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New Economics of Entrepreneurship, Innovation & Institutions: Considerations for Australian Agriculture

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New Economics of Entrepreneurship, Innovation & Institutions

Considerations for Australian Agriculture



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The price of everything

[//theconversation.com/columns/jason-potts-105412](http://theconversation.com/columns/jason-potts-105412)

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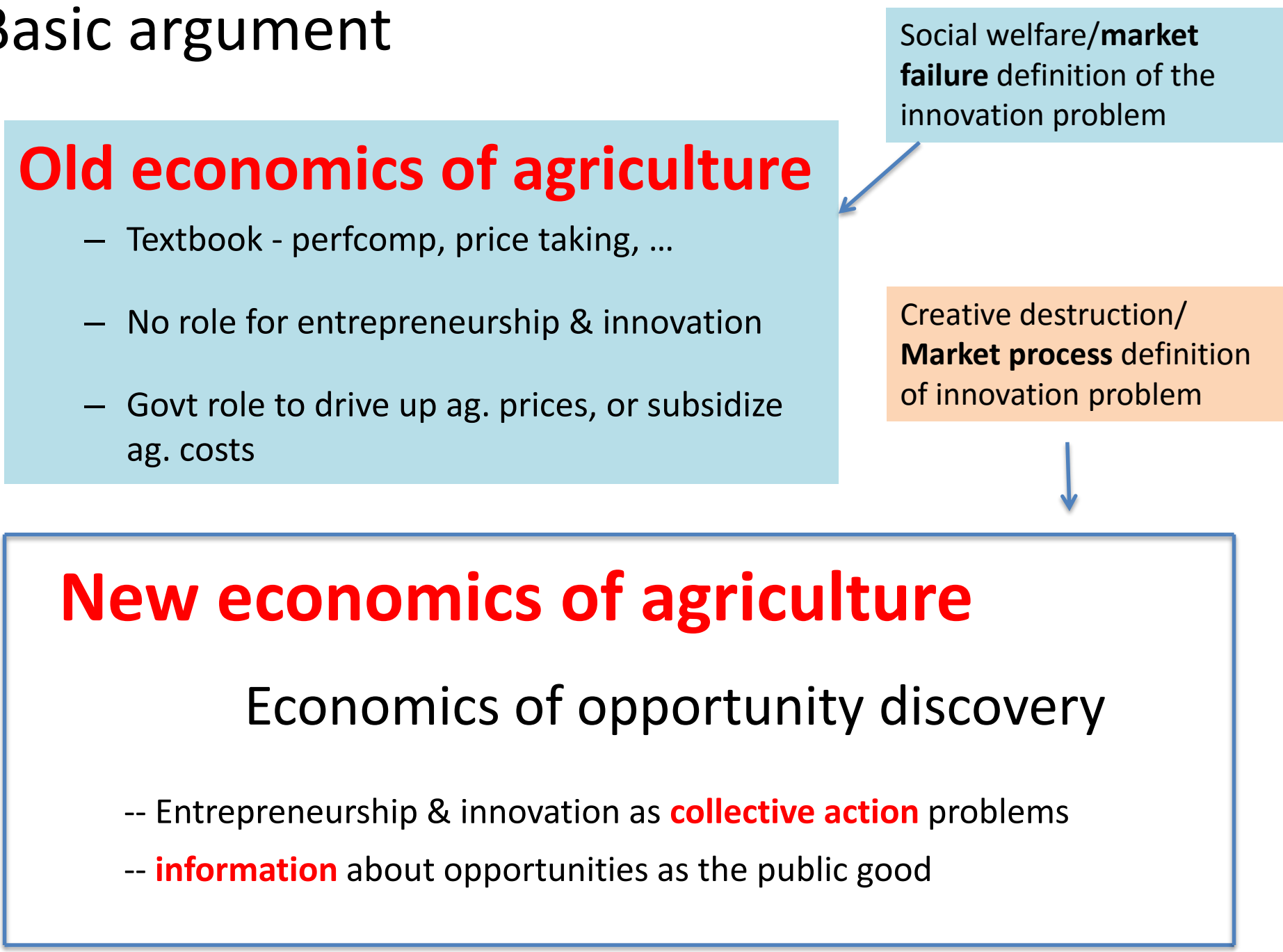


Basic argument

Old economics of agriculture

- Textbook - perfcomp, price taking, ...
- No role for entrepreneurship & innovation
- Govt role to drive up ag. prices, or subsidize ag. costs

Social welfare/**market failure** definition of the innovation problem



Creative destruction/
Market process definition of innovation problem

New economics of agriculture

Economics of opportunity discovery

- Entrepreneurship & innovation as **collective action** problems
- **information** about opportunities as the public good

Old economics of innovation

- **market failure** in producing new knowledge
 - innovation-push model of public science & technology
- **Innovation problem**: fixed costs under competition ($P=MC<AC$)
 - E.g. chemicals, consumer electronics, CSIRO
- **Implication**: social welfare max requires government intervention
 - i.e. IP, R&D subsidy, demand support, public science,

Presumption 1: **governments can fix market failures**

Presumption 2: **this applies to agriculture too**

New economics of innovation

- the role of entrepreneurial discovery
 - market information, not new technology
- private governance institutions to solve the innovation problem
 - innovation commons

New Institutional Economics
Evolutionary/Schumpeterian economics
Public choice economics
Austrian economics/Economics of Knowledge
Economics of the commons
Complexity economics

Innovation problem: rules to coordinate knowledge for discovery of value

Path from new technology to emergence of new industry

- 3D printing, bitcoin/blockchain, new sports, PC/software
- early wine industry in Australia

Implication:

- a new technology is not a new industry;
- new industry emergence requires governance
 - i.e. cooperation & rules, that become industry groups/associations

Presumption 1: **governments can fix market failures**
Presumption 2: **this applies to agriculture too**

Problem with Presumption 1 above:

- knowledge problem,
 - rent-seeking/govt. failure,
 - no recognition of the entrepreneurial problem
-
- Presumption 2: this applies to agriculture too

a new research program – agricultural innovation economics

- Study the institutional conditions that resolve collective action problems associated with distributed knowledge in the very early stages of new agricultural industries
- theory: this institutional mechanism is the origin of comparative advantage in agricultural clusters

Agricultural economic policy in Australia: history and consequences

- Agrarian socialist
- Globalised free-trading
- Govt. support for political-economy reasons
- Govt. support for industry-level public goods with externalities (rural R&D corps)
 - **have been disappointing, just as economic theory predicts**
 - (1) public choice theory (capture, rent-seeking)
 - (2) new science is not new entrepreneurship

Problems with ag. econ. of innovation

All about **market failure** in ag. science / or marketing. Resolved with government. But ...

(I) – Where are the entrepreneurs?

(II) – Where is the information/knowledge?

(III) – Where are the institutions?

KEYWORDS

entrepreneurship, knowledge, coordination,
institutions, governance, evolution

*entrepreneurial discovery
problems*

NOT

investment misallocation
problems

collective action problems

NOT

market failure problems

governance solutions

NOT

government solutions

**Schumpeter
Hayek &
Ostrom**

NOT

**Samuelson,
Arrow &
Romer**

Opportunity discovery – entrepreneurs & the growth of knowledge

- Agents of change.
- Knowledge needs creating and processing.
- Opportunities need to be revealed.
- Market process theory.
- Evolutionary growth of knowledge.

Ricardo Hausmann & Dani Rodrik (2003) 'Economic Development as Self Discovery'
Journal of Development Economics, 72(2): 603-33.

Discovery of comparative advantage – a local public goods problem

- Discovery of information about local comparative advantage/ costs, opportunities, etc
- Entrepreneurial information as a local public good
 - Chile salmon farming
 - Bangladesh hats
 - Pakistan bed sheets
 - Columbia cut flowers
 - India software
 - Taiwan semiconductors

Discover your niche

- Kimberley (Ord River) sandalwood oil
- Barossa valley shiraz
- King island camembert
- Northern rivers creative industries

Barriers to entrepreneurial action

- ~~Finance~~
- ~~Resources, infrastructure~~
- ~~Legal & regulatory~~
- ~~Competence & capability~~
- Uncertainty about costs & benefits

invest

Existing

New

**COSTS & OPPORTUNITIES
KNOWN**

**COSTS & OPPORTUNITIES
UNKNOWN**

Main barrier

Entrepreneurs discover these costs & opportunities
revealing the regions strengths & weaknesses

Innovation Commons – efficient governance & innovation institutions

- Institution for collective action in pooling innovation resources (Potts et al 2015)
- Hypothesis: all new industries/niches begin within an innovation commons
 - Entrepreneurial and distributed market knowledge far more important to early stage innovation than scientific technical knowledge

Innovation commons in Australian Agriculture

- *Very early Australian wine industry in the Hunter Valley*
- Collective pooling of experiments
- Information

McIntyre J, Mitchell R, Boyle B, Ryan S (2013) 'We used to get and give a lot of help: Networking, cooperation and knowledge flow in the Hunter Valley wine cluster' *Australian Economic History Review*, 53(3): 247-67.

The life cycle of an Industry Association

- Hypothesis: industry associations originate from a collapsed innovation commons
 - An industry association emerges as a switch in function from coordinating discovery and common pool resource access, to coordinating industrial *niche construction*

*I – A New **Research** Program?*

- Ag economics needs to move from old innovation economics to **new innovation economics**
- New = Schumpeterian + Hayek? Ostrom/Rodrik

II – A New *Policy* Framework?

- from *government* to ***governance*** solutions
- focus on **institutional structures** from which new industries/opportunities emerge
- We don't presume to know what the exact opportunities are. That's the problem to solve.
 - Information is the public good, not (just) infrastructure