High growth firms in the Australian economy

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Outline

1. Preview
2. What are HGFs, and what do they contribute to the economy?
3. Trends and characteristics of HGFs
4. Structural shifts and R&D HGFs
5. Innovation and (high) firm growth
6. Conclusions

Industry & Innovation Workshop 2017
- HGFs contribute significantly to the economy
- HGFs are generally episodic
- There is probably a two way link between HGFs and the macroeconomy
- HGFs tend to be younger and are found in every sector
- Goods and services and marketing innovation are important for firm performance generally. For HGFs, it is mostly goods and services innovation
What are HGFs and what do they contribute?
What are High Growth Firms?

Definition of high growth firms

High Growth Firms (HGFs) are firms that achieve at least 20 per cent average annualised growth in a chosen performance measure (e.g. turnover, employment) over three consecutive years.

While there is no universal definition of a High Growth Firms, the OECD definition is one of the most widely used.

The HGF definition is usually applied to both turnover and employment growth, showing which firms are expanding their employment and increasing their sales.

We have extended this definition to firms that experienced high growth in R&D.
What is BLADE?

- **ABS Survey Data**
  - BCS, EAS, R&D

- **Integrating Spine**
  - ABS Business Register

- **Government Admin Data**
  - ATO — BAS, BIT, PAYG
  - DIIS — Programme data
  - IP Australia data

**Business Longitudinal Analysis Data Environment**
The economic contribution of HGFs

What HGFs contributed to growth in employment, sales, value added and exports in the Australian economy

Economic contribution of HGFs, all sectors, 2004–05 to 2011–12

<table>
<thead>
<tr>
<th>Employment HGFs</th>
<th>Turnover HGFs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proportion of firms (per cent)</strong></td>
<td><strong>Contribution to employment growth (per cent FTE growth)</strong></td>
</tr>
<tr>
<td>9.0</td>
<td>46.1</td>
</tr>
</tbody>
</table>

Trends and characteristics of HGFs
High growth firms tend to be younger

- HGFs are typically younger
- Between 2002–13 the median age of HGFs was **8 years**, and **11 years** for non-HGFs
- Despite being younger, there are only small differences in their size

Source: ABS (2017) Business Longitudinal Data Environment (BLADE), Business Characteristics Survey (BCS) data linked to firm-level financial data. Analysis by Department of Industry, Innovation and Science
HGFs are found in all sectors across the economy. However, there are large differences in the number of HGFs firms in each sector.

**Proportion and number of employment HGFs, 2014**


Notes: The size of the bubble is gross value added by the sector (2014) over total GDP for 2014.
Declining growth rates of HGFs

Growth rates in Australian HGFs have declined since 2006

Firm growth rates, 2006–2013

Median growth rates in each HGF cohort showed impressive performance.

Growth rates have declined over time. But they remain impressive.

Causality probably goes both ways:
- Contribution of HGFs
- Macroeconomic conditions

Source: ABS (2017) Business Longitudinal Analysis Data Environment (BLADE). Customised data analysis commissioned by the Department of Industry, Innovation and Science
The episodic nature of HGFs

The majority of HGFs don’t persist as HGFs for long. They slow down.

- Post mining boom, and during the GFC, the persistence of HGFs has deteriorated

- However, the persistence of HGFs seems to have stabilized

- Firms are better able to maintain growth and persistence in conducive macroeconomic environment

Source: ABS (2017) Business Longitudinal Analysis Data Environment (BLADE). Customised data analysis commissioned by the Department of Industry, Innovation and Science
HGFs have increased their turnover

Revenue of turnover HGFs by firm size category (median values), 2005 and 2014

<table>
<thead>
<tr>
<th>Firm size</th>
<th>2005 ($ millions)</th>
<th>2014 ($ millions)</th>
<th>Difference from 2005 to 2014 (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>1.4</td>
<td>1.7</td>
<td>24</td>
</tr>
<tr>
<td>Medium</td>
<td>6.0</td>
<td>8.1</td>
<td>36</td>
</tr>
<tr>
<td>Large</td>
<td>108.9</td>
<td>174.4</td>
<td>60</td>
</tr>
</tbody>
</table>

- Turnover HGFs have much **higher revenue**
- The biggest difference (**60 per cent**) is in large firms
- **Fewer HGFs** in the economy but they are **selling more**


Notes: The data has been adjusted for inflation.
Turnover HGFs are also job creators

Turnover HGFs also contribute a disproportionate amount to FTE growth

- Turnover HGFs between 2002 and 2013 contributed **27.6 per cent** to FTE employment growth

- Compared to just **0.1 per cent** from non-HGFs

**Turnover growth and employment growth for turnover HGFs and non-HGFs (median values), 2002–13**

<table>
<thead>
<tr>
<th></th>
<th>Turnover growth (per cent)</th>
<th>Employment growth (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-HGFs</td>
<td>1.6</td>
<td>0.1</td>
</tr>
<tr>
<td>Turnover HGFs</td>
<td>45.4</td>
<td>27.6</td>
</tr>
</tbody>
</table>


Notes: Three year compound average
Characteristics of HGFs

HGFs have similar levels of labour productivity, but they’re growing much faster

**Average annual growth in labour productivity by firm size, 2002–13**

- HGFs are prime drivers of **labour productivity**
- **Labour productivity** = turnover/employment
- HGFs are also **job creators**
- Firms with **5–19 employees** show strong growth in labour productivity

Customised data analysis commissioned by the Department of Industry, Innovation and Science
Structural shifts in R&D HGFs
Proportion of R&D HGFs

Manufacturing has the highest share of R&D HGFs, but that has declined. There is evidence of a structural shift towards PST and IMT.

Proportion of R&D HGFs in top four industries, 2005, 2010 and 2015

Expenditure of R&D HGFs

There is a large difference in R&D expenditure. The expenditure of R&D HGFs has become more diversified.

**Real R&D by R&D HGFs – top four industries, 2005, 2010 and 2015**

Innovation and (high) firm growth
Innovation is important

Impact of innovation on firm growth

Different types of innovation have different impacts:

- **Product and marketing** innovation is important for all firms
- **Goods and service** innovation is a lot more important for HGFs
- **Organisational process** innovation shows mixed results

Source: ABS (2017) Business Longitudinal Data Environment (BLADE), Business Characteristics Survey (BCS) data linked to firm-level financial data. Analysis by Department of Industry, Innovation and Science

Notes: *** p<0.01, ** p<0.05, * p<0.1
Conclusions
Conclusions

Policy should not focus on individual firms — hard to predict

Innovation is an important driver for HGFs — innovation system needs to be strengthened. What supports the innovation system?

Competition also plays an important role in the innovation system and an optimal level of competition needs to be encouraged

The macroeconomy plays a big role in improving firm performance - causality probably goes both ways — HGFS to the macroeconomy and vice versa
Conclusions

HGFs are drivers of labour productivity

Based on R&D HGFS, there is evidence of structural shifts in the economy (towards more human capital intensive sectors)

Medium growth firms are also vital
Further information

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