Australian Agricultural Sector Productivity & Natural Resource Management

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Bruce Brown
General Manager
Namoi Catchment Management Authority

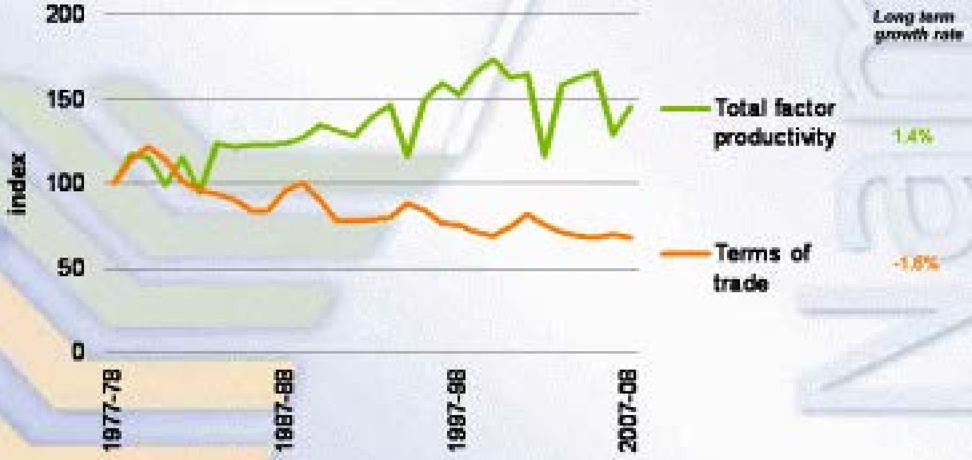
Introduction

"Australia's productivity growth had fallen from being among the best in the world a decade ago to being amongst the worst currently"

Professor Ross Garnaut
(recent address to Australian Treasury)

Productivity & Profitability Trends in Australian Agriculture

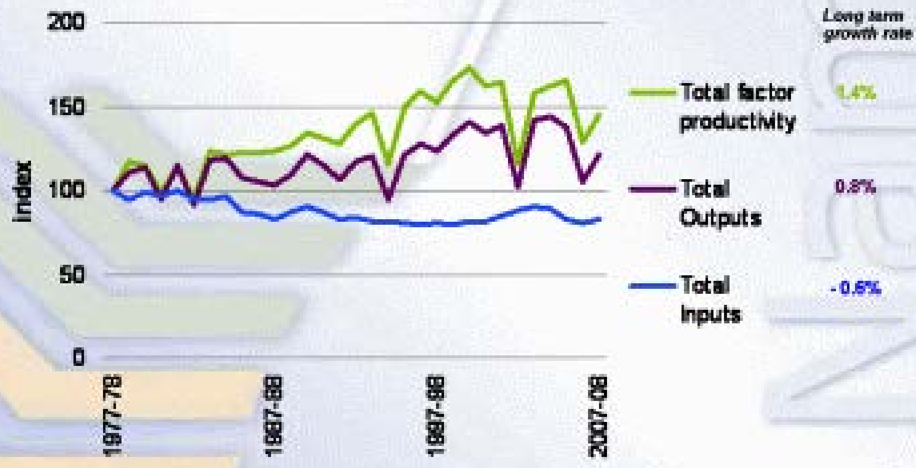
Figure 1: Australian Agriculture Productivity Growth & Terms of Trade – Broadacre Industries



Source: ABARE, Nossal & Sheng, 2009

Productivity & Profitability Trends in Australian Agriculture

Figure 2: Australian Broadacre Industry Productivity Growth – Movements in Outputs & Inputs



Source: ABARE, Nossal & Sheng, 2009

Productivity & Profitability Trends in Australian Agriculture

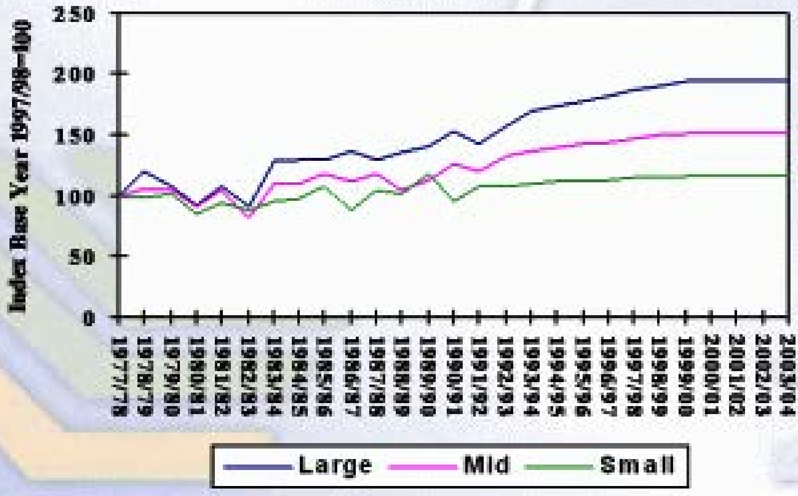
Table 1: Australian Agricultural Productivity Growth by Industry – Average Annual Growth (1977–78 to 2007–08)

	TFP Growth %	Output Growth %	Input Growth %
Total broadacre	1.4	0.8	-0.6
Cropping	1.9	2.1	0.2
Mixed crop-Livestock	1.4	-0.1	-1.6
Beef	1.5	1.6	0.2
Sheep	0.3	-1.5	-1.7

Source: ABARE

Productivity & Profitability Trends in Australian Agriculture

*Figure 3: Australian Broadacre Industry Productivity Growth by Farm Size**

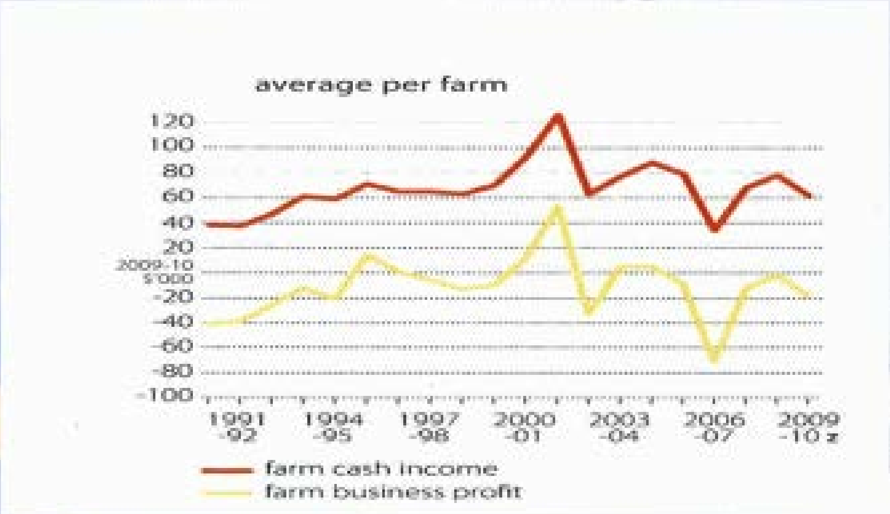


* The split of broadacre farms among the three groups is based on the estimated 33.3 and 66.6 percentiles of carrying capacity (dse's) in each year.

Source: ABARE

Productivity & Profitability Trends in Australian Agriculture

Figure 4: Financial Performance – All Australian Broadacre Industries



Source: ABARE Farm Surveys

Productivity & Profitability Trends in Australian Agriculture

- 80% of broadacre farm businesses generated 48% of agricultural output and reduced aggregate industry profitability by approximately 49%.

- The remaining 20% generated 52% of output and virtually all of the profits.

Source: Australasian Agribusiness Services: 'Financial Performance of Broadacre Australia Agriculture"

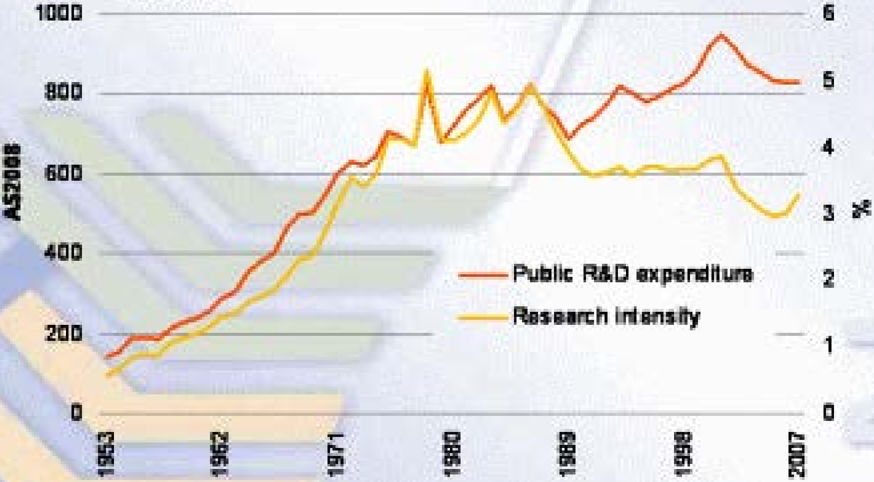
More Recent Agricultural Sector Productivity & Profitability Trends

Figure 5: Australian Broadacre Agriculture Productivity Growth is Slowing

Source: ABARE, Nossal & Sheng, 2009

More Recent Agricultural Sector Productivity & Profitability Trends

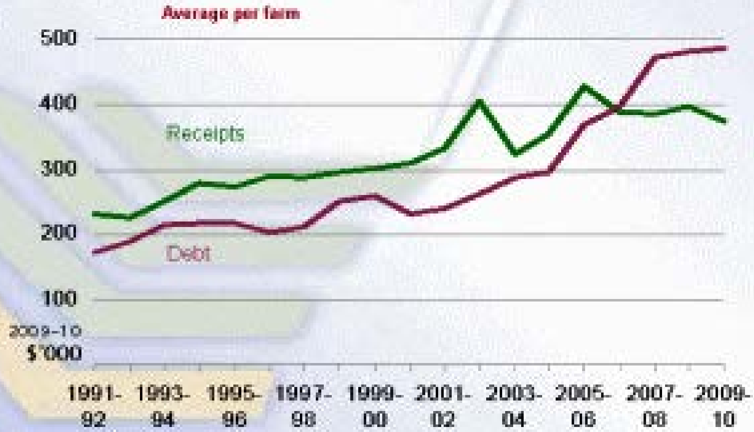
Figure 6: Growth in Australian Public Agricultural R&D Expenditure has slowed



Source: ABARE, Mullen (2009)

More Recent Agricultural Sector Productivity & Profitability Trends

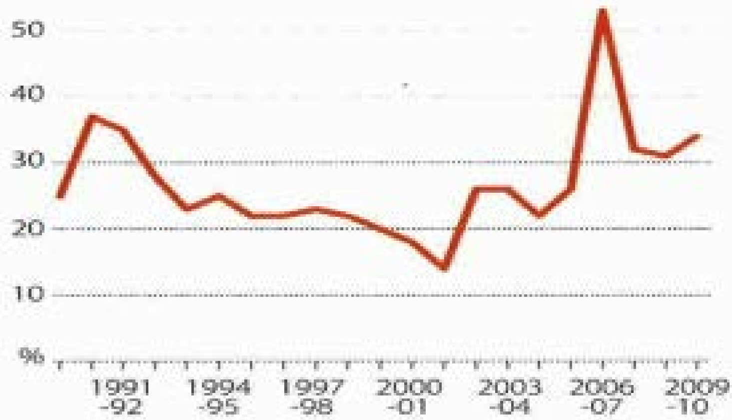
Figure 7: Australian Broadacre & Dairy Farms – Average Receipt & Debt Level Movements



Source: ABARE Farm Surveys

More Recent Agricultural Sector Productivity & Profitability Trends

*Figure 8: Australian Broadacre & Dairy Farms – Debt Servicing Ratio**



*Percentage of Farm Cash Income expended on interest payments.

Source: ABARE Farm Surveys

More Recent Agricultural Sector Productivity & Profitability Trends

Figure 9: Australian Broadacre & Dairy Farms – Land Value & Equity Movements

Source: ABARE Farm Surveys

Natural Resource Management Structures

- Governments almost fell into the regional NRM model given historic policy shortcomings.

  Perhaps a realisation that Albert Einstein was correct when he said *"One cannot solve a problem with the same thinking that created it"*.

- The embryonic success to this point of the regional NRM Model owes much to the fact that in NSW the CMA's are independent statutory entities governed by boards and staffed by people actively engaged with regional/ catchment communities. The jury is still out on the longer term success/failure of the regional model.

- The investment models developed by the regional NRM entities are very diverse – ranging from very significant devolved grant activities at one end to more investment banking approaches at the other.

- Regional communities need to guard against a gradual shift back to centralised agency structures which in the past have been found wanting.

Risks that Threaten NRM Investment Activities

- Any event and/or factor which impacts negatively on farm sector profitability can lead to a reduced focus on the maintenance of environment assets.

- Falling farm sector productivity growth and the potential profitability impacts many force regional NRM entities to re-examine their on-ground investment models.

  For example, what use is an Environmental Benefits Index Methodology (which seeks to determine the public/private benefit equation in allocating funding) if farm sector investable surpluses dry up.

- This raises a range of equity issues which pose challenging questions for regional NRM bodies:

  - Should these entities develop different investment models for the top and bottom farm sector quartiles?

  - What is the optimum allocation of public funds between on-ground NRM investment activity and more general engagement/education activities?

Risks that Threaten NRM Investment Activities

- NRM Funding Constraints
  - Risk for regional NRM bodies is that having increased demand for their NRM services public funding dries up.
- Possible Future Constraints on Public NRM Funding
  - Declining productivity and economic growth occurring in tandem with an ageing population (and related public expenditure increases).
- What does this mean for NRM investment?
  - If aggregate investment funding is to be maintained, regional bodies will have to secure funding from non-traditional sources.

Concluding Comments

- NRM investment entities need to maintain a triple bottom line focus.
- Despite the pressures detailed in this paper, regional NRM bodies can be successful if they:
  - Remain cognisant of the social and economic environment confronting regional communities.
  - Develop innovative NRM investment and engagement programmes that develop and/or allow for trade-offs that provide for second and third best solutions rather than no solution at all.
  - Maintain flexibility in their approach to NRM investment that allows for the incorporation of new scientific information.
  - Develop strong and innovative partnerships capable of adjusting to a dynamic economic environment.
  - Establish baseline NRM monitoring that ensures both public and private investment funds are utilised efficiently.
  - Look to develop NRM investment vehicles that are not dependant on taxpayer funding.