

Radiata pine forestry returns under the ETS, and potential impacts on land use change

David Evison

New Zealand School of Forestry

University of Canterbury

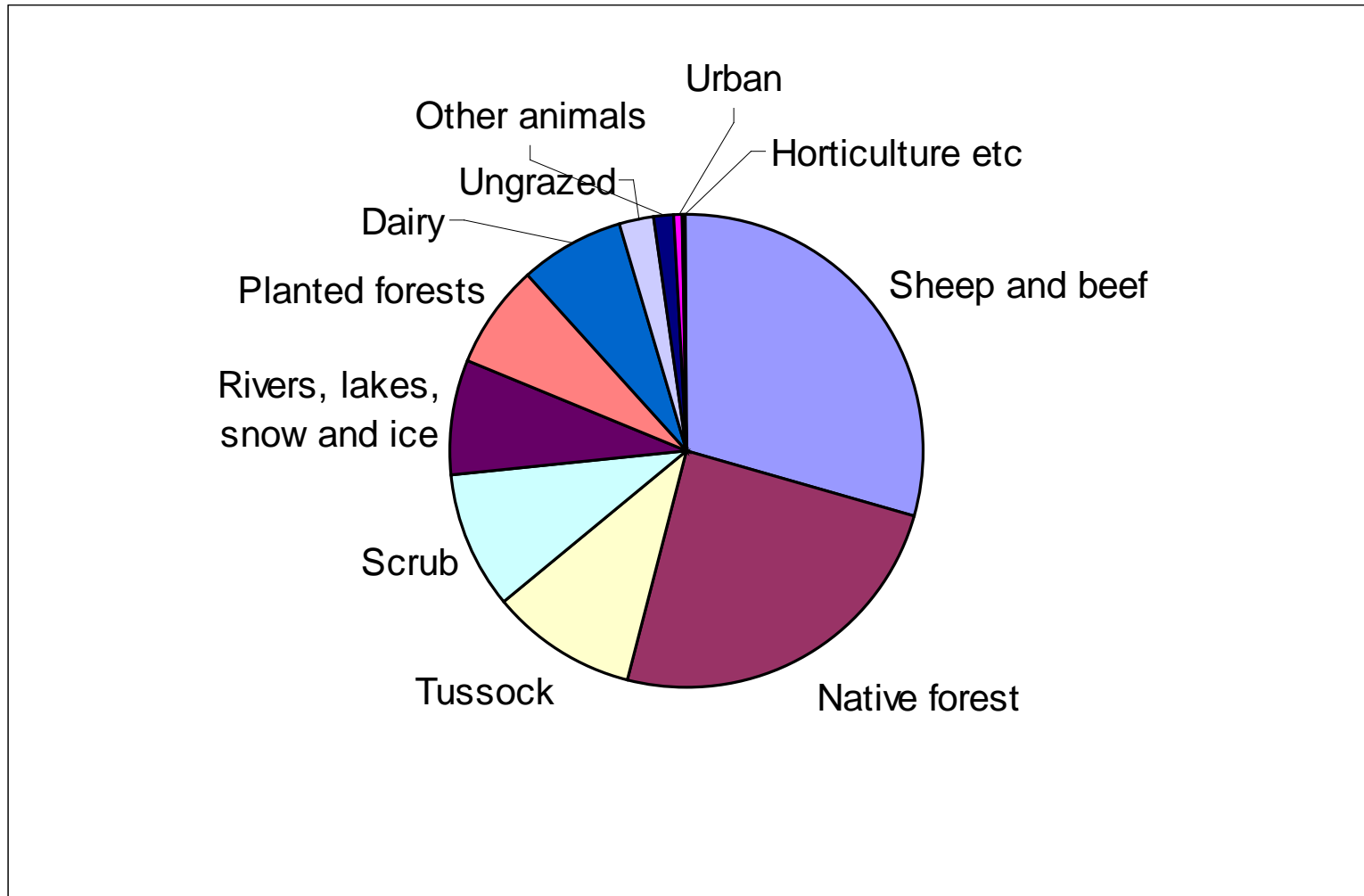
Objectives

- Recent trends in land use returns, and drivers of forestry land use-change
- Potential impact of the ETS on land-use change involving forestry

Introduction

- Foresters can increase sequestration and revenue from carbon credits by lengthening rotations, and by selecting regimes and species that maximise volume.
- However, the exclusion of forests planted on pre-1990 forest land, (or approximately two thirds of the current estate), shifts the focus to new land planting, or land use change towards forestry.

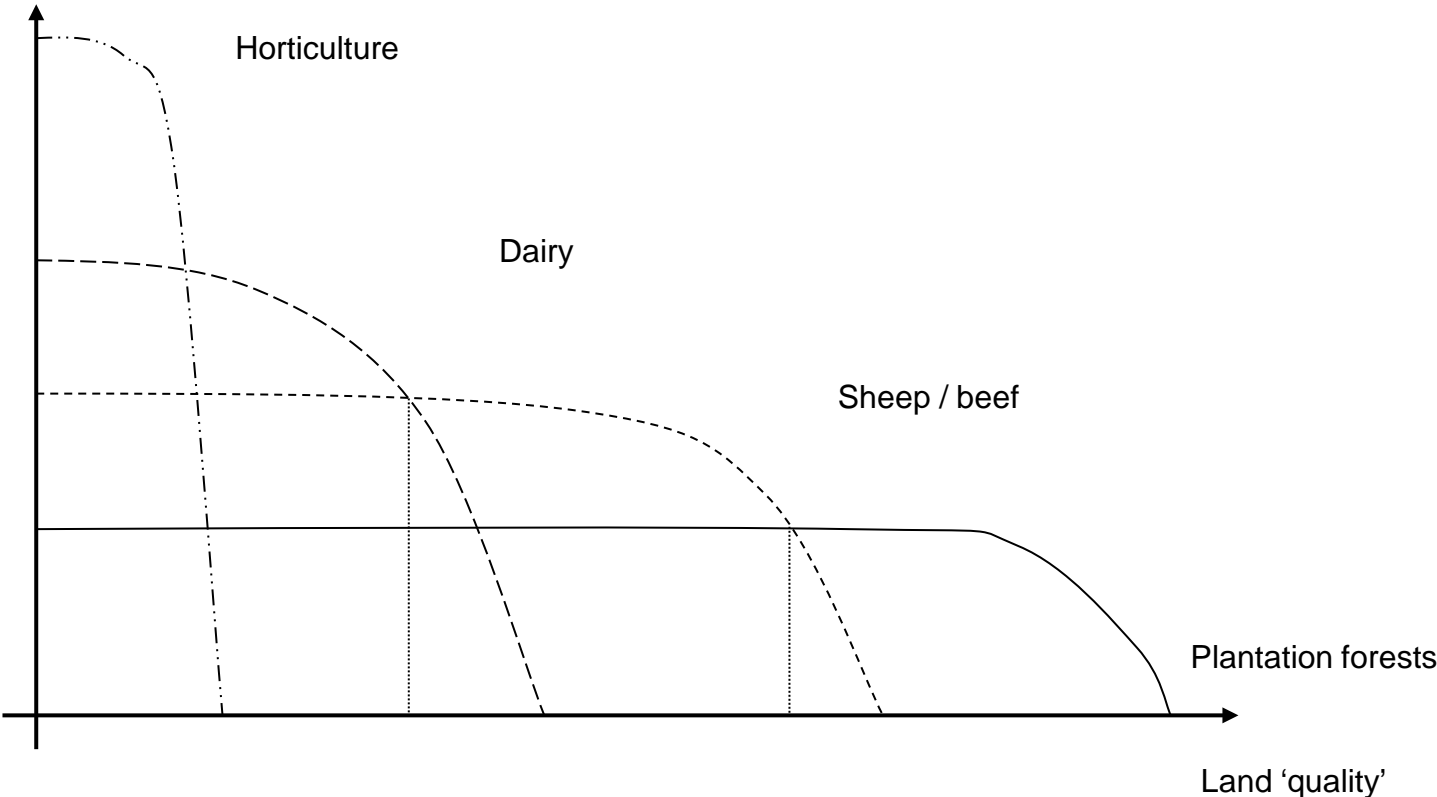
Land use in New Zealand, by area



Source: Ministry for the Environment (2007)

Motu model of land use change

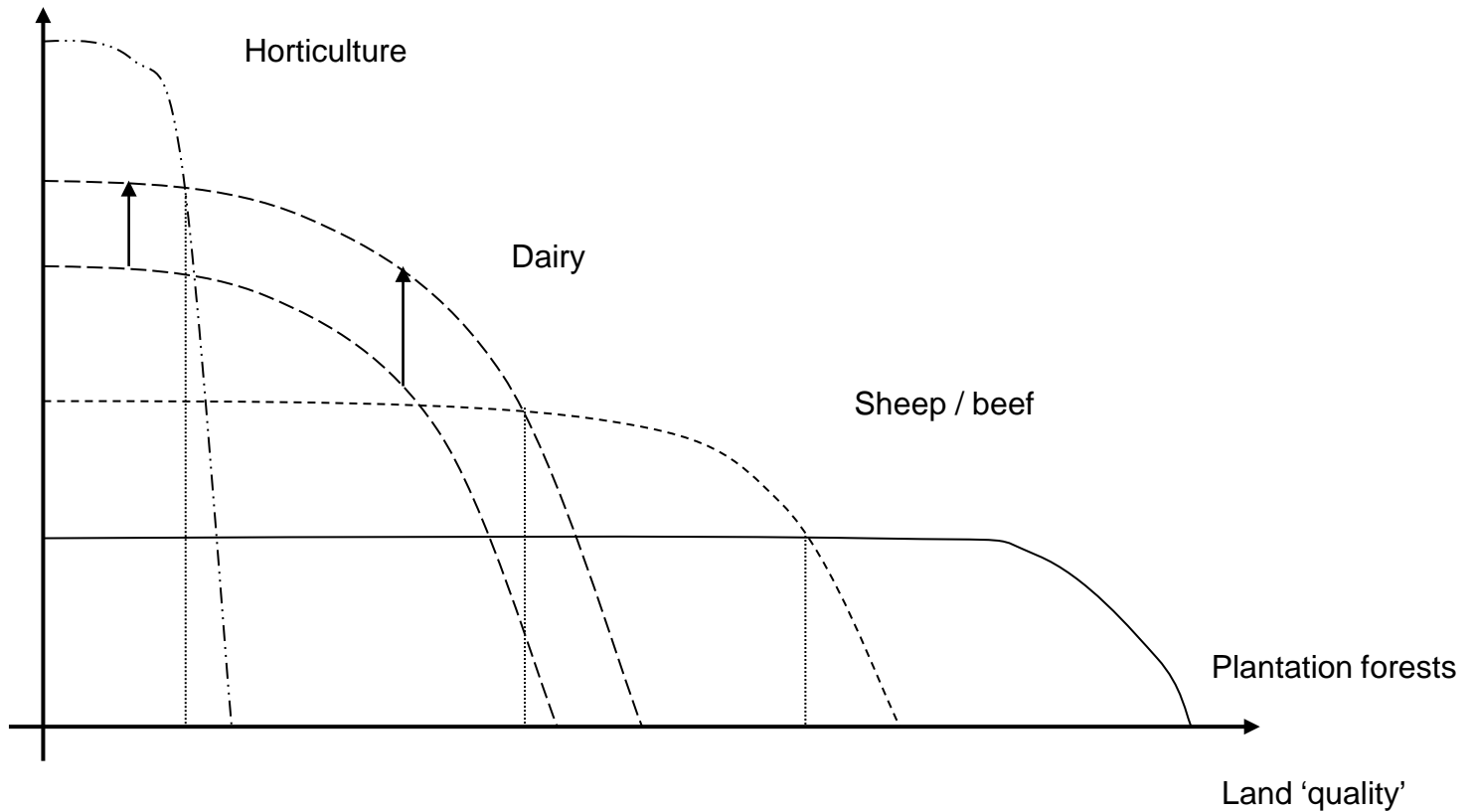
Economic return (\$/ha)



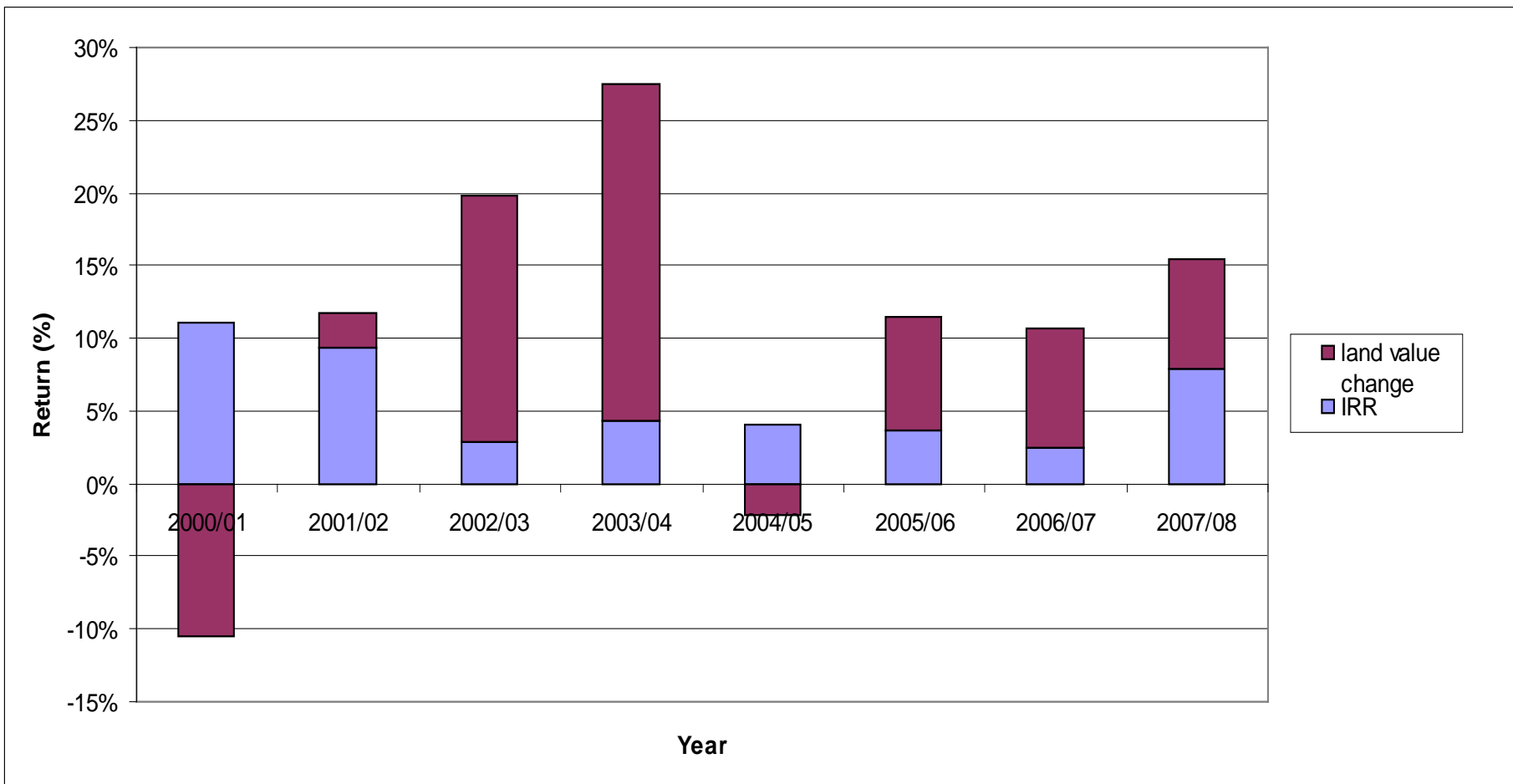
Source: Hendy et al. 2007

Land use change

Economic return (\$/ha)

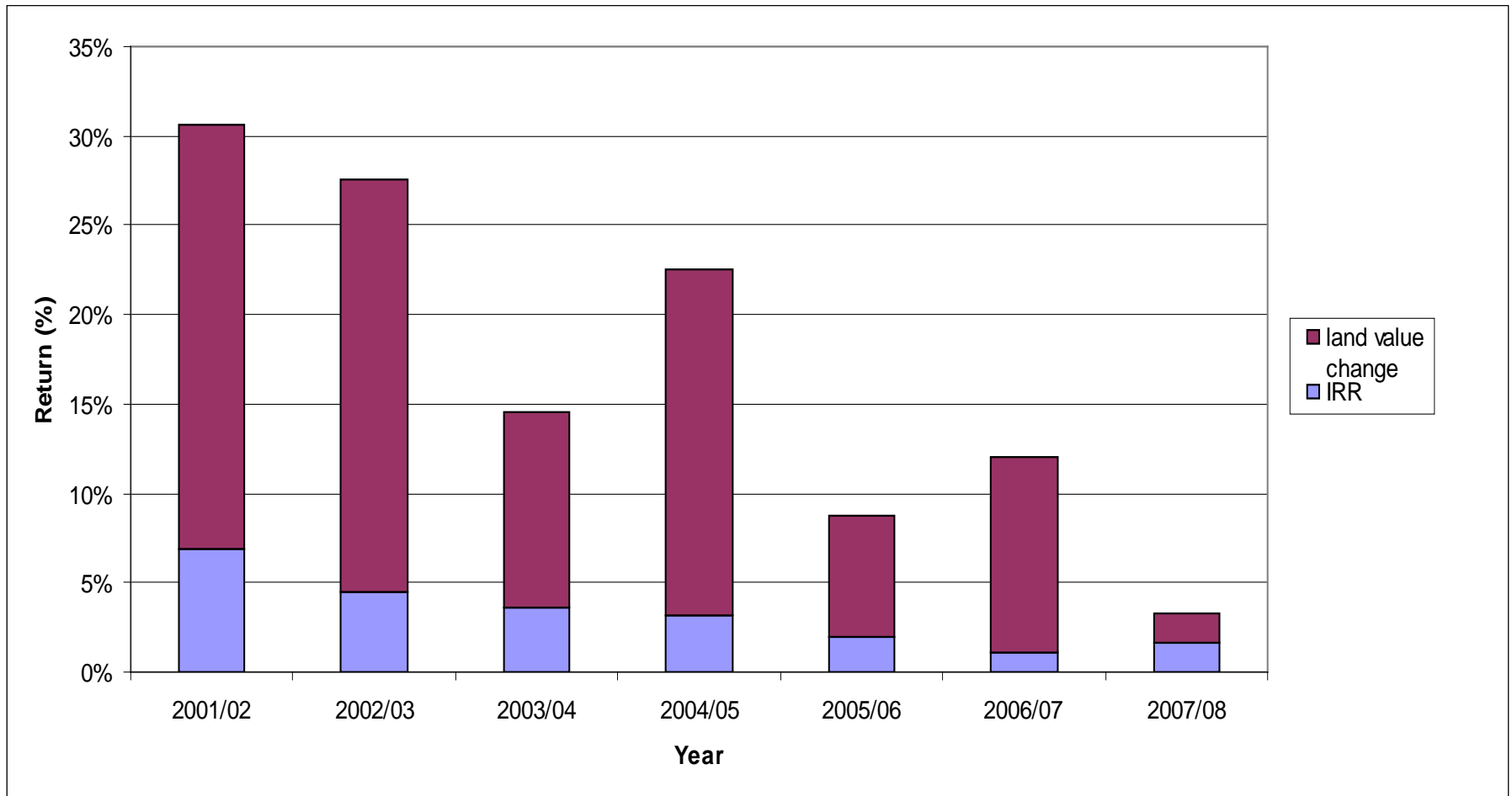


Returns to dairy farming



Source: Evison, 2008; MAF Farm Monitoring Reports

Sheep and beef farm returns



Source: Evison, 2008; MAF Farm Monitoring Reports

Explanation

- “...demand for land suitable for dairy conversion...
- or dairy support, such as heifer grazing, cow wintering or making silage crops...
- sheep and beef farmers who have sold land for dairy conversion have purchased hill country sheep and beef properties and this has underpinned values where dairy support is not an option...
- Properties with special features, such as coastlines or proximity to cities, attract purchasers from a range of sources, including overseas interests...”

An opportunity for forestry?

\$14,804 per ha!

HAWKES BAY COASTAL FARM



331ha (817 acres) 17 Titles
Approx 3.5km of beachfront land, Elsthorpe Hawkes Bay.
Ideal sheep, beef, forestry unit or stunning waterfront lodge.
Magnificent land bank of coastal property
with 17 titles that can be sold separately.
Asking: \$4,900,000 plus GST.

Contact: David Savery 0274 317172
david.savery@xtra.co.nz
www.saverys.co.nz # 6214



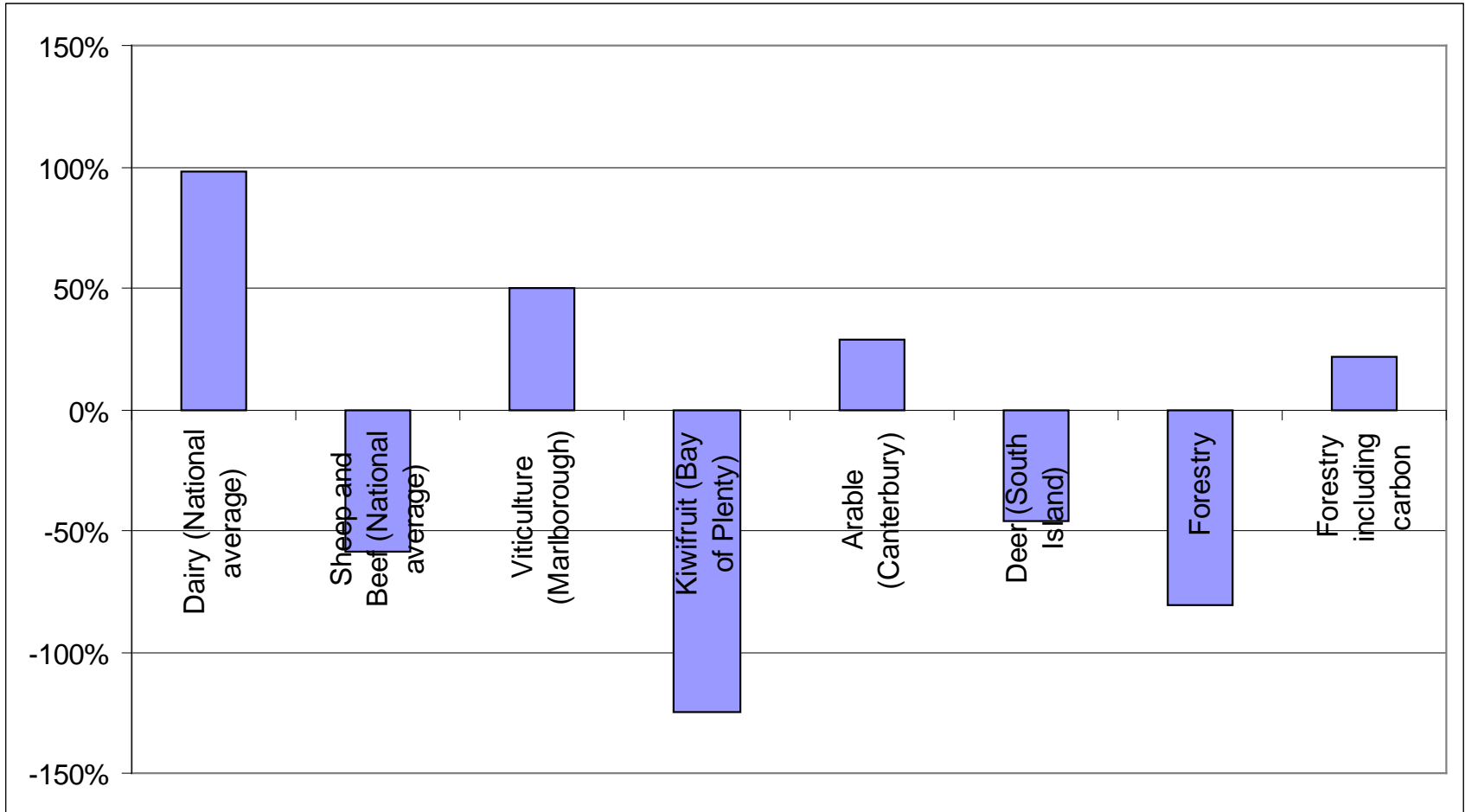
Source: Sunday Star-Times, 10 May 2009

Future land use change?

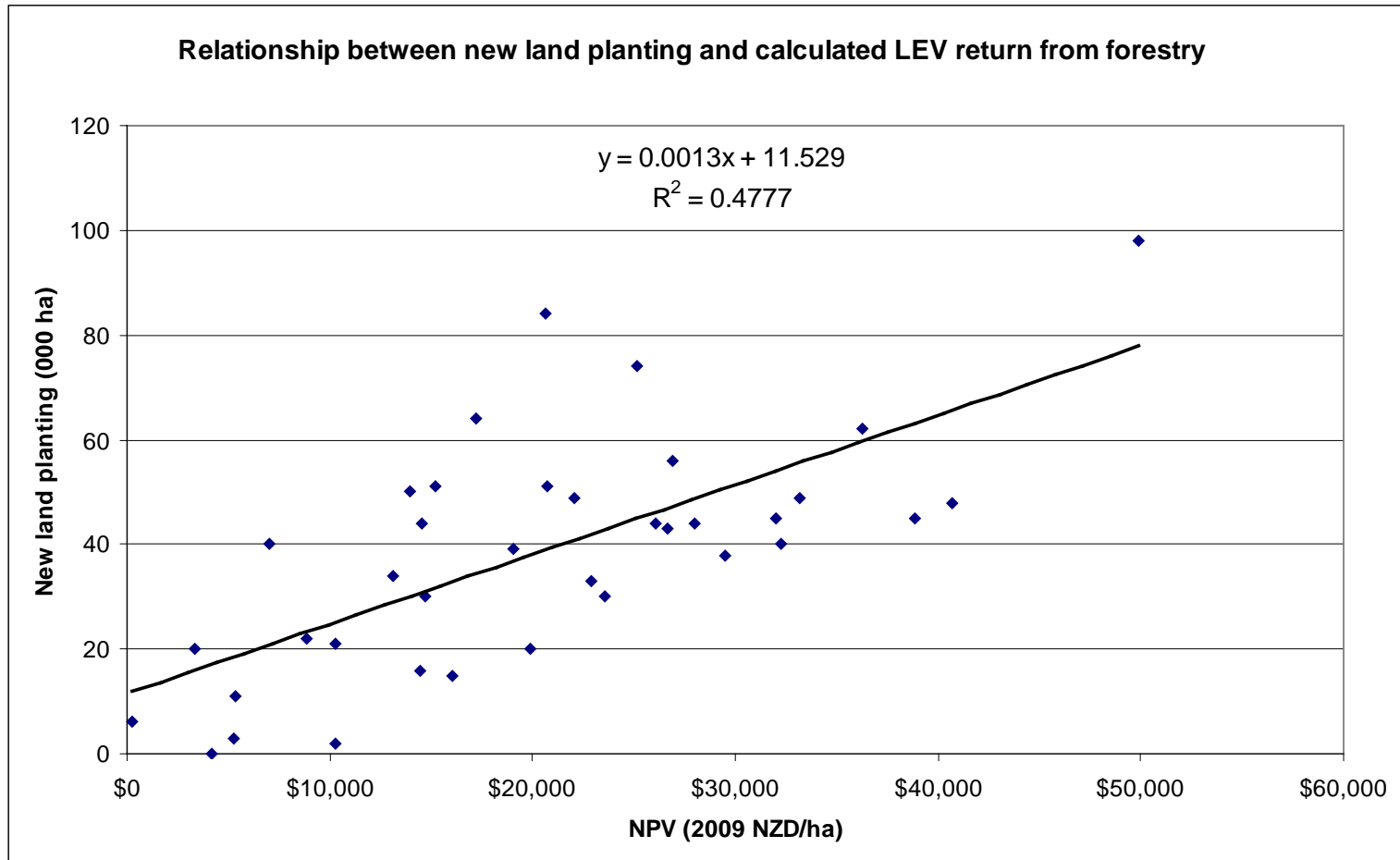
	Capital value (\$/ha)	LEV (\$/ha, @ 4%)	Difference	Land use change
Dairy (National average)	\$47,161	\$93,220	\$46,059	98%
Sheep and Beef (National average)	\$6,311	\$2,595	-\$3,716	-59%
Viticulture (Marlborough)	\$362,940	\$543,697	\$180,757	50%
Kiwifruit (Bay of Plenty)	\$341,022	-\$83,509	-\$424,531	-124%
Arable (Canterbury)	\$23,021	\$29,588	\$6,567	29%
Deer (South Island)	\$15,428	\$8,286	-\$7,142	-46%
Forestry	\$6,311	\$1,229	-\$5,082	-81%
Forestry incl. carbon (\$30/T CO₂^e)	\$6,311	\$7,680	\$1,369	22%

Source: Evison, 2008; MAF Farm Monitoring Reports

Expected direction of land use change



Preliminary results, forestry LEV vs new land planting

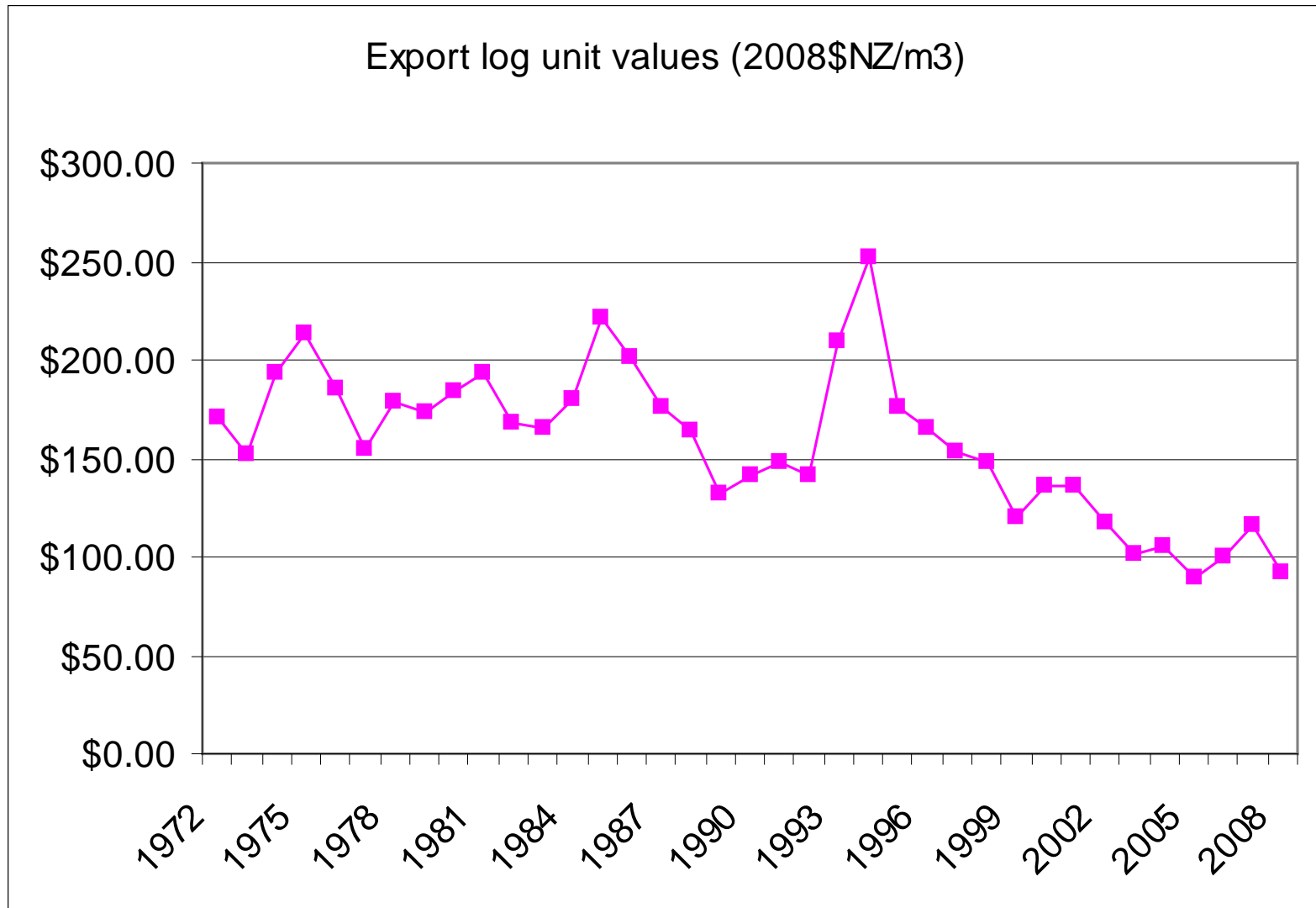


Source: Evison (unpubl), after Horgan (MAF presentation)

Future

- Will the ETS be implemented?
 - at all
 - for all land-based industries
- Will economic returns be realised for forestry, and will they influence investment decisions?
- Will option values for sheep and beef farms be sustained?

Long term trend in export unit values



Source: StatsNZ, MAF

Conclusion

- Without increased investment returns from carbon or some other driver of increased output prices, land use change towards forestry may be limited

Acknowledgements

- Motu Economic and Policy Research (Wellington) for their support for part of this work

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