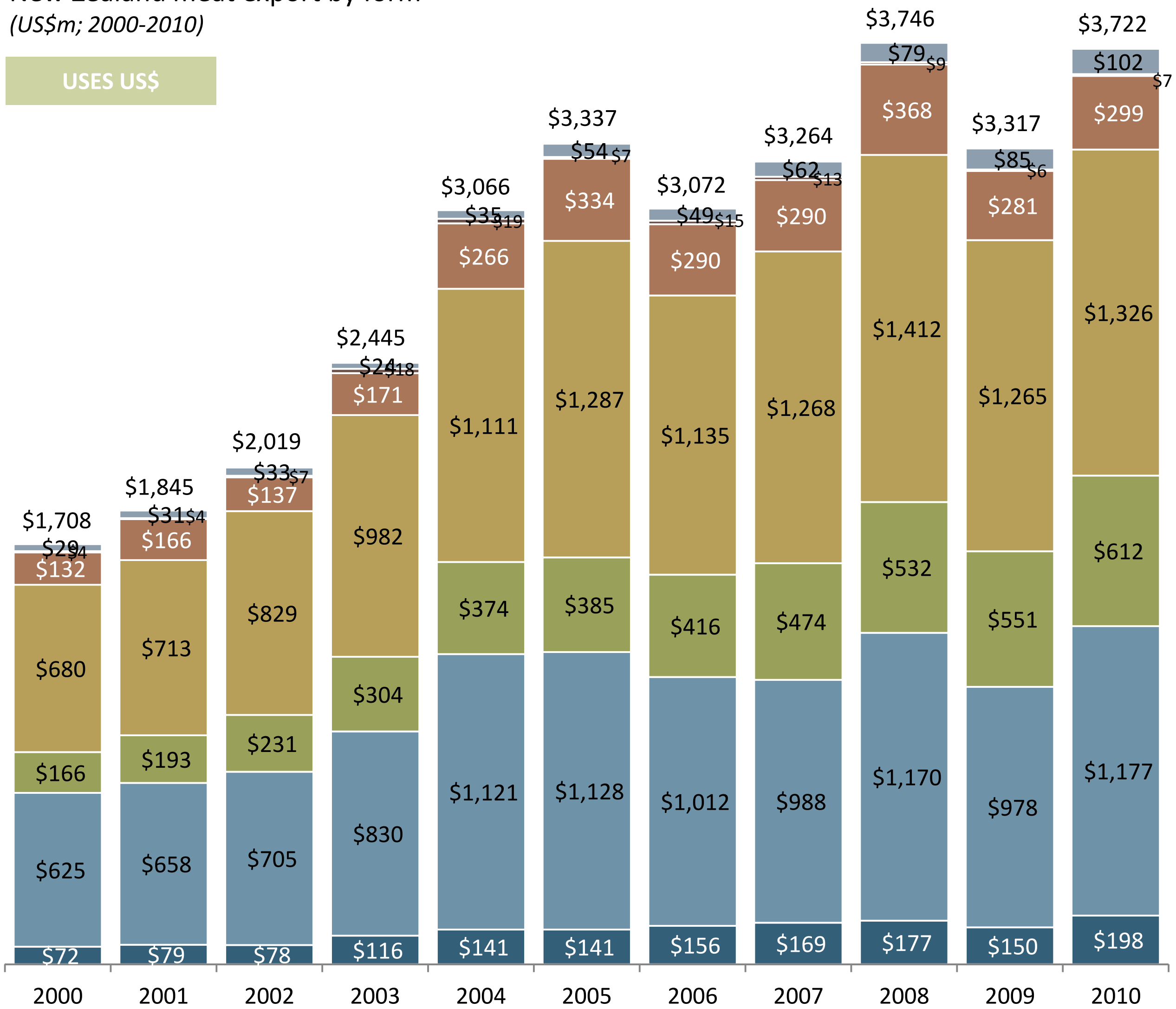
- "From Silver Fern Farms' perspective the purchase [of Wallace Meats] makes total sense. It has been long recognised that industry rationalisation is required to ensure the sustainability of the red meat processing sector over the long term. Our plan of action demonstrates the ability of commercial entities to make commercial investment decisions with confidence in the sector" *Keith Cooper, Chief Executive, Silver Fern Farms, April 2011*

MEAT – EXPORTS BY TYPE

New Zealand meat exports have achieved growth driven by chilled beef and lamb; frozen beef also continues to grow in total dollars

New Zealand meat export by form
(US$m; 2000-2010)

USES US$



	10 Year CAGR	10 Year Absolute	Last Year CAGR	Last Year Absolute
TOTAL	8%	+$2,014m	12%	+$405m
Proc. meat	14%	+$74m	21%	$18m
Other	5%	+$3m	15%	+$1m
Offal	9%	+$167m	7%	+$18m
S/L, frozen	7%	+$645m	5%	+$60m
S/L, chilled	14%	+$446m	11%	+$61m
Beef, frozen	7%	+$552m	20%	+$199m
Beef, chilled	11%	+$127m	32%	+$48m

S/L = Sheep/Lamb; Source: UN Comtrade database; Coriolis analysis

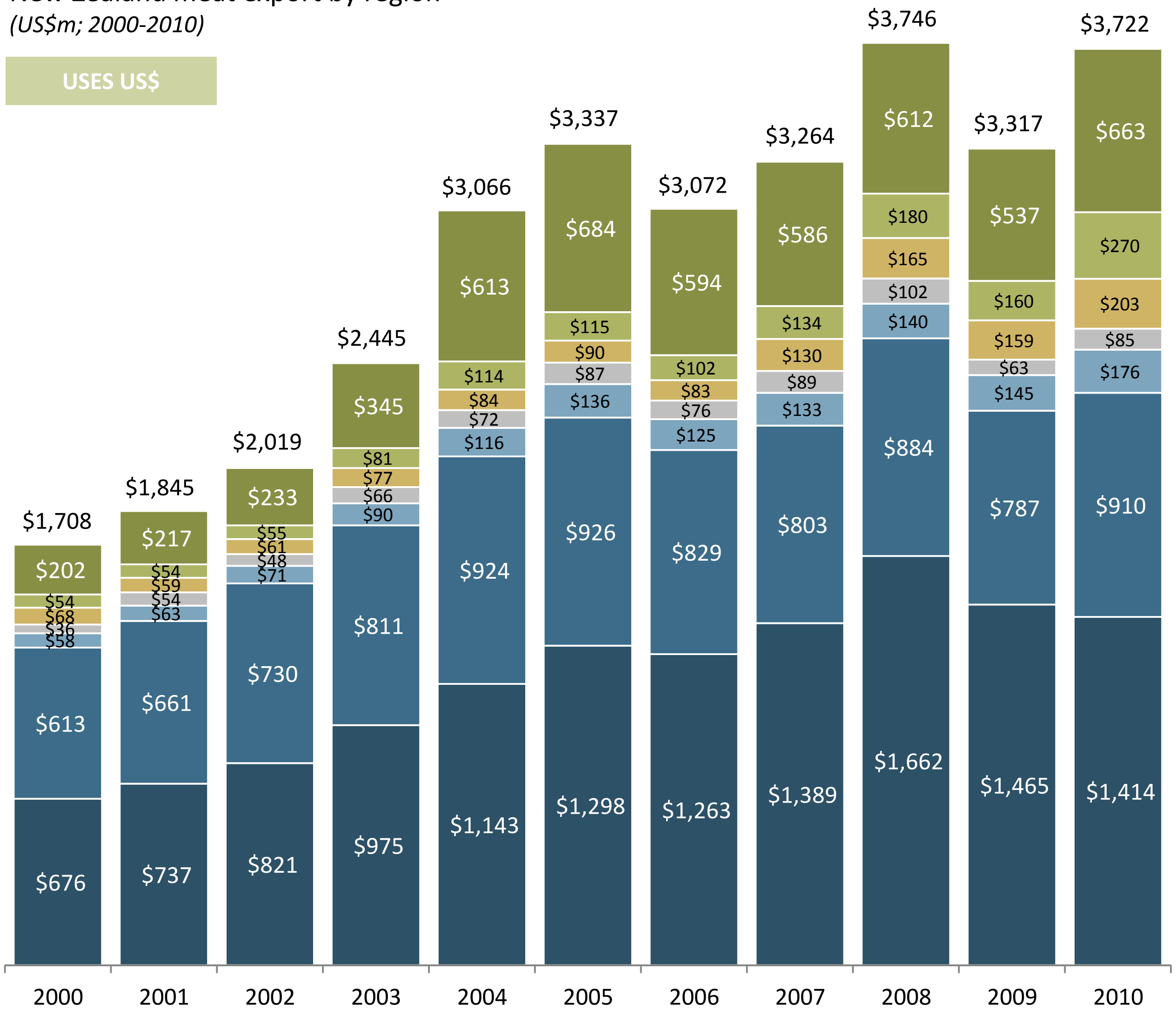
CORIOLIS

MEAT – EXPORTS BY REGION

New Zealand meat exports have achieved growth driven by developing markets, particularly in Asia

New Zealand meat export by region

(US$m; 2000-2010)



	10 Year		Last Year	
	CAGR	Absolute	CAGR	Absolute
TOTAL	8%	+$2,014m	12%	+$405m
E Asia	13%	+$461m	24%	+$127m
SE Asia	17%	+$216m	68%	+$110m
NA/ME/CA	12%	+$135m	27%	+$43m
Other	9%	+$49m	35%	+$22m
Australia/PI	12%	+$118m	21%	+$31m
N. America	4%	+$297m	16%	+$123m
Europe	8%	+$738m	-3%	-$50m

Source: UN Comtrade database; Coriolis analysis

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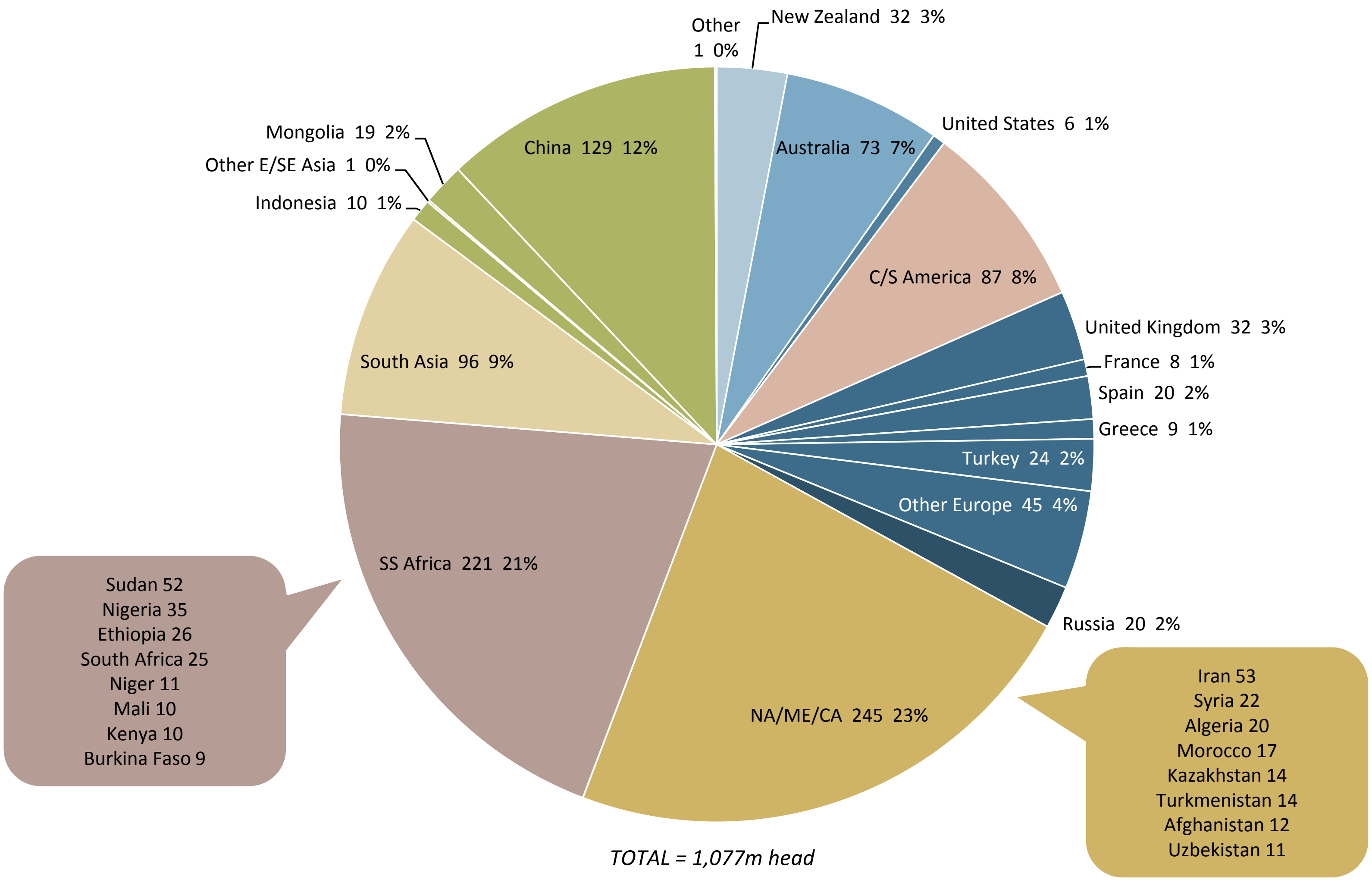
CORIOLIS

GLOBAL FLOCK

New Zealand is a relatively minor shepherd in the global scene, accounting for 3% of the global flock; sheep are typically raised in arid areas (where they compete with goats)

Global sheep flock by country/region
(head; m; % of head; 2009)



Source: UN FAO AgStat database ; Coriolis analysis

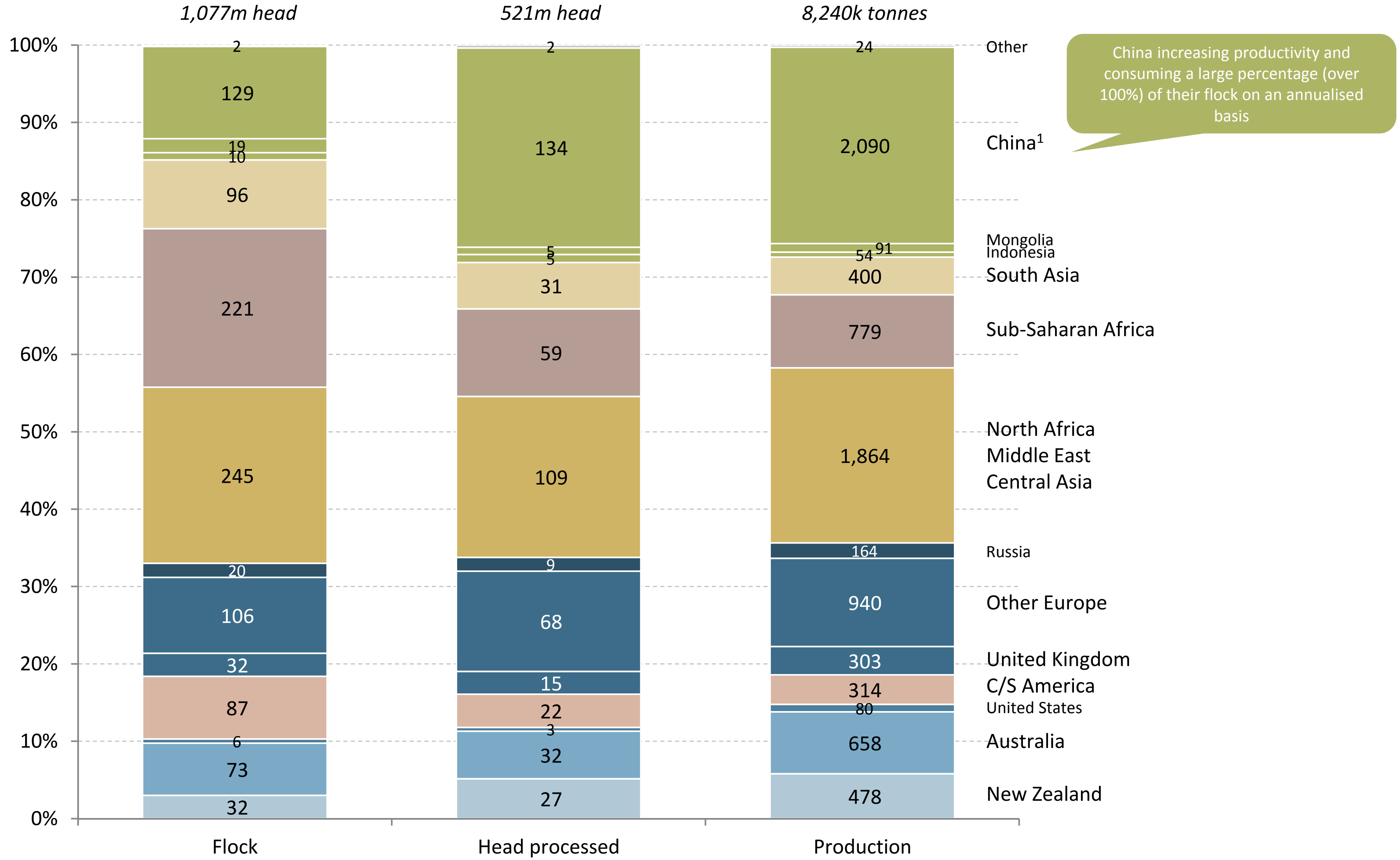
CORIOLIS

GLOBAL FLOCK TO TONNES

As New Zealand has more efficient farmers, it over-performs in meat production relative to flock size

Global sheep flock by country/region

(head; m; % of head; 2009)

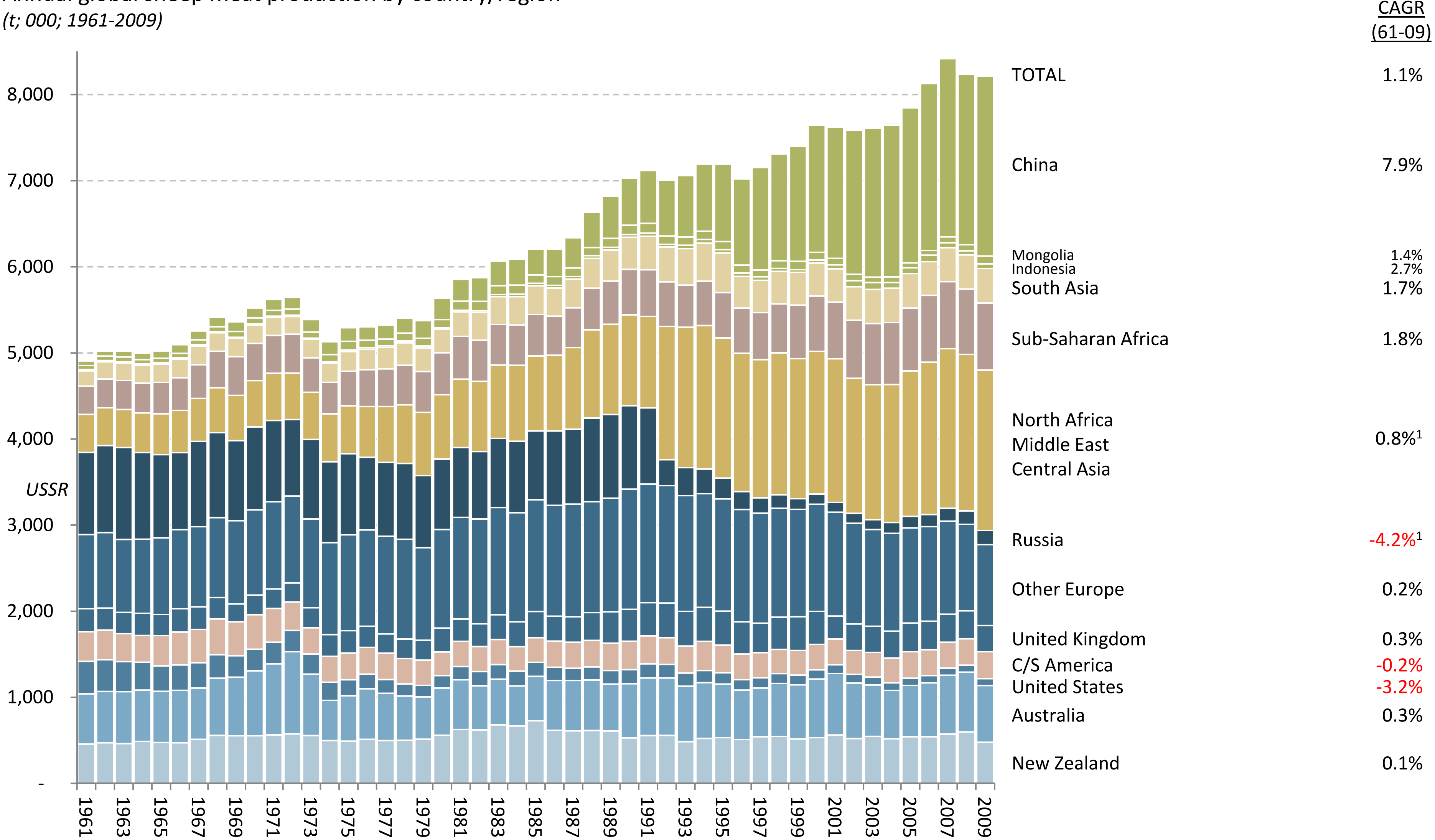


1. China data as reported FAO; "flock" is point in time inventory where as "head processed" is annual aggregate; Source: UN FAO AgStat database ; Coriolis analysis

GLOBAL SHEEP MEAT PRODUCTION

Sheep meat production is growing strongly in China, achieving some growth through the arid band of Africa/Eur-Asia *(areas without water)* and flat to down elsewhere *(areas with water)*

Annual global sheep meat production by country/region
(t; 000; 1961-2009)



1. Uses 1993-2009 to eliminate USSR effect; Source: UN FAO AgStat data; Coriolis analysis

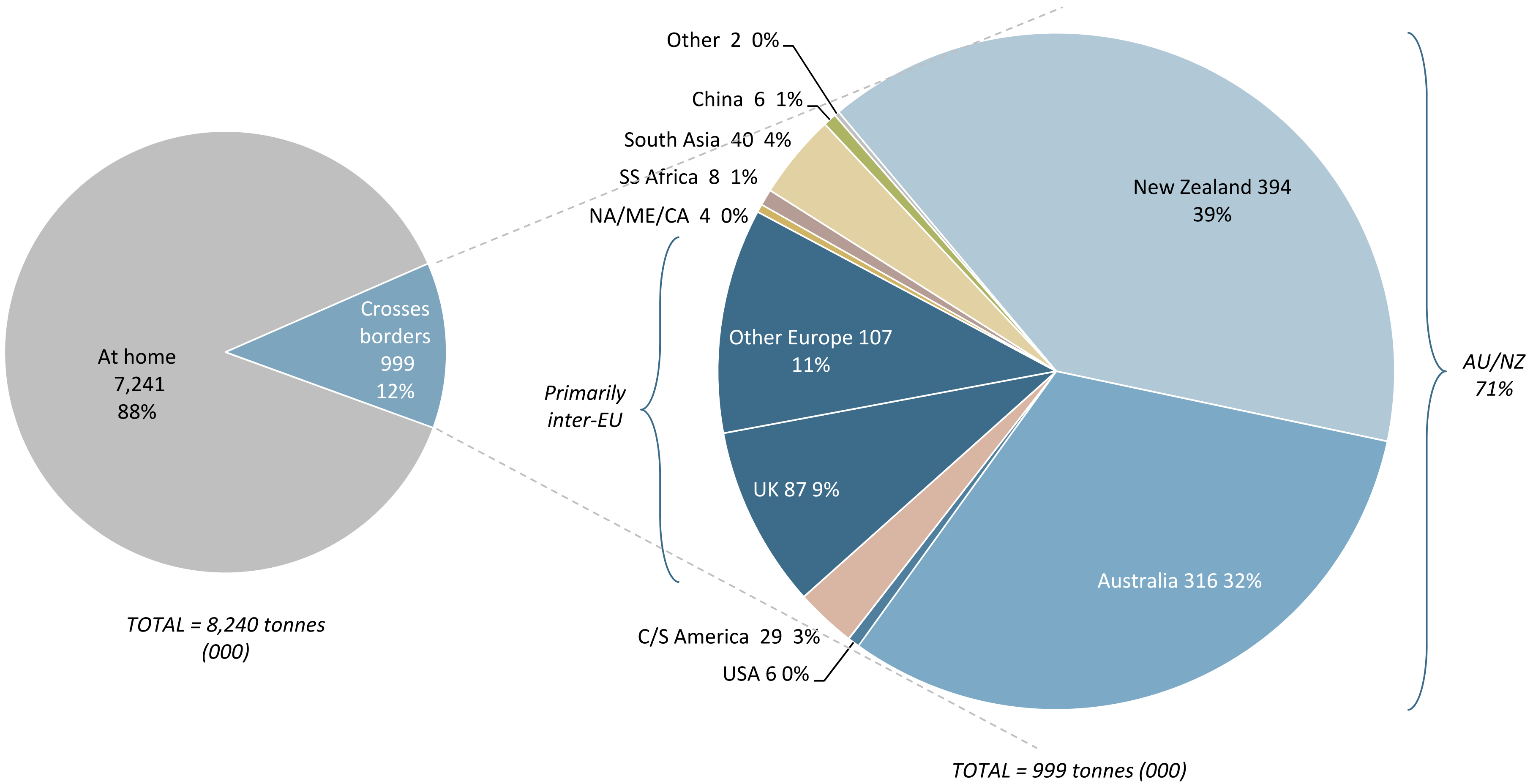
CORIOLIS

GLOBAL SHEEP MEAT EXPORT VOLUMES

Most (88%) sheep meat is consumed in the producing country, little (12%) crosses borders; New Zealand and Australia account for more than two thirds (71%) of global lamb exports

Global sheep meat by location of consumption
(t; 000; 2008/09[1])

Global sheep meat exports by key countries/regions
(t; 000; 2008)



1. Exports uses 2008 data as 2009 not available for all countries; Note: Some amount of double counting inseparable in data; Source: UN FAO AgStat data; Coriolis analysis

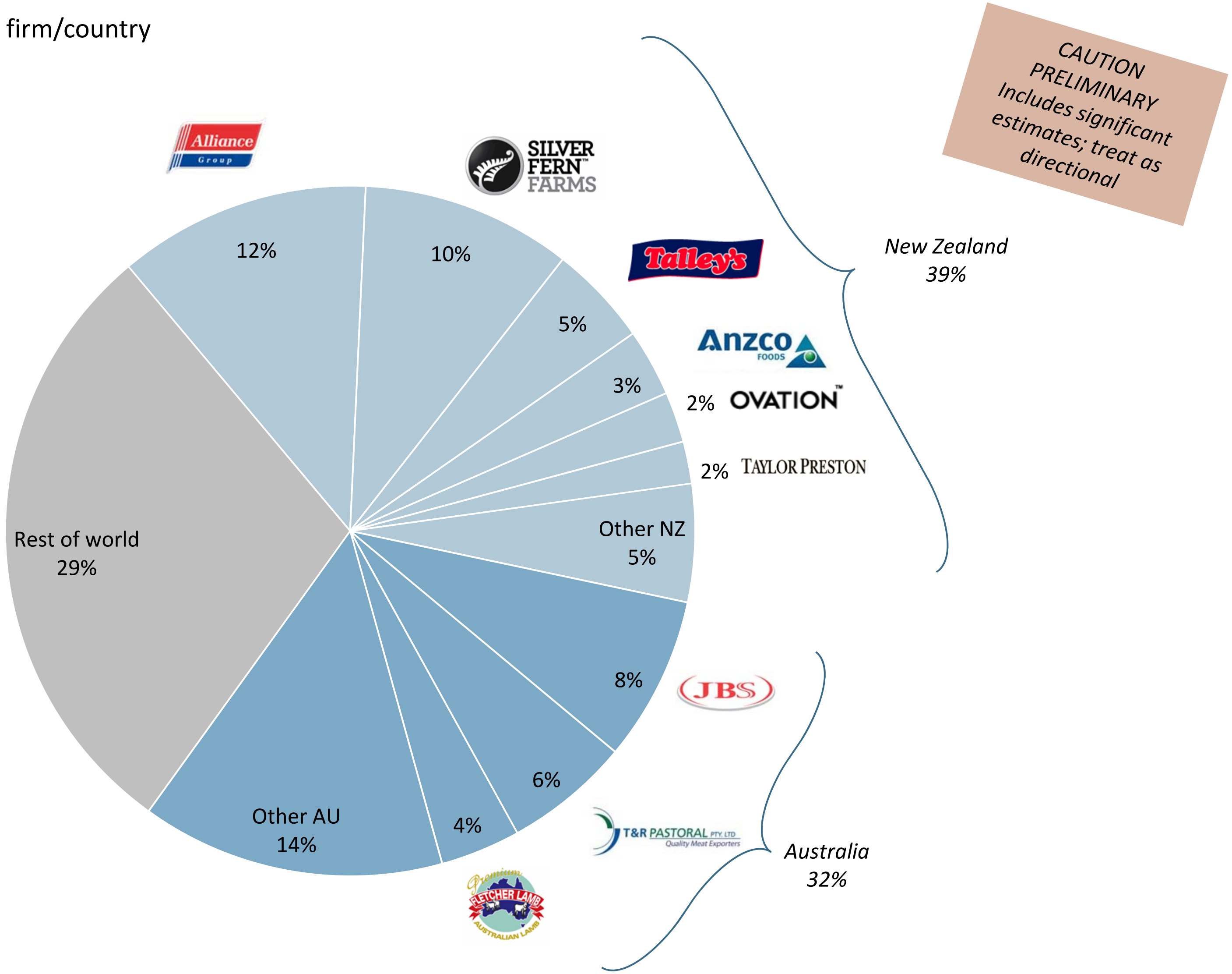
GLOBAL LAMB EXPORT SHARE

The global lamb export trade is relatively consolidated; however trans-Tasman integration has yet to occur

Estimated global lamb export share by key firm/country

(% of volume; 2007-2009 average)

The logical implied strategy is a NZ mega-merger followed by acquisitions in Australia to build an entity with strong scale

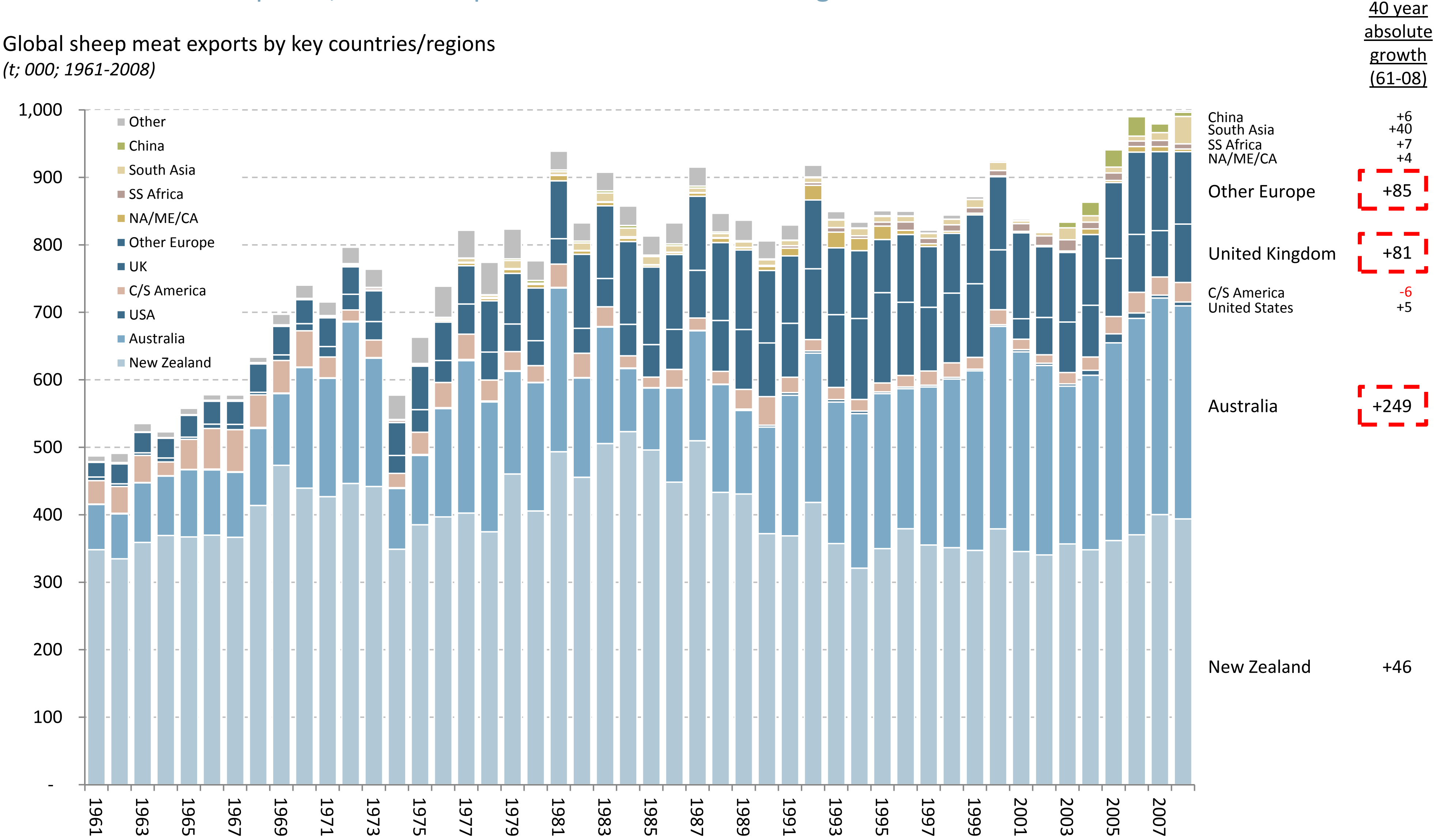


Source: UN FAO AgStat; New Zealand Meat Board EU Sheepmeat and Goatmeat TRQ Allocation data (http://www.nzmeatboard.org/main.cfm?id=30); Feedback Top 25 (AU); various company websites; various company press releases; various company presentations; Coriolis analysis and estimates

GLOBAL SHEEP MEAT EXPORT VOLUMES

The global sheep meat export trade appears relatively stable; Australia has been the major long term mover in the Southern Hemisphere; inter-European trade is also increasing

Global sheep meat exports by key countries/regions
(t; 000; 1961-2008)



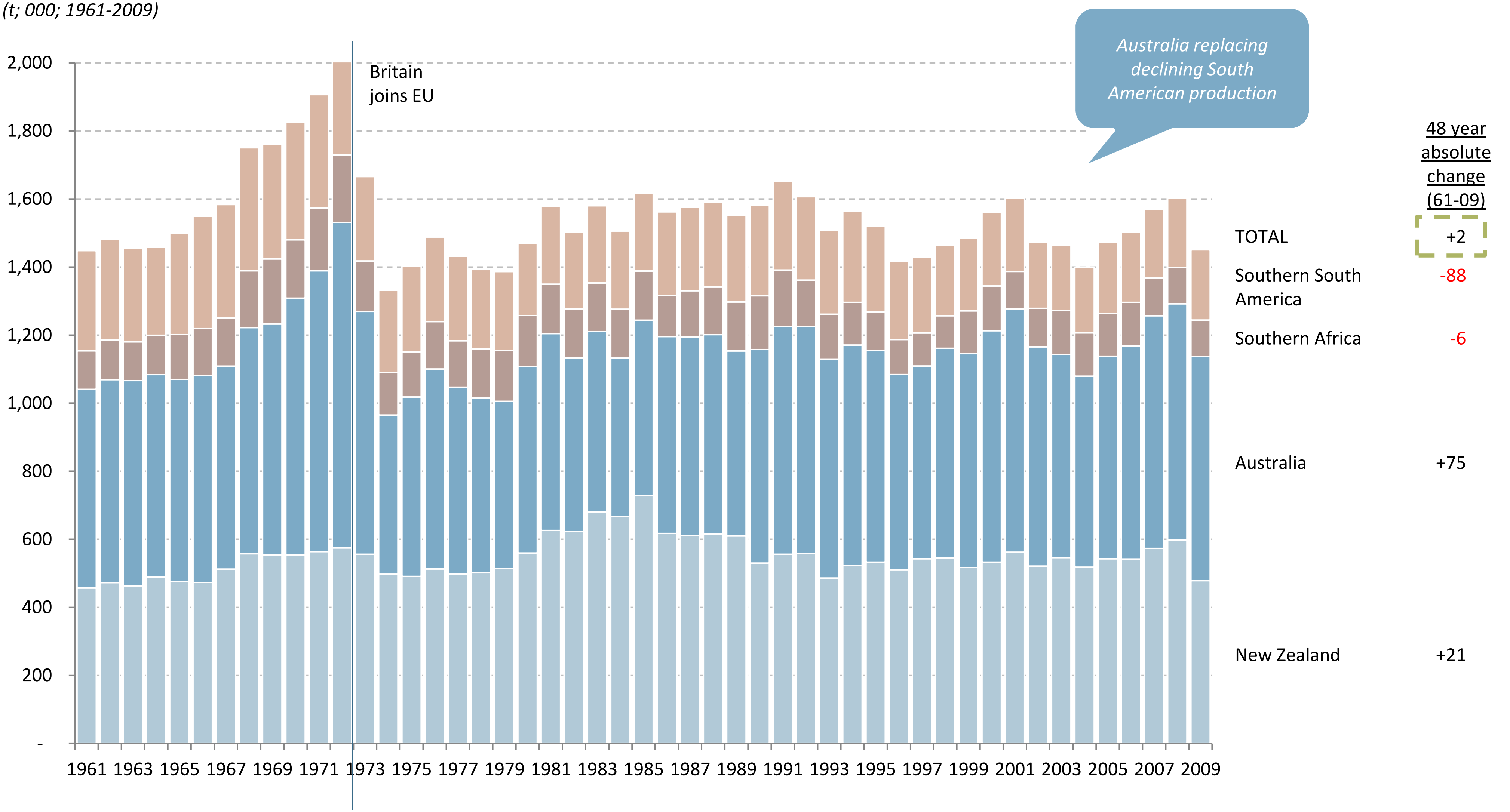
Note: Some amount of double counting inseparable in data; Source: UN FAO AgStat data; Coriolis analysis

CORIOLIS

SELECT SOUTHERN HEMISPHERE SHEEP MEAT PRODUCTION

Sheep meat production in major Southern Hemisphere temperate countries is extremely stable overall; Australian export growth driven by declining domestic demand *(rather than increasing production)*

Sheep meat production in select Southern Hemisphere countries
(t; 000; 1961-2009)



S S America = Chile, Argentina, Brazil, Uruguay, Paraguay and Peru; S Africa = South Africa, Zimbabwe and Namibia; Source: UN FAO AgStat data; Coriolis analysis

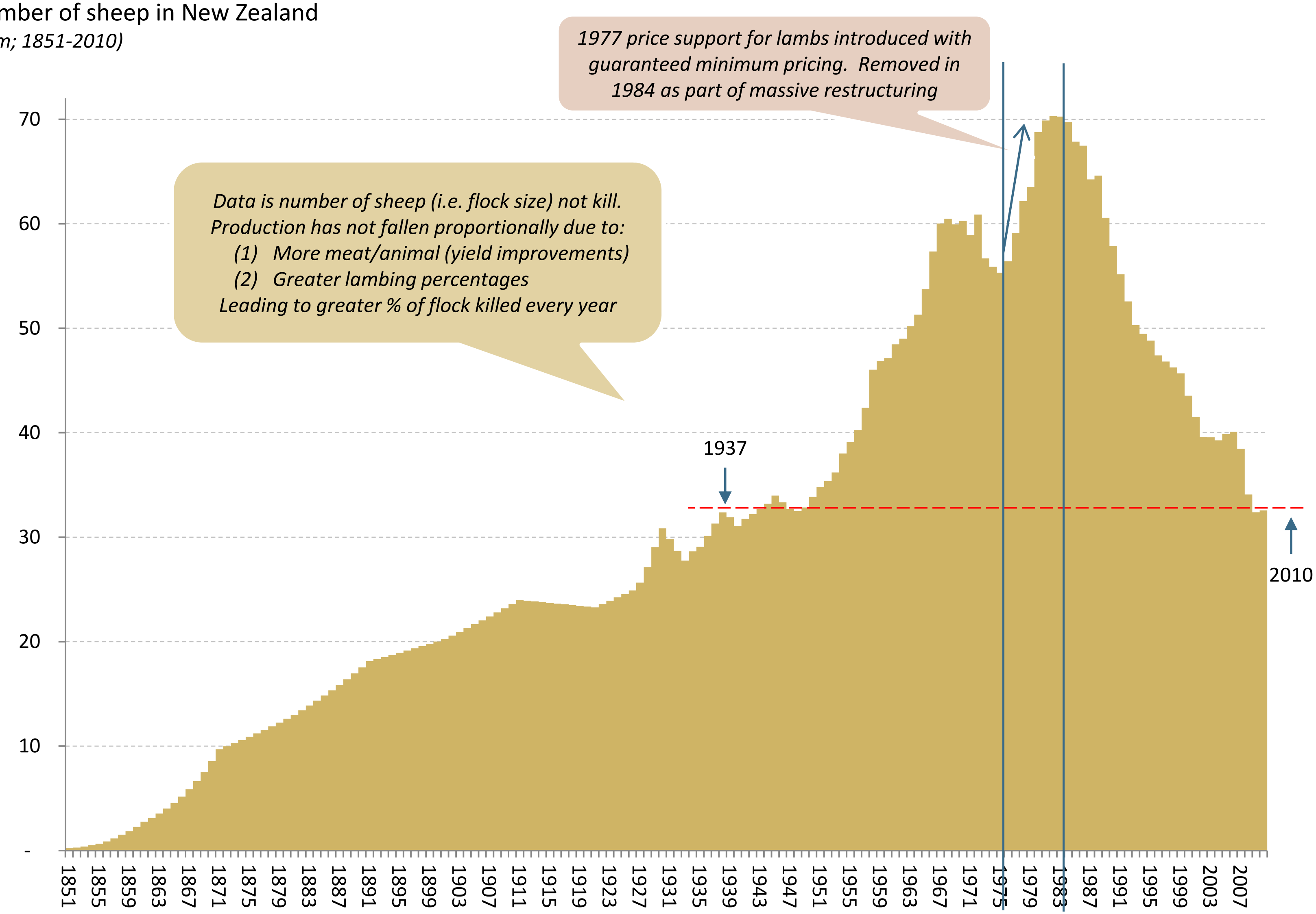
CORIOLIS

NEW ZEALAND – # OF ANIMALS

The combination of falling farm area and dairy conversions has led to a dramatic fall in the number of sheep in New Zealand; sheep numbers now where they were in 1937

Number of sheep in New Zealand

(#; m; 1851-2010)



Note: Missing data and missing years interpolated for available data; Source: NZ Handbook of Historical Statistics; Department of Statistics; Statistics New Zealand; Coriolis analysis

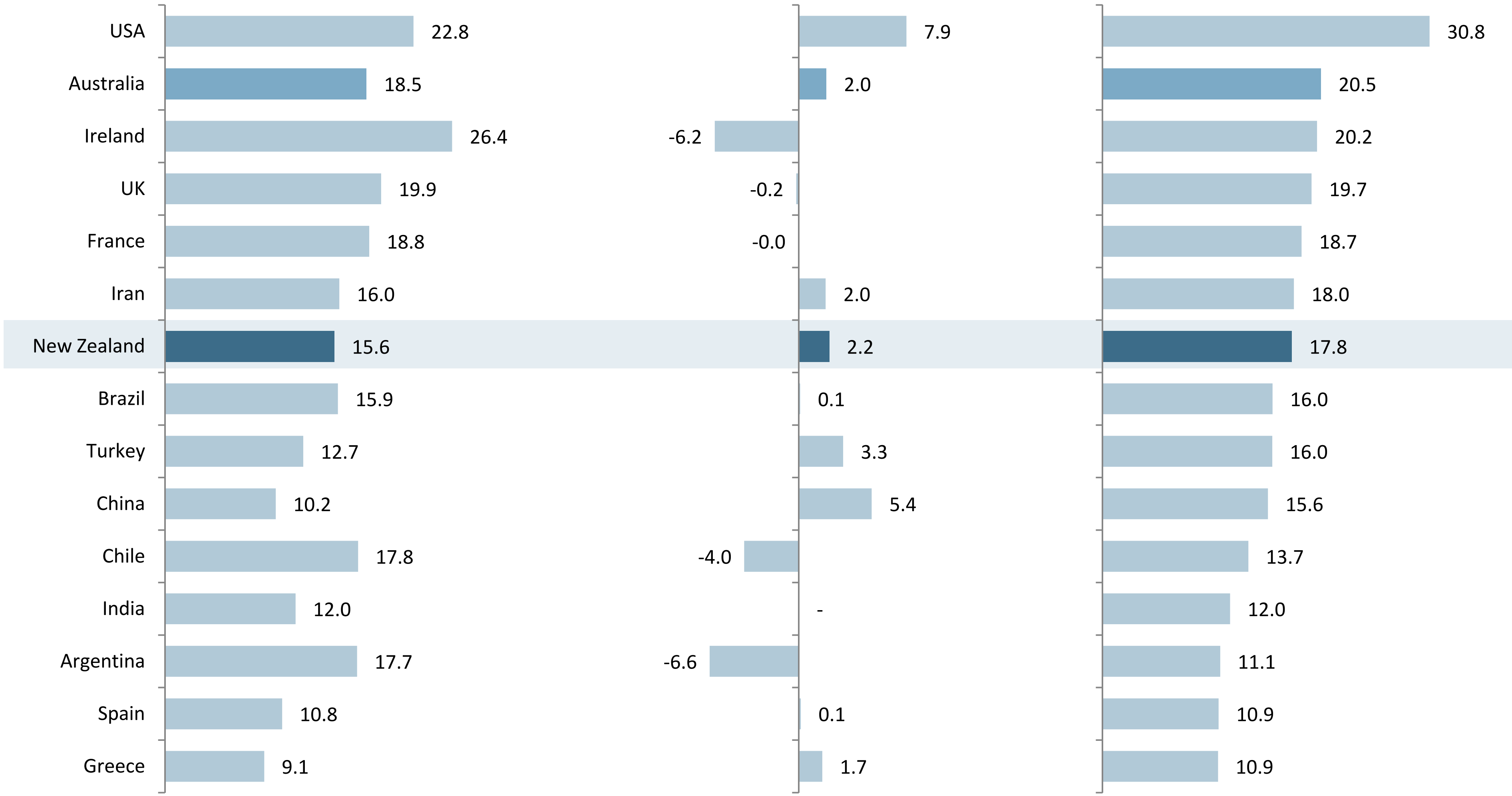
YIELD PER ANIMAL

New Zealand has increased average animal weight at slaughter over the past forty years; further yield improvements appear possible

1969 sheep/lamb average weight at slaughter
(kg/head; 1969)

40 year change in average slaughter weight
(kg/head; 2009 vs. 1969)

2009 sheep/lamb average weight at slaughter
(kg/head; 2009)



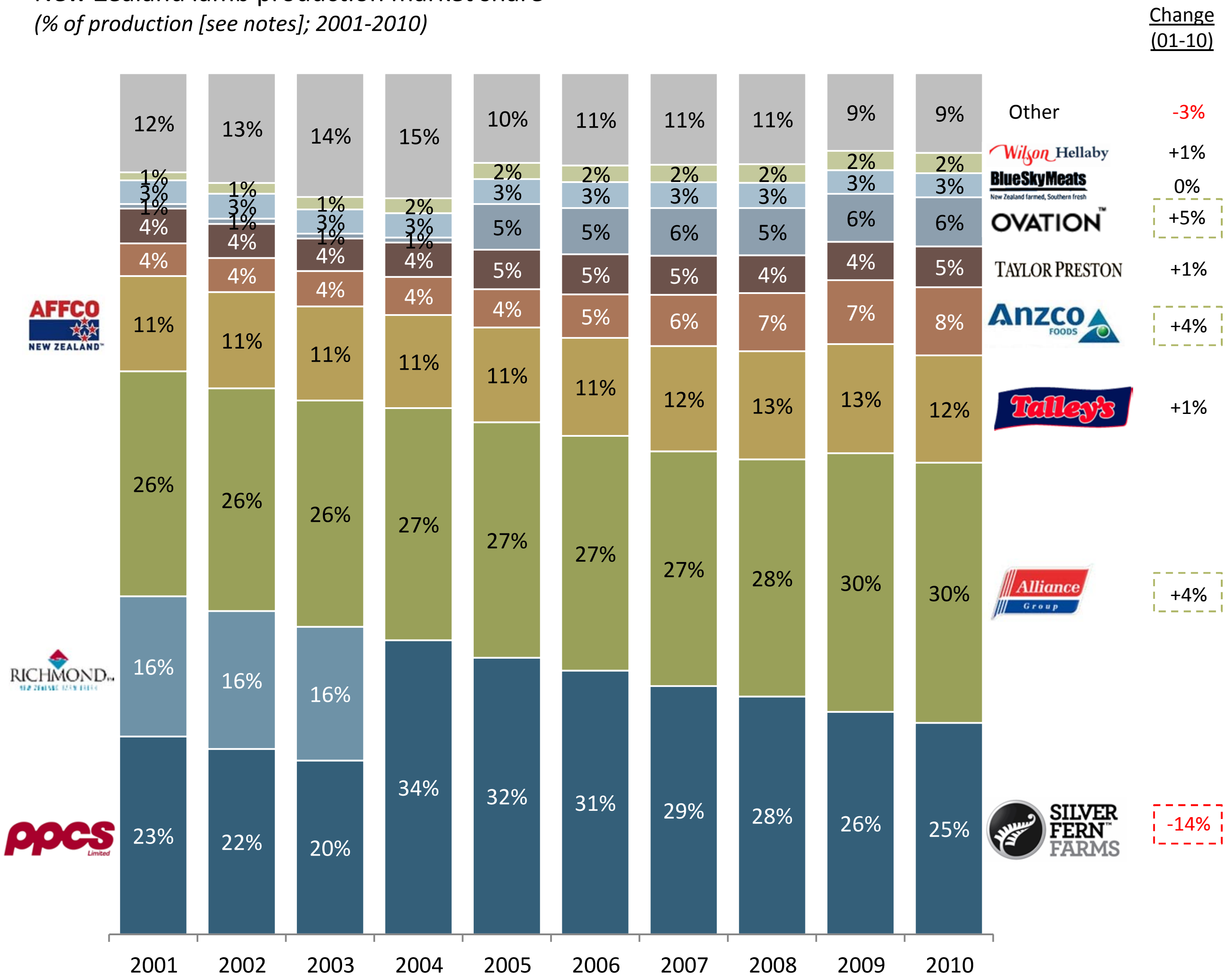
Note: Given the poor performance of the US lamb industry over this period, it could be argued that the Americans are overfeeding their lambs; Irish success with a smaller lamb over the same period is noted; Source: UN FAO AgStat; Coriolis analysis

LAMB – EXPORT SHARE

Alliance, ANZCO and Ovation have been the key gainers of lamb processing share over the past decade; share has come from PPCS/SFF and other smaller players

New Zealand lamb production market share

(% of production [see notes]; 2001-2010)



Comments

- Acquisitions and investments driving some of this change

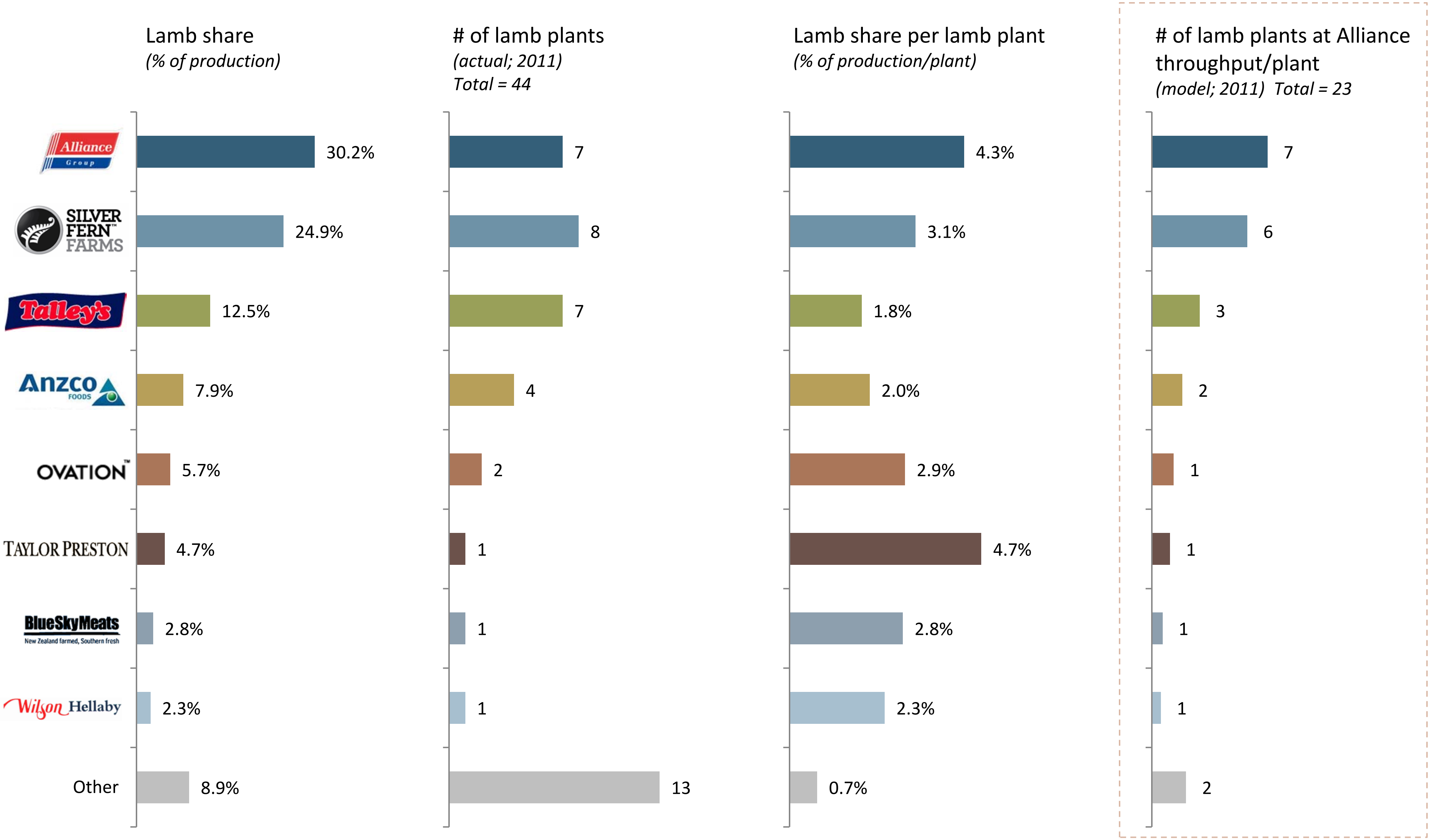
Notes/Definitions

- The New Zealand Meat Board allocates access to the EU lamb quota market on the basis of production history for the three prior seasons
- The data here can therefore be seen as a moving average for the three previous years
- Data available here: http://www.nzmeatboard.org/main.cfm?id=30
- Uses Total Quota Allowance (TQA) which includes Reserved Quota Allowance (RQA) rather than General Quota Allowance (GQA); RQA is minor and allows for new entrants and new products into EU market; difference is not material to data at this level of analysis

Source: New Zealand Meat Board EU Sheepmeat and Goatmeat TRQ Allocation data (http://www.nzmeatboard.org/main.cfm?id=30); Coriolis analysis

LAMB – IMPLIED AVERAGE PLANT THROUGHPUT

Implied average lamb throughput per plant suggests there are opportunities for further plant rationalisation

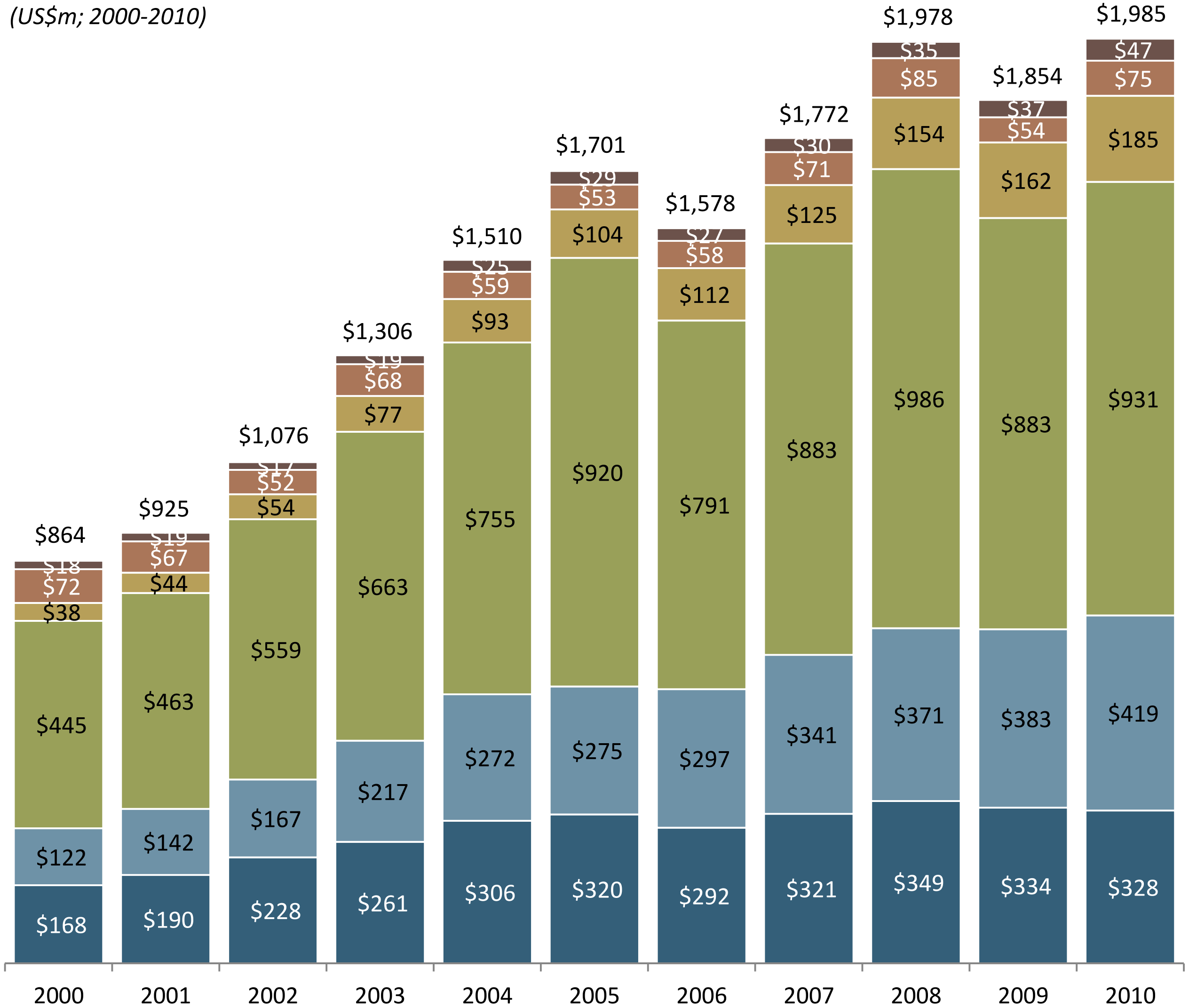


Source: plant numbers from Beef + Lamb (http://www.meatnz.co.nz/main.cfm?id=393); lamb share from Meat Board (http://www.nzmeatboard.org/main.cfm?id=30); Coriolis analysis

LAMB – EXPORTS BY TYPE

New Zealand sheep and lamb is showing solid growth, especially chilled meat; however, value still dominated by frozen

New Zealand sheep and lamb export by form
(US$m; 2000-2010)



	10 Year		Last Year	
	CAGR	Absolute	CAGR	Absolute
TOTAL	9%	+$1,121m	7%	+$131m
Offal	10%	+$29m	27%	$10m
Carcasses	0%	+$3m	39%	+$21m
Boneless cuts, chilled	17%	+$147m	14%	+$23m
Boneless cuts, frozen	8%	+$485m	5%	$48m
Cuts with bone, chilled	13%	+$296m	9%	+$36m
Cuts with bone, frozen	7%	+$160m	-2%	-$6m

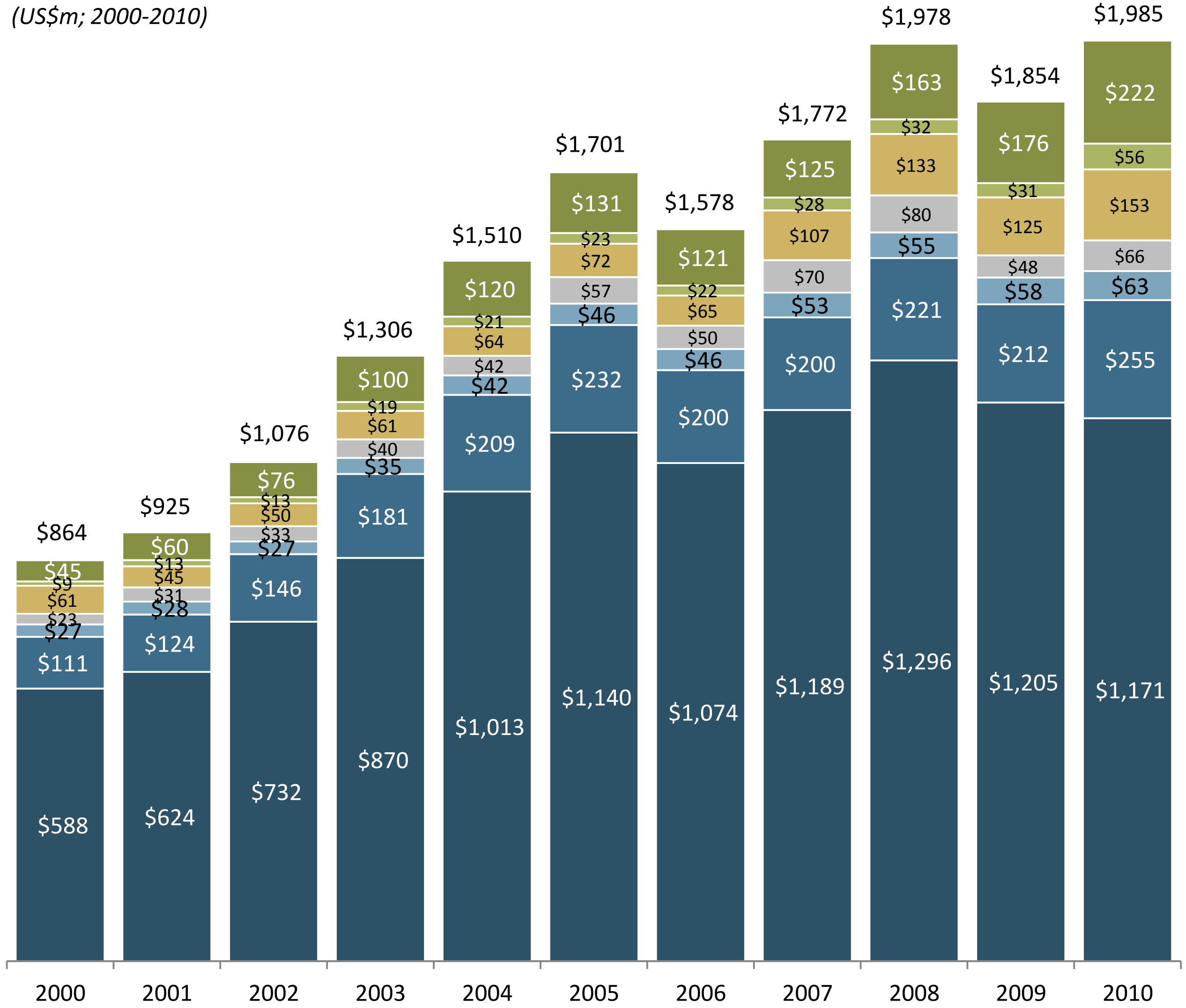
Source: UN Comtrade database; Coriolis analysis

CORIOLIS

LAMB – EXPORTS BY REGION

While most NZ sheep and lamb goes to Europe, Asian exports are growing the fastest

New Zealand sheep and lamb export by region
(US$m; 2000-2010)



	10 Year		Last Year	
	CAGR	Absolute	CAGR	Absolute
TOTAL	9%	+$1,121m	7%	+$131m
E Asia	17%	+$176m	26%	$46m
SE Asia	20%	+$47m	82%	$25m
NA/ME/CA	10%	+$92m	23%	+$28m
Other	11%	+$43m	39%	+$18m
Australia/ Pacific Islands	9%	+$36m	8%	$5m
N. America	9%	+$143m	20%	+$43m
Europe	7%	+$583m	-3%	-$34m

Source: UN Comtrade database; Coriolis analysis

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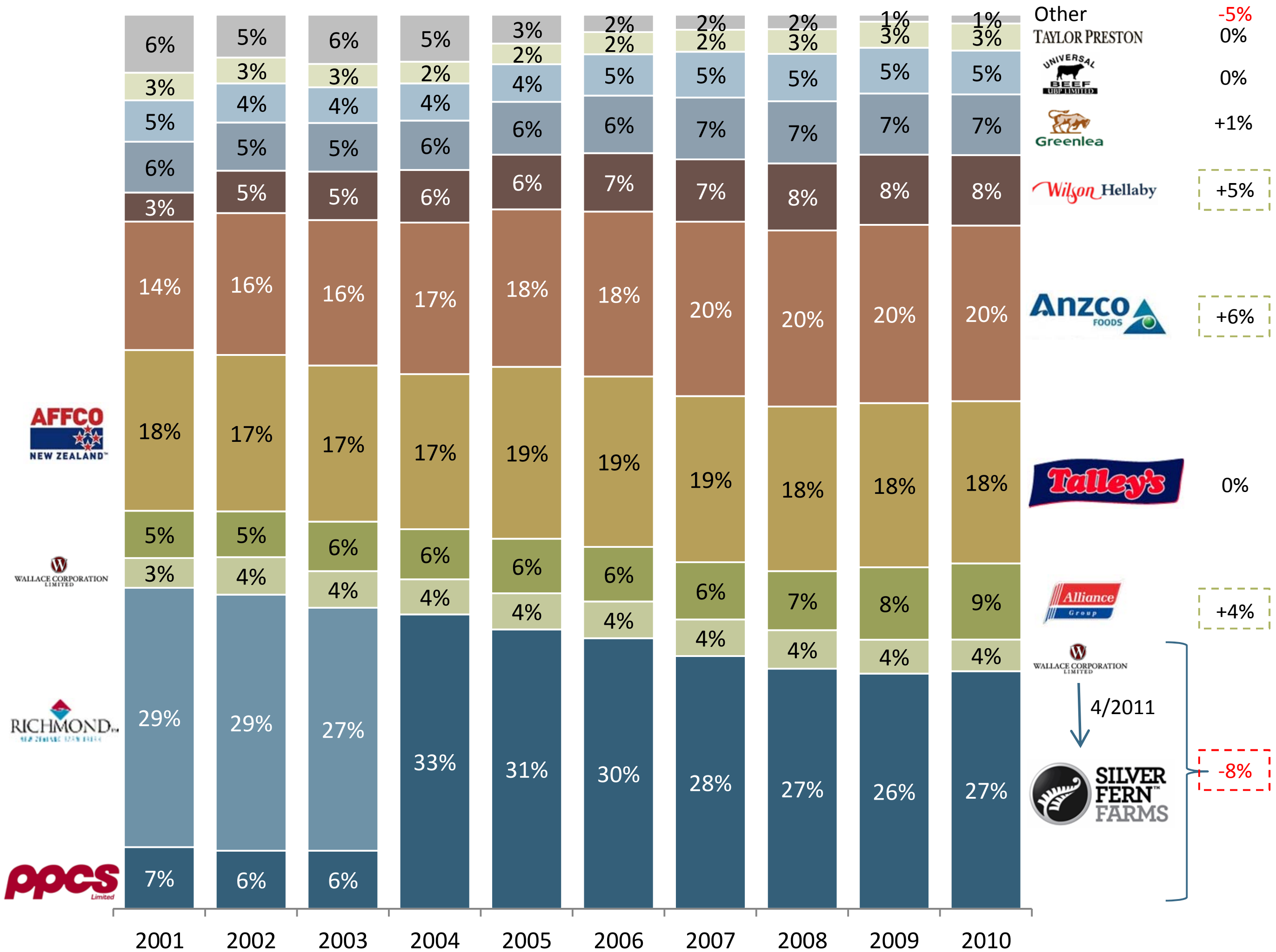
BEEF – EXPORT SHARE

ANZCO, Wilson Hellaby and Alliance have been the key gainers of beef processing share over the past decade; share has come from PPCS/SFF and other smaller players

New Zealand beef & lamb production market share

(% of production [see notes]; 2001-2010)



Comments

- Acquisitions and investments driving some of this change

Notes/Definitions

- The New Zealand Meat Board allocates access to the EU lamb quota market on the basis of production history for the three prior seasons
- The data here can therefore be seen as a moving average for the three previous years
- Data available here: http://www.nzmeatboard.org/main.cfm?id=30
- Uses Total Quota Allowance (TQA) which includes Reserved Quota Allowance (RQA) rather than General Quota Allowance (GQA); RQA is minor and allows for new entrants and new products into EU market; difference is not material to data at this level of analysis

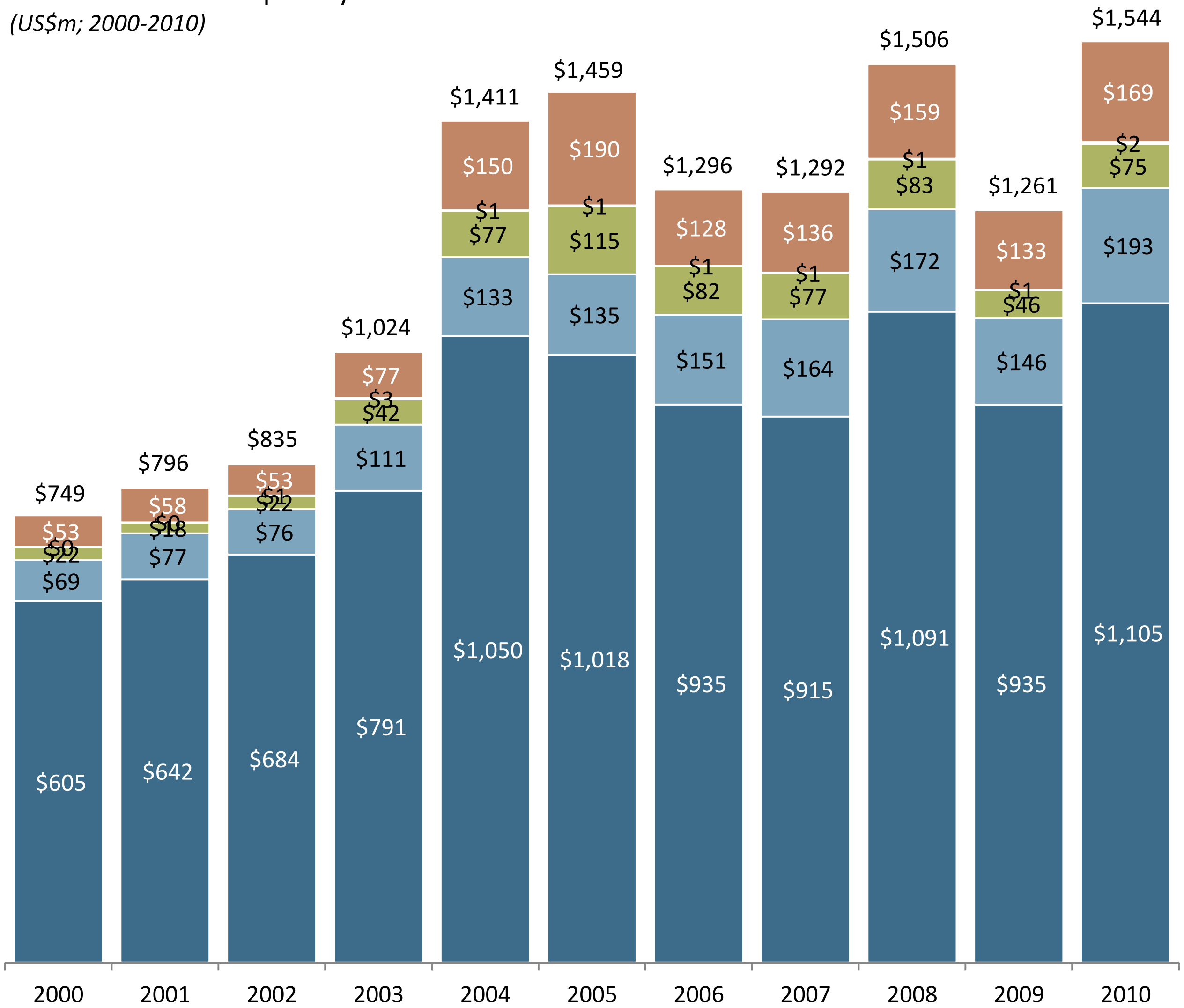
Source: New Zealand Meat Board US Beef and Veal TRQ Allocation data (http://www.nzmeatboard.org/main.cfm?id=26); Coriolis analysis

BEEF – EXPORTS BY TYPE

New Zealand beef has shown erratic recent performance, depending on revenues from boneless frozen cuts

New Zealand beef export by form

(US$m; 2000-2010)



	10 Year		Last Year	
	CAGR	Absolute	CAGR	Absolute
TOTAL	7%	+$795m	22%	+$283m
Offal/Other	12%	+$117m	27%	$36m
Carcasses	19%	+$2m	152%	+$1m
Cuts with bone	13%	+$53m	60%	$28m
Boneless cuts, chilled	11%	+$124m	32%	+$47m
Boneless cuts, frozen	6%	+$500m	18%	$170m

Source: UN Comtrade database; Coriolis analysis

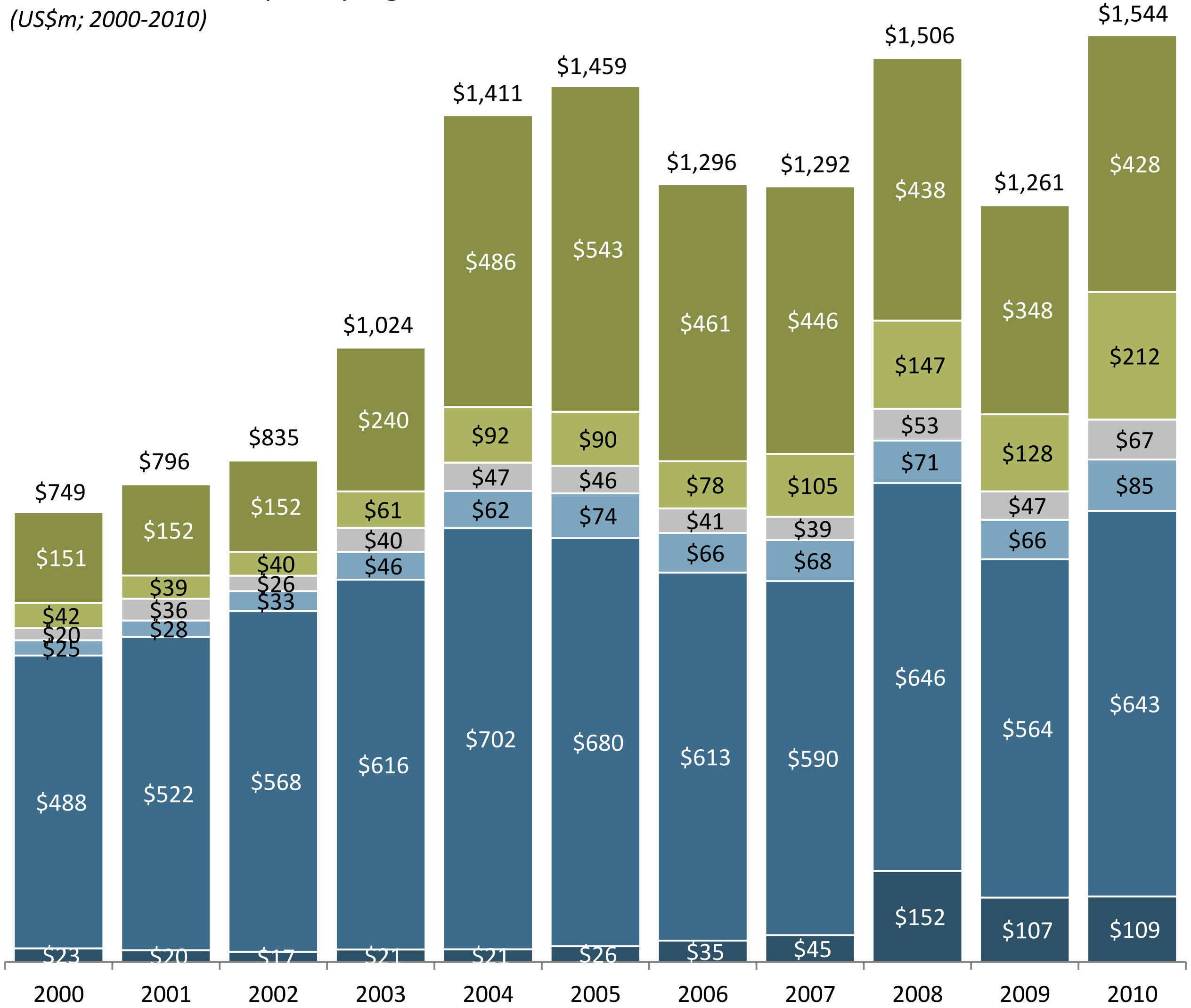
CORIOLIS

BEEF – EXPORTS BY REGION

New Zealand export beef revenue has been relatively flat since 2004

New Zealand beef export by region

(US$m; 2000-2010)



	10 Year		Last Year	
	CAGR	Absolute	CAGR	Absolute
TOTAL	7%	+$795m	22%	+$283m
E Asia	11%	+$277m	23%	+$80m
SE Asia	18%	+$170m	65%	+$84m
Other	13%	+$46m	41%	+$19m
Australia/ Pacific Islands	13%	+$60m	29%	+$19m
N. America	3%	+$155m	14%	+$79m
Europe	7%	+$86m	2%	$2m

Source: UN Comtrade database; Coriolis analysis

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MEAT – INDUSTRY ORGANISATIONS

There are a range of organisations representing the meat industry

Key meat industry organisations in New Zealand
(2010)

	Represents	# of members	Annual budget	Funding	Website/notes
mia Meat Industry Association	Meat processors	33 (full)	$2.2m (O.E; FY11)	- Membership fees	www.mia.co.nz/
beef+lamb new zealand	Sheep and beef farmers	n/a	$35.0m (O.E. YE10)	- Commodity Levies (Meat) Order 2010 $23.8m - Grant funding NZ Meat Board $2.1m; Other $2.75m	www.beeflambnz.co.nz www.meatnz.co.nz
New Zealand Meat Board	Manages export quotas	n/a	n/a	- Meat Board Act 2004 management of quota and farmer reserves of $81m	www.nzmeatboard.org
Federated Farmers of New Zealand	Farmer advocacy	n/a	n/a	- Membership fees	www.fedfarm.org.nz Independent advocacy
New Zealand PORK	Pig farmers	n/a	$3.4m (O.E. YE10	- Pork Levy	www.nzpork.co.nz
PIANZ	Poultry meat producers	11	n/a	- Poultry levy based on /head processed	www.pianz.org.nz/ Poultry Association of NZ
Deer Industry New Zealand; NZDFA New Zealand Deer Farmers' Association	Producers		$6.5m	- Levy Venison, Levy Velvet, Animal Health Board Levy - Commodity Levies (Farmed Deer Products) Order 2001	www.deernz.org

O.E = Operating Expenditure Source: Coriolis analysis

MEAT – INDUSTRY SCIENTIFIC RESEARCH

Two organisations have strong involvement in meat industry research

Key scientific research organisations involved in meat industry research in New Zealand
(2010)

	Total Income	Total Staff	Focus & activities
AgResearch / AgResearch-MIRINZ	$155m (2010)	824	- AgResearch-MIRINZ Centre - Foods & Bio-based Products; food composition and function, The role of foods in human health and wellbeing
Plant & Food Research (Rangahau Ahumāra Kai)	$117.5m (2010)	900+	- Food innovation – foods with functionalities
The New Zealand Institute of Food Science & Technology Inc	-	-	www.nzifst.org.nz Scientists involved in food processing and distribution

Source: Coriolis analysis

Ministry of Economic Development
Manatū Ōhanga

ministry of science + innovation
TE PŪNAHA HIRINGA WHAKAEA

NEW ZEALAND MINISTRY OF FOREIGN AFFAIRS & TRADE
MANATŪ AORERE

MAF

New Zealand TRADE & ENTERPRISE

Ministry of Fisheries
Te Tautiaki i nga tini a Tangaroa

Department of Labour
TE TARI MAHI

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