

Prepare for Change

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Cover Letter

In 2023 I introduced the first AUSIEX research paper with the theme “Prepare for Change”, with a focus on the imminent full retirement of the Baby Boomer generation. The focus was on the impact of this change on the wealth management industry over the medium term. The paper highlighted that the wealth management industry in Australia responded to the need to change from the old defined benefit corporate pension system with uncapped liabilities to the defined contribution superannuation system that we have today, adapting to the changing economic and social environment. One major change that the superannuation system is experiencing is the requirement to focus on the dual needs of the retiring generation while still serving its core purpose, which is to grow and manage wealth for the generations currently in the workforce.

Industry and media coverage over the past 12 months shows that these issues are indeed becoming front of mind for regulators and policy makers and encouraging the industry to focus on the liquidity and servicing issues that are arising for those exiting the system. This is a good sign of the ability of the industry to evolve and respond effectively to challenges before they become problems.

However, the broader and more difficult challenge is to deliver on the need of the following generations to see the same, if not better, growth and wealth creation opportunities as experienced by the generation that came before them. This is what we address in this year’s paper where we turn our attention to ideas on how to ensure that wealth generation continues. We explore macro risks and opportunities, whilst keeping our focus on equity capital markets to ensure that we can propose real ideas with measurable outcomes.

Introduction

Everyone is aware that the ageing phenomenon is global, however what also became apparent since the last paper is that China, Australia’s largest trading partner, has commenced its population decline as its ageing population retires and their young are not reproducing at anywhere near the replacement rate. April 2023 saw India overtake China as the world’s most populous country¹, and its GDP expectations are generally viewed as tepid and unable to reach prior levels of growth. The recent court ordered liquidation² of the China Evergrande Group, which was at one time China’s largest property developer, is also seen as emblematic of the problems arising from an imbalanced, centrally controlled economy that is doubling down on control and conservatism.

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<https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-no-153-india-overtakes-china-as-the-worlds-most-populous-country/>

²

<https://www.afr.com/world/asia/evergrande-heads-to-liquidation-in-milestone-for-china-s-property-crisis-20240129-p5f0t2>

And China has more than internal issues. The Biden administration's CHIPS and Science Act³ that took effect in 2023 includes restricting China's access to the high performance computer chips used in AI. The impact of these restrictions are also to be combined with important manufacturers such as the world's leading computer chip manufacturer, TSMC in Taiwan, diversifying its manufacturing away from mainland China by making factories in new regions such as Vietnam, India, and even the USA by using new methods of automation. TSMC's strategic diversification from China is taking technology giants like Apple and NVIDIA with them and points to a significant change in the next 5 years away from the assumption of the last 20 years that historian Niall Ferguson called the era of "Chimerica"⁴ where China is the factory of American technology. The AUKUS alliance between Australia, UK and USA to counter the risks of China in the Indopacific region is emblematic of the significant change that is already underway in our economy - the Australian economy. And change in and around China simply introduces the concept of change; it is just one of many engines that is driving change in Australia's direction.

The purpose of this paper is to initiate a conversation about how equity capital markets can prepare for changes and take advantage of them so participants can capture positive outcomes for Australian equity capital markets over the 5 year time horizon. The approach will be to present some research that shows the clearly emerging issue of an underutilisation of equity capital markets in Australia, the increasing concentration of the Australian economy into resources and services, and the continued decline of manufacturing industries. We then explore emerging opportunities and risks and contribute some avenues to explore to help improve the utilisation of Australia's equity capital markets.

Underutilisation and Imbalances

Underutilisation of Australian Equity Capital Markets

Equity capital markets are not the only ingredient, but they are a vital ingredient in the chemistry of a modern integrated economy. Equity capital markets are downstream of the startup crucible where the chemistry of knowledge, skills, and creativity are combined with the catalyst of the sources of financial capital that is knowledgeable and able to identify opportunities while managing risk. It is in this crucible where small ideas become the big ideas that require large scale capital, and it is when this requirement emerges that equity capital markets become the vital furnace of the economy where large scale capital forges large scale growth. If we see the large-scale deployment of capital through equity capital markets then we can say the crucible is working and the furnaces are being utilised. So what do we see?

Australia has accumulated AUD 3.5 trillion of superannuation savings, which is 140% of Australia's AUD 2.5 trillion GDP, putting Australia in the top 10 of the league table of retirement

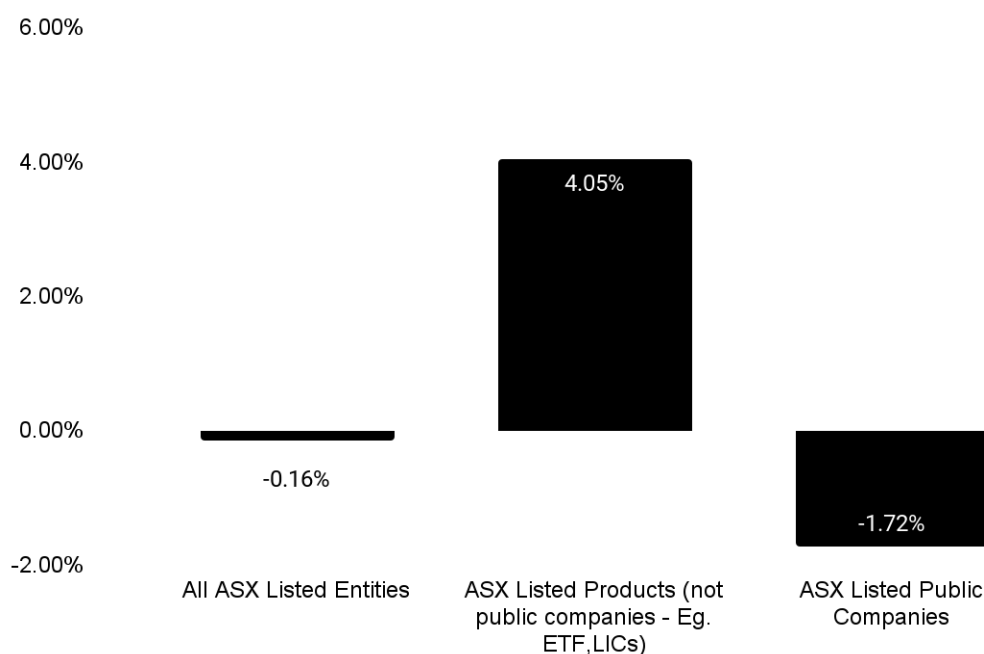
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<https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china/>

⁴ <https://www.pbs.org/wnet/ascentofmoney/>

savers amongst our OECD peers. Of course it's wrong to look at this number as a single pool available for investment; it's the sum of each individual Australian's hard work and their treasured savings for their future comfort and security in retirement. Every dollar has to be carefully managed on their behalf according to their goals and their needs. Nevertheless, if the crucible and furnaces are working properly then a considerable proportion of these funds would seek out the returns to be gained from well functioning Australian innovation and growth, and we would see public company listings grow on equity capital markets in some relationship with the growth in company and capital formation.

Figure 1. Comparison of ASX Entity Type Geometric Growth Rates - 2017-2023

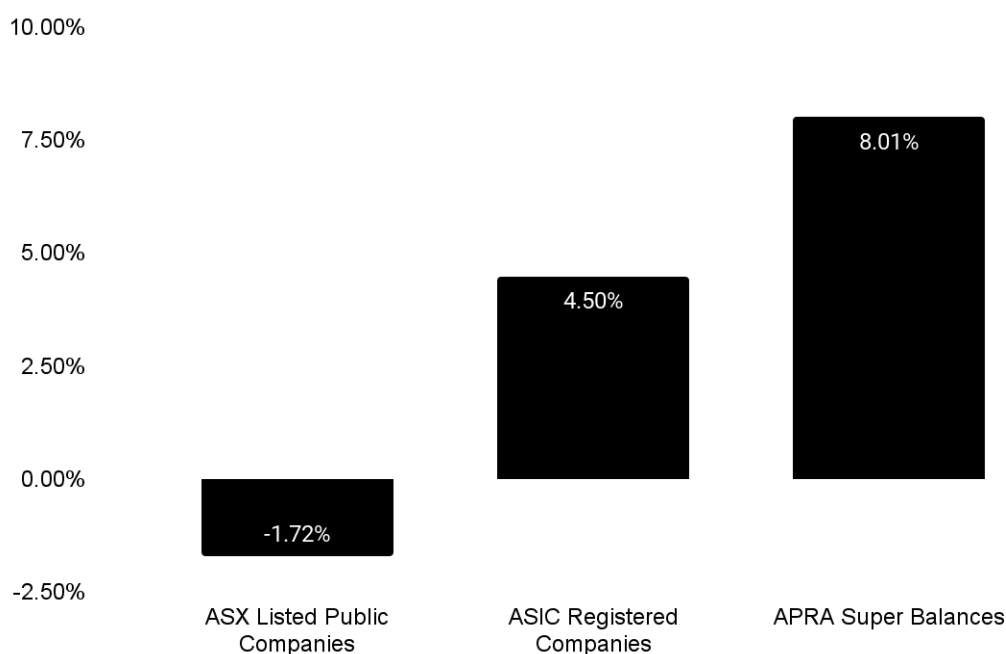


Source: ASX Monthly Reports. & ASX Investor Products Reports 2017-2023

While the ASX is not the only measure of equity capital market activity in Australia, it's pivotal to the industry, its monthly activity reporting is comprehensive and it provides a useful prism through which we can view this dynamic. Figure 1 shows the comparison of ASX entity type geometric growth rates from 2017 to 2023. The first column shows the growth in the total number of listed entities on the ASX. If we look at column two - Listed Products that are not public companies - then you see that there has been impressive growth in the listing of exchange traded products which reflects the global trend of investors using exchange traded funds across all asset classes for low cost portfolio construction. If you then remove the effect of these product additions over the same time, then we see that the growth in the number of public companies joining the ASX is in reverse at the rate of -1.7% per annum which equates to just over 160 less publicly listed companies than there were in 2017. Add to this the fact that the number of ASX participants (brokers) has decreased by -18% over the same period; then all

the indicators are that public company formation and demand for capital from new industries is not there. In other words, the furnace is under-utilised.

Figure 2. Comparison ASX Public Company Listings vs Company Registrations and Superannuation System Geometric Growth rates.



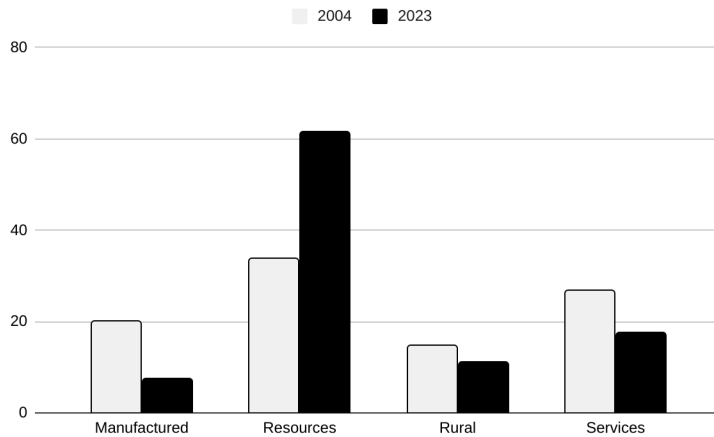
Source: ASX Monthly Reports. & ASX Investor Products Reports 2017-2023. ASIC & APRA

Compare the contraction of ASX public company listings shown in Figure 1 to new company registrations and superannuation system growth shown in Figure 2. Clearly Australians are starting new companies at a solid clip of 4.5% new registrations per annum, and the pool of investment capital continues to grow at impressive and consistent rates of around 8% per annum. In other words, Australians are demonstrating entrepreneurial spirits, they are great savers and continue to grow a pool of capital that is there for good future-oriented investment opportunities. In other words, the Australian crucible IS working, but the dearth of new company listings looking for growth oriented capital means that the path from crucible to the ASX furnace is underutilised. It would seem that the dilemma of equity capital markets in Australia is that we have large amounts of capital but we are unable to deploy it at scale.

Australia's Concentrated Economy

There is ample data and discussion about the Australian economy; the focus here will be on how it is structured, and how rapidly it can change. First, let's look at change over the last 2 decades.

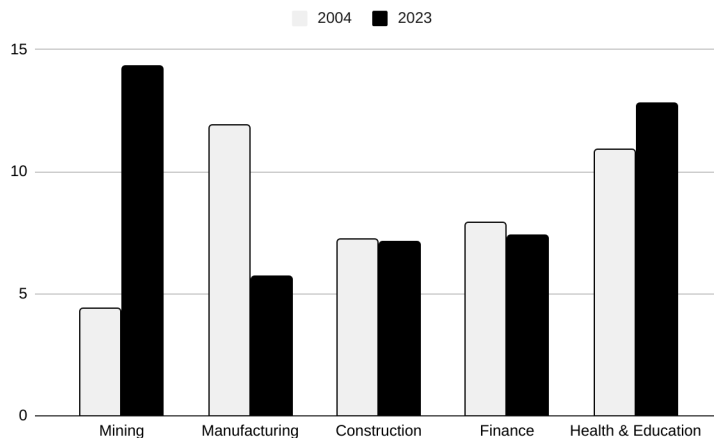
Figure 4. Export Share by Type - 2004 vs 2023



Source: RBA Snapshot Comparison. 2004-2023⁵

Figure 4 compares the share of Australian exports by type from 2004 vs 2023. A focus on 2023 shows that around 70% of Australia's national income and wealth is dependent on demand-led exports that we collect or cultivate and then ship. Our next largest export is services and then manufacturing which is now less than half and trending to a third of services. It also shows that over the two decade period Australian manufacturing was reduced by a factor of 40% and reliance on resource income increased by a factor of 180%. Rural and services outputs, on a relative basis, increased less than 10% over the same period.

Figure 5. Industry Share of Output - 2004 vs 2023



Source: RBA Snapshot Comparison. 2004-2023⁶

⁵ <https://www.rba.gov.au/snapshots/economy-composition-snapshot/>

⁶ <https://www.rba.gov.au/snapshots/economy-composition-snapshot/>

Figure 5 compares the share of output by sector over the same period. A focus on 2023 shows that mining and services are our largest economic outputs. Again, a focus over the two decade period shows that mining has increased 330%, manufacturing has been reduced by 50%, and the rest have been relatively stable, although health and education has increased by 20%, which is to be expected given the increases in demand for services for aged care and the national disability insurance scheme.

If we are going to discuss structure and change, then the two decade changes need to be put within the context of current economic changes. The Australian Bureau of Statistic's September 22 to September 23 Economic Overview⁷ showed that while GDP grew at 2.1%, GDP per capita shrank -0.3%, GDP per hour worked shrank -2.1%, and terms of trade shrank -9%. Real unit labour costs increased 3.9%, government spending increasing "on behalf of households" whose savings rates are now nil, and government capital investment currently outweighs private capital investment. Within these economic figures lies the costs of Australia's comprehensive social safety net that is above average and like our retirement savings, is in the top 10 of OECD nations⁸

What does this mean? First, it reinforces the well known fact that the Australian economy is unbalanced insofar as its exports are concentrated in the "grow up or dig up" areas of agriculture, energy, and resources, but now mostly digging up resources and shipping them. Second, the trend of Australian manufacturing continues to be downward with no sign of stopping, and services have increased to replace manufacturing as the predominant value adding activity of the Australian economy. Third, the shift that occurred over a relatively short period of time resulting in a massive increase in resource income and the concomitant decrease in manufacturing income shows how quickly things can change in the Australian economy. And last but not least, the economy has changed rapidly before and can do so again and the current economic changes we are seeing suggest that while a new trend may not be fully formed, it would still be prudent to bring risk management into focus if we wish to continue to improve the wealth of the nation and maintain a world leading social safety net for our citizens.

Risks and Opportunities

We have discussed how Australia's equity capital markets are underutilised as measured through ASX public company listings, we have observed how the Australian economy is highly concentrated and dependent on income from "grow up or dig up" industries that produce raw inputs that we ship to others to process, we have seen that things can change relatively quickly within the economy, and the current economic numbers indicate that we need a focus on risk management strategies to defend and grown our national income. We will now look at some emerging opportunities and risks that may shape the Australian economy over the near term.

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<https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-national-income-expenditure-and-product/latest-release>

⁸ <https://www.aihw.gov.au/reports/australias-welfare/international-comparisons-of-welfare-data>

Opportunities

There are two fundamental shifts occurring in the Australian political and economic context. The first is the desire to reengineer the Australian economy away from fossil fuels through the implementation of green forms of energy. This topic is well covered and beyond the scope of this paper. The second shift that is less understood is the recent and urgent emphasis in bi-partisan government policy toward bolstering Australia's defence and national security requirements in the face of the challenges presented by a more assertive and aggressive China. This change commenced with the AUKUS alliance announced by the Liberal government in September 2021⁹ which was largely communicated in the press as being about the acquisition of nuclear submarines. However this was only "Pillar 1" of the alliance; "Pillar 2" is about "advancing capabilities" in defence technology including cyber capabilities, artificial intelligence, quantum technologies, hypersonic, and deep space. Following the AUKUS announcement the Australian government has followed through with a comprehensive program supporting the initiatives including:

- The AUKUS agreement and amendments
- The National Reconstruction Fund
- The National Quantum Strategy
- The Future Made In Australia Act
- Defence Strategic Review and Integrated Investment Program

The AUKUS Agreement commits Australia to \$A368bn of projected expenditure into the mid 2050s, or around \$A10bn per annum, and the AUKUS Defense Investor Network¹⁰, and The Defense Strategic Review¹¹ also specifically identifies the need for the government to "establish criteria, pathways and mechanisms for industry and private equity firms to participate in AUKUS." The scope and urgency of these initiatives, and the desire by the government to include private capital and superannuation funds in the programs, signals to equity capital markets the opportunity for it to be a pivotal participant in these initiatives; it can engage with the policy side to facilitate changes that can improve the speed and efficiency of product creation and execution to provide more flexible funding to industry, while working with the industry side to leverage these changes to raise capital to pursue the opportunities. This creates a once in a generation opportunity to work to restart the capital furnaces of Australia and also restart participation in the parts of the global manufacturing value chain.

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<https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/09/15/remarks-by-president-biden-prime-minister-morrison-of-australia-and-prime-minister-johnson-of-the-united-kingdom-announcing-the-creation-of-aukus/>

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<https://www.minister.defence.gov.au/statements/2023-12-02/aukus-defense-ministers-meeting-joint-statement>

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<https://www.defence.gov.au/about/strategic-planning/2024-national-defence-strategy-2024-integrated-investment-program>

Risks

Our ability to pursue new opportunities also means that we will need to be aware of and address new risks. We point out two risks we consider important in the context of this paper - the first we characterise as a “drag” that will hinder us from getting up to speed as we attempt change, and the second is a “headwind” that could work against our existing momentum.

Knowledge Drag

The special report “Australia’s Semiconductor Manufacturing Moonshot”¹² released by the Australian Strategic Policy Institute in Washington DC highlights that Australia needs to secure and develop the talent it needs to be competitive in manufacturing in future oriented industries such as energy transition technology and the emerging defence and quantum computing industries. The paper also highlights that Australia’s declining manufacturing ability creates risks that our education system lacks the ability to teach skills in this area, making it very hard to re-introduce the manufacturing capabilities required to pursue emerging opportunities. We also should be mindful that projects that pursue global themes such as energy system reengineering or re-homing manufacturing have to enter into a competition in the global talent pools to find the resources necessary to the projects. The lack of knowledge, upskilling requirements of our education processes, and global competition for talent all represent the risk that new initiatives will have considerable knowledge drag that will need to be overcome in order to get the economic changes up to speed.

AI Headwinds

The automation of industrial systems through robotics and other advanced process technologies is well established and well understood by management and the political class as being either vital to our competitiveness, or barriers to entry built by our competitors. Contrast this to the automation of knowledge based industries that has only just really begun through the introduction of new AI techniques and hardware. These emerging systems may be a significant risk to the service industries that have become the predominant value adding activities of the Australian economy. This is not hyperbole; let’s consider the investment trends in the Biotech industry which is an area where Australia has had some success with companies such as Cochlear and Resmed. McKinsey and Company report that while funding has decreased relative to COVID era highs, 22% of venture capital investment that was made in 2022 into the Biotech sector went to “Drug discovery enabled by machine learning”. This figure has been increasing since measurement started in 2019, and is expected to continue to grow unabated. Furthermore, the AI dynamic is also being seen in the nascent, but highly competitive quantum industry. In 2023 the UK government¹³ committed nearly AUD 1 billion to create an AI compute facility to help facilitate quantum projects of which it launched 5 as part of the program,

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<https://www.aspi.org.au/report/australias-semiconductor-manufacturing-moonshot-securing-semiconductor-talent>

¹³

<https://www.gov.uk/government/news/science-innovation-and-technology-backed-in-chancellors-2023-autumn-statement>

increasing their existing commitment to this area by 50%. This investment shows that AI does not just threaten the industries Australia does at present; its rapid adoption and large scale investment abroad means that it directly threatens what we think are our educational institution advantages as we attempt entry into future industries. The undermining of existing service based income from AI automation, and the rapid overtaking of the traditional slow university based research approach with fast AI enhanced research processes represent the risk that new initiatives will also have to consider headwinds against areas that were previously seen to be strengths.

Checkpoint

We have shown that the trend in ASX listed entity numbers suggest that Australian equity capital markets are underutilised and possibly in secular decline, at least when measured in new listings of public companies. Australians are forming businesses and the market has access to pools of capital from the superannuation system, however this activity is not making it onto the bourse.

If we look at the environment in which equity capital may be utilised, we see the Australian economy is resource based and our national income is predominantly from what we grow, or dig-up and ship. In terms of global manufacturing value chains, our role is resource supply and wholesale/retail end-user distribution and servicing. We do not have any manufacturing capacity operating at global scale and we rely on value-added manufacturing processes for the goods we consume or tools we use to be done elsewhere. While we do not make products, we do have excellent resource management skills and have leveraged those skills into service industries which also contribute to exports.

In addition to considerable energy policy investments, Australia has seen a recent and urgent emphasis in bi-partisan government policy toward bolstering Australia's defence and national security requirements in the face of the challenges presented by a more assertive and aggressive China. The AUKUS alliance is emblematic of a new willingness among USA, UK, and Australian governments to rehome and restart manufacturing capabilities, especially in the high tech areas of AI, quantum computing, and advanced defence technology. This has created a willingness to find ways to deploy significant capital into Australian industry, and so creates a significant opportunity for equity capital markets to engage and participate in the process.

Understanding these opportunities also brings into focus the risk that resource availability may be a drag on initiatives that will need to be considered in any plan to pursue them, and new technology and automation also changes the landscape and could create unexpected headwinds against approaches that use old mindsets or do not have access to the new technology.

Avenues of Change

We present three "Avenues of Change" that we believe can be explored and developed further with equity capital market stakeholders so as to reduce risk and pursue opportunities.

The Ecosystem Avenue

The Ecosystem Avenue is the place to explore ideas for expanding the participation ecosystem by increasing the number of companies that list and use equity capital in Australia. Australia can already point to a successful small-cap mining industry ecosystem, and it can also point to where it has successfully pursued opportunities in biotechnology that have also worked in tandem with educational institutions. It has created some large technology companies, although some have chosen to list and pursue capital on overseas markets. These industries also have associations such as AusBiotech¹⁴ that retain the knowledge of how to build bridges from sources of intellectual capital to sources of financial capital, and ASX participants have analysts that review companies in Australia, but also see investment ideas from other markets. Groups such as the Broker's Industry Association should organise to work with government and participants to build awareness and tools so that innovators and creators can come together with the capital market participants and institutional customers to understand the rapidly changing global and local manufacturing environment, and help new and existing businesses that are aligned with manufacturing to find their way to accelerated growth by becoming listed company customers of the ASX.

Many parts of the work are also looking at opportunities as supply chains are diversified away from China and manufacturers in alternative markets such as Vietnam, India and Japan are looking to capitalise on this change. The ASX has some experience with finding overseas customers with around 8% of company listings outside of Australia, although the largest share is in New Zealand and the USA, and the rest in Canada, Singapore, UK and Israel. The ASX could look to diversify its business development away from the predominantly anglophile markets it is in and leverage the diversity of the Australian workforce to find new manufacturing customers in new markets. The ASX could also work with its participants, who like NRI, have a global footprint and would make introductions for them.

The Product Avenue

The Product Avenue is a place to explore ideas for working with government and regulators to improve the products, services, and efficiency of Australian capital markets. Manufacturing, energy, defence, and high tech industries are capital intensive and require diverse financial structures and products. Australia has a strong equities market, however it does not have a mission fit corporate bond market. In its 2021 paper entitled "The Development of the Australian Corporate Bond Market: A Way Forward", the House of Representatives Standing Committee on Tax and Revenue bluntly stated that the reason for this was that it "was the result of ongoing regulatory failure and institutional obstructionism", resulting in Australia having a smaller and less liquid corporate bond market than New Zealand - which has a significantly smaller economy than Australia. The ASX has been deeply involved in highlighting the issues and has been a leading participant in the program to work with government and regulators to make the required changes, however the fact that the ASX itself was recently unable to use its own platform as a way to raise debt shows there is still a lot of work to be done.

¹⁴ <https://www.ausbiotech.org/>

These issues are in the hands of government and regulators, and to a lesser degree, ASX's own market rules. While this process has been progressing slowly, we believe that there are two new information inputs that can be used to re-invigorate the processes and resolve these issues. The first information input is that a review of the themes in the industry and media over 2023 shows that the retirement of baby boomers is becoming front of mind for regulators and policy makers who now see a need for the superannuation industry to start to focus on the liquidity and servicing issues that arise when older, retired superannuation participants cannot take the volatility risks of equity based products. This requirement means that the Australian financial services industry needs access to a large, strong, liquid and diversified market of fixed income products, and it is absurd that the Australian large-cap companies that have been the stalwarts of the asset accumulation stage can't access debt from an Australian bond market and provide quality lower risk income for retirees who are in the pension phase. The second information input for this process is that the government itself is asking for ways in which private capital, including superannuation funds, can invest into important policy areas such as defence related manufacturing activities. These requests by the Australian government for investor participation in these changes means that the interests of industry and policy makers are aligned as government programs can also benefit from an improvement in the depth and breadth of products that can be issued in Australia. These new information inputs should be taken as signals to the industry that it should continue to pursue the Product Avenue with vigour and create more momentum by showing alignment with the government's own agenda.

The Regulatory Avenue

The Regulatory Avenue is a place to explore improving the technology infrastructure of Australian capital markets. The well documented past failure of the ASX's overly ambitious reengineering project that started in 2016 and was cancelled in November 2022 brought the importance of technology into sharp focus with regulators (RBA, ASIC and APRA) and Senate oversight committees. This has meant that the emphasis on technology infrastructure in equity capital markets in Australia has shifted from being a platform that supports market innovation to predominantly being a platform for regulatory compliance and stability. These projects are the focus of the 2024 ASX technology plan, which means that 8 years of technology platform innovation is now lost, and risk aversion has replaced risk taking.

Australian equity capital markets participants, including the ASX, have to be alert and ensure that the regulatory environment also understands that the Australian market has to - at the very least - remain comparable and innovating at the rate of its global peers, who are also its global competitors. If this risk is not addressed, Australian capital markets run the risk of becoming technologically moribund and uncompetitive, and any opportunities that arise from changes made in the broader economy in pursuit of new capabilities will simply go to other markets. The US, Canada, and the UK all have exchange backed pathways to make it easier for smaller companies to get access to public capital markets, and the UK and Canada have bourses with a specific focus on junior markets. All global markets understand the role of technology as a way to continuously deliver the innovation and scale that enables new participants to come to public capital markets at earlier stages. Australian regulatory risk aversion needs to be balanced against the need for international competitiveness through continuous innovation so that a small

regional market like the ASX can continue to offer an advantage to companies that are actively pursued by international exchanges that are readily available to them.

Conclusion

The numbers presented in this paper show that equity capital markets in Australia are showing signs of underutilisation and the process of bringing businesses from the startup crucible to the capital furnace to achieve scale is not working as effectively as it could. Our economy is highly concentrated on resources, our largest employers are service based industries, and our manufacturing industry continues to decline. The markets are changing, and we have highlighted in this paper that energy re-engineering and new national defence initiatives are emerging as a source of real goals and real projects, and also as a force of change against existing global orthodoxies about what is manufactured, where. These changes could provide opportunities for manufacturing and defence in Australia, and equity capital markets have an opportunity to contribute and benefit. The change is not without its risks, but the changes may also create a willingness to remove existing obstacles to market innovation. We have proposed three avenues that we can explore today to lift the attention to solutions and look forward to reviewing these with stakeholders and also working with them on their ideas.