

# Economic impacts of Proposed Plan Change 7 on Waimakariri dairy farms

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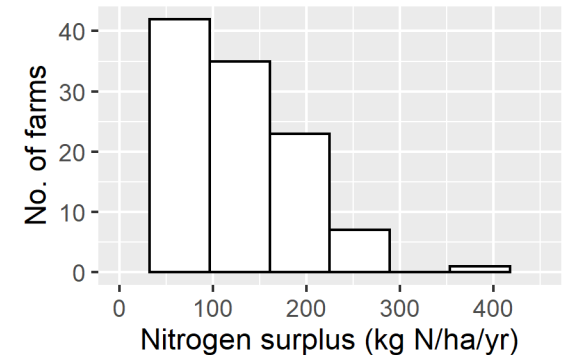
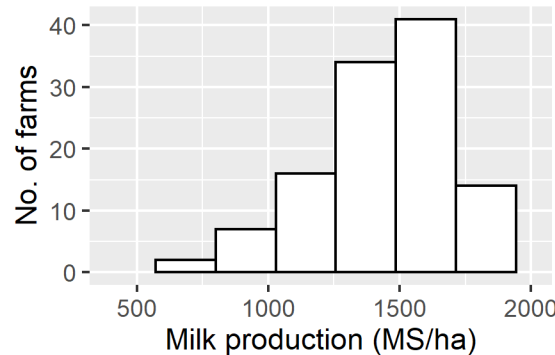
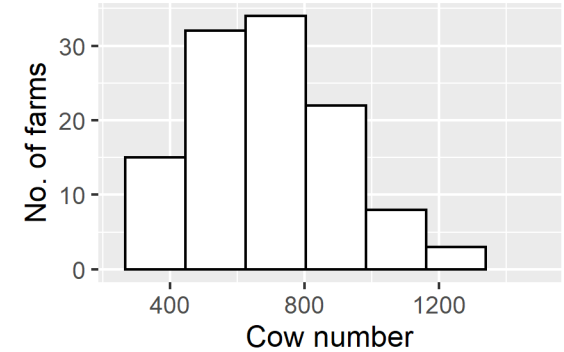
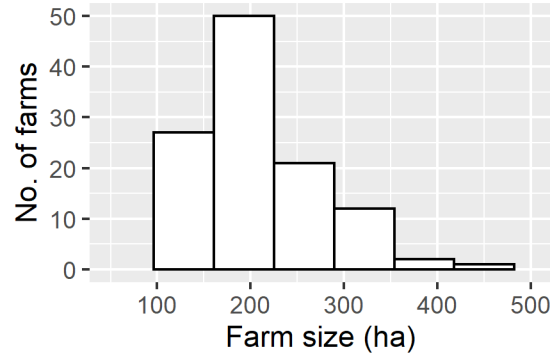
*DairyNZ* 

# Dairy is a key economic sector

- Dairy employs 40,000 people nationally
- Dairy contributes \$1.5 bn p.a. to regional GDP
- 3<sup>rd</sup> most important economic sector in region
- \$1 from dairy → \$2 to other sectors
- 7,740 dairy jobs in Canterbury (70% on farm)
- Dairy job growth in Waimakariri = 6% p.a.

# Farms are different

- Most policy analysis studies average farms
- Farms are different:
  - Size
  - Intensity
  - Efficiency
  - Nutrient loss
- Study adds key detail to other assessments of PPC7

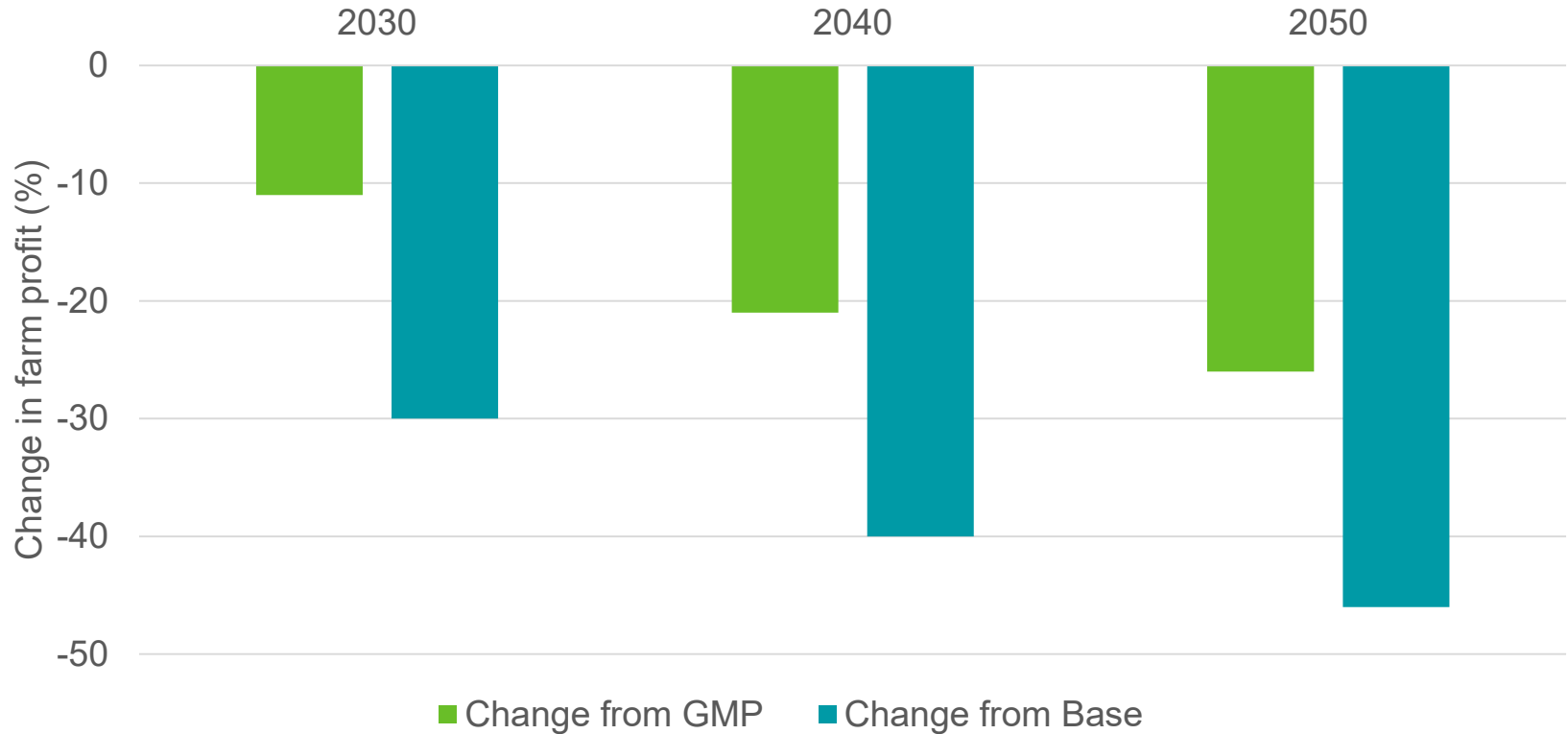


# Scenarios evaluated in modelling

- Three policies
  - *Base*: No limits
  - *GMP*: Plan Change 5
  - *PPC7*: *GMP* + Plan Change 7
- Three periods:
  - 2030
  - 2040
  - 2050



# PPC7 imposes high cost on dairy farms

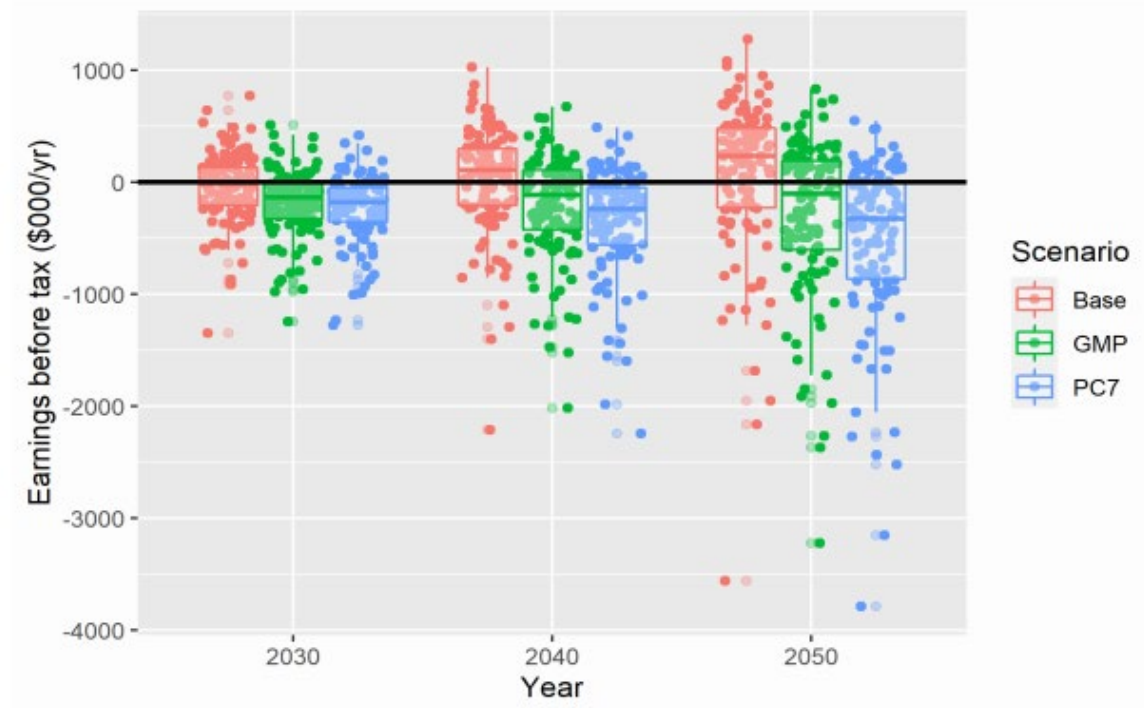


# These costs flow on to affect the region

Scenario			Waimakariri District		Canterbury region	
Year	Scen.	Farm cost (\$m)	Other sectors (\$m)	Total change (\$m)	Other sectors (\$m)	Total change (\$m)
2030	PPC7	-21	-32	<b>-53</b>	-42	<b>-63</b>
2040	PPC7	-32	-48	<b>-80</b>	-64	<b>-96</b>
2050	PPC7	-41	-62	<b>-103</b>	-82	<b>-123</b>

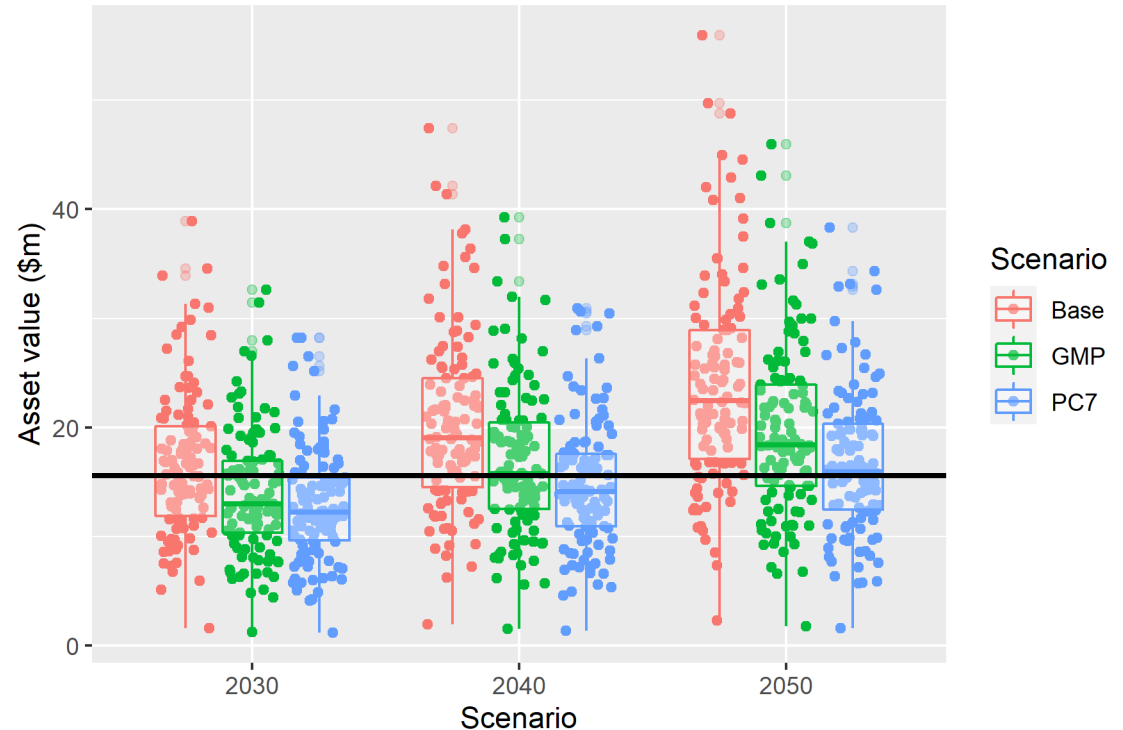
# PPC7 impacts ability to service debt

- Each dot is a farm
- Profit decreases with mitigation
- High no. of farms cannot service debt under PPC7
  - 83% in 2030
  - 79% in 2040
  - 75% in 2050
- If farmers borrow to cover costs → ↓ spiral



# PPC7 will reduce asset prices

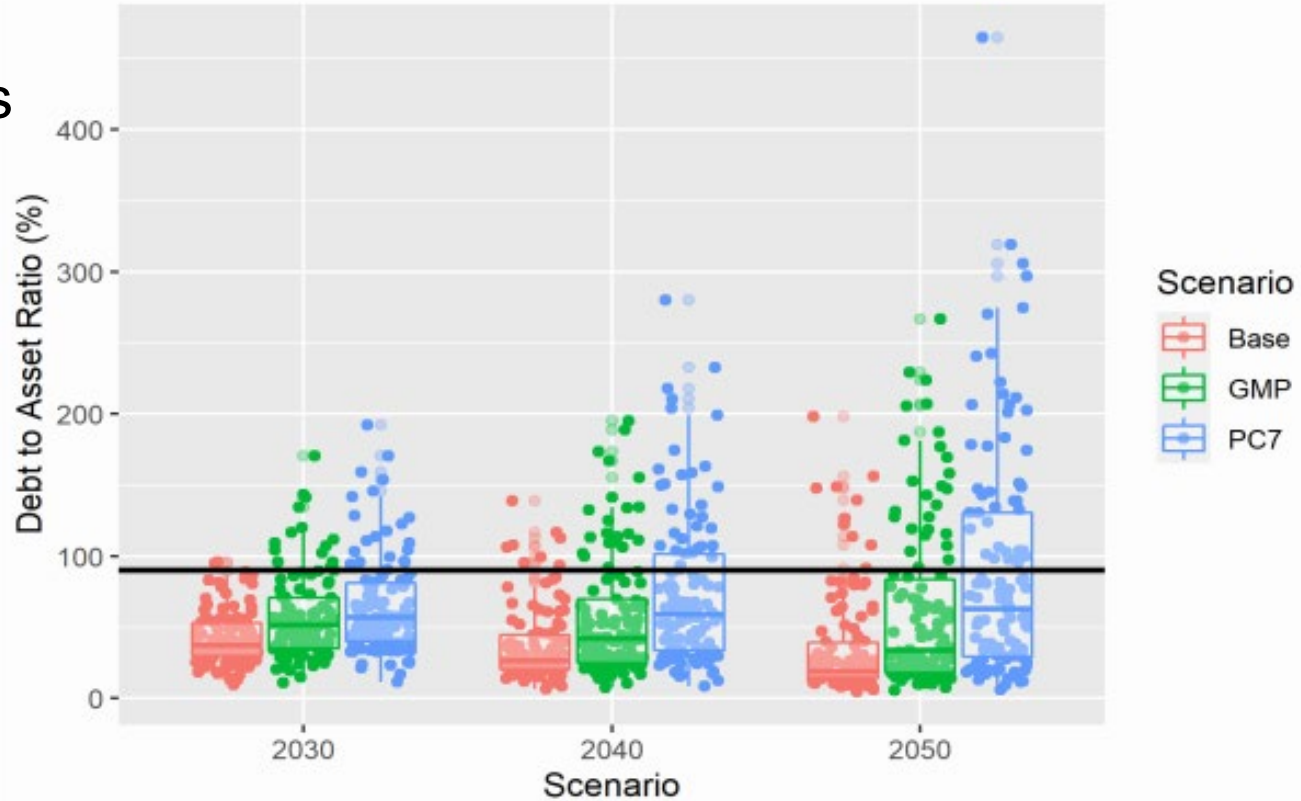
- Each dot is a farm
- Asset prices grow in absence of limits
- PPC7 constrains growth in value
- Median farm price reduces by 10% in 2050 under PPC7, compared to GMP
- Long-term impacts partly offset by capital gain





# PPC7 impacts farm viability

- Each dot is a farm
- Debt to Asset ratios affected by ↓ profit and ↓ asset values
- DAR > 90%, denotes high risk
- High-risk farms in PPC7 increase above GMP by:
  - 5% in 2030
  - 9% in 2040
  - 14% in 2050



# Accelerated PPC7 → magnify impacts

- Accelerated PPC7:
  - 30% limit by 2030
  - 45% limit by 2040
- Faster onset increases impacts on profit
- Farm viability affected (see table)
- Impacts on community will be greater
- Careful transition is important

Year	Extra % of farms that can't pay debt, above GMP	Extra % of high risk farms, above GMP
2030	14	13
2040	26	20
2050	30	28