



The Institute of Public Accountants

Pre-Budget submission 2016-17

January 2016



IPA INSTITUTE OF PUBLIC
ACCOUNTANTS

Partnership beyond numbers

Introduction

The Institute of Public Accountants (IPA) welcomes the opportunity to present our pre-Budget submission for the 2016-17 financial year, and looks forward to working with the Government as it sets its economic agenda.

The IPA is one of the three professional accounting bodies in Australia, representing over 35,000 accountants, business advisers, academics and students throughout Australia and in over 60 countries worldwide. In 2015, the IPA merged with the Institute of Financial Accountants of the UK to form the largest accounting body representing the small business/SME sectors in the world.

The IPA takes an active role in the promotion of policies to assist the small business and SME sectors, reflecting the fact that two-thirds of our members work in these sectors or are trusted advisers to small business and SMEs. The IPA pursues fundamental reforms which will result in easing the disproportionate regulatory and compliance burden placed on small businesses.

Continuing from our 2015-16 pre-Budget submission, this year our submission also draws from the Australian Small Business White Paper, which has been produced by the IPA Deakin University SME Research Centre. Contributions to the White Paper have been made by major stakeholders from the public and private sectors and academia, plus over 500 small business people.

We are pleased to see that some sections of the White Paper (including those on crowd funding, competition policy, education and innovation) have already been discussed or adopted to some extent by Government and by the Opposition.

A copy of the White Paper can be found on the IPA website, www.publicaccountants.org.au/whitepaper

Australia has an enviable growth record but is facing some significant economic policy challenges, including an ageing population, slowing productivity growth and a mining boom that has reached its peak. A strong and vibrant small business sector can play an active role in contributing to the economic growth of the Australian economy and help in addressing some of these challenges.

The IPA is accordingly very strongly of the view that immediate and tangible incentives must be offered to entrepreneurs and innovators to encourage their entry into and long term engagement with the Australian small business sector. The Federal Government needs to implement policies that will drive business activity and entrepreneurialism across all sectors.

We broadly welcome the Government's response to the Financial System Inquiry and the Competition Policy Review; we look forward to a meaningful and overdue holistic tax reform process; and we welcome the Government's Innovation Statement. While Australia's progress on bilateral and regional trade agreements is commendable, we question whether the Australian economy is in a position to realise the benefits for the small business and SME sectors.

The IPA believes that the time for bold action has arrived and we look forward to being actively involved in the Government's reform process.

We welcome the opportunity to discuss our recommendations in more detail with the Government and the Treasury. Please address all further enquiries to either Vicki Stylianou (vicki.stylianou@publicaccountants.org.au or 0419 942 733) or Tony Greco (tony.greco@publicaccountants.org.au or (03) 8665 3134).

Yours faithfully



Andrew Conway FIPA
Chief Executive Officer
Institute of Public Accountants

Table of Contents

Introduction	2
Executive summary	4
1. Loan guarantee scheme	8
2. Venture capital fund.....	14
3. Building an innovation system	19
4. Skills and human capital	24

Executive summary

The Institute of Public Accountants (IPA) makes this submission based on a number of key policy recommendations, focusing particularly on the key pillars required for a more productive and dynamic small business sector:

1. Loan Guarantee Schemes
2. Venture Capital Fund
3. Building an Innovation System
4. Skills and Human Capital

Public Accountants in Australia are the trusted advisers to their clients and in establishing a true framework for productivity which embraces the core elements of Financial capital, Human Capital and Innovation, the public accountant is well placed to become the trusted productivity adviser.

The recommendations in this submission are presented against the background of a looming economic crisis. After more than two decades of prosperity driven by booming prices for mineral exports, Australia now faces the real prospect of a sustained fall in living standards. Apart from a deteriorating federal budget, the core of the nation's economic problem is its failure to lift business productivity for much of the past 15 years – which is to say that Australia's businesses collectively are barely more efficient than they were at the start of this century. The mining boom, while it lasted, was an adequate cover for the economy's failings. Now that the boom appears to be over, Australia's underlying economic vulnerabilities have been exposed and remedial action is needed. While much of the public and media focus tends to be on big business, it is clear that lifting productivity in the small and medium-sized business sectors will hold the key to our chances of avoiding recession and directing Australia into a new era of prosperity.

The challenge cannot be over-stated. Prolonged stagnation in the productivity performance of small and medium-sized businesses is borne out in an alarming series of statistics and survey data from the Australian Bureau of Statistics, which have been analysed in detail for the first time in the Australian Small Business White Paper, co-authored by the IPA and Deakin University.

Among the survey findings are that:

- Australian firms have been going backwards since 2007 on seven key indicators – product differentiation, profits, productivity, exporting, outsourcing, training and IT expenditure.
- Only 1 in 7 businesses consider innovation is important.
- Only 1 in 8 businesses have an international market presence.
- Many medium-sized, well established firms with the potential to expand into international markets consider only the national market as their end goal.

There is a large body of research and evidence indicating that governments and small business need to focus on three key elements or ‘pillars’ – human capital (people), financial capital (investment) and technological change (innovation) – to achieve the end goal of building a more productive and dynamic small business sector. And to achieve the best outcomes, the three pillars must work in combination. It is only when firms have a strong pool of skilled and talented people that it makes sense to invest in new technology, plant, machinery or research and development. This has clear implications for government policy: it will require well-targeted and co-ordinated responses across the various departments that deal with these issues.

Whilst we acknowledge that the Government faces severe fiscal constraints, we believe that well targeted policies and programs, which boost overall productivity across the economy, are in the best interests of Australia in the short, medium and longer terms.

This submission contains:

Recommendation 1 – Loan guarantee scheme: To help increase the availability of much-needed affordable loan finance to the small business sector, the Federal Government should introduce a state-backed loan guarantee scheme. Australia is one of the only countries in the developed world without such a scheme, which would provide a limited state-backed guarantee to encourage banks and other commercial lenders to increase loan finance available to small business.

Recommendation 2 – Venture capital fund: The Federal Government should introduce a publicly supported venture capital (VC) fund by either providing a significant proportion of funds to assist VC managers to attract other institutional investors to publicly supported VC funds or by becoming an

institutional investor in a range of individual VC funds. This type of support by government to small business equity finance will improve the entrepreneurial environment in Australia and act as a catalyst in identifying and overcoming hurdles to successful and profitable investment.

Recommendation 3 – Innovation: Whilst we acknowledge the Government’s Innovation Statement, we strongly encourage innovation policy to support innovative SMEs in Australia. This can be achieved via governments providing strong support to research and development, enabling better linkages between cutting edge universities and industry, and by providing support to firms to adapt existing technologies and innovation, and by encouraging firms to develop their ability to search for new options, evaluate them, and successfully implement and adapt them to their specific context. Accordingly, public innovation policy should encourage value capture and business model innovation more generally, including measures that nurture the diffusion and uptake of existing innovations to a broad range of firms, as well as assisting new innovations. Moreover, firms should be encouraged to adopt “continuous improvement” methods to embed incremental innovation as this will generate large productivity improvements quickly. In addition, public policy towards entrepreneurs should shift from increasing quantity to increasing quality, with the focus being on encouraging the growth of a smaller percentage of firms that have the potential to grow, rather than encouraging more new entrants, regardless of quality.

Recommendation 4 – Education and training: To address the significant skills deficit in the Australian economy, governments (federal and state) need to immediately tackle and reform the education system’s ability to increase and improve the stock of knowledge- based workers available for employment. These results also suggest that governments should consider the inclusion of enterprise training at all levels of the education system from early school years through to further and higher education institutions.

Recommendation 5 – Robust Taxation Reform and retirement incomes policy are integral to the IPA and the work of our members. In our pre-Budget submission for 2015 we made 27 recommendations relating to taxation and superannuation. We acknowledge the numerous reviews and separate consultations which have taken place over the course of 2015, and which are planned for 2016-17. The IPA is an active participant in these reviews and consultations and will continue to make substantive and extensive submissions and attendances at consultations. Our major policy

recommendation continues to be that the Government introduce a concessionary rate of tax for small business income to take into account the regressive regulatory burden imposed on small business and to reward entrepreneurial activity.

Given that we are about to embark on another major tax review and are anticipating the release of the Tax Green Paper, the IPA has decided to make our recommendations during the tax reform process and to actively participate and contribute during the consultations.

1. Loan guarantee scheme

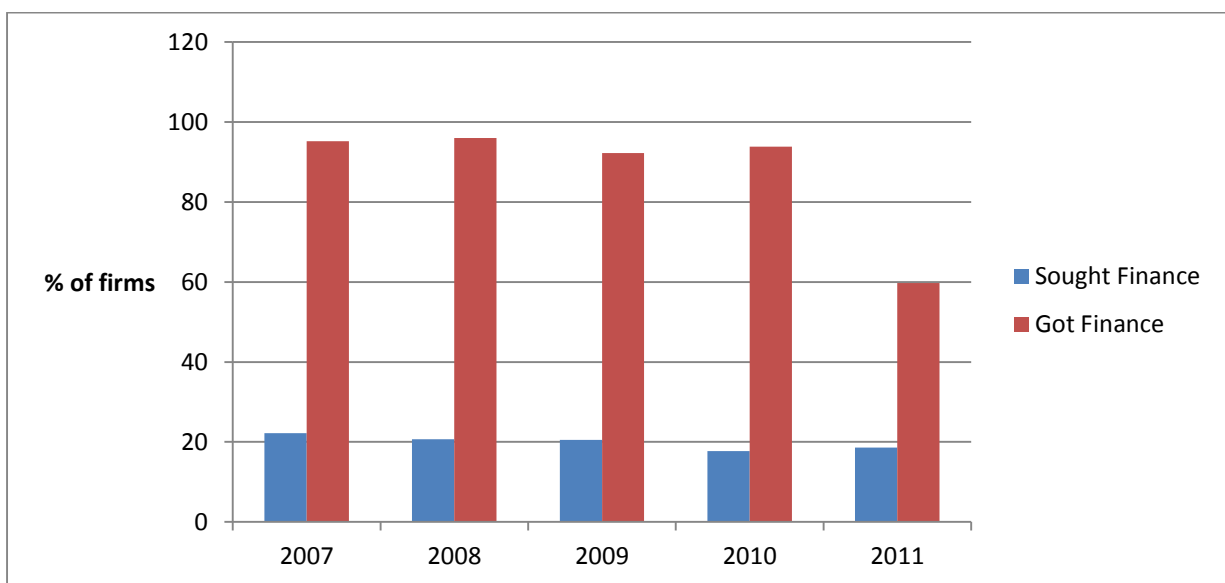
Main points

- The rationales for public intervention to improve SMEs' ability to access private financing are twofold. First, the spill-over hypothesis argues that SMEs are able to generate positive externalities by creating new jobs, new ideas and new abilities that other industries and the economy as a whole may enjoy. The second rationale for government intervention is the existence of market failures, such as the presence of asymmetric information in terms of adverse selection and moral hazard.
- On average, 28,000 Australian businesses per annum face a binding finance constraint, whilst 118,000 face some access to finance issues.
- The focus of investment has shifted from investments in new productive capacity and efficiency enhancing towards more basic survival and liquidity related expenditures.
- By comparable international standards the cost of debt is high.
- Australian lending banks are cautious in their general lending policies and that risk-adjusted lending is not the norm.
- Our recommendation is that a loan guarantee scheme is justified, on a modest scale, for a trial period.
- External equity is of particular relevance for those high growth/high potential, young businesses, where the current revenue capability cannot sustain a guaranteed payment of loan interest thereby ruling out debt finance.
- But there is a real danger that equity market pump-priming by the state translates into a permanent arrangement, with private investors happy to leave the onus and challenge of early-stage investing to the government. Legal (statutory) prevention of the government from becoming a cornerstone investor addresses this concern.
- Governments with a strong commitment to economic growth via R&D investment facilitating greater enterprise and innovation activity are faced with a direct choice. They must find a means to ensure that early-stage venture capital (VC) finance remains available to high-potential, young firms or risk a reduction in the new commercialisation opportunities stemming from national investments in science and technology.

Smaller business and financial markets in Australia

We now turn our focus to the demand for and supply of external finance to smaller business in Australia. The first issue we focus on is the demand for finance. Here we observe that at any point in time, only 1 in 5 businesses (representing around 400,000 Australian businesses per annum) are seeking external funding from the market. This is in line with evidence from other developed economies (Cowling, Liu and Ledger, 2012), which shows that the dominant (or preferred) source of external finance is bank lending.

Figure 1: External finance demand and supply dynamics



Source: ABS Business Longitudinal Database 2006-07 to 2010-11

On average, only between 7% and 8% of businesses seeking external finance are unable to secure funding from external markets. This is 'typical' for developed economies in periods of economic growth. There is a distortion in the ABS Business Longitudinal Database figures for 2011, however, as a much larger number of businesses sought equity finance, which has a significantly lower success rate than debt finance. So, on average, 28,000 Australian businesses per annum face a binding finance constraint.

The important public policy question is whether or not these constrained businesses are of poor quality and hence are too risky to invest in, or whether they are constrained for non-quality based reasons such as lack of assets to place as security or lack of a sufficiently long track record. The

former implies no role for public policy and is simply an indicator of the market operating efficiently and sorting out the 'good' from 'bad' propositions. The latter implies unfair rationing and a case can be made for public policy intervention to correct for a market failure.

The most widely used, and long-standing, public policy mechanism worldwide for supporting small firms is the (partial) credit guarantee scheme. Well established examples of these schemes include the SBA 7(a) loan program in the US, founded in 1953; the Canadian core guarantee program (CSBFP), founded in 1961; and the UK Small Firm Loan Guarantee program, founded in 1981. A World Bank guarantee scheme survey by Beck, Klapper, and Mendoza, (2008) identified loan guarantee programs in a total of 46 different countries across the world including France, Germany, Sweden, India, Korea, Indonesia, and Macedonia. We note that Australia is unique in the developed world in that it has no guarantee scheme.

Critical indicators of the need for loan guarantee programs

Having considered why credit may be rationed among smaller firms, and which firms are most likely to face severe problems with accessing debt finance from conventional sources, we now outline the critical indicators that policy-makers might consider when assessing the specific need for policy intervention in the form of loan guarantee type programs. These are:

- a highly concentrated banking sector (few large banks)
- less dense local branch networks and a general lack of relationship banking
- low levels of housing or general (tangible) asset ownership
- most commercial loans require assets to be placed as security
- falling or stable asset values
- a diverse entrepreneurial, and latent entrepreneur, population (poor as well as rich potential entrepreneurs)
- access to loans is conditional on criteria not related to the quality of the entrepreneur or their investment proposal (eg, collateral availability)

- the spread of interest rates on bank loans is narrow (indicating rationing is favoured over risk-adjusted lending)
- there is substantial diversity in the relative quality of lending institutions.

The case for an Australian loan guarantee scheme

The evidence is broadly supportive of the use of financial engineering instruments to correct for (lack of) collateral issues in debt markets and to a lesser degree lack of a track record. Loan guarantee schemes have the advantage of being simple to design and administer and typically require that investment appraisal is conducted on a commercial basis thus minimising deadweight. Instruments of this type are most effective when the entrepreneurial population is more widely distributed than wealth throughout the general population. This gives loan guarantee schemes the potential to have disproportionately high and positive effects in countries and regions where (a) collateral based lending is the norm, and (b) a significant proportion of the entrepreneurial population is not asset rich. As a tool for promoting local economic development, loan guarantee schemes have been shown to be relatively successful as a means of public policy intervention.

To a degree, these three pieces of evidence, high costs of debt, low interest margins and cautious lending are consistent with credit rationing theories. That is, margins imply relatively low risk lending and a backward bending loan supply curve, while riskier loans are choked off as they would attract a higher interest rate margin and raise the default rate above the banks expected profit maximising level.

Designing a loan guarantee program

One of the key success factors of loan guarantee programs throughout the world is the simplicity of their basic parameters and the general level of flexibility that these parameters allow policy-makers to reshape or refocus programs. The fact that commercial banks conduct due diligence (in most but not all cases) effectively transfers some of the downside risk back to banks, although the government clearly bears most of the default risk. Important in the Australian context is that banks might become more willing to expand the supply of loans significantly when a large share of the outstanding loan is guaranteed and still not suffer from excessively high default rates. The core parameters of a loan guarantee program are:

- The level of guarantee (the percentage share of the outstanding debt that is covered by government in the event of default)
- The interest rate premium (the margin that the government receives for guaranteeing the loan)
- The maximum (and in some cases minimum) loan amount available
- The maximum (and in some cases minimum) loan term available
- The arrangement fee.

Importantly, these parameters are easily understood by most people who have ever taken out a personal or business loan and/or insurance. So loan guarantee schemes benefit from being simple to create and operationalise and also from being widely understood by all actors in the debt market. This helps avoid the problem of many complex government programs which are only understood and accessed by those with a high level of awareness, skills, knowledge and resources to clear all the necessary hurdles and deal with the complexities of application. This is generally why smaller firms do not bid for government contracts and why in many cases scheme deadweight can often be high.

As a guideline, the typical range across these core parameters for established loan guarantee schemes are as follows; Guarantee 65% to 85%; Interest rate premium 0.5% to 2.5%; Loan size, minimum A\$8,000, maximum A\$500,000; Loan term 1 to 10 years; Arrangement fee, 0.25% to 3.0% of the total loan value.

We conclude that there is a case for the design and implementation of a loan guarantee program in Australia to correct for the specific problems of smaller firms being unable to finance new investment opportunities through normal commercial bank channels. But the specific scale of potential program demand needs to be established in a detailed feasibility study as this determines the scale of the initial and ongoing demands on the Treasury. Further, more detail is required on (a) the specific characteristics of credit rationed smaller firms in Australia, and (b) the specific characteristics of smaller firms capable of generating the highest value added when unconstrained in debt markets, and (c) the scale of unmet loan demand. This would then help determine the actual values of the key program parameters (level of guarantee, interest rate premium, loan term, and loan size).

Recommendation 1 – Loan guarantee scheme: To help increase the availability of much-needed affordable loan finance to the small business sector, the Federal Government should introduce a state-backed loan guarantee scheme. Australia is one of the only countries in the developed world without such a scheme, which would provide a limited state-backed guarantee to encourage banks and other commercial lenders to increase loan finance available to small business. We refer to the IPA Deakin White Paper for further detail. The White Paper identifies a number of specific problems that smaller firms have in accessing finance from commercial banks, particularly smaller and younger start-up firms. Our evidence suggests that, by international standards, the cost of debt for Australian small businesses is high and risk-adjusted lending is not the norm in Australia. There is, hence, a strong case for designing and implementing a loan guarantee program in Australia to help remedy the specific problems of smaller and younger start-up firms being unable to finance new investment opportunities through normal commercial channels. When appropriately designed and administered, loan guarantee programs can deliver value for taxpayers through their support of employment growth, productivity, innovation and exporting.

2. Venture capital fund

Main points

- We acknowledge that the Government through the Innovation Statement is considering measures to increase the availability of venture capital (VC) in Australia.
- VC remains a valuable but 'niche' source of risk capital for a small cohort of an economy's highest potential young firms. Such firms are commonly involved in 'new knowledge' industries and particularly the early commercial application of new technologies.
- Venture capital remains an important part of a modern entrepreneurial 'ecosystem' given its contribution to a spectrum of entrepreneurial finance products employed by high growth, and particularly innovative, young firms.
- The persistently unattractive returns to a majority of investors in venture capital as an 'asset class' over the period since the year 2000 (and the contemporary collapse of the 'technology bubble') has meant that institutional investors have reduced their interest and commitment to VC funds.
- The skew to venture capital returns whereby a small minority of general partners (VC managers) have produced the majority of best performing funds over several years, and where the access to such funds by new investors is severely limited, has further reduced the attractiveness of venture capital to investors.
- Given the declining supply of VC finance from the private sector, governments have deemed that they need to either support or substitute for private VC equity in order to ensure that risk capital is made available for high potential young firms. This absence of VC is seen as one barrier on the development of new innovation capabilities in an economy. Weaknesses and problems in the banking sector have meant that debt finance for young firms has been rationed. Young firms in uncertain technological or new knowledge environments are particularly likely to be unattractive to bank providers of debt. Such firms without access to external finance are likely to be severely cash constrained with consequent effects on investment, growth, internationalisation, etc.
- In this environment, governments have increasingly moved to directly support early-stage VC activities. Increasingly, this public support is provided in concert with the established, private VC

industry in the formation of programs to create hybrid VC funds (ie, including public and private investors) targeted towards new knowledge and/or new technology based firms.

- The majority of publicly supported VC programs have produced poor returns to private investors. However, the introduction of such schemes can still have positive benefits to government when a full cost-benefit analysis is undertaken. (See Murray & Cowling's 2009 evaluation of the Australian IIF program).
- There is some international evidence that government supported VC programs have become increasingly effectively focused and managed over time. Evidence supports this positive trend, for example, in the UK, Finland, Denmark and New Zealand.
- Given the disparity between the interests of private investors and the state as limited partners in a VC fund, it is likely that private (institutional) and individual investors will have to continue to be incentivised by the state to command their attention and loyalty.
- Business angels are seen as an alternative to venture capital. In reality business angels are increasingly investing as networks and are emulating their VC counterparts. Business angels are increasingly assuming the first and earliest investments and are also co-investing with VC funds. This co-investment and syndication is a measure of the growing sophistication of many business angel networks particularly (but not exclusively) in the UK and the USA.
- Crowd-funding has recently come into the funding escalator at the earliest stages of external equity and debt provision. This market is still very immature. Governments will still need to see how they can best collaborate to support legitimate, early-stage risk capital and debt providers while seeking to ensure proper regulation and governance in the protection of retail investors. It is likely that fiscal incentives available to business angels will also play a part in crowd-funding for the larger deal sizes. An ideal future outcome would be crowd-funders, business angels and venture capitalists each working on contiguous parts of the market for entrepreneurial finance. However, the entrepreneurial ecosystem is still immature in most nations and the wide variation in the skills, competencies and experience of entrepreneurial funders remains problematic. The IPA would encourage the Government to introduce debt crowd funding as early as possible. We acknowledge the introduction of equity crowd funding legislation and the IPA has actively

participated in the process, including lodging a major submission which includes country comparisons.

Why should government be interested in VC?

VC as a policy instrument for promoting high-growth enterprises has almost universal appeal to governments across both the developed and developing world, regardless of political colour (Lerner, 2009). The reason for their enthusiasm is simple: VC, despite its well-publicised difficulties, is seen as a critical component of a modern enterprise economy. It is particularly associated with the identification and support of young new-knowledge/new-technology firms with the potential to bring about major disruptive changes to markets and their users, and thus spur innovative and economic progress (Hellmann and Puri, 2000; Lerner and Khortum, 2000).

These concerns have seen the government's role as a provider of VC grow rapidly to the extent that the government is now the biggest single investor in early-stage VC funds across Europe (EVCA, 2013). These actions are not designed to permanently replace private VC firms by public investment. Rather, the actions of the government, and the support they give the sector via specialist funding agencies, are there to 'pump prime' the supply of VC by both sharing risk and incentivising investors to re-examine and re-enter this sector of the equity market. However, this aspiration to *temporarily* pump-prime or act as a catalyst in the VC market before withdrawing in favour of private actors entering the (now more developed) market, may be an ambition rather than a commitment in the absence of private market substitution of the state's commitment (Luukkonen et al., 2013).

Government has to determine the nature and degree of its intervention in the VC sector. It has to also decide on the type of involvement it wishes to make in the actual entrepreneurial process or VC cycle of enterprise investment, nurturing and exit. The pros and cons of each level of intervention are summarised in the IPA Deakin University Small Business White Paper.

Ten indicators of good practice in a public-private 'hybrid' VC program

Governments, international agencies such as the OECD, the World Bank and the European Commission, and academic and industry researchers have over time built up a substantial body of empirical and theoretical knowledge on the practice and performance of venture capital.

(NB: The list (below) of ten indicators does NOT imply a ranking).

Ten indicators of good practice in a public-private 'hybrid' VC program

10 Indicators	
1	Existence of an entrepreneurial ecosystem increasing the potential effectiveness of the proposed VC activity
2	Understanding by the fund's designers of the need for a credible 'competitive advantage' in determining VC fund's deal-flow
3	Global perspective in seeking funding and identifying investment opportunities
4	Employment of profit seeking 'agents' as GPs with a verifiable track record of success in the target investment sectors
5	Aligned incentives between government and its GP agents that are attractive and 'fair' to both investors and managers
6	Planned redundancy of program intervention over a broadly specified period including milestones
7	Adoption of (industry-recognised) administrative and legal norms of VC activity by the VC fund
8	Long-term perspective from government as to evaluation and impact with an agreed methodology, and data collection introduced from day one
9	Public transparency of program activities, performance and evaluation reports
10	Experimentation, learning and adaptation by program managers reflected in VC fund's focus, operations and increasing effectiveness over time

Recommendation 2 – Venture capital fund: The Federal Government should introduce a publicly supported VC fund by either providing a significant proportion of funds to assist VC managers to attract other institutional investors to publicly supported VC funds or by becoming an institutional investor in a range of individual VC funds. This type of support by government to small business equity finance will improve the entrepreneurial environment in Australia and act as a catalyst in identifying and overcoming hurdles to successful and profitable investment. The Small Business White Paper highlights the funding problems faced by young firms in uncertain technological or new knowledge environments because of their unattractiveness to bank lenders. It is a lost opportunity to the economy when innovative firms with a high commercial potential are constrained by the absence of external finance. Accordingly, governments with a strong commitment to economic growth via R&D investment facilitating greater enterprise and innovation activity must find a means to ensure that early-stage VC finance remains available to high-potential, young firms or risk a reduction in the new commercialisation opportunities stemming from national investments in science and technology.

3. Building an innovation system

Main points

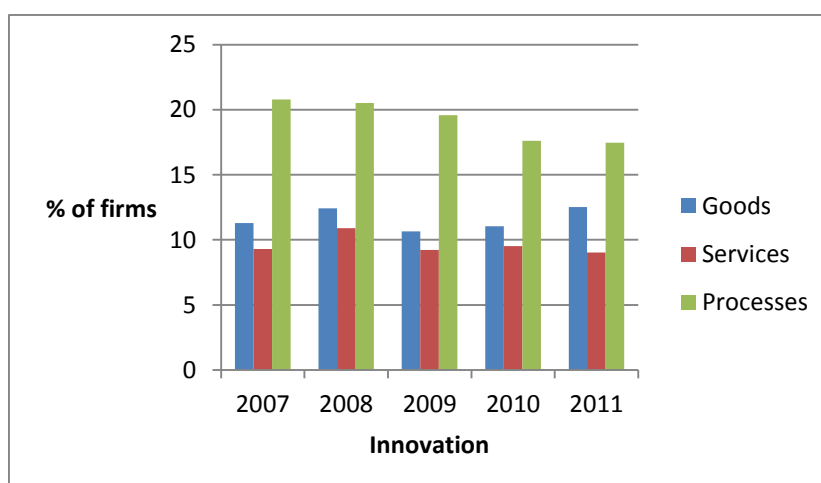
- Around 10% of Australian businesses produce innovative goods and services.
- Between 16% and 21% innovate in their underlying business processes.
- Capturing value and diffusing existing innovations throughout the economy are the key issues to address when designing innovation policy.
- Even if Australian SMEs are not the initial investors or innovators, they can still capture some of the value of innovations developed elsewhere.
- New-to-the-country, and particularly new-to-the-firm, innovations are often more economically important for improving national productivity. Innovation policy should include measures to encourage the diffusion and uptake of existing innovations to a broad range of firms, as well as encouraging new innovations.
- Firms that can adopt “continuous improvement” methods to embed incremental innovation can generate large productivity improvements.
- There appears to be a very low incidence of co-operative behaviour in the Australian business sector, typically less than 1 in 10 businesses co-operate on any level, and this could be a major barrier to innovation, and more generally to productivity growth.
- Large firms often find it hard to change their business model to capture value, but SMEs can change them more easily. Public policy to support innovative SMEs should increasingly take into account value capture and business model innovation more generally. This includes ensuring regulations help firms to capture value while balancing the benefits other firms receive from the wider diffusion of value.
- Businesses in Australia experience a wide range of barriers to innovation, with no one barrier dominating. This suggests policy to support innovation needs to be flexible and broad based.
- Talent not technology is the key. Without addressing wider skill requirements, research shows it is likely to create bottlenecks downstream in the innovation process. Technical skills across the workforce, and particularly interdisciplinary skills that bridge areas of expertise, are particularly important for innovation and are often subject to market failures.

Introduction

Innovation is widely regarded as a key driver of productivity growth, job creation and superior economic performance. At a firm, sector and national level, higher levels of innovation are associated, both directly and indirectly, with superior economic performance.

Despite the importance of innovation, it is often misunderstood. There is a tendency to equate innovation with high tech manufacturing, and it is assumed that it is something that only happens in R&D labs. However, only around 3% of firms are high tech, and many firms innovate outside formal R&D. Financial services, for example, have very low measures of R&D intensity, despite being highly innovative. While not all Australian firms are innovative, figure 2 shows that significant numbers of Australian firms, roughly 10%, produce innovative goods and services. Moreover, many more (between 16% and 21%) innovate in their underlying business processes. These percentages are higher than the percentage of high tech firms observed in the Australian economy, highlighting the need for a broader understanding of innovation, to provide the foundation for effective SME policy (Nesta, 2006).

Figure 2: Innovation modes and prevalence



Source: ABS Business Longitudinal Database 2006-07 to 2010-11

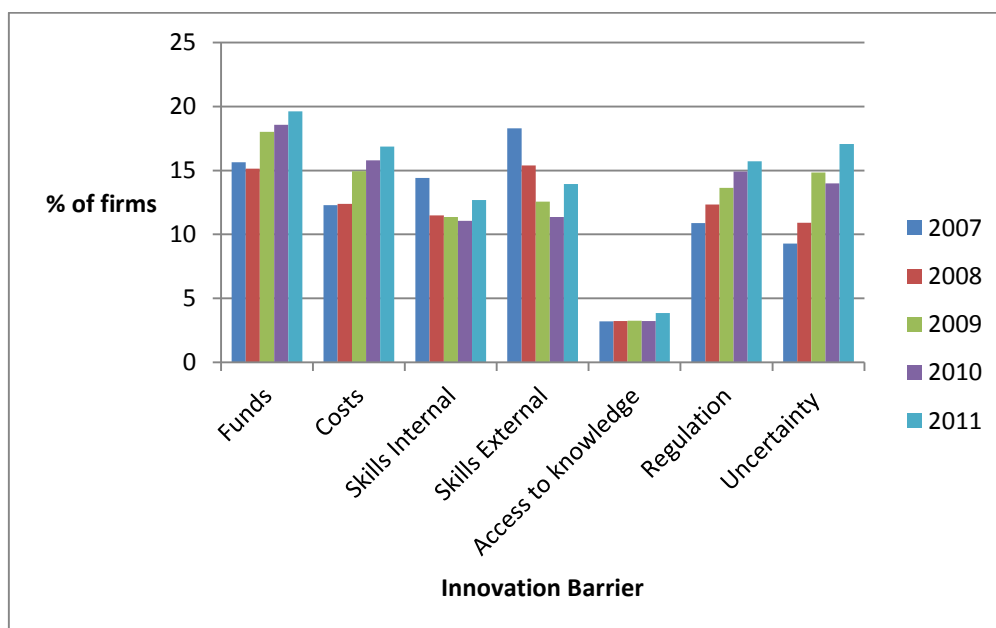
The focus should be on how innovation in Australia can be enhanced and made more effective. To provide a broader framework for understanding the basis of innovation policy, the Small Business White Paper explains what innovation is, that includes, but goes beyond R&D, and explores what

policies can be implemented to improve the performance of Australian SMEs. It defines innovation and explains the different forms it takes, the importance of capturing value and diffusing existing innovations throughout the economy. The section concludes by discussing the policy options that are available to support innovation and innovative Australian SMEs.

Because innovative SMEs are often more nimble than larger firms, they play important roles in the economy in developing new innovations. However, because they lack the internal resources of larger firms, they often need to source support externally. As Figure 3 shows, firms in Australia experience a wide range of barriers to innovation, with no one barrier dominating. This suggests policy to support innovation needs to be flexible and broad based.

Many successful SMEs receive support from professional equity investors, such as VC funds, providing them with the managerial capabilities that they lack internally, and building the complementary assets they need to capture the value of their innovation (Nightingale, et al BVCA-NESTA 2009). Similarly, effective support for skill development that addresses the market failures in human capital accumulation, are particularly important to smaller firms. This need for wide ranging policy measures to support innovation in Australian SMEs suggests a number of important policy implications.

Figure 3: Barriers to innovation



Source: ABS Business Longitudinal Database 2006-07 to 2010-11

First, when thinking about innovation it is important for policy makers to also focus more on diffusion, and not just on new-to-the-world innovations. For the latter, policy would focus on supporting research, and links between cutting edge university science and engineering departments and high tech industries. However, for the former the key issue is diffusion and adaptation of existing technologies and innovations to firms. This requires the ability to adapt innovations to be more widely distributed in the economy, a greater focus on diffusion in policy, with support for firms to develop their ability to search for new options, evaluate them, and successfully implement and adapt them to their specific context.

Second, it is important for policy makers to understand that Australia is a relatively small country in the global system, and hence it is likely to benefit to a greater extent from access to technologies and developments from elsewhere. This doesn't mean that research is less important. Indeed, investments in research have two broad benefits. First, they generate innovations, but, secondly, and perhaps more importantly, they provide Australia with access to international networks and the ability to evaluate research conducted elsewhere. This is one reason why small, high income countries in Europe, such as Sweden, Finland, Denmark, and Switzerland spend so much money on research. Investment in research and capturing innovations generated elsewhere are complements rather than substitutes. Investment in research contributes significantly to the development of skilled employees and this human capital enhancing part is much more important than the development of new spin-outs. As the title of a report on the economic value of research highlighted, it's "talent not technology" that is the key.

Third, given the distributed nature of innovation, which involves a wide range of organisations, and extends beyond formal R&D, focusing on research, without addressing these wider skill requirements is likely to create bottlenecks downstream in the innovation process. Technical skills across the workforce, and particularly interdisciplinary skills that bridge areas of expertise, are particularly important for innovation and are often subject to market failures.

Fourthly, for many firms a key constraint on increasing growth and productivity is the lack of scale and specialisation in the local market. Governments have a key role to play in the provision of effective communications and other infrastructures.

Fifthly, the evidence on small firm industrial dynamics strongly shows that the traditional model, in which barriers to entry are high while barriers to growth are low, is flawed. Instead, we find there are few barriers to entrepreneurial market entry, with very large and possibly excessive numbers of firms entering the market each year. However, because they find it so hard to grow, many quickly exit. This suggests the focus of public policy towards entrepreneurs should shift from increasing **quantity** to increasing **quality**. The focus should be on encouraging the growth of a smaller percentage of firms that have the potential to grow, rather than encouraging more new entrants, regardless of quality. Firms with growth potential tend to be larger at start-up, have higher educated employees, a greater export focus, and have a greater intention to grow. It has proven extremely difficult to find policy levers to support firm growth, and any policy interventions need to be well designed, subject to regular independent evaluation and linked to a structured process of policy learning.

Our research highlights the important complementarities between human capital (in the form of skilled employees, often with STEM training), the allocation of internal and external resources to innovation, and the uncertain process of generating new products and services to produce profits.

Recommendation 3 – Innovation: Whilst acknowledging the Government’s Innovation Statement, the IPA strongly encourages the Government to support innovative SMEs in Australia. This can be achieved via governments providing strong support to R&D, enabling better linkages between cutting edge universities and industry, and by providing support to firms to adapt existing technologies and innovation, and by encouraging firms to develop their ability to search for new options, evaluate them and successfully implement and adapt them to their specific context. Accordingly, public innovation policy should encourage value capture and business model innovation more generally, including measures that nurture the diffusion and uptake of existing innovations to a broad range of firms, as well as assisting new innovations. This focus on diffusing knowledge and innovation, regardless of its origin, will help create a robust innovation system. Moreover, firms should be encouraged to adopt “continuous improvement” methods to embed incremental innovation as this will generate large productivity improvements quickly. In addition, public policy towards entrepreneurs should shift from increasing quantity to increasing quality, with the focus being on encouraging the growth of a smaller percentage of firms that have the potential to grow, rather than encouraging more new entrants, regardless of quality.

4. Skills and human capital

Main points

- Where businesses have a high demand for skilled labour, but are constrained by lack of internal and/or external skills, then this represents a prima facie case for government intervention.
- Training and skills development is widely cited as a classic case of market failure as individual businesses often cannot appropriate the full returns to their investments in these areas, and hence tend to invest at a sub-optimal level.
- The strongest argument for government intervention relates to the potential for positive spill-overs into the wider economy, as highly skilled workers move around employers and disseminate their knowledge.
- The general pattern suggests that the smaller the business, the fewer skills deployed in the business. And this has important, and negative, implications for their absorptive capacity and particularly their ability to deal with unanticipated shocks to their environment.
- 1 in 6 businesses in Australia faces a problem around skills deficiencies. Deficiencies are most apparent in trades, but 64,000 businesses have an identifiable skills deficiency in relation to finance professionals, 55,000 businesses in relation to marketing professionals, and 44,500 businesses are deficient in IT professionals. This suggests that whilst the immediate labour market problem Australia faces relates to the construction boom and a lack of skilled trades people, the underlying problem might be in high value added professional services.
- The sectors we predict are going to be key sectors in delivering future growth and productivity increases, communications and professional services, have a high, and unmet, demand for IT workers at professional and technical levels. And more importantly, these are sectors characterised by high knowledge intensity and a disproportionately high smaller firm presence.
- The findings of a detailed study of the effects of enterprise training throughout the education system provide strong support for an interventionist and broad strategy of policy development and provision in the area of enterprise education at all levels of the education system.

Introduction

The ability to start and develop a sustainable business is fundamentally related to the internal capacity and capabilities of the entrepreneurial team, top management, but also to that of the core workers (Cowling, 2001). And for smaller businesses, with a greater probability of being credit constrained and under-capitalised, their human capital capability takes on a more prominent role as firms are more likely to adopt labour intensive modes of production. To this end, the ability to successfully recruit and retain high quality workers at all organisational levels is paramount, as it is the skills embodied in these people that drive business capacity and capability (BIS, 2013). Human capital largely determines the level of absorptive capacity a business has, and hence its ability to effectively deploy different types of knowledge and resources. Detailed productivity analysis (Cowling, 2001) shows that there is an identifiable productivity enhancing effect from all levels of human capital in the firm from the founding entrepreneur, the board of directors, through to the management team, and most importantly from the core workforce. Thus absorptive capacity is directly related to human capital (the presence of talented people) throughout the business.

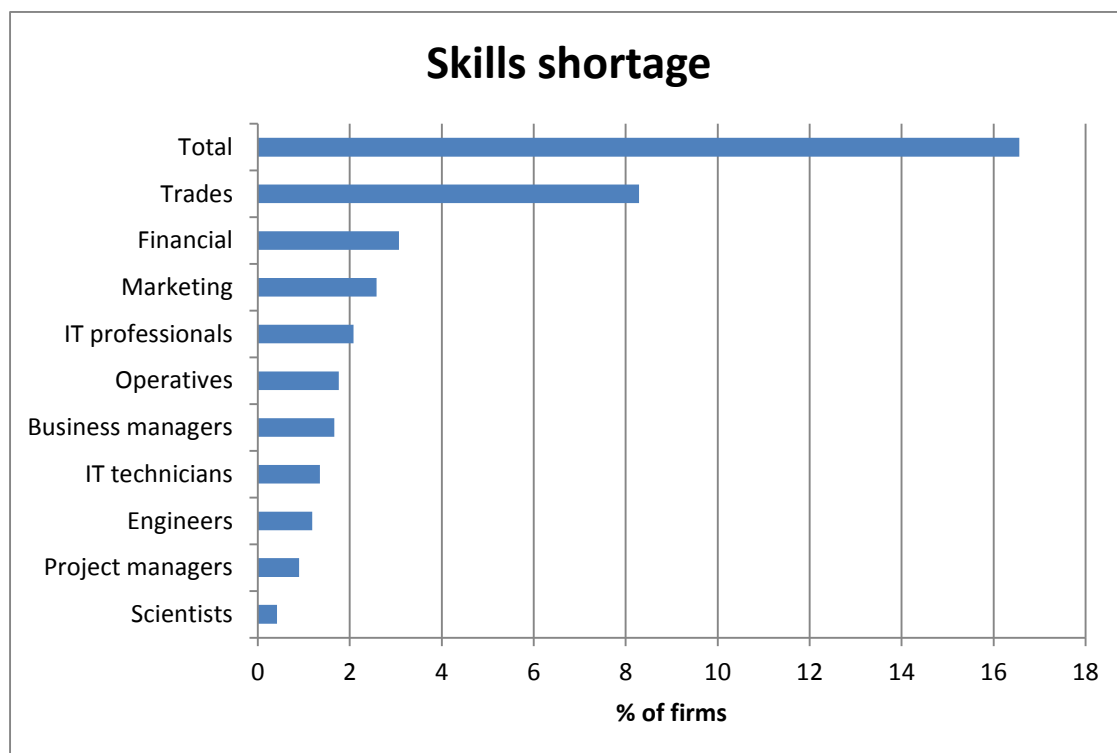
We note that human capital is a fundamental driver of productivity in its own right. But in combination with innovation and physical capital its economic impact, through efficiency gains, is even larger. Poor internal skills are a key indicator of low productivity and high staff turnover. It also imposes additional costs to businesses by having to recruit externally rather than promote internally. In contrast, high skill levels are associated with higher productivity in a direct sense, and also with a productivity enhancing effect on other co-workers. Our research presents evidence relating to skills demand in the Australian business sector and identifies specific skills shortages. We contend that where businesses have a high demand for skilled labour, but are constrained by lack of internal and/or external skills, then this represents a prima facie case for government intervention. On the firm side, this may relate to training of their own workforce, and in the wider economy, this may include policies relating to education and training of the wider labour force.

Training and skills development is widely cited as a classic case of market failure as individual businesses often cannot appropriate the full returns to their investments in these areas, and hence tend to invest at a sub-optimal level – below that which is socially desirable for the Australian

economy. Further, information gaps and asymmetries can mean that employers do not fully understand the total benefits arising from training their workers. But perhaps the strongest argument for government intervention relates to the potential for positive spill-overs into the wider economy, as highly skilled workers move around employers, and disseminate their knowledge.

In aggregate, Figure 4 shows that 1 in 6 businesses in Australia faces a problem around skills deficiencies. Deficiencies are most apparent in trades, but 64,000 businesses have an identifiable skills deficiency in relation to finance professionals, 55,000 businesses in relation to marketing professionals, and 44,500 businesses are deficient in IT professionals. This suggests that whilst the immediate labour market problem Australia faces relates to the construction boom and a lack of skilled trades people, the underlying problem might be in high value added professional services.

Figure 4: Skills shortages



Source: ABS Business Longitudinal Database 2006-07 to 2010-11

Boosting skills demand and supply

The key to resolving Australia's longer-term goal of creating a more dynamic and productive small business sector lies in boosting both skills supply and skills demand. In short, policy attention needs to focus on both sides of the skills market in order to create more quality jobs for more productive workers. In this sense, there is a need to:

- Co-ordinate employment, skills and economic development policy which aligns, to a greater extent, the labour market, training and economic policy
- Create a lifelong learning culture which delivers a workforce that is more adaptable and better able to transfer between firms and sectors as a dynamic and productive economy requires that resources (investment and people) flow to those areas of the economy that have the most productive potential
- Move out of a low skills trap where some sectors of the economy are stuck in a low-skills equilibrium where firms offer low-skilled jobs and operate in low-cost markets
- A key part of this is educating and training managers and entrepreneurs to stimulate demand for higher skilled jobs

Entrepreneurs have a major role to play given the centrality of entrepreneurial businesses in net job generation. But helping the entrepreneurial sector to achieve its potential requires policy support across many areas, including; business growth support (initiating and managing growth); core entrepreneurship skills; business training; skills development; network building; and mentoring.

Moving out of the low-skills equilibrium

For the entrepreneurial population, this would require the skills and capabilities to develop and implement new market based strategies. This, in turn, would stimulate demand for higher skilled workers. On the supply-side, the Skills Australia (2012) "Better Use of Skills, Better Outcomes" report identified seven key skills based issues that would deliver more productivity in the workplace. These are: job redesign; employee participation; autonomy; job rotation; skills audits; multi-skilling; and knowledge transfer.

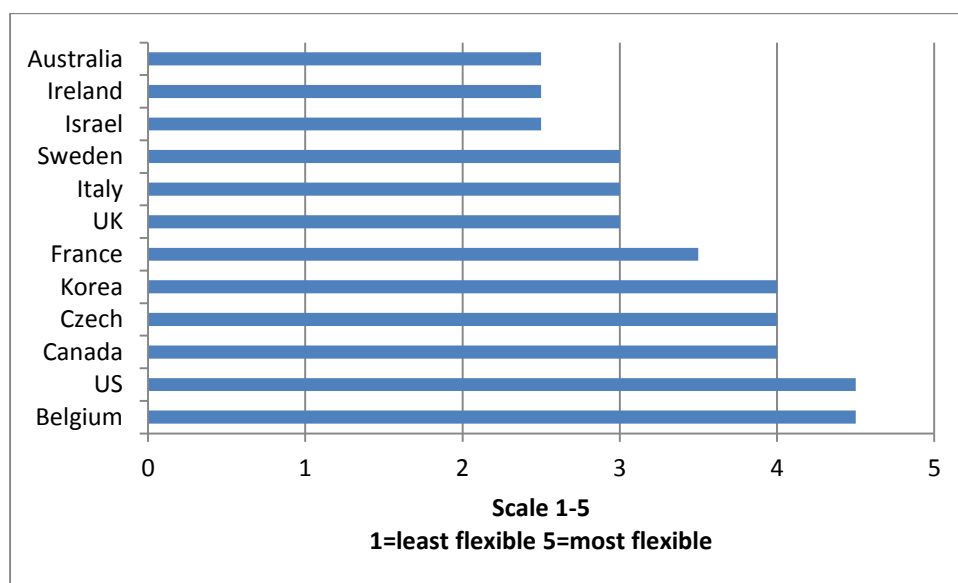
But, as with most government policy, it is designed for, and in consultation with, large employers and large employee representative bodies. If implemented in a large employer there would be a period of

consultation with employee representatives, the development of formal systems and processes, and lots of bureaucracy and additional costs. Many of these practices occur already, on an informal basis, in small firms by the very nature of their working arrangements and the workforce employed, not least the absolute number of people employed within the business. But the evidence on the relative (lower) productivity of smaller firms compared to large suggests that these supply-side solutions are, at best, only part of a more complex solution.

So what about the role of institutions in resolving skills mismatches at the firm and sector level and where low-skills equilibria exist?

The OECD (2014) strongly supports the need for flexibility at the local level in designing and delivering policy and programs in the area of employment. Figure 5 suggests that Australia has adopted a top down, one size fits all, strategy in this area which does not allow for programs to take into account local labour market conditions and specific skills demand and supply issues. This could equally be applied to the unique issue of the relative low-skills equilibrium faced by significant elements of the small business sector. Here, the OECD recommends that policies and programs are adjustable at a 'local' level in terms of strategic orientation, program design, and performance and budget management. The one caveat being that this level of flexibility requires strong 'local' leadership and capacity.

Figure 5: Flexibility in the management of employment policies and programs



Recommendation 4 – Education and training: To address the significant skills deficit in the Australian economy, the Government (in collaboration with state governments) should immediately tackle and reform the education system’s ability to increase and improve the stock of knowledge-based workers available for employment. These results also suggest that governments should consider the inclusion of enterprise training at all levels of the education system from early school years through to further and higher education institutions.

Contact

IPA Head Office

Level 6, 555 Lonsdale Street
Melbourne Victoria 3000
Australia

Tel: 61 3 8665 3100

Email: headoffice@publicaccountants.org.au

Website: www.publicaccountants.org.au

Digital hub: www.pubacct.org.au

IPA Divisional Offices are located in the following cities:

Melbourne
Sydney
Brisbane
Adelaide
Hobart
Perth
Canberra

The IPA has offices in:

London
Kuala Lumpur
Beijing
Hong Kong

For enquiries within Australia call **1800 625 625** or your nearest Divisional Office. International enquiries can be directed in the first instance to IPA Head Office.