After the recession should we expect fundamental changes in the positive drivers of recent Australian economic growth?

What does the longer run future look like?

R G Gregory
Economics ANU
The questions posed – vital policy areas

- What will happen when Chinese demand for exports is no longer a major driver of Australian economic growth and living standards? - Chinese exports accounted for half of all export growth over last two decades. I have never experienced a period, like today, where politics and economics have been is so much conflict!!

- What will happen if immigration inflows are reduced? Immigrants - accounted for all additional full-time jobs over the last decade and a half held by those 15-40 years, ?

- Will the Australian labour market continue it’s half century growth path - part-time job growth accounting for half of all jobs created?

- Will women employed in the labour market continue to work nine to ten hours less per week than men? - as they have done for over half a century?
Australia RGDP and RGDI ratio to average of selected countries RGDP Index
Germany, US, Canada, UK
1991 = 1.00
Rapid Australian-Chinese trade generated rapid population growth under new immigration scheme
OS Born as a proportion of the total Population
15-64 years
Population Growth 15-64 years
AU and OS Born
2005-2020
Change in Full Time jobs: 15-40 years of age
1991 to 2020
(ooo's)
Do we need to think more about work hours per week?

The strange dichotomy between hours worked per week of the population compared to hours worked per week of those employed.
Figure 1. Average Monthly Hours Employed in the Labour Market per Head of Population 16 years+
Absolute Change in Full and Part-time employment (ooo’s) 1978-2020

[Graph showing the absolute change in full and part-time employment from 1978 to 2020, with the x-axis representing years from Feb-1978 to Feb-2018 and the y-axis representing absolute change in employment.]
Change in Male and Female Full-Time Jobs since 1978
<table>
<thead>
<tr>
<th>Duration</th>
<th>P Time</th>
<th>F Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>0.24</td>
<td>0.16</td>
</tr>
<tr>
<td>1 year to 2</td>
<td>0.24</td>
<td>0.21</td>
</tr>
<tr>
<td>2 years to 5</td>
<td>0.19</td>
<td>0.22</td>
</tr>
<tr>
<td>5 years to 10</td>
<td>0.10</td>
<td>0.12</td>
</tr>
<tr>
<td>10 years to 20</td>
<td>0.14</td>
<td>0.18</td>
</tr>
<tr>
<td>20+ years</td>
<td>0.09</td>
<td>0.11</td>
</tr>
</tbody>
</table>
Monthly Hours gap between employed Men and Women
1978-2019
Change in Monthly Hours Worked
Employed Men and Women
1978-2019
Harnessing productivity gains post COVID-19: Structural change implications for the Australian economy

Associate Professor Janine Dixon
Centre of Policy Studies, Victoria University

Queensland Productivity Commission Livestream
Productivity reform in Australia and New Zealand: Barriers and opportunities
November 24, 2020
• Part 1: Basic model to illustrate
  – The attraction of productivity growth
  – The risks associated with productivity growth

• Part 2: The pandemic
  – 5 economic features of the pandemic
  – Productivity impact so far
  – Potential productivity impact

• Part 3: How can policy help?
## Part 1: A mini CGE model

<table>
<thead>
<tr>
<th></th>
<th>Definition</th>
<th>Reduced form (short run) Real wage and capital fixed</th>
<th>Reduced form (long run) Real rental and labour fixed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production function</strong></td>
<td>$y = S_L(l - a_L) + S_K(k - a_K)$</td>
<td>$y = -\sigma \frac{S_L}{S_K} a_L$</td>
<td>$y = -a_L$</td>
</tr>
<tr>
<td>$S_L$=labour share=0.6; $S_K$=capital share=0.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cost-minimizing inputs</strong></td>
<td>$l - k = -\sigma (w - q) + (1 - \sigma)(a_L - a_K)$</td>
<td>$l = \left(1 - \frac{\sigma}{S_K}\right) a_L$</td>
<td>$k = -a_L$</td>
</tr>
<tr>
<td>$\sigma$ = CES substitution elasticity = 0.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Zero pure profits</strong></td>
<td>$p = S_L(l + a_L) + S_K(k + a_K)$</td>
<td>$q = ?$</td>
<td>$w = ?$</td>
</tr>
<tr>
<td><strong>Demand</strong></td>
<td>$y = -\varepsilon p + f$</td>
<td>$p = \frac{\sigma S_L}{\varepsilon S_K} a_L + \frac{f}{\varepsilon}$</td>
<td>$p = \frac{a_L}{\varepsilon} + \frac{f}{\varepsilon}$</td>
</tr>
<tr>
<td>$\varepsilon$ = demand elasticity = 1? $f$=demand shift</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Real wage</strong></td>
<td>$r w = w - p$</td>
<td>fixed</td>
<td>$r w = -a_L$</td>
</tr>
<tr>
<td><strong>Real capital rental</strong></td>
<td>$r o r = q - p$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$r o r = -\frac{S_L}{S_K} a_L$</td>
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<td></td>
</tr>
</tbody>
</table>

Shocks: $a_L < 0$; $f > 0$; $a_K = 0$
## A mini CGE model

<table>
<thead>
<tr>
<th>Reduced form (short run)</th>
<th>Reduced form (long run)</th>
<th>A negative shock to $a_L$: productivity improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Real wage and capital fixed</strong></td>
<td><strong>Real rental and labour fixed</strong></td>
<td><strong>Shocks to $a_L$ and $f$ only</strong></td>
</tr>
<tr>
<td><strong>Production function</strong></td>
<td></td>
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</tr>
<tr>
<td>$y = -\sigma \frac{S_L}{S_K} a_L$</td>
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<td><strong>Cost-minimizing inputs</strong></td>
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<td>$l = \left(1 - \frac{\sigma}{S_K}\right) a_L$</td>
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<td><strong>Zero pure profits</strong></td>
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</tr>
<tr>
<td>$q = ?$</td>
<td>$w = ?$</td>
<td></td>
</tr>
<tr>
<td><strong>Demand</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$p = \frac{\sigma}{\varepsilon} \frac{S_L}{S_K} a_L + \frac{f}{\varepsilon}$</td>
<td>$p = \frac{a_L}{\varepsilon} + \frac{f}{\varepsilon}$</td>
<td></td>
</tr>
<tr>
<td><strong>Real wage</strong></td>
<td></td>
<td></td>
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<tr>
<td>fixed</td>
<td>$rw = -a_L$</td>
<td></td>
</tr>
<tr>
<td><strong>Real capital rental</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$ror = -\frac{S_L}{S_K} a_L$</td>
<td>fixed</td>
<td></td>
</tr>
</tbody>
</table>
### A mini CGE model with industries

<table>
<thead>
<tr>
<th>Reduced form (short run)</th>
<th>Real wage and capital fixed</th>
<th>A negative shock to $a_L$: productivity improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shocks to $a_L$ and $f$ only</strong></td>
<td></td>
<td>Unambiguously good for output, industries with elastic demand expand more</td>
</tr>
</tbody>
</table>

#### Production function

$$y_i = -\sigma \frac{S_L}{S_K} (a_L - (p_i - p))$$

Unambiguously good for output, industries with elastic demand expand more.

#### Cost-minimizing inputs

$$l_i = \left(1 - \frac{\sigma}{S_K}\right) a_L + \frac{\sigma}{S_K} (p_i - p)$$

Short run: better for labour in industries with elastic demand.

#### Demand

$$(p_i - p) = \frac{\sigma S_L}{\sigma S_L + \varepsilon_i S_K} \left(1 - \frac{\varepsilon_i}{\varepsilon}ight) a_L + f$$

Industry price response relative to average depends on industry elasticity.
- Highly elastic: $p_i - p \rightarrow -\sigma \frac{S_L}{S_K} a_L > 0$
- Perfectly inelastic: $p_i - p = a_L < 0$

#### Real wage: ECONOMY WIDE fixed

Long run: good for wages.

#### Real capital rental: INDUSTRY SPECIFIC

$$ror_i = -\frac{S_L}{S_K} a_L + \frac{1}{S_K} (p_i - p)$$

Short run: good for profits for industries with elastic demand; bad for profits for industries with inelastic demand. Driver of investment change and long run structural change.
Economy-wide, uniform increase in labour-saving productivity:

• output and profits increase in the short run
  – Impact on industry employment depends on demand elasticity

• output, investment and real wages increase in the long run
  – if rates of return are fixed, i.e. no rent-seeking

• Impact on currency is not clear
  – Depends on pass-through to domestic incomes

• Industries with elastic demand will expand more: employment increases
  – Trade exposed

• Industries with inelastic demand expand less: employment may be replaced by technology
  – Government services
  – Household essentials
Part 2: Five economic impacts of Covid-19

1. Productivity:
   – Negatives: working from home, school closures, inefficiencies derived from additional hygiene requirements and social distancing
   – Positives: working from home, less business travel, online ordering, telehealth
   – Illusory: increase in output per worker from temporary compositional change

2. Domestic demand: Social distancing affects public and private consumption of many commodities

3. International demand: General slowing of world economy affects all exports, travel bans impact tourism, international students

4. Fiscal: JobKeeper, JobSeeker and other support measures, modelled as transfers and wage subsidies

5. Population: slowing net international and net interstate migration
   – Will lose approx. 4 years of growth
   – Dependency ratio to fall approx. 2.5 per cent

   • Difficult to isolate individual impacts
   • Impacts will unwind at different rates, some will be permanent
Population growth revisions

**Working age population**

**Dependency ratio**

Source: budget.gov.au
Productivity growth?

GDP per hour worked: Index - Percentage changes;

Large productivity impact due to temporary compositional change (loss of low wage jobs): job losses concentrated on young workers in hospitality, retail account for ~1.5% at least – a “normal” year.

Source: ABS 5206.0
<table>
<thead>
<tr>
<th>Source of productivity change</th>
<th>Direct impact</th>
<th>Wider economic impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote working, on line services</td>
<td>↑ hours per person, ↑ leisure time</td>
<td>↑ output, temp ↑ UER, temp ↑ ROR, permanent ↑ K</td>
</tr>
<tr>
<td>Less business travel</td>
<td>↓ use of accommodation, restaurants, air transport</td>
<td>Productivity ↑, more for industries with more travel. Demand for accom, restaurants, travel ↓</td>
</tr>
<tr>
<td>Less bricks and mortar real estate – e.g. on line shopping, telehealth, tele-gov services, banking, tertiary education</td>
<td>↓ non-residential building in investment</td>
<td>Productivity ↑, temp ↑ ROR \ adjusted demand for NR building ↓</td>
</tr>
<tr>
<td></td>
<td>Revaluation of housing – proximity to CBD ↓, home office ↑</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less commuting – revaluation of public and private transport infrastructure</td>
<td></td>
</tr>
<tr>
<td>More use of computer and internet services, efficiency gain</td>
<td>↑ computer services as input to production (productivity loss); ↑ primary factor productivity for net average productivity improvement</td>
<td>Productivity ↑ \ adjusted demand for computer services ↑</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less retail trade margin, more wholesale margin</td>
<td>↓ retail as margin on hh consumption</td>
<td>Overall productivity ↑, CPI ↓</td>
</tr>
<tr>
<td></td>
<td>↑ wholesale as margin on hh consumption</td>
<td></td>
</tr>
<tr>
<td></td>
<td>↓ wholesale productivity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>↑ hh usage of postal services</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Clear productivity improvement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• GDP increase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• $Y = C+I+G+(X-M)$:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Balance of Trade surplus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Consumption increase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Investment increase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Unclear impact on aggregate employment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Real wage increase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Industries and occupations: specific and macro impacts</td>
<td></td>
</tr>
</tbody>
</table>
Industry and occupation impacts

• Specific impacts:
  – Negative: Accommodation, restaurants, air transport
  – Negative: Retail
  – Positive: Computer services
  – Positive: Wholesale, delivery
  – Negative: non-residential construction
  – Positive: residential construction, construction services

• Inelastic demand: government jobs, household necessities
  – Jobs replaced by technology: public administration, health care, utilities, agriculture

• Elastic demand
  – Technology-driven cost reductions and increase in incomes increase output and employment: accommodation, restaurants, air transport, retail, residential construction, mining, agriculture
## Part 3: Implications

<table>
<thead>
<tr>
<th>Cohort</th>
<th>From…</th>
<th>Into…</th>
<th>Policy Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low wage, low age</td>
<td>Retail</td>
<td>Wholesale, Hospitality</td>
<td>Geographical location (suburban retail vs industrial wholesale); Hospitality: strong underlying growth and income boost will outweigh business travel impact</td>
</tr>
<tr>
<td>Construction</td>
<td>Non-residential Civil engineering</td>
<td>Residential Communications</td>
<td>Retraining Stranded assets Revaluation of government infrastructure projects</td>
</tr>
<tr>
<td>Health care, social assistance, public service, education</td>
<td>Public sector</td>
<td>Private sector, professional services</td>
<td>Productivity improvements can be used for cost-cutting or increasing public service delivery; Low-wage jobs at lower risk but and strong underlying growth should moderate job losses/retraining.</td>
</tr>
<tr>
<td>Transport</td>
<td>Air transport</td>
<td>Professional services, hospitality</td>
<td>Different retraining opportunities for pilots, airport staff, flight attendants</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Farm management</td>
<td>Professional services</td>
<td>Accelerate long term trend; Other issues may be alleviated e.g. fruit picking; Expand into exports, high value production</td>
</tr>
</tbody>
</table>
Conclusions

• Productivity
  – Creates and destroys jobs
  – Increases output and real wages

• Transition to higher productivity needs to be sensitive to risk of large job losses
  – Long term employability: Bank tellers or car manufacturers?
    • ✓ YES : Bank tellers – geographically dispersed, adaptable skills for retraining
    • ✗ NO : SA car manufacturers – geographically concentrated, few similar opportunities, concentrated loss of value of local dwellings. Policy intervention required.

• Lasting COVID-19 productivity improvements depend on:
  – Communication infrastructure
  – Cultural change

• Government spending and investment to adapt
  – Considerations – transport infrastructure, communication infrastructure, local amenity
  – Improvement in service delivery in health care, social assistance, education
The increasing institutional barriers to reform

Queensland Productivity Commission conference
Productivity reform in Australia and New Zealand: barriers and opportunities

John Daley, Senior Fellow, Grattan Institute
24 November 2020
Institutional barriers to reform

Is Australia getting worse at reform?

What were the enablers and blockers of reform over the last decade?

What institutional changes might explain a falling strike rate?
There hasn’t been much reform for the last 15 years

Major policy changes by policy area and government

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade and currency</strong></td>
<td>Float A$</td>
<td>Balanced budget commitment</td>
<td>FTAs</td>
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<tr>
<td></td>
<td>International students</td>
<td>RBA inflation targets</td>
<td>End auto assistance</td>
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<tr>
<td></td>
<td>Tariff reductions</td>
<td>Bank capital reform</td>
<td>PBO</td>
</tr>
<tr>
<td><strong>Macro/budget policy</strong></td>
<td>RBA inflation targets</td>
<td>National Competition Policy</td>
<td>National Reform Agenda</td>
</tr>
<tr>
<td></td>
<td>Balanced budget commitment</td>
<td>Telstra sale (1,2 &amp; 3)</td>
<td></td>
</tr>
<tr>
<td><strong>Labour markets</strong></td>
<td>Accord</td>
<td>Workplace Relations Act</td>
<td>Fair Work</td>
</tr>
<tr>
<td></td>
<td>Enterprise Bargaining</td>
<td>Skilled migration</td>
<td>Age pension access 67</td>
</tr>
<tr>
<td></td>
<td>Hilmer review</td>
<td>Work Choices</td>
<td>Age pension access 70</td>
</tr>
<tr>
<td><strong>Competition policy</strong></td>
<td>National Competition Policy</td>
<td>Demand-driven higher ed</td>
<td></td>
</tr>
<tr>
<td><strong>Privatisation</strong></td>
<td>GBE reform</td>
<td>Telstra sale (1,2 &amp; 3)</td>
<td>Medibank sale</td>
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<td></td>
<td>CBA sale</td>
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<td></td>
<td>Elec Water</td>
<td>Bank capital reform</td>
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<td></td>
<td>Airline IPO</td>
<td></td>
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<tr>
<td><strong>Regulation</strong></td>
<td>Foreign bank entry</td>
<td>National Reform Agenda</td>
<td>Super tax</td>
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<td></td>
<td>Telco dereg.</td>
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<td>Company tax</td>
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<tr>
<td><strong>Tax</strong></td>
<td>CGT &amp; FBT</td>
<td>Carbon pricing</td>
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<td></td>
<td>Dividend imputation</td>
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<td></td>
<td>Super-annuation</td>
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<tr>
<td><strong>Federalism</strong></td>
<td>Medicare</td>
<td>Federal/state financial reform</td>
<td>NDIS</td>
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<td></td>
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<td></td>
<td>School funding</td>
</tr>
<tr>
<td>Notes: Reforms that were not passed, or that were subsequently substantially wound back or repealed, are shown shaded out. 'Airline IPO' is the sale and IPO of Qantas in 1993 and 1995. Sources: Access Economics (2019) and The Economist (2011); Grattan analysis</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Governments appear less guided by expert opinion

Fate of OECD policy recommendations, by government

Source: Grattan analysis of OECD
Institutional barriers to reform

Is Australia getting worse at reform?

What were the enablers and blockers of reform over the last decade?

What institutional changes might explain a falling strike rate?
Methodology

The problems of investigating institutional reform

• Tendency to jump onto favourite institutional hobbyhorse
• Cherry-pick examples that illustrate institutional hobbyhorse
• Invite response that change failed because not worthwhile reform

Our approach

• Review all major actionable recommendations in all Grattan reports 2009-2019
• Diagnose whether implemented, investigate the enablers and blockers
• Compile all 60+ reforms, and look for patterns

Methodological advantages

• A representative sample of reforms: large number, broad portfolio range
• Selected in advance of any consideration about institutional implications
• Already have extensively argued case about why each is a worthwhile reform
• Based on an articulated set of values (spelt out in Prioritising a government’s agenda)
## What reforms happened?

<table>
<thead>
<tr>
<th>Category</th>
<th>Reforms</th>
<th>&quot;Easy&quot; reforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic growth</td>
<td>• Ride-sharing</td>
<td></td>
</tr>
<tr>
<td>Taxation &amp; welfare</td>
<td>• Superannuation taxes</td>
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<tr>
<td>Housing</td>
<td>• Residential tenancy policy</td>
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<tr>
<td>Cities &amp; transport</td>
<td>• City transport access</td>
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<tr>
<td></td>
<td>• Transport project value capture (avoid)</td>
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<tr>
<td>Energy</td>
<td>• Early stage low emission technology support</td>
<td></td>
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<tr>
<td></td>
<td>• Regulated rate of return for energy networks</td>
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<tr>
<td></td>
<td>• Defaults for retail electricity pricing</td>
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<tr>
<td>Health</td>
<td>• Reduced pricing for generic pharmaceuticals</td>
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<td></td>
<td>• Public hospital pricing</td>
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<td></td>
<td>• Role expansion for allied health professionals</td>
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<td></td>
<td>• Better end of life care</td>
<td></td>
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<tr>
<td>School education</td>
<td>• School funding</td>
<td></td>
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<tr>
<td></td>
<td>• School education outcome measurement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Targeted teaching approach in schools</td>
<td></td>
</tr>
</tbody>
</table>

**Vigorous opposing lobby groups not a strike-out**

- Publicly supported
- Strong evidence
- Not big budget cost
- No party shibboleths
## Adverse public opinion

<table>
<thead>
<tr>
<th>Economic growth</th>
<th>Taxation &amp; welfare</th>
<th>Housing</th>
<th>Cities &amp; transport</th>
<th>Not the big barrier in energy, health, and school education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverse opinion the only barrier</td>
<td>• Regional development incentives (avoid)</td>
<td>• Age-based tax breaks</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Property taxes</td>
<td></td>
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<td>• Age Pension assets test</td>
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<tr>
<td></td>
<td></td>
<td>• Home buying incentives (avoid)</td>
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<td></td>
<td></td>
<td>• Transport project selection</td>
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<tr>
<td></td>
<td></td>
<td>• Congestion pricing</td>
<td></td>
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<tr>
<td></td>
<td>Adverse opinion a big issue</td>
<td></td>
<td></td>
<td>Cf “golden era” of reform: tariff reductions and privatisation were unpopular then – and now</td>
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Negative gearing reform is popular, and increasingly so with debate

Net support for reform to negative gearing, percentage of survey respondents

Source: Essential Vision polling; Grattan analysis
Popular attitude to company tax cuts is equivocal, and depends on framing

Net support for company tax changes, percentage of survey respondents

Source: Essential Vision polling; Grattan analysis
## Contrary or absence evidence base

<table>
<thead>
<tr>
<th>Category</th>
<th>Issues</th>
<th>Notes</th>
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</table>
| Taxation & welfare | • Carbon pricing exemptions  
• Age pension age  
• Company tax | Doesn’t count Grattan (so maybe we were wrong) |
| Energy            | • Excessive electricity reliability  
• Escrow fund for electricity costs  
• Wholesale electricity market gaming  
• Time-sensitive domestic electricity tariff | Better evidence can influence public opinion |
| Health            | • Pathology pricing  
• Chronic disease management  
• Dental care  
• Disease hotspot intervention  
• Private health prices & charges | Better evidence often counters lobby groups  
A lot of important issues where the evidence base is poor (e.g. Age Pension age) |
Politics

Economic growth
- Labour hire platforms

Taxation & welfare
- Income tax (Stage 3)
- Investment taxes
- Platform user taxation
- Private Health insurance

Retirement incomes
- Super costs
- Super Guarantee

Energy
- Carbon pricing

Health
- Pathology pricing
- Sugary drinks taxes

Shibboleths (see Judges Ch 12)
- Industrial relations
- “Tax must be no more than 23.9% of GDP”
- “GST is regressive”
- “More superannuation is better”
- Carbon pricing is evil (but grants for renewables are OK)
- Personal choice in health/education is paramount

Events
School funding (legislated nominal increase)
Superannuation taxes (ran out of options)
Dogs that don’t bark

Upper house obstructionism

Federalism

Budgetary costs
Institutional barriers to reform

Is Australia getting worse at reform?

What were the enablers and blockers of reform over the last decade?

What institutional changes might explain a falling strike rate?
Institutional issues

Stylised facts

• Increasing tendency to repeal reforms

• Ideological positions not being overcome by rational argument

• No longer doing reforms when they are unpopular

• Lobby groups often don’t prevail when the evidence base is strong

Possible explanations

• Professionalisation of politics: shrinking party membership, increasing power of party machine, career path via ministerial advisors, post-politics ‘jobs for the boys’ (personal cost of failure is higher)

• Growth of ministerial offices (inherently risk-averse)

• Fewer semi-independent bodies, weaker public service, more consultants

• Media (24 hour, social, less expert)

Possible remedies

• Political funding reforms

• Accountability (and size?) of ministerial offices

• Restore appointment norms

• ICAC

• More independent bodies with the right to publish
From Star to Superstar: Income growth in New Zealand

Presentation to Productivity Commissions Forum
24 November 2020

Arthur Grimes
Motu Economic & Public Policy Research, &
Victoria University of Wellington

Shine Wu (Motu Economic & Public Policy Research, & Duke University)
Outline

Income growth = f (Allocative efficiency, Productivity)
- productivity growth neither necessary nor sufficient for income growth
- but helpful!

Illustrative examples:
- and is capital shallowness a problem or a benefit?

Historical paths:
- hasn’t Australasia done well!
- (though NZ was a basket-case before 1991)

What now: moving from star to superstar?
Is productivity growth the goal?

Two countries (1, 2) and two industries (A, B)

Industry A has productivity growth rate = 1% p.a.

Industry B has productivity growth rate = 3% p.a.

Country 1 has 70% labour in industry A; 30% in industry B

Country 2 has 30% labour in industry A; 70% in industry B

Country 2 prospers, right?
Productivity trends

[Graph showing productivity trends over time for Country 1 and Country 2.]
Income growth

Same countries, same industries, same productivity trends & same labour allocations

Industry A has real price growth rate = 2% p.a.

Industry B has real growth rate = -3% p.a.

Which country prospers?
Real income trends

![Graph showing real income trends for Country 1 and Country 2 over years 0 to 10. The graph indicates an increasing trend for both countries.](image)
Industry allocation matters!

The aim is to be in industries with increasing income

- of course productivity growth helps
- but allocative efficiency also matters
- it pays to be in industries with rising international prices
Capital shallowness (illustration)

Do you prefer to be in country 3 with production function:

\[ Y = K^{0.5}L^{0.5} \]

or country 4 with production function:

\[ Y = (F+K)^{0.5}L^{0.5} \]

where \( Y \) = gross output
- \( K \) = capital stock (which depreciates at 10% p.a.)
- \( F \) = farmland (no depreciation)
- \( L \) = labour
## Capital shallowness
- country 4 is capital shallow, and better off!

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<tr>
<td>L</td>
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Lessons

Look at income (or consumption*), not production
- cf Stiglitz, Sen, Fitoussi report

Look at net income, not gross

Hence, for national accounts, look at NNI not GDP

Also adjust NNI for resource depletion → ANNI (World Bk)

Material living standards

ANNI measures income available to be consumed after setting aside depreciation and resource depletion

World Bank measures ANNI in current USD

Convert to domestic currency by market exchange rate

Deflate by domestic CPI

Divide by population

→ Real ANNI per capita
Data

All data from World Bank World Development Indicators

Available from 1970 - 2018

Use all ‘early OECD’ 24 countries excl Iceland & Luxembourg (data issues and very small); all developed except Turkey

Full sample and split samples at 1994
- half-way point
- after main economic reforms in NZ & Australia

NZ (green) & Australia (gold) highlighted
Full period: NZ poor; Australia an also-ran
First half: NZ a disaster; Australia close to it
Second half: Both in top third (‘star’ not superstar)
Second half: Excl 3 superstars
Why has NZ’s income per head grown so fast over >24 years?

Sound macro fundamentals: monetary & fiscal discipline

+ Low level of interference by govt in markets

= Private sector in charge of resource allocation

Labour force increase is an example of good allocation

- extra employment is positive for wellbeing
- i.e. this should not be seen as an offset !!
Can NZ keep up its strong record of increases in incomes per head?

Resource allocation has been the key for past 24 years
  - but agricultural gains *may* now be plateauing

NZ has poor record on fundamental & applied research
(e.g. cf Israel, Singapore, Denmark)

Public sector support for R&D is very poorly structured and much is wasted (e.g. National Science Challenges, COREs)
  - because of lack of attention to scale
Possible avenues (Koi Tu paper)

https://informedfutures.org/nzs-economic-future/

Reallocate public research funding to create research centres of scale – within universities

Ensure Auckland’s (moderate) size is leveraged
  - but also leverage other cities’ strengths

Reform tax & other policies leading to high-priced houses (discourages overseas talent) and → resource misallocation

Drop industry policies propping up old industries (e.g. timber)

Address skills deficiencies (esp. at lower end of spectrum)
Key points

Allocative efficiency and productivity growth both important for income growth

Concentrate on income or consumption, not production

NZ (& Australia) both star performers for income per head since early 1990s

Need to keep options open for future allocative gains via better R&D and skills, & removing tax distortions

Poor diagnosis leads to poor policies
- Risk of advocating policies that “solve” non-existent problem
### End of period index numbers

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## Annual percentage growth rates

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The Economics and Public Policy of Tertiary Education Financing: Lessons for VET

Bruce Chapman

College of Business and Economics
Australian National University

November 2020
OUTLINE

1 Background: VET size and problems
2 Why is a charge for tertiary education justified and desirable for the system?
3 Why are student loans from government necessary?
4 What are “income-contingent loans” (ICL), how do they operate and why are they desirable?
5 The characteristics of an ideal tertiary education financing system
6 The weaknesses of public sector VET financing
7 How to have a universal ICL system for VET
1 Background: VET size and problems

(i) VET is huge, at least 550,000 people in accredited training courses

(ii) The financing issues are in a mess (all reports say this, and they are right); huge fees for some, no fees for the majority;

(iii) The topic of this talk is, why there is a problem and how to fix it

(iv) I have to start with theory: why should there be a charge is the beginning
2 Why a charge for public tertiary education is justified and desirable for the access of the poor

(i) Equity: private rates of return and government subsidy of VET (Figure 1);

(ii) A charge means the cost to the government of a bigger sector are lower; and

(iii) The best way to maximise access to the system for the poor is to have a large number of places (UK experience)
Figure 1
VET Age-earnings profiles (NSW)
3 Why are student loans needed from the government?

Banks will not help, because:

(i) The investment is risky: non-graduation, poor jobs early, unpredictable events (Covid);

(ii) Poor outcomes for students/graduates can lead to default of bank loans;

(iii) With no saleable collateral banks are unprotected

There are two types of loans:

*Time-Based Repayment Loans* (US, Canada, Colombia, China, Japan); and

*Income-Contingent Loans* (Australia, New Zealand, England, Hungary)
What are “income-contingent loans” (ICL), how do they operate and why are they desirable?

(i) ICL: Debts repayable iff former students earn above a given income;

(ii) Therefore, no repayments needed if unemployed, out of the labour force, in a low-paying job;

(iii) ICL desirable because of insurance: no repayment hardships when incomes are low, therefore no defaults (cf US etc);

(iv) Collection is extremely efficient through employer with-holding;

(v) HECS revenue has underwritten a trebling of university places since 1989; and

(vi) In Australia and the UK from ICL: very large increases in graduates and enrolments of the disadvantaged.
5 The characteristics of an ideal tertiary education financing system

(i) Student charges to reflect private benefits

(ii) Government subsidies such as to ensure high enrolments and quality, “free” means small

(iii) Universally available ICL
6 The weaknesses of the public sector VET financing system

(i) Charges do not reflect private benefits

(ii) Huge subsidies limit the size and quality of the sector (70-75% average for Cert III/IV, zero/very low charges for most)

(iii) But for the vast majority there is no access to loans, including for those paying $10,000 in non-subsidized sector

(iv) There is no convincing rationale for either subsidies or ICL access
Towards public sector VET financing reform

Student charges

Government subsidies

Current

Potential

Contribution source

Direct only

Direct

ICL interest rate

ICL write-off

Student charges

Government subsidies

(loan subsidy calculations from Higgins and Chapman, 2020)
8 How to have a universal ICL system for VET

(i) The Commonwealth Government (CG) is only required for ICL collection;

(ii) Thus, all other VET policy issues stay with the States/Territories (S/T);

(iii) CG could pay student’s tuition, as is the case with HECS;

(iv) Collection then happens for CG, no need for reconciliation;

(v) Need for a surcharge and/or S/T contribution.
Thank you