



# Role of Mixed Farming Models in Reducing Volatility

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## Returns for the Food Beverage & Agriculture index has remained relatively better compared to other industry indices considered

Returns	1 year	5 year	10 year
All Industries	9.9%	24.4%	25.3%
<b>Food Beverage &amp; Agriculture</b>	42.5%	71.7%	144.5%
Food & Staples Retailing	17.2%	6.3%	41.9%
Automobiles & Components	39.0%	88.6%	80.1%
Banks	(6.4%)	(1.3%)	55.4%
Capital Goods	24.7%	33.3%	(48.1%)
Energy	39.4%	(10.0%)	(31.8%)
Materials	20.5%	32.2%	(13.6%)
Software & Services	30.4%	72.7%	111.5%
Utilities	(1.6%)	48.9%	45.1%
Real Estate	9.5%	NA	NA
Gold	(3.3%)	(6.4%)	33.8%

 Highest to Lowest 

Note 1: Compared index values as of 31<sup>st</sup> July 2018 to one-year (31<sup>st</sup> July 2017), 5-year (31<sup>st</sup> July 2013) and 10-year (31<sup>st</sup> July 2008) values

Note 2: For Automobiles & components, 4 year return shown in place of 5 year return due to unavailability of data for the 5 year time period

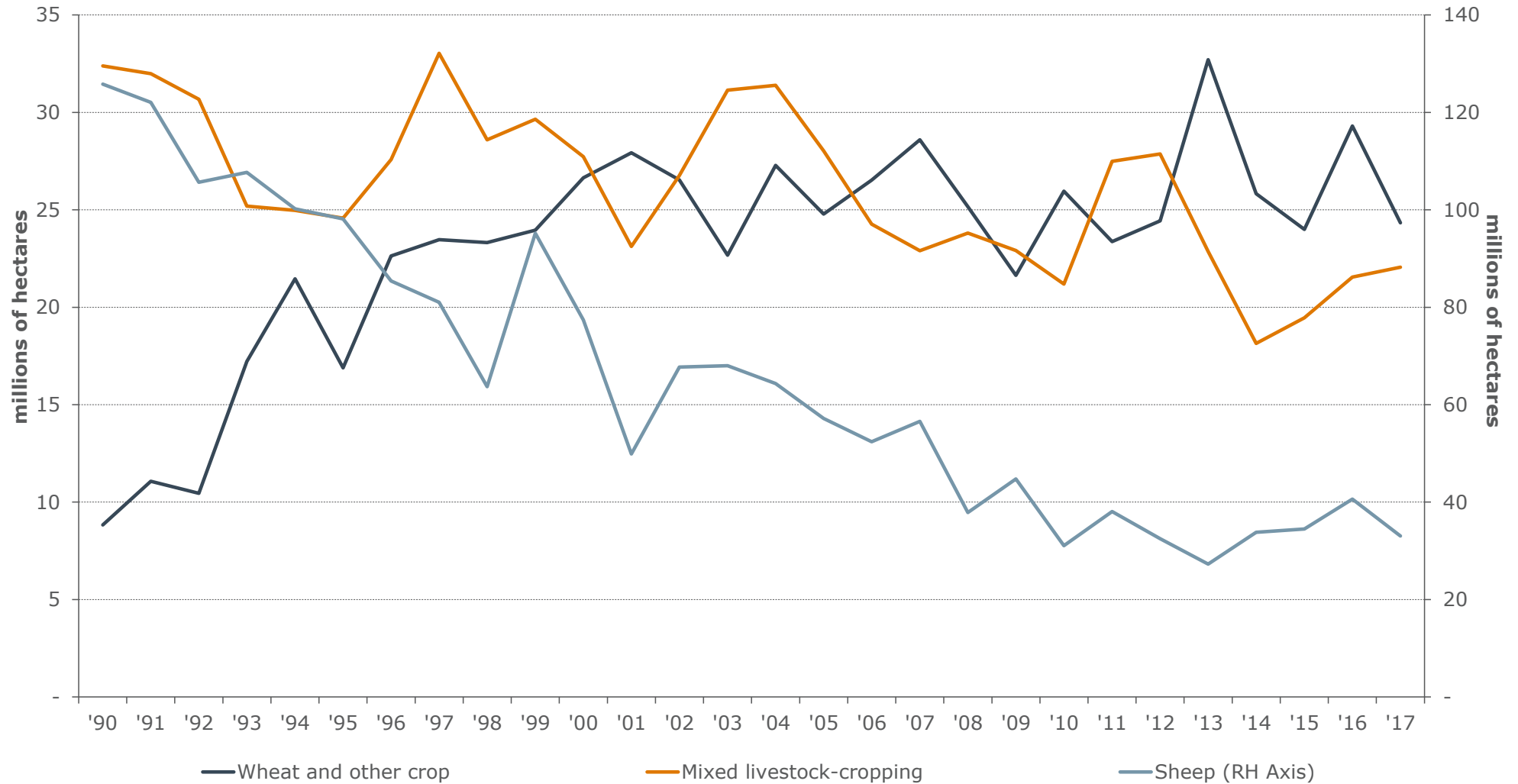
Note 3: Real Estate index does not have 5 year and 10 year return since index is available only from September 2016

Source: CapitalIQ, ANZ Analysis

# Currently Mixed farming accounts for just over 6% of agricultural land...

## AUSTRALIA TOTAL AREA FARMED BY INDUSTRY

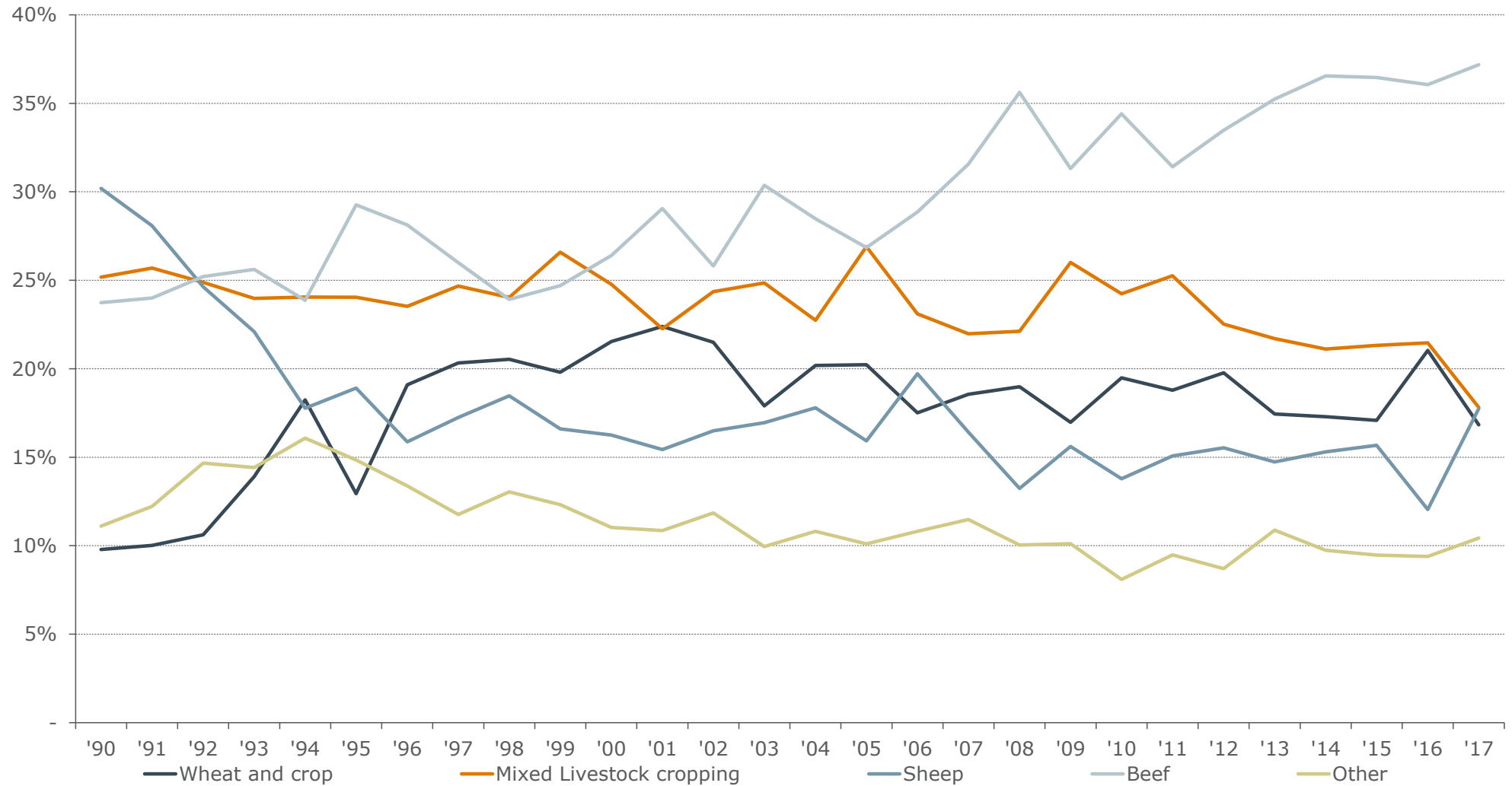
*In millions of hectares*



# ...And ~18% of farming enterprises

## AUSTRALIA TOTAL FARMS BY SECTOR

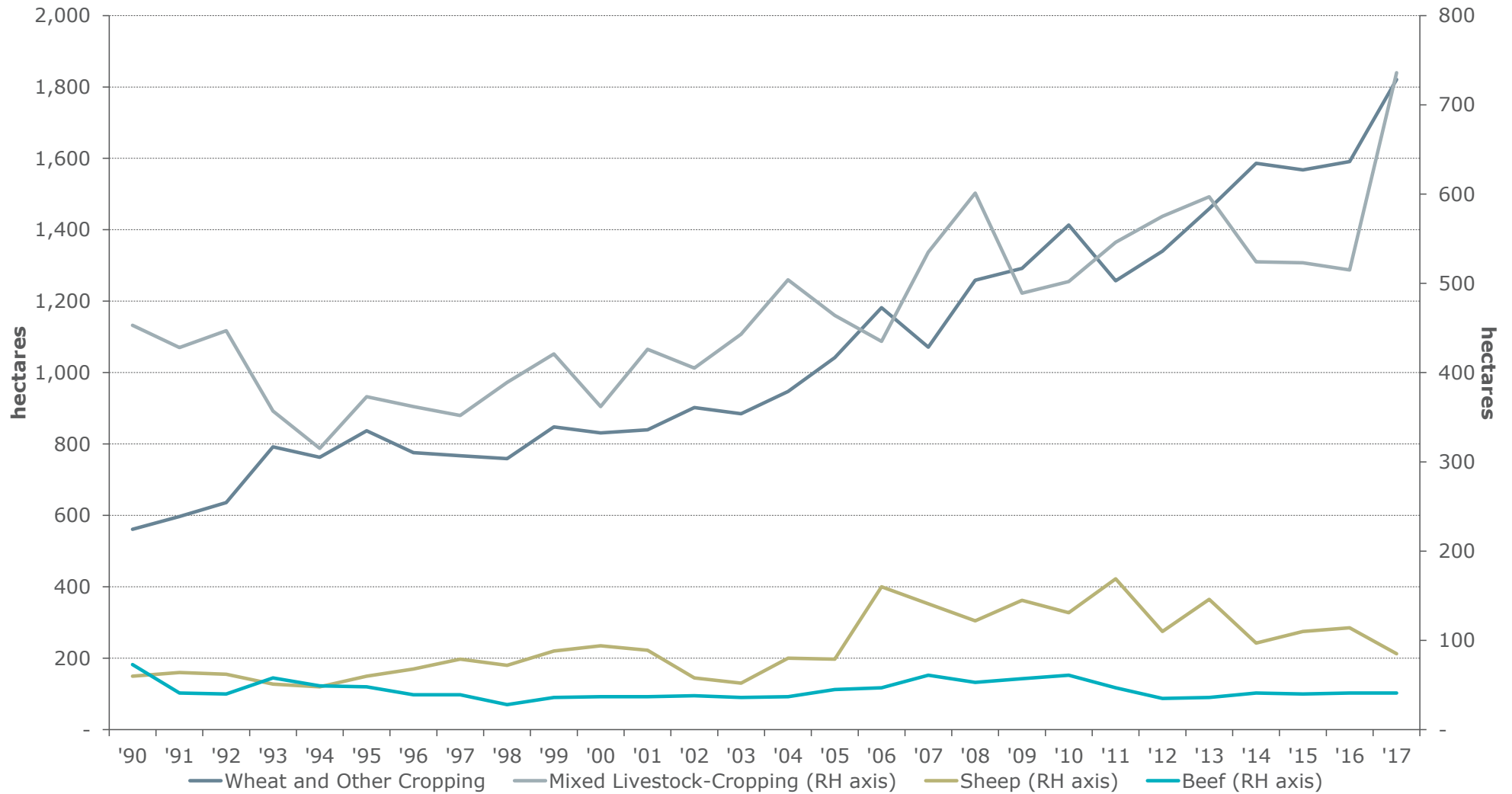
In percentage



# While Mixed Farming overall has suffered a decline since 1990, average area remains strong

## AUSTRALIA AVERAGE AREA OF OPERATION BY INDUSTRY

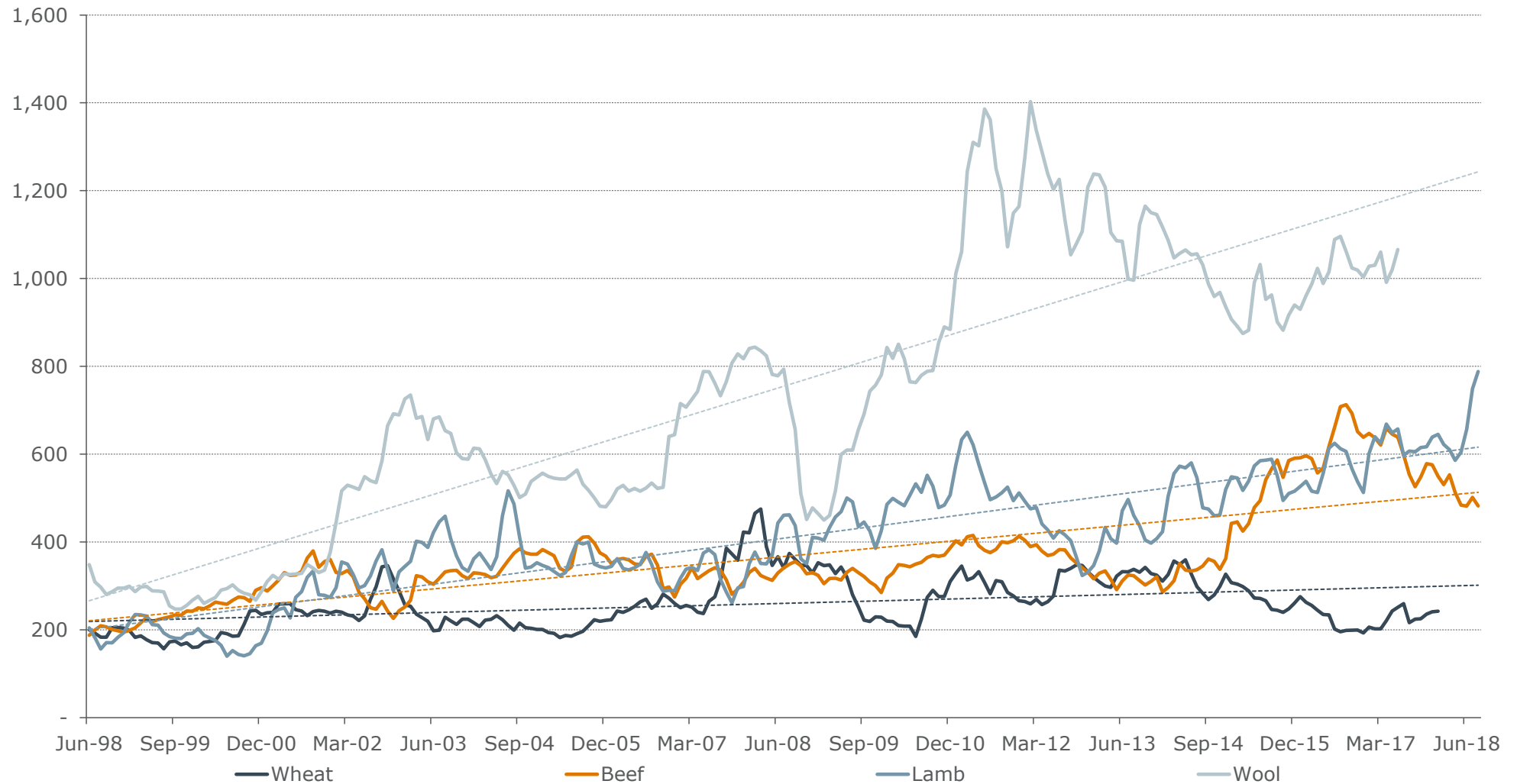
In hectares



# Mitigating volatility in commodity prices one of the key benefits of Mixed Farming model...

## MAJOR COMMODITY PRICES 1998-2018

*In respective units mentioned in Note 1*



Note 1: Wheat - US no. 1 hard red winter AUD per Metric Ton; Beef - EYCI Ac/kg cwt; Lamb - ESTLI Ac/kg cwt; Wool - 19 micron spot price USD/kg

# Mitigating volatility in commodity prices one of the key benefits of Mixed Farming model

## 5 YEAR CORRELATION BETWEEN PRICES OF MAJOR COMMODITIES

2012-17, Rounded off to 4 decimal places

	Wheat	Beef	Lamb	Wool
Wheat	1			
Beef	(0.8795)	1		
Lamb	(0.6102)	0.7321	1	
Wool	0.1824	(0.3978)	(0.4740)	1



# Farm Financial Volatility...

## FARM FINANCIAL VOLATILITY 2007-2017

By Size & Industry

<b>All Farm Sizes</b>			
	<b>Receipts</b>	<b>Cost</b>	<b>Profit</b>
All broadacre farming	7.9%	8.1%	79.8%
Wheat	6.1%	4.3%	62.9%
Mixed	13.0%	11.2%	107.1%
Sheep	10.2%	9.8%	147.3%
Beef	23.2%	21.7%	133.6%
<b>Turnover of less than AUD 500,000</b>			
	<b>Receipts</b>	<b>Cost</b>	<b>Profit</b>
All broadacre farming	6.0%	7.4%	92.6%
Wheat	9.8%	12.8%	92.5%
Mixed	9.1%	12.1%	119.6%
Sheep	7.1%	9.5%	151.5%
Beef	8.2%	5.8%	65.6%

Note 1: Profit volatility is variability from average. Receipt and cost variability are variability from trend



# Farm Financial Volatility

## FARM FINANCIAL VOLATILITY 2007-2017

*By Size & Industry*

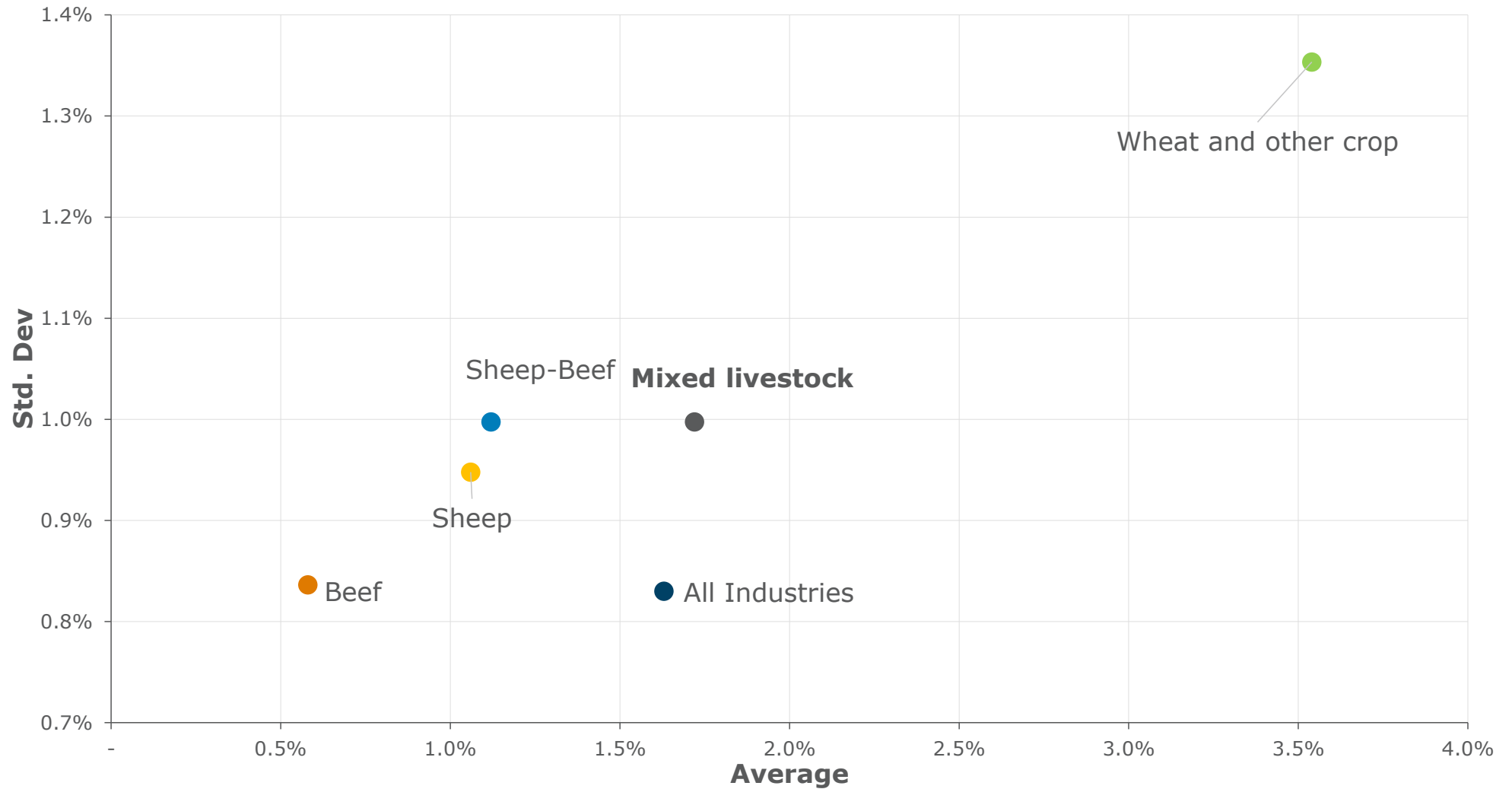
Turnover between AUD 500,000 & AUD 1 million			
	Receipts	Cost	Profit
All broadacre farming	5.1%	7.6%	23.8%
Wheat	7.4%	6.6%	32.8%
Mixed	7.2%	12.5%	38.5%
Sheep	7.0%	11.6%	29.2%
Beef	7.1%	10.6%	26.6%
Turnover over AUD 1 million			
	Receipts	Cost	Profit
All broadacre farming	6.7%	10.1%	17.4%
Wheat	5.6%	8.3%	22.3%
Mixed	6.3%	9.0%	15.1%
Sheep	9.5%	15.0%	37.8%
Beef	11.0%	11.7%	24.6%

Note 1: Profit volatility is variability from average. Receipt and cost variability are variability from trend

# Mixed Farming occupies a sweet spot in terms of returns with high mean returns

## RATE OF RETURN (EXCL. CAPITAL APPRECIATION): AVERAGE VS STD. DEV

2007-08 to 2016-17



## Mixed Farming occupies a sweet spot in terms of returns with high mean returns

ABSOLUTE RETURN (%)	Rate of Return (excl. Capital Appreciation)			Rate of Return (incl. Capital Appreciation)		
	1 year	5 year	10 year	1 year	5 year	10 year
All Industries	3.2%	10.0%	17.5%	7.3%	23.0%	31.3%
Beef	2.1%	2.8%	5.9%	4.9%	12.6%	11.9%
<b>Mixed livestock</b>	<b>3.6%</b>	<b>11.4%</b>	<b>18.5%</b>	<b>9.9%</b>	<b>27.7%</b>	<b>38.0%</b>
Sheep	2.3%	4.8%	11.1%	5.8%	15.6%	29.1%
Sheep-Beef	2.7%	5.9%	11.7%	7.6%	20.5%	30.9%
Wheat and other crop	5.4%	23.7%	41.5%	9.6%	39.5%	60.6%

 Highest to Lowest 

# THANK YOU

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Michael Whitehead

