

EABER WORKING PAPER SERIES

PAPER No. 132

Chinese Direct Investment in Australia — a Perspective

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Chinese Direct Investment in Australia — a Perspective

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Abstract

Substantive mainland Chinese direct investment into Australia emerged from 2008. The investment has complemented Chinese portfolio investment in Australia and has evolved from an initial focus on resource based activities to a wider portfolio including real estate, transport and manufacturing. While mainland Chinese investment is now substantial, the main source of foreign direct investment to Australia remains OECD economies, particularly Japan, the United Kingdom and the United States. The nature and level of future Chinese direct investment abroad will be influenced by firm-specific factors such as resource seeking investments towards market seeking and strategic asset seeking as Chinese firms move towards the global technology frontier and as China increases its global economic and strategic footprint. The (net) levels of funds available for foreign direct investment will be conditioned by broad economic factors such as the demand on saving to build local per-capita capital stocks towards OECD economy averages. Future direct investment flows will also be influenced by privacy, strategic and resilience concerns of countries in the global market place for capital. The balance struck in trade-offs between these concerns and trade concerns will affect the pace and direction of technological and organisational change in Australia, and ultimately economic growth, material living standards and the quality of life. The management of those trade-offs will be influenced by the responses of other countries over which Australia may have little influence.

JEL codes: E22, F00, F15, F63, F65, L22.

Keywords: Foreign direct investment, Economic convergence, Capital deepening

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¹ The preparation of this paper benefited from feedback during meetings on the Chinese Investment in Australia (CHIA) project undertaken by the East Asian Bureau of Economic Research, Australian National University, and from comments on an earlier draft by Peter Drysdale and two referees. All errors and omissions in the paper are those of the author.

1 Introduction

The progressive integration of mainland China into the modern world economy has brought with it an increase in Chinese foreign direct investment (FDI) in Australia, particularly since 2008. This occurred with mainland China's gradual opening of its capital account and its liberalisation of direct investment outflows (RBA 2017). The increase was concurrent with the emergence of a surplus in China's balance of payments and associated growth in net foreign lending. Mainland Chinese FDI into Australia was initially concentrated in resource activities associated with mining investment (Drysdale and Findlay 2009). This broadened to real estate, infrastructure, manufacturing and service investments as the minerals boom subsided (RBA 2017). While mainland Chinese investment inflows to Australia have grown in prominence, the OECD countries of North America, Europe and Japan remain the largest source of direct investment flows into Australia and owners of direct investment holdings in firms domiciled in Australia.

The integration process by its nature is transitional and can be associated with an identifiable progression of regulatory and economic changes. This paper provides a perspective on the progression of Chinese FDI into Australia to date, key policy and economic influences that have shaped investment activity, the industry-specific contributions of Chinese direct investment in Australia and the scope of likely impacts and benefits accruing from this investment. Against this background, the paper then adopts a forward-looking perspective to consider some of the broader policy and economic influences on future Chinese FDI in Australia. In doing so, it suggests that as the Chinese economy expands its footprint in the global economy and moves towards the frontier of global technologies, further changes in the China–Australia direct investment relationship are likely. Such changes go beyond the immediate implications of the COVID-19 pandemic and trade tensions between mainland China and the United States. Some possible research directions that may be taken forward associated with mainland Chinese investment in Australia are suggested.

The paper first references IMF and OECD concepts and definitions generally used in the reporting and analysis of foreign investment (section 2). It explains why country-of-origin and categories of investment are important research issues in regards to Chinese outbound investment (and inbound investment to China). The following section (section 3) then reports on the emergence of mainland Chinese direct investment in Australia as well as Chinese and Australian foreign investment activity more broadly, highlighting the influence of regulatory and economic changes on the level and direction of flows. Section 3 also addresses gaps in the knowledge of Chinese investment in Australia through: referencing the newly released survey data on Chinese controlled direct equity investment in Australia (the CHIIA data set); a reconciliation of ABS foreign direct investment data with estimates from CHIIA; and reports on the industry composition of Chinese direct investment using CHIIA and American Enterprise Institute (AEI) data.

Leveraging off the information on the industry composition of Chinese direct investment in Australia, section 4 considers the scope of the likely impacts and benefits of Chinese direct investment in Australia. The section adopts an economy-wide focus and using a theoretical approach, builds up the potential impacts and benefits of inward direct investment (to Australia) from micro-foundations based on global business model analysis. The analysis provides a basis for the empirical assessment of the implications of inward investment within an economy-wide framework. Section 5 then takes a forward-looking perspective to canvas policy, regulatory and broad economic factors that may influence the extent and composition of Chinese FDI into Australia into the future. Section 6 summarises some forward-looking economic issues and discusses possible future research directions.

2 Definitions, concepts and some explanations

The broad accounting framework

It is important for the interpretation of the economic effects of **Chinese direct investment in Australia** to place that investment in the broader context of the recording of China's and Australia's international transactions. These broad relations define economic accounting boundaries within which Chinese direct investment in Australia is recorded, and under which direct and other categories of foreign investment are distinguished. They also define the boundaries between foreign investment flows and balances, and the production, distribution, financing and accumulation activities of enterprises in a host country. It explains why country-of-origin and categories of investment are important research issues in regard to Chinese outbound investment, and indeed outbound investment of other countries.

This section begins by defining the foreign direct investment relationship then places foreign direct investment in the nest of foreign capital flows and balances.

The foreign direct investment relationship

The IMF and OECD define direct investment as '...a category of investment associated with a resident in one economy having control or significant influence on the management of an enterprise that is resident in another economy' (IMF 2009:100). A direct investment relationship is when an investor resident in one economy makes an equity investment that gives control or a significant degree of influence on the management of an enterprise resident in another economy. Foreign direct investment implies the establishment of a lasting interest by the direct investor in the management of the direct investment enterprise (OECD 2008:48).

Foreign direct investment can be motivated by ownership advantages, locational attractions and the scope to internalise commercial benefits that are context specific and cannot be fully realised through other forms of investment (Dunning and Lundan 2008, Tallman et al. 2018, Casson 2018). Against these motivations the main types of foreign-based firm activity can be resource seeking, market seeking, efficiency seeking or strategic assets seeking (Dunning and Lundan 2008). These motivations are discussed in section 4 below, together with the pathways through global business models (Tallman et al. 2018, Casson 2018, Buckley and Casson 2020) by which the advantage of FDI activity may be realised.

Under IMF and OECD definitions, control is determined to exist if the direct investor owns more than 50 per cent of the voting power in the direct investment enterprise. A significant degree of influence is determined to exist when the direct investor owns 10–50 per cent of the voting power (IMF 2009:101, OECD 2008:48). While in practice, control or significant influence can arise with lesser holdings of voting power through non-equity ownership or through voting shares, these standards afford a meaningful basis for international consistency in the compilation and analysis of investment flows.

A number of important statistical conventions are followed in applying these definitions. First, the presentation of data according to the 'direction principle' under which investment flows and positions are organised according to the direction of the direct investment relationship (IMF 2009:107). This means that direct investment in Australia is the net of assets and liabilities between Australian resident direct investment enterprises and their foreign direct investors. The convention reflects the direction of control and influence in the direct investment relationship.

Second, while debt and loan positions between direct investment affiliates are usually

included in direct investment flows, debt between deposit taking institutions and like financial intermediaries are not. Such flows are not considered transactional and not strongly connected to the direct investment relationship (IMF 2009:105). Third, in order to promote symmetry and consistency among economies and provide a comprehensive reporting of direct investment flows and positions, funds that pass through a resident in one economy to a direct investment affiliate in another are within the scope of direct investment transactions (IMF 2009:105). Fourth, a government may be a direct investor, so that if a government equity holding could qualify as a direct investment or reserve asset, it should, by convention, be recorded as a foreign direct investment. Debt instruments (between a government and its direct investment enterprise) meeting reserve asset criteria should be classified as part of national reserves (IMF 2009:204).

Firms may source funds from outside a direct investment relationship and where those funds are sourced from abroad, they would be within the scope of the balance of payments. Where funds (both within and outside a direct investment relationship) are sourced *locally*, they would be resident-to-resident transactions and not included in the balance of payments, but they would be included in the financial accounts and balance sheet of the direct investment enterprise. For both these reasons, FDI inflows are only one component of total funds available to a firm for real capital formation or financial investments by direct investment enterprises. Firms may seek funds from outside the direct investment relationship (including in the host economy) if, for example, the cost of capital on external debt is less than on direct investment equity, firms investment opportunities exceed the availability of firm-specific funds, there is a firm-specific debt-to-equity mix requirement, or if exchange rate risk can be best managed through borrowings in the host country (or third countries).

At the core, FDI capital flows and direct investment income entail an actual inflow of capital or the remittance of funds between economies. In addition, net earnings of direct investment enterprises attributable to a direct investment relationship but not remitted as dividends, are included as (re-)investment of and income payments of equal value (IMF 2009:135). Reinvested earnings therefore differ from other direct investment transactions in that they are linked to the productive and income earning capabilities of the direct investment economy rather than the capabilities of the direct-investor economy. As noted in Dunning and Lundan (2008:13), reinvested earnings is the only major balance of payments component of the foreign investment position that originates in the host country, rather than being transferred from abroad. Reinvested earnings do not give rise to cross-border flows through the banking system although they do give rise to increased claims by foreign direct investors over the balance sheets of direct investment firms located in Australia. Revaluations and other capital adjustments which are not in the balance of payments can also affect the direct investment position of firms and the international investment position of their host country (IMF 2009:120).

Underlying the recording of direct investment is the concept of economic territory. The connection of direct investment entities to a particular economic territory is determined by physical location and legal jurisdiction. The standard application of the concept of territory means that each member of an enterprise group is part of the economy in which it is resident rather than being attributed to the economy of the head office of the group (IMF 2009:50). Under this definition, the country-of-origin of direct investment is the economic territory of the immediate direct investor and not the territory of the ultimate head office.

An important implication of that convention is that when the research or policy interest — concerning for example, direct investment in Australia — is in the economy of ultimate control or significant influence of a direct investor — for example, mainland China — it

would be necessary to trace back the direct investment links that confer control or significant influence through to the ultimate direct investment entity in mainland China. While significant influence can be passed through a chain of control involving a parent-subsidiary relationship it cannot be passed beyond. Similarly, significant influence is not deemed to establish an ownership chain of affiliated direct investment enterprises (IMF 2009:102).

Direct investment nesting in overall capital flows

Direct investment inflows and outflows are nested within an economy's capital account with the rest of the world. The capital account is comprised of the accumulation of foreign financial assets through direct investment and other financing transactions (that is, the lending component) and the incurrence of direct investment and other foreign financial liabilities (the borrowing component).²

The other functional categories of the capital account — portfolio investment, financial derivatives, other investment and reserves (for definitions see appendix 1) — are distinguished from direct investment in that the foreign investment relationship between the investor and the investee is not associated with a resident in the home economy having control or significant influence over the management of an enterprise resident in the host economy.

The balance on capital account termed net lending/borrowing is generated by the net transactions on the balance of payments balance on current account. Exports of goods and services plus the net of interest, dividends and income transfer receipts add to the current account balance while imports of goods and services subtract from that balance.

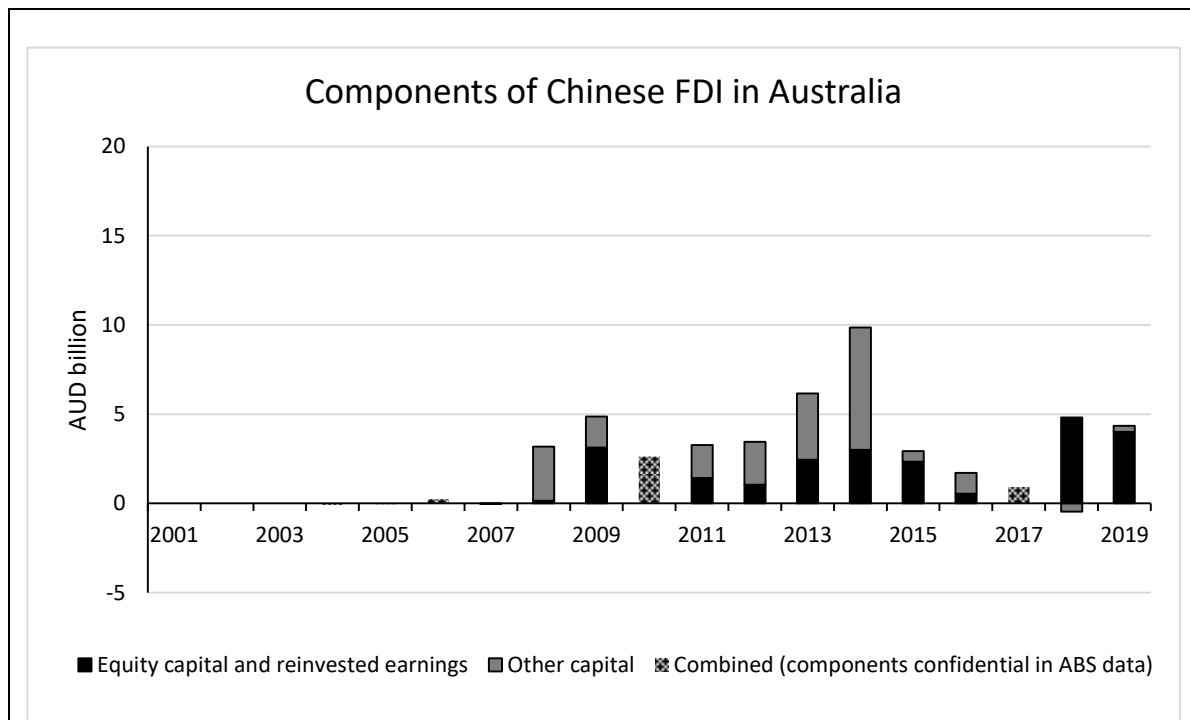
Under this double entry system, a surplus on current account implies that the accumulation of financial assets abroad (including although not necessarily direct investment) exceeds the incurrence of liabilities by residents to foreigners. However, for any given balance, an increase in investment abroad (including of direct investment) requires a commensurate increase in inflows, of direct or another kind of investment.

² The flow of funds, in net terms is also the balance between its local saving and investment (net of depreciation).

3 The emergence of mainland Chinese direct investment in Australia

The reintegration of mainland China into the world economy has brought with it a substantial increase in Chinese direct investment into Australia, particularly since 2008 (Figure 1).³ This followed, with a lag, China’s accession to the WTO in 2000 and the gradual opening of the capital account by Chinese authorities (RBA 2017, Wang and Gao 2018:623). The expanding surplus in China’s balance of payments to 2008 afforded the financial capacity to increase net foreign lending abroad, including through direct investment.

Figure 1: **Emergence and tapering of mainland Chinese FDI in Australia**



Source: ABS Cat. no. 53520, International Investment Position, Australia: Supplementary Statistics, 2019, Released 7 May 2020, Table 1.

Chinese FDI flows into Australia on ABS measures peaked in 2014 then receded sharply, even though China’s overall outward FDI continued to grow strongly (Wang and Gao 2018:620). The substantial decline in Chinese investment in Australia from 2014 to 2015 preceded the tightening of capital controls by Chinese authorities in late 2016 that were made partly in response to increases in the level of Chinese FDI abroad in 2015 and 2016 (RBA 2017, Wang and Gao 2018:629). Under the tightened regulations, outward direct investment proposals in China are subject to increased scrutiny with respect to due diligence, degree of leveraging and alignment of the investment proposal with investors’ core competencies. Under this new stricter regulatory regime, while Chinese FDI into Australia declined in 2017, the recorded inflows increased in 2018 and continued at that level into

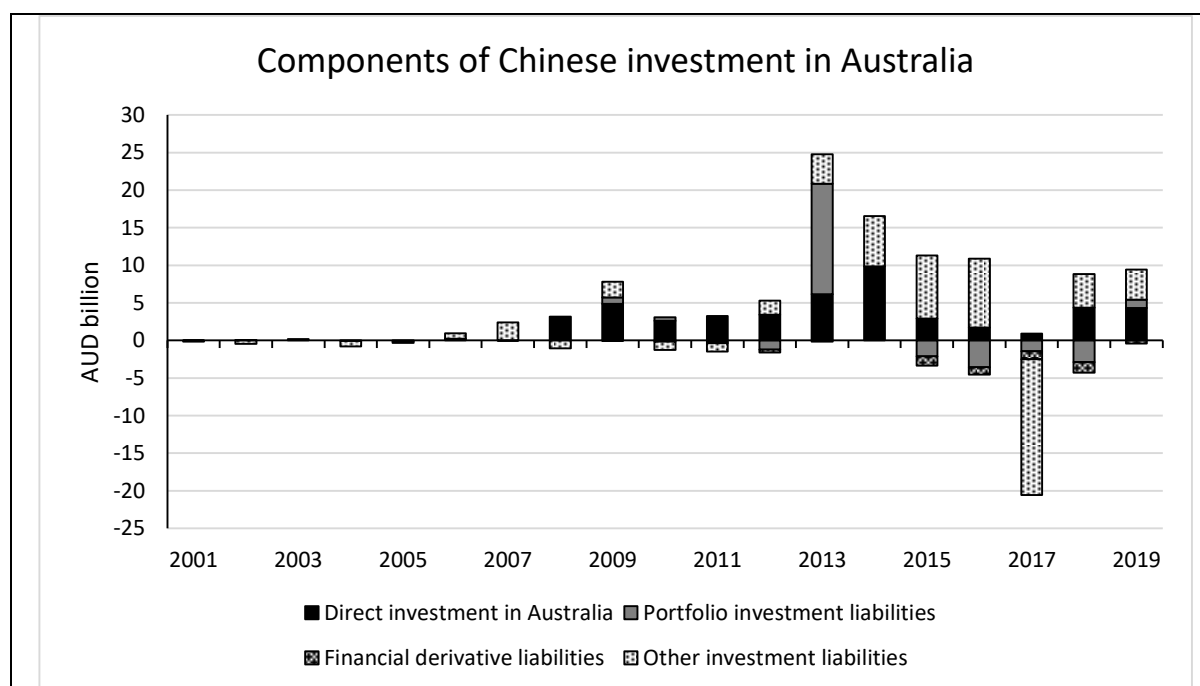
³ Other data available to provide commentaries on Chinese investment in Australia include the recently released CHIIA data set, the AEI-Tracker and the University of Sydney series. These series are based on the principle of the ultimate country of control or significant influence rather than the immediate country of origin of funds – the principle followed in ABS and other widely used data on foreign direct investment activity. A comparison between ABS and CHIIA over the period 2014 to 2019, that is the years for which CHIIA data are available, is provided below. This comparison is supported by new details in CHIIA that facilitate data comparisons. Such details are not available from the other sources.

2019, the latest year for which there is Australian data.

When undertaking FDI in Australia (as well as other countries), Chinese direct investors have the choice of taking up equity or investing through bonds, loans and other non-equity instruments. The choice between instruments provides investors with a means to manage risk and returns. Equity securities confer returns according to the profitability and capital value of the venture while other securities typically confer a defined income stream or an entitlement on maturation. Chinese direct investment into Australia through equity and reinvested earnings, and other capital occurred in similar proportions up to 2016 (Figure 1). In 2018 and 2019, investment was mainly in the form of equities (and reinvested earnings). Data showing the reinvested earnings component is not provided in published series. Because of this information gap, direct investment equity transactions that passed through the banking system are not separately identified. Such equity investment might ordinarily be associated with the establishment of a new presence or expanding a pre-existing presence in the host economy drawing on funds from outside the host economy. An alternative financing source would be to reinvest saving generated from the ongoing operations of the direct investment enterprise, leveraging the value of the home enterprise and ultimately wealth of the home country to the capital growth potential of the host country.

The experience of Chinese direct investment in Australia in the post-2008 period differs from the experience pertaining to other forms of Chinese investment in Australia — portfolio investment, derivatives and other investment. While direct investment inflows from mainland China remained positive, albeit at variable levels, other forms of investment were characterised by both net inflows and net repatriations. Specifically, Chinese portfolio investment turned negative implying a net outflow (or the repatriation of funds) from 2015 to 2018 before turning to a (small) positive in 2019 (Figure 2).

Figure 2: **Direct investment is but one component of Chinese investment in Australia**



Source: ABS Cat. no. 53520, International Investment Position, Australia: Supplementary Statistics, 2019, Released 7 May 2020, Table 1.

After substantial inflow via ‘other’ investment (covering instruments such as loans, currency and deposits, trade credit) from 2013 to 2016, a relatively large repatriation occurred in 2017.

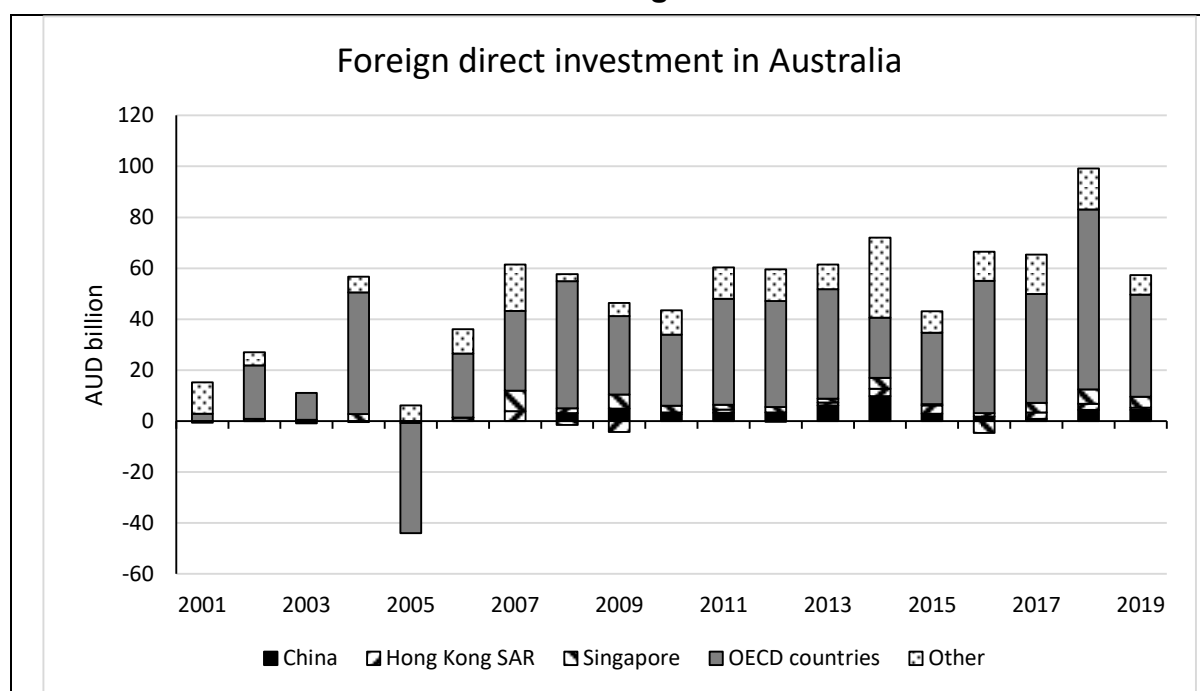
The heightened (inflow and outflow) activity on portfolio and other investment followed the establishment of a cross-border renminbi (RMB) clearing bank in Australia and direct trading between the RMB and the Australian dollar in 2013. The practical effect of these developments was intended to reduce the transactions costs of currency conversion by removing intermediate currencies and increase private sector confidence in the payments system (Hatzvi, Nixon and Wright 2014). Internationalisation of the RMB also occurred as the currency has gradually moved towards a more flexible exchange rate regime from 2012 with a widening of daily trading bands and from August 2015, a system of daily movements of the fixing rate to reflect market developments (EABER/CCIEE 2016:152). Subject to other regulations governing foreign investment activity, if maintained, these measures should lower impediments to inward and outward mainland Chinese investment.

The variability of the direction of non-direct investment transactions relative to direct investment transactions conforms to the adage that the lasting interest by the home country (in this case mainland China) in direct investment in the host country (Australia) is also associated with greater stability in the scale and direction of flows. This stability is afforded by longer-term time frames and the motivation by direct investors to achieve long-term profit through direct engagement in firm operations and from the firm-specific advantages that the investing firms may bring to the direct investment relationship — characteristics that are less associated with portfolio and other investment.

The contribution of Chinese direct investment to total direct investment inflows to Australian has increased

According to measures based on the location of investor, mainland Chinese direct investment inflows to Australia rose to about 15 per cent of total Australian direct investment in 2014 (Figure 3). After easing to less than 2 per cent in 2017, the recorded share increased to around 4 per cent in 2018 — a share more characteristic of the immediate post-2008 period. With the decline in direct investment from other sources in 2019, the share of direct investment from mainland China increased to around 8 per cent of the total.

Figure 3: **China as an emerging source of direct investment in Australia — inclusive of reinvested earnings**



Note: The Cayman Islands and the British Virgin Islands are included in 'Other' (countries).

Source: ABS Cat. no. 53520, International Investment Position, Australia: Supplementary Statistics, 2019, Released 7 May 2020, Table 1.

That share does not, however, reveal the full extent of the emergence of mainland Chinese direct investment in Australia for a number of reasons. First, the estimates are based on the location of immediate investor. The source of ultimate investment control could be higher if the ultimate investor is based in mainland China, but the investment funds are channelled through a financial centre or third economy. In this regard, it is estimated that 58 per cent of the *stock* of mainland Chinese direct investment abroad in 2016 was directed to Hong Kong, with a further 14 per cent being directed to the financial centres of the Cayman Islands and the British Virgin Islands, and 2.5 per cent going to Singapore (Wang and Gao 2018:626). In flow terms, Hong Kong contributed, on average, 2 per cent of direct investment into Australia over the eleven years from 2008 to 2019 (Figure 3). The average contribution over the same period for inward investment to Australia sourced to Singapore was 3.8 per cent. Data for the Cayman Islands and the British Virgin Islands is confidential in most years over the period, although for the years data are available, inward investment from these sources is a small portion of total direct investment inflows to Australia. The collective extent of flows through the financial centres of Hong Kong and Singapore indicates a considerable scope (in practical terms) for mainland Chinese controlled direct investment into Australia to be materially higher than indicated by ABS estimates.

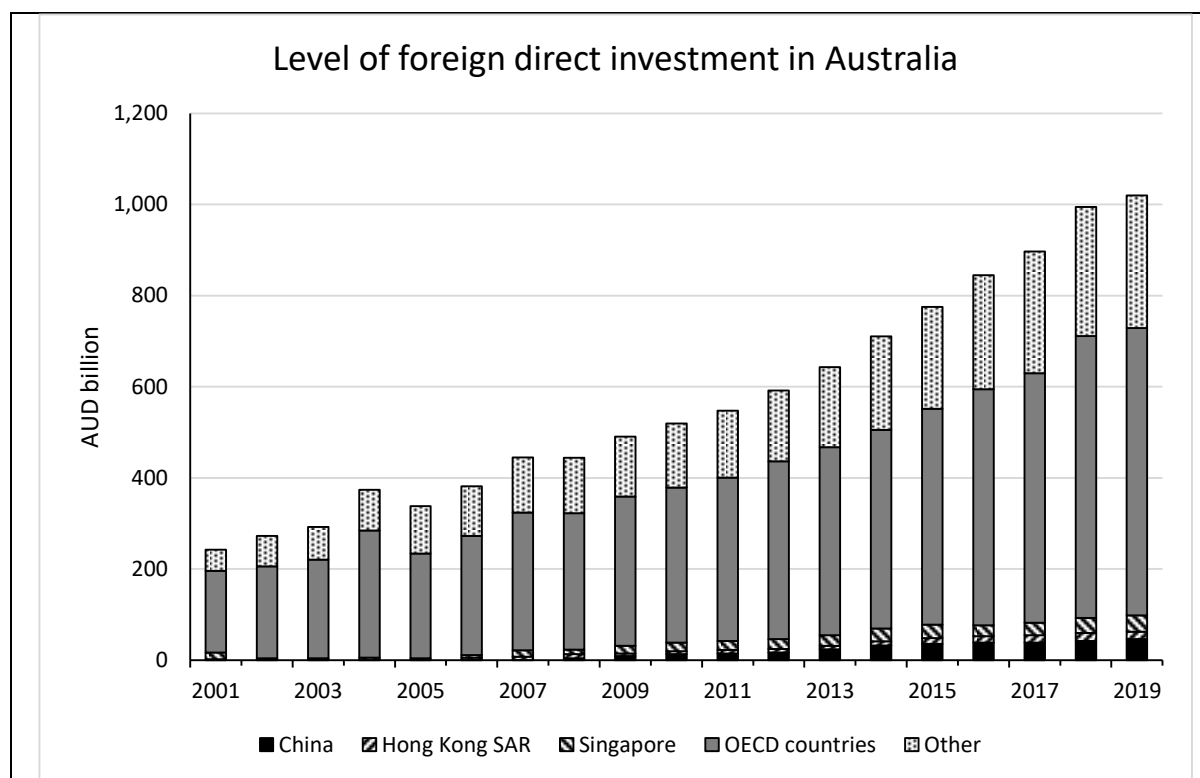
Second, as noted, the flow estimates include reinvested earnings, that is, the earnings of direct investment enterprises accruing to foreign direct investors. Such earnings are part of saving generated in the host country, namely Australia in this case, and as such do not represent a financial flow through the banking systems of either mainland China or Australia.

The footprint of Chinese direct investment in Australia has risen

The net inflow of Chinese direct investment into Australia, particularly since 2008, has progressively accumulated so that by 2019 Chinese direct investment represented just over 4 per cent of the total level of direct investment in Australia (Figure 4). Financial centres

Hong Kong and Singapore contributed just under 5 per cent of the level of direct investment in Australia in 2019. There was also accumulated FDI in Australia through the Cayman Islands and the British Virgin Islands amounting to nearly 3 per cent of the level of direct investment in Australia (ABS confidentiality conventions mean that data for these two countries is not sufficiently complete to include separately in Figure 4).

Figure 4: **Accumulated Chinese direct investment in Australia has been on the rise**



Note: The Cayman Islands and the British Virgin Islands are included in 'Other' (countries).

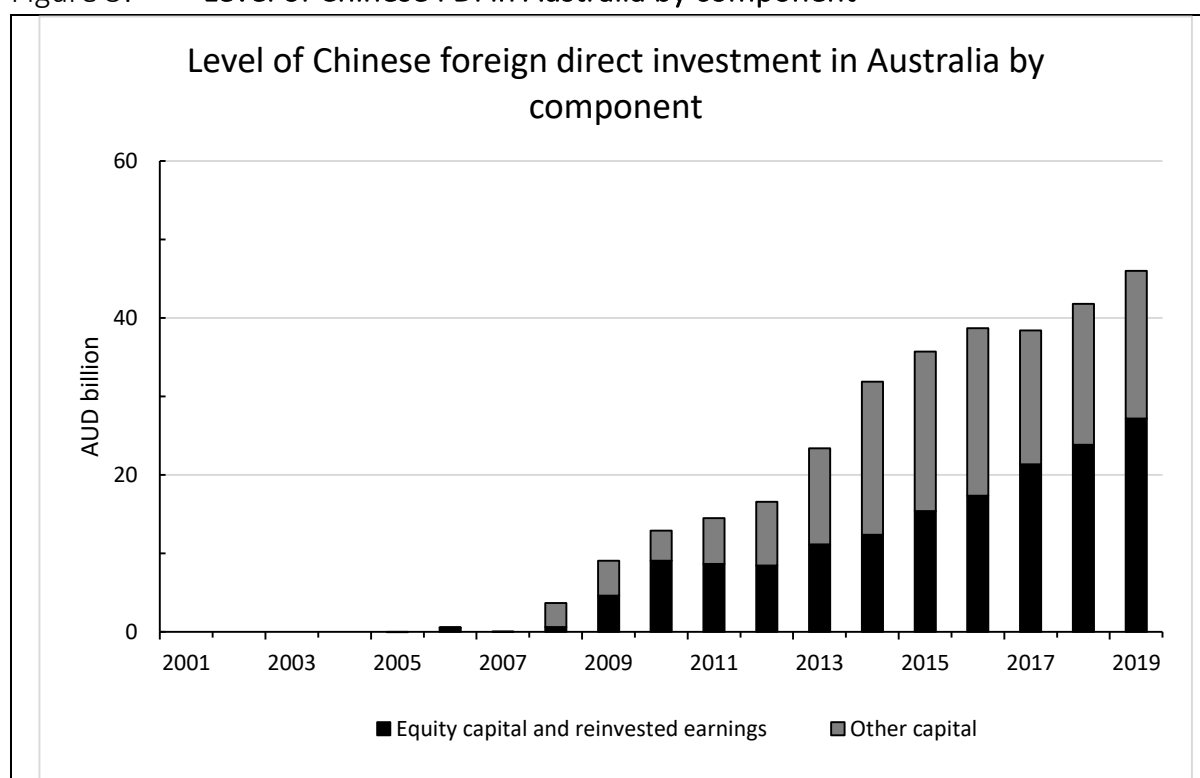
Source: ABS Cat. no. 53520, International Investment Position, Australia: Supplementary Statistics, 2019, Released 7 May 2020, Table 2.

To the extent that this direct investment is held by subsidiaries of mainland Chinese firms, mainland Chinese investment would be higher than indicated by the data by country of immediate direct investor — potentially significantly so.

The stock of direct investment holdings in Australia is split between equity holdings and holdings of other financial instruments. And, as noted above, while the direct investment relationship is formed through the acquisition of voting stock typically in the form of equity holdings by foreign firms, the firms' financing decisions can include non-equity holdings in their direct investment portfolio. Investment holdings at the early stages of Chinese direct investment in Australia, as reflected in the reported accumulated position in 2008, were heavily weighted towards non-equity holdings (Figure 5). From 2008, the reported balance had a more even spread between holdings of equity and non-equity instruments with the orientation of the instrument groups varying between years. One implication of the mix of instruments is that investment income from non-equity instruments and ranking of entitlements in the case of wind up would not be determined by the conditions of a single instrument. Rather they would be determined by the conditions attached to individual loans or bonds with residual entitlements on equities determined by firm profitability and remittance policies. Similarly, the recovery value of non-equities would be determined by the negotiated terms of the instrument while that of equities would be determined by the equity value of the

enterprise as a going concern or on wind up.

Figure 5: Level of Chinese FDI in Australia by component



Source: ABS Cat. no. 53520, International Investment Position, Australia: Supplementary Statistics, 2020, Released 7 May 2020, Table 2.

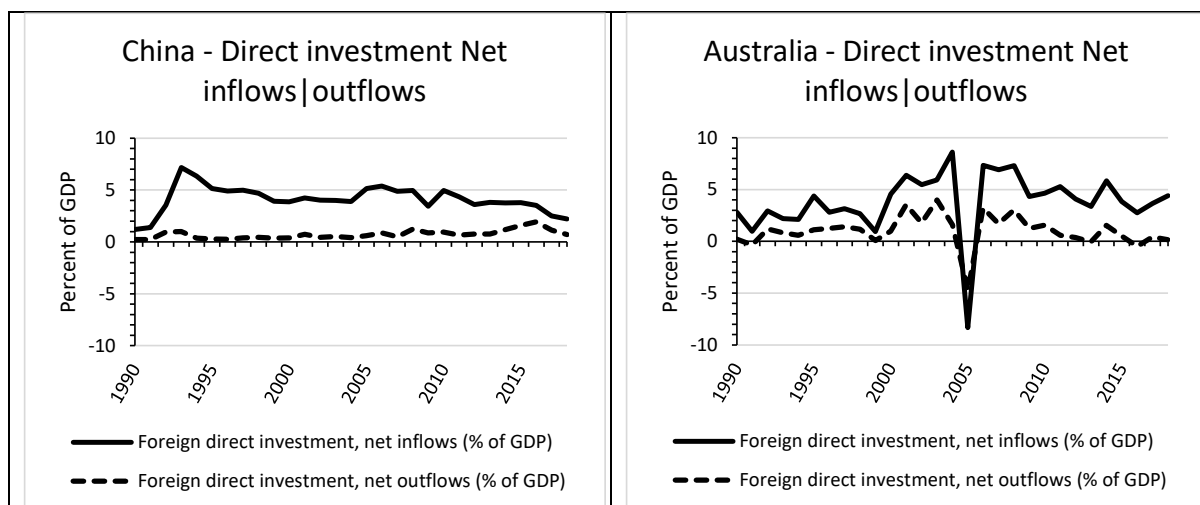
FDI inflows have exceeded outflows for China and Australia

Reflecting the status of Australia as drawing on global savings to fund domestic investment above levels attainable through domestic saving, FDI inflows have exceeded direct investment outflows, as a proportion of GDP, for an extended period (Figure 6, right panel).

An important part of mainland China's growth strategy from the early 1990s involved the encouragement of foreign firms to invest in Chinese firms (often state-owned enterprises) (Garnaut 2008:37, Chen 2018:598). This policy witnessed a step-up in inward FDI to mainland China as a proportion of GDP from the early 1990s (Figure 6, left hand panel). On the other hand, capital controls restricted outward FDI up to 2000 after which the 'going out' policies associated with China's accession to the WTO was accompanied initially by a gradual increase in outward FDI moving to more rapid growth from 2008 (Wang and Gao 2018:620). From 2016, China's outward FDI policies moved towards a more regulated setting under which proposed projects were classified as encouraged, restricted and prohibited, with no new projects in real estate, sports and entertainment gaining approval (Wang and Gao 2018:630).

The growth in outward FDI as a proportion of GDP at a time when China's net lending to the rest of the world was contracting is indicative that outward and inward FDI can co-exist. But how the balance evolves into the future will depend on policy and regulatory settings in mainland China and potential investment destinations, as well as commercial opportunities at home and abroad.

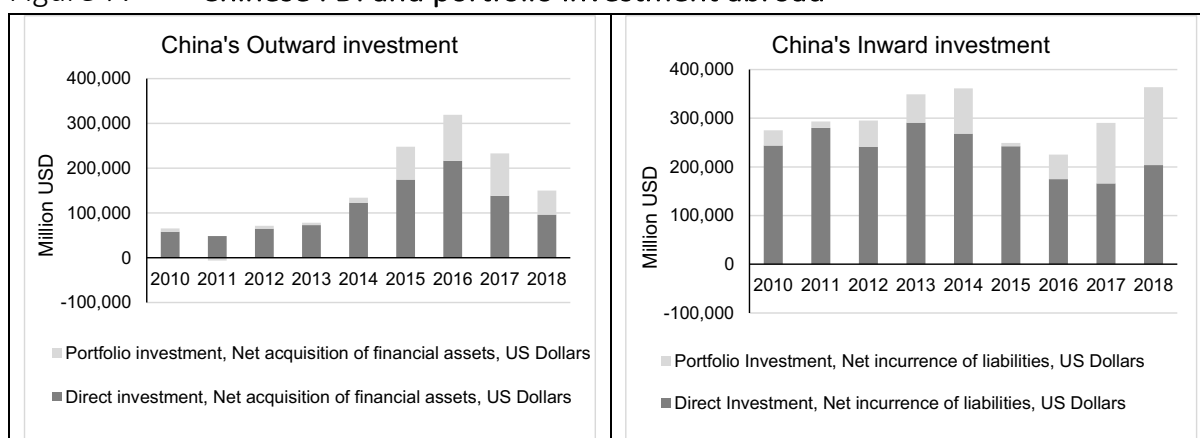
Figure 6: Chinese and Australian FDI net inflows and outflows as a proportion of GDP



Source: World Bank, *World Development Indicators* (accessed November 2019).

The influence of policy on China’s direct investment and portfolio investment mix Chinese foreign business investment activity, both inward and outward, has been weighted towards direct investment over portfolio investment (Figure 7, left and right panels). This orientation reflects policies that imposed controls on, and limited the channels through which, portfolio investment abroad was undertaken (Ballantine et al. 2014:31). The Qualified Domestic Institutional Investor (QDII) scheme introduced in 2006 allowed authorised domestic institutions to invest domestic savings in selected offshore investments and favoured outward direct investment. The controls on outward flows of both direct and portfolio investment, were relaxed in 2014 through revised Administrative Measures for Outbound Investment (Wang and Gao 2018, Han Kun Law Offices 2014). Following the revision of these controls, outward direct investment increased while outward portfolio investment increased even more so (Figure 7, left hand panel).

Figure 7: Chinese FDI and portfolio investment abroad



Source: IMF, *International Finance Statistics* (accessed November 2019).

Inward investment was also liberalised in 2006 through the Qualified Foreign Institutional Investor (QFII) scheme (Ballantine et al. 2014:31). This scheme allowed approved foreign institutions to invest foreign currency in Chinese-issued securities, first in equities then in bonds, security funds, stock futures and other investments permitted by regulation. The scheme was extended in 2011 to allow approved foreign institutions to invest RMB obtained

offshore in approved local investments. As noted above, the regulation of outward investment was tightened in 2016 after which the level of outward direct and portfolio investment declined (Figure 7, left hand panel).

Linking Chinese direct investors with their participation in the Australian economy

International investment is often facilitated through complicated structures and multiple subsidiaries around the world. As noted in section 2 on concepts and definitions, the standard application of the concept of domestic territory in balance of payments foreign investment statistics means that each member of an enterprise group is part of the economy in which it operates, rather than being attributed to the economy of the head office of the group (where this differs from the operating location). This convention is suited to the recording and analysis of balance of payments transactions where the focus is on cross-border transactions of national economies.

Such an approach is less suited to research and policy analysis where the emphasis is on the economy of ultimate control or significant influence of the investor as would be the case in the analysis of business models in global competition. When this is the interest, it is necessary to trace the direct investment links that confer control or significant influence back through the ownership chain to the ultimate direct investment entity. The new CHIA database (EABER 2019) provides this perspective on Chinese investor participation in the Australian economy by reporting investment transactions according to the economic territory of *ultimate* country of investment control in the direct investment relationship, not according to the *immediate* country-of-origin of the investment. Within this framework, CHIA provides information on *equity* investment in Australian activities with an ultimate direct investment relationship with mainland Chinese entities (Figure 8, second column). The immediate equity investor may be located in mainland China or in a third territory, such as Hong Kong or some other global financial centre (Figure 8, second column, third row first and second panels, respectively), or within Australia (Figure 8, second column, fourth row). To the extent that Chinese-controlled firms in Australia use locally or non-Chinese sourced finance to fund direct equity investments *within* Australia, CHIA provides a wider perspective of Chinese-controlled FDI activity in Australian industry than is provided by data measured according to balance of payments definitions (which as noted, focus on cross-border transactions according to the immediate country-of-origin). On the other hand, to the extent that Chinese direct investment enterprises in Australia are funded by reinvested earnings accruing to the direct investor and direct investment through non-equity instruments (such as bonds and loans) (Figure 8, third row, third and fourth columns), CHIA would not directly measure the full extent of financing associated with Chinese-controlled direct investment activity in Australia. Through its coverage of equity investment across all identifiable Chinese-controlled direct investment activity in Australia, CHIA provides a unique perspective on transactions that establish or expand ownership links affording control or a significant degree of influence over the strategic and management decisions of locally domiciled operating businesses.

Figure 8: **CHIA and balance of payments coverage of Chinese-controlled direct investment transactions in Australia**

	CHIA			
	Classification principle: ultimate country of investment control			
<i>Investment instrument covered</i>	<i>Equity</i>		<i>Reinvested earnings</i>	<i>Non-equity (eg bonds, loans)</i>
Balance of Payments Classification principle: immediate country of investment	Cross-border transactions from China	Cross-border transactions from intermediate economies	Earnings in host country (Australia)	Cross-border transactions
	Within-border transactions			

Source: Author representation.

The CHIA approach complements the balance of payments recording of direct investment according to the immediate country-of-origin (Figure 8, third row). Under this convention, only investment that comes directly from the Chinese mainland would be classified as Chinese investment in Australia (Figure 8, third row, first panel of second column). Mainland Chinese-controlled direct investment channelled through Hong Kong or other global financial centres would be classified as originating in the economic territory from which it came (Figure 8, third row, second panel of second column). To the extent that mainland Chinese-controlled direct investment in Australia is from within Australia or directed via other territories, ABS balance of payments measures would not reflect the full extent of direct investment in Australia under the ultimate control of mainland Chinese firms. ABS balance of payments measures cover reinvested earnings and non-equity direct investment classified by immediate country-of-origin (Figure 8, third row, third and fourth columns) and therefore provide a more complete and integrated measure of cross-border flows relevant to the study of international financial flows than is provided by CHIA.

Within this framework, CHIA records equity transactions on a ‘gross’ basis, that is, records transactions that establish or increase a direct investment equity holding in an operating enterprise in Australia. It does not measure withdrawals or direct investment through the reinvestment of earnings and non-equity financial instruments (such as bonds or loans). The balance of payments record direct investment on a ‘net’ basis, that is, published estimates are the net of transactions that increase direct investment holding (including reinvested earnings) and withdrawals (such as the repayment of loans and repayment of the principal on bonds).

The CHIA data set and ABS statistics provide indicators of these gaps and overlaps that support a broad comparison between the two data sets and support wider assessments of the nature, scale and impacts of Chinese direct investment activity in Australia.

Over the five years from 2014 to 2018 (inclusive), CHIA estimates that Chinese-controlled direct equity investment in Australia totalled AUD46.8 billion (Table 1). Of this total, cross-border transactions contributed almost AUD25 billion (Table 1). Equity investments by Chinese-controlled firms already with a presence in Australia, that is, involving within-border transactions, contributed a further AUD22 billion. These within-border transactions could have been funded by earlier cross-border financial flows or domestically sourced finance. While there is a risk of double counting cross-border transactions — once when the funds

cross the border and again when the funds are committed through a domestic equity transaction to a real investment — because CHIA procedures involve the linking of mainland Chinese investors with the ultimate beneficiary, this risk should be minimal.

Table 1: Total Chinese direct equity investment in Australian firms — country-of-origin basis

	2014	2015	2016	2017	2018	All years
Cross-border transactions	3.1	4.3	11.4	2.8	3.2	24.8
Within-border transactions	2.5	6.7	4.4	6.9	1.6	22.0
Total investment recorded (AUD billion)	5.7	11.0	15.8	9.6	4.8	46.8
Cross-border transactions	55	39	72	29	67	53
Within-border transactions	45	61	28	71	33	47
Total (percent)	100	100	100	100	100	100

Source: CHIA 2019, *Chinese direct investment in Australia*, East Asian Bureau of Economic Research, ANU.

The possibility that a significant proportion of within-border flows recorded in CHIA are in fact funded through international investment structures linked back to mainland China, can be considered through a comparison of ABS FDI flows and CHIA data. For this examination, ABS direct investment inflows recorded on a gross and net basis from mainland China and Hong Kong are considered. This approach takes account of the prevalence of Hong Kong as a financial intermediation centre for outward investment flows from mainland China (as noted in section 3, above). The availability of gross transactions (increases) and withdrawals (decreases) separately from reinvested earnings helps in the comparison of ABS with CHIA data which, as noted, relates only to increases in equity investment.

Against this background, higher-level broad numerical data matches between CHIA and ABS estimates can be observed. At the highest level, total CHIA flows from 2014 to 2018 closely matches ABS estimates of the total (gross) value of transactions to increase FDI from mainland China and Hong Kong, combined — AUD46.8 billion (Table 1) compared to AUD46.3 billion (Table 2). After account is taken of any reinvested earnings and direct investment withdrawals (decreases), net direct investment over the 2014 to 2018 period was estimated at AUD29.9 billion (Table 2).⁴

Hong Kong was the immediate country-of-origin for about 40 per cent of the combined mainland China and Hong Kong transactions, with annual contributions ranging from about 26 per cent in 2018 to 46 per cent in 2016 and 2017 (Figure 9).

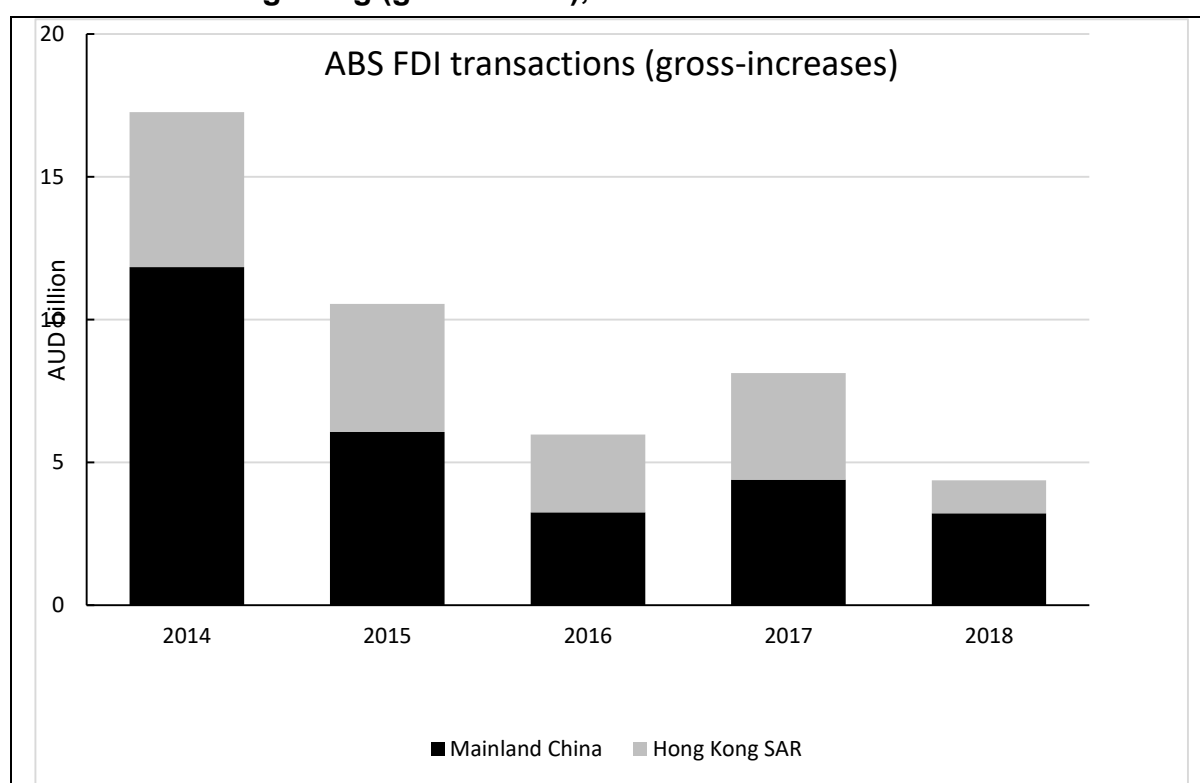
⁴ The five-year total implied by the latest ABS data is AUD32.2 billion (ABS 2020). The difference between estimates is mainly due to an upward revision to direct investment originating in Hong Kong in the year 2018. Revised gross data were not available at the time of writing.

Table 2: **Gross increases and decreases of mainland China and Hong Kong SAR (combined) direct investment in Australia (AUD billion)**

	2014	2015	2016	2017	2018	All years
Gross basis						
Transactions - increase	17.3	10.6	6.0	8.1	4.4	46.3
Reinvested earnings	np	np	np	1.1	2.8	na
Transactions – decrease	np	np	np	5.9	2.9	na
Net basis						
Direct investment in Australia	12.7	6.1	3.5	3.3	4.3	29.9

See Appendix table 1 sourced to DFAT (2019), *International Investment Australia*, 2018, Table 3 (based on unpublished ABS data). Note: The comparison is based on ABS (2019), *International Investment Position*, Australia: Supplementary Statistics, 2018, Cat. no. 53520 and unpublished ABS data.

Figure 9: **Increases in foreign direct investment from mainland China and Hong Kong (gross basis), 2014 to 2018**



See Appendix table 1 sourced to DFAT (2019), *International Investment Australia*, 2018, Table 3 (based on unpublished ABS data).

This data match, however, belies important definitional differences between the data sources. Specifically, the CHIA total includes cross-border and within border transactions conceptualised as referring to only equity transactions (exclusive of reinvested earnings). Meanwhile, the ABS total includes only cross-border equity transactions combined with other cross-border finance such as bonds and loans (FDI through reinvested earnings is reported separately (see Table 2). The relationship between the series is therefore explored in more detail.

First, narrowing the comparison to equity, the CHIA estimate of cross-border transactions aggregated over the years 2014–2018 (except 2017) exceeds the ABS net estimate for equity capital and reinvested earnings from mainland China and Hong Kong combined

(AUD22 billion compared to AUD18.5 billion, Appendix table 1). Of the ABS total, AUD10.6 billion is sourced to mainland China (Appendix table 1). Noting that reinvested earnings would most likely raise the ABS estimate of equity capital relative to the CHIA estimate, this comparison suggests the conjecture that a material portion of mainland Chinese direct investment in Australia recorded as ‘cross-border’ investment in CHIA is facilitated through Hong Kong and other economic territories.

Second, for all years except 2018, direct comparisons between CHIA and ABS gross transactions data is not possible because of data confidentiality (cells marked ‘np’). For 2018, details are available for each data category. If it is assumed direct investment withdrawals are of the ‘other financial instruments’ type (that is bonds and loans), equity gross inflows (exclusive of reinvested earnings) could be of the order of AUD3.1 billion, an estimate very close to the CHIA estimate of AUD3.2 billion (Appendix table 1). While affording some encouragement concerning the alignment of CHIA and ABS data once definitional differences are taken into account, it would need to be confirmed that the assumed equity bias in gross investment is correct and that full coverage of FDI under the control of mainland Chinese firms is channelled either from mainland China or via Hong Kong. Given these assumptions, the comparison of data for this year is necessarily conjectural, but worthwhile given the likely joint use of ABS and CHIA data and the different perspectives each data set provides on Chinese investment activity in Australia.

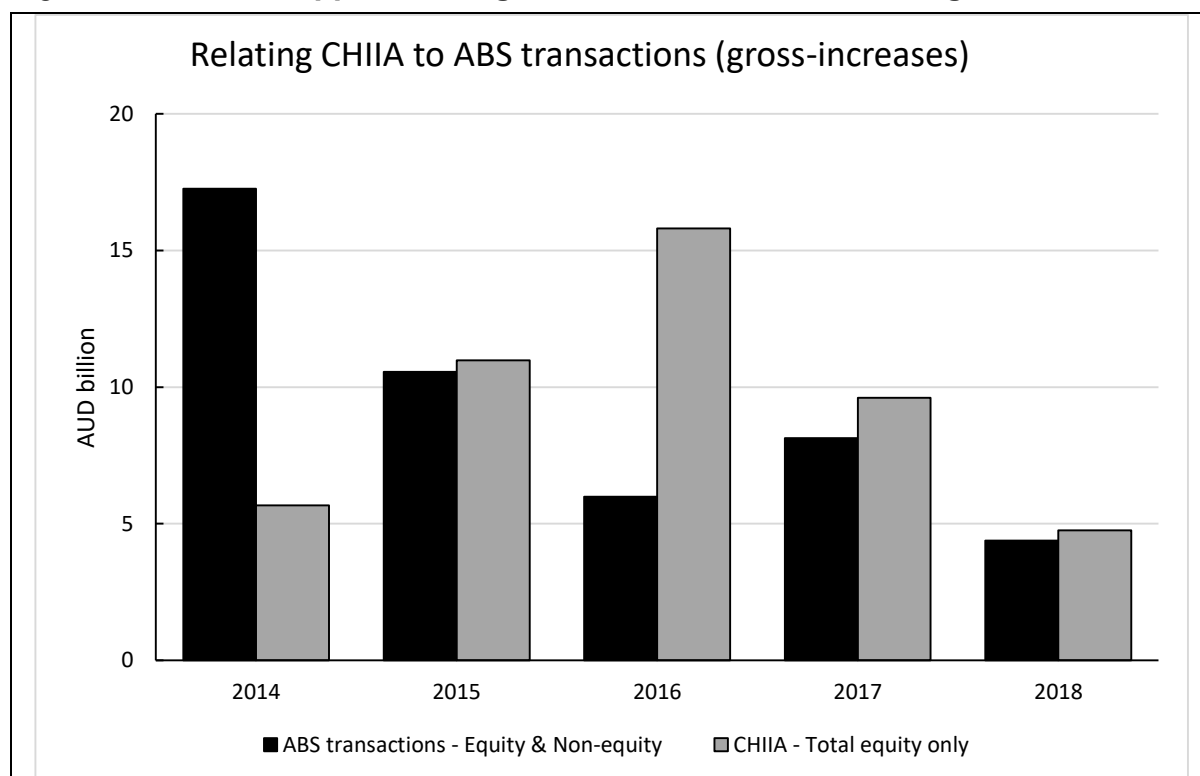
Third, the scale of within-border direct investment equity transactions is substantial (totalling AUD22 billion over 2014–2018, Table 1). These flows originate from entities that have a subsidiary relationship with a mainland Chinese investor. They could be funded by facilitation arrangements that include bond and loan direct investment transactions included in the balance of payments, reinvested earnings of mainland Chinese entities operating in Australia or general finance. While the impact of these transactions on Australia’s net overseas borrowings is uncertain, the close alignment of total equity investment in CHIA with total transactions that increase FDI with an immediate country-of-origin of either mainland China or Hong Kong over the period 2014 to 2018, suggests that flows are likely to have been ultimately funded by direct investment capital inflows to Australia.

Fourth, CHIA estimates appear to lag ABS estimates over time. Within the 2014 to 2018 period for example, ABS direct investment data exceeds CHIA data in the years 2014 to 2015 while CHIA estimates exceed ABS data from 2016 to 2018 (Figure 10). There are a number of possible reasons for this including: (i) the sequencing of capital flows through intermediaries within Australia thus creating a lag between the cross-border flow recorded in the balance of payments and the equity investment recorded in CHIA; and (ii) differences in reporting of financial transactions in the respective series. The aggregate comparison also may be confounded by difficulties in matching data by immediate country-of-origin (balance of payments) and ultimate country-of-origin (CHIA) and by changes in regulatory or corporate conditions over time. This would suggest that observations across one period or a sequence of years would not be necessarily representative of another. For such reasons, caution would be required when using CHIA data to directly interpret bilateral direct investment flows compiled from national balance of payments data (such as that prepared by the OECD and UNCTAD), particularly on an annual basis.

A detailed analysis at the unit record level would be required to further understand the full range of corporate activity underpinning the relationship between ABS and CHIA data. For comparisons of aggregate data, it would be very helpful to separate out other capital (including bonds and loans) from gross increases and withdrawals of foreign direct investment transactions in ABS balance of payments data. These matters are left for further

statistical analysis and research.

Figure 10: **CHIIA appears to lag ABS data, but this can change, 2014 to 2018**



Source: CHIIA 2020, *Chinese direct investment in Australia*, East Asian Bureau of Economic Research, ANU; DFAT (2019), *International Investment Australia*, 2018, Table 3 (based on unpublished ABS data).

Industry structure of Chinese investment in Australia

National measures of FDI activity, discussed above, provide a macro indication of the scale of direct investment activities and the financial links between countries. But they do not provide the detail needed to assess investor motivations, the policy and regulatory context, how enterprises seek to create and deliver value, and the potential industry and economy-wide effects of FDI. Such research and policy analysis would require industry and firm-level information.

For all countries and territories, FDI in Australia has been mainly focussed on mining activities followed by manufacturing, finance and insurance, and wholesale and retail trade (ABS, Foreign Investment Statistics, Cat. no. 53520, Table 15). By 2019, over one-third of the *stock* of FDI in Australia was held in mining activities, 13 per cent in manufacturing and 11 per cent in finance and insurance activities. These were followed by wholesale and retail trade activities which accounted for 6 per cent of the level of FDI in Australia. Uncertainties, however, around the actual level of investment stocks by sector is illustrated by an estimated 23 per cent of inward FDI stocks not being allocated to industry or treated as confidential and not published.

While the ABS data provides broad benchmark information on the industry dimension of FDI in Australia with respect to the stock of investment, it does not provide an estimate of the *flow* of inward FDI to Australia from individual investing countries and territories, including mainland China, Hong Kong and other financial centres through which mainland Chinese FDI in Australia may be directed. It also does not provide information on the sectoral

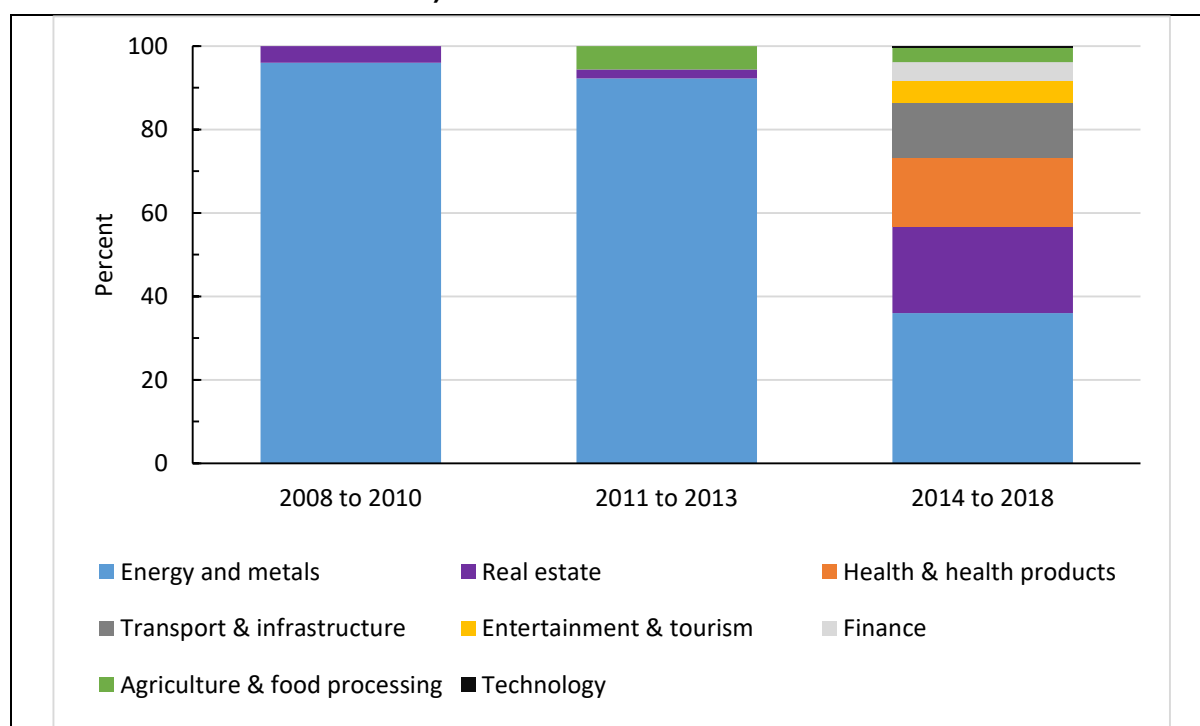
dimension of investment *flows*.

Against this background, CHIA with its focus of Chinese-controlled direct investment in Australia provides an indication of the industry dimension of such investment from 2014. This inception year does not, however, cover the earlier years of the emergence of Chinese-controlled investment in Australia. Complementary data on the industry dimension of Chinese-controlled investment into Australia over this earlier period is, however, provided by the American Enterprise Institute (AEI). In common with CHIA, AEI data covers flows according to the ultimate country-of-origin principle to include investments via mainland Chinese subsidiaries located in offshore financial centres. However, there are a number of important differences between CHIA and the AEI data reflecting the different orientations. First, the AEI series covers mainland Chinese controlled direct, portfolio and other investments into Australia exceeding USD100 million. Investments funded through equity and non-equity instruments (such as bonds, loans and lines of credit) are included. CHIA, given its focus in investments that confer control or a significant degree of influence over day-to-day management, covers all equity transactions, both large and small. Second, the AEI records investments on a commitments basis whereas CHIA (in common with the ABS) records investments on a transactions basis (EABER 2018).

The focus of large-scale Chinese investment in Australia, as recorded by the AEI, has been in energy and metals activities (Figure 11).⁵ This was particularly the case over the six-year period from 2008 to 2013 (inclusive) when Chinese investment played a role in expanding the productive capacity of the mining and related minerals processing activities to meet the growth in demand for Australian natural resources (RBA 2017). With the easing of the mining investment boom, investment in other activities became more prominent, including investment in wind and solar power generation. The AEI's measure indicates that large-scale investment in transport and infrastructure, real estate and health and health products together accounted for about half of all large-scale Chinese investment in Australia over the period 2014 to 2018. Investment in agriculture and food processing, finance, and entertainment and tourism each contributed to around five per cent of total large-scale investment over the same period. Large-scale investment in Australian agriculture and food processing in the 2014 to 2018 period built on investments in the 2011 to 2013 period.

⁵ The energy and metals category is inclusive of mining and minerals processing activities as well as power generation via solar and wind power.

Figure 11: **The evolving sectoral distribution of large-scale (over USD100 million) Chinese-controlled investments in Australia**



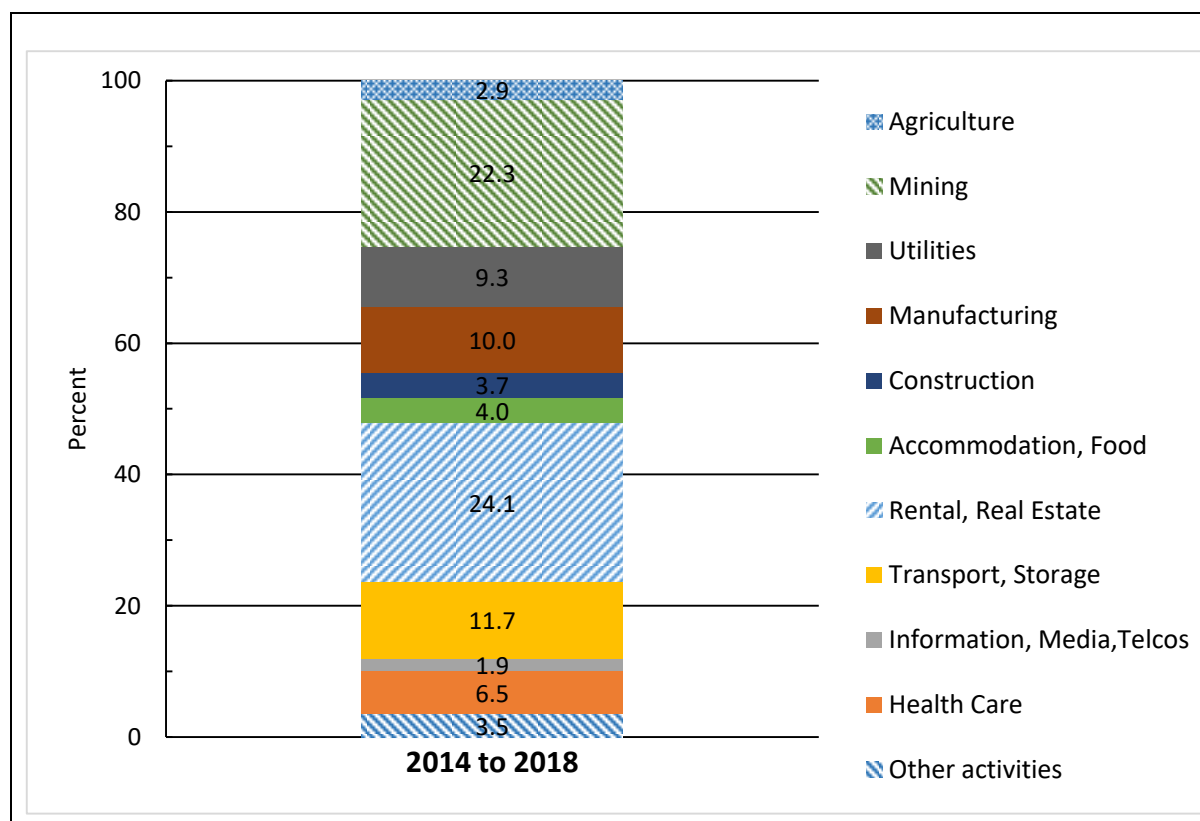
Source: China Global Investment Tracker, The American Enterprise Institute and The Heritage Foundation, at <https://www.aei.org/china-global-investment-tracker/>, accessed 17 August 2020 .

Noting the coverage and classification differences between CHIIA and the AEI series,⁶ both sources show a concentration of Chinese investment in mining (CHIIA reports 22 per cent of the total over 2014 to 2018, Figure 12) and rental and real estate (24 per cent). Other sectors identified as somewhat prominent as a destination of Chinese-controlled direct equity investment over 2014 to 2018 in the CHIIA data include: transport and storage (11 per cent of total investment), manufacturing (10 per cent), utility activities such as electricity, gas supply and water (9 per cent) and health care services (over 6 per cent).

A comparison of Chinese-controlled investments (AEI data) and the new direct investment transactions data (CHIIA) by sector with estimates of the stock of direct investment held by *all* foreign direct investors provided by the ABS, suggests that the longer-term interest in Australian mining activities has been shared by Chinese investors over the 2008 to 2018 period. The data over the shorter 2014 to 2018 period also suggest that Chinese investor focus has differed from longer-term average sectoral investment interests to give greater emphasis to rental and real estate, and transport and storage activities, with less emphasis going to finance and insurance and wholesale and retail than evident for the national average for Australia.

⁶ Some key classification differences include: (i) the AEI topical category ‘energy and metals’ includes mining, minerals processing and power generation (including by solar and wind technologies) whereas these activities are classified in CHIIA to the appropriate Australian and New Zealand Standard Industry Classification (ANZSIC)-based divisions mining, manufacturing and utilities (electricity, gas supply and water), respectively; (ii) the AEI category ‘health’ includes health care services, pharmaceutical and related products whereas these activities are classified to the ANZSIC-based divisions health care and manufacturing, respectively; and (iii) the AEI category ‘agriculture’ includes agriculture and agricultural product (food) processing whereas these activities are classified to the ANZSIC-based divisions agriculture and manufacturing, respectively. These differences are reflected in the naming conventions adopted in Figure 11.

Figure 12: **Sectoral distribution of Chinese-controlled direct investments in Australia, 2014 to 2018**



Source: CHIA 2020, *Chinese direct investment in Australia*, East Asian Bureau of Economic Research, ANU.

The sectoral focus of mainland Chinese investment has also differed substantially from year-to-year. For example, CHIA data indicate new direct investment in manufacturing activities amounted to nearly 55 per cent of total investment for 2018, well above the 2014 to 2018 average of 10 per cent — a contribution close to the average level of FDI in manufacturing (Appendix table 2). Similarly, CHIA data indicates that mainland Chinese direct equity investment in Australian real estate after peaking at over 40 per cent in 2015, eased to around 20 per cent in the years 2016 to 2018 (Appendix table 2). Such year-to-year variability indicates that past mainland Chinese direct investment interests may not be an accurate indicator of future interests and that a more fundamental analysis is required to determine the likely nature and scale of investment interest, and the likely flow-on impacts and benefits to Australia.

4 Scoping the impacts and benefits of Chinese FDI in Australia

The positive economic impacts and benefits of Chinese FDI in Australia would come first from the additional financial resources Chinese investors bring to the Australian economy, whether directly from mainland China or through international investment structures. Chinese FDI can also bring additional economic benefits through the economic integration facilitated by the direct investment relationship that augments the demand for Australian products, the supply of intermediate and final products, and additional productivity improving technological and organisational change. Greater competition for labour, capital and natural and other resources can also improve the matching of labour and capital, that is, improve allocative efficiency. This section reviews motivations and mechanisms by which such benefits may accrue and provides an economy-wide framework in which the impacts and benefits of Chinese-controlled direct investment in Australia could be considered.

A broad perspective

Australia being a geographically large and resource rich country has more investment opportunities than can be funded by domestic savings. The shortfall in saving has been met by the net inflow of capital from offshore funding sources. FDI complements portfolio and other investment in making up that shortfall, including from mainland Chinese investors since 2008.

At its broadest level, mainland Chinese FDI in Australia helped complete the macro-balance between domestic saving and domestic investment in China and Australia. With domestic savings running ahead of domestic investment as occurred during the ‘going out’ period from 2001, Chinese FDI (together with portfolio and other investments) into Australia afforded a destination for those savings. As noted above, cross border inflows from mainland China to Australia peaked in 2013 before tapering. In 2017, while inward FDI from mainland China remained positive, there was a net outflow of Chinese investment in Australia on account of withdrawals of other foreign investments (inclusive of currency and deposits, loans, trade credit and accounts receivable/payable) (Figure 2, above). In 2018 and 2019, there was again an estimated net inflow of Chinese investment into Australia as direct investment and other investment inflows outweighed outflows on account of portfolio and financial derivatives.

The investor perspective

From an investor perspective, two possible motivations to FDI have been advanced by Graeme and Krugman (1991). First, that the foreign direct investor has some firm-specific knowledge or asset that enables it to produce higher levels of output and generate higher income than would otherwise be possible in the host country. Second, foreign firms seek investments globally that afford expected returns from an investment higher than the (risk adjusted) returns locally. Because portfolio and other investments can be conditional on the adoption of business models, technologies and organisation, product-supply or input-use commitments, as well as other features involving firm-specific knowledge, motivations for those forms of investment can overlap with those of the direct investment kind. Similarly, to the extent that investments designated direct investments are more focussed on returns from a passive involvement rather than a management involvement through exercising control or significant influence over day-to-day operations, motivations for FDI can overlap with those of portfolio and other investment kinds.

Because the motivations for direct investment are firm specific, the direction of all direct investment flows for a country do not necessarily need to follow the direction of a home country’s net lending. There may be inward direct investment and outward direct investment.

Though, when these are combined with the net of all other cross-border financial inflows and outflows, the double entry accounting of the balance of payments, requires that the total makes up the net lending/borrowing position of the home economy.

Rationales for FDI

The wide range of theories and context-specific economic and business rationales for FDI have been usefully subsumed into an eclectic paradigm of international production (Dunning, 1977, 2000 and Dunning and Lundan 2008).⁷ The eclectic paradigm contends that the extent, geography and composition of international production is determined by ownership advantages (O), locational attractions (L) and internalising benefits (I). The paradigm asserts that the parameters facing a firm and the firm responses are strongly contextual. In a review of business models in global competition Tallman et al. (2018) comment that "... it can well be the case, therefore, that a sustained and successful business model capitalizes on the latent benefits of all three elements (OLI) of the eclectic paradigm..." (p. 532). In regard to contextual variables of the eclectic paradigm, four — not necessarily mutually exclusive — main types of foreign-based firm activity are identified (Dunning and Lundan 2008:66-72).

- Resource seeking — in which foreign investors seek access to: physical resources and products from the land at least cost, such as mining, agricultural, fishing and forestry products; location bound resources such as tourist destinations, constructions and infrastructure, medical and educational services; lower cost and well-motivated labour; and location specific technological capability, marketing and management expertise, and organisational skills.
- Market seeking — in which foreign investors invest in a particular region to supply goods or services to markets in that region (or horizontal or commercially adjacent regions). Such investments may seek to: replace exports between the home and host countries (horizontal market access); exploit or promote new markets including between the home and host countries (vertical market access); or sustain or protect existing markets.
- Efficiency seeking — in which foreign investors seek to rationalise the structure of resource-based or market-seeking investments to afford financial gains from common governance of geographically dispersed activities. Such financial benefits to the firm could arise, for example, from economies of scale, scope of operations or diversification and

⁷ Dunning and Lundan (2008) provide a review of the economic and behavioural explanations of the existence and growth of multinational enterprises (MNEs). In prefacing their review, they state that any theory of determinants of MNE activity must seek to explain both the location and ownership of value adding factors. They identify three broad streams of thought Dunning and Lundan (2008:78). One, which takes a macro perspective with concerns as to why countries, and firms within those countries, engage in FDI (for example, Kojima (1973), Markusen (1984), and also Helpman (1984) and Anderson et al. 2017). The second is concerned with the behaviour of individual enterprises and looks upon MNEs as an organisational hierarchy that internalises the market for cross-border intermediate goods (for example, Buckley and Casson (1976, 2009), Hennart (1982, 2007), Rugman (1986, 2010), Teece (1977, 2014). The third stream identified is conceived as being allied to the second, addresses the question of why firms of one nationality are better able to penetrate foreign markets than indigenous firms located in those markets and why they wish to locate value added activities outside of their home market (for example, Hymer (1960, 1976), Dunning (1977), Caves (1971, 1982), and also Vernon (1966), Dunning et al. (2008)). Dunning and Lundan (2008) contend that there is not an all embracing explanation of international production and that a more general paradigm is needed to set out a conceptual framework. The eclectic paradigm presented seeks to integrate the individual theoretic strands and offer a general framework for determining the extent and patterns of both foreign owned production undertaken by home-country firms and host-country production undertaken by foreign firms. Rugman (2010) suggests, however, that the eclectic paradigm is not comprehensive in that it focuses on outward FDI into a host country and that to complete the picture it is necessary to explicitly cover both home and host country factors.

management of firm-level risk.

- Strategic asset seeking — in which firms seek to gain financial benefit from acquiring assets (including through merger and acquisitions) of foreign corporations to promote the long-term objectives of the investing firm. Strategic asset seeking could include: a collaborative alliance to gain advantage over competitors; a merger with a foreign rival to strengthen joint capabilities; an acquisition of upstream suppliers to secure supplies within a value chain or down-stream firms to gain control over distribution outlets for own brand product promotion; the acquisition of suppliers of complementary products to provide a competitive advantage; and a merger with local firms to help secure supply contracts, skills or technologies.

There are also other (again not always mutually exclusive) reasons suggested for FDI activity. For example, Dunning and Lundan (2008:72) note that some FDI is made to avoid restrictive regulations or macro-organisational policies of home governments, termed ‘escape investments’. Examples of escape investments include ‘round tripping’ where outward investments to a financial centre are made followed by inward investments to take advantage of incentives to foreign investors. Dunning and Lundan identify round-tripping between mainland China and Hong Kong as a case in point. There are also ‘support investments’ which are made to support (or provide ancillary services) to the enterprise of which the investment is part. Wholesale and retail distribution and marketing may be considered as support investments. Finally, FDI can be of a passive nature where investment is undertaken to earn investment income and gain capital appreciation. Dunning and Lundan include residential real estate acquisitions by small firms and individuals which is technically FDI, as a passive investment. They also note that there is a presumption that portfolio and other investment is of a passive nature, even if it meets the threshold tests for FDI.

Global business model perspective

The appropriation of benefits by firms from global business activity requires an appropriate business model. Tallman et al. (2018) define a global business model (GBM) (that is, a model for global business) as “...the means by which the multinational enterprise (MNE) creates customer value and builds its own profits distinctively and sustainably in the global market place” (p. 518). Tallman et al. (2018:522) identified five entrepreneurial activities (or processes) through which a MNE typically builds its business model, namely value: proposition, creation, delivery, capture and allocation. It is through these activities that firms seek to: (i) identify the products and services that a firm intends to provide, the geographical distribution of its activities and the conditions under which those products or services would be provided; (ii) purpose firm-specific value adding resources such as intellectual property, technologies and ways of working, business networks and human capital to market needs in a manner superior to alternatives; and (iii) establish production and distributional networks (supply chains) that generate revenue at costs that jointly provide a profit stream required for commercial viability, and satisfy financial market requirements for access to equity and non-equity finance. A firm's model for its global business may subsume the logics of other perspectives on international business such as the firm-specific logic, the adaptation (or context-specific logic), integration responsiveness and dynamic capability (Tallman et al. 2018:529). From this analysis, individual global business models appear context-specific, reflecting the character of the firm and circumstances in which it operates, and not necessarily replicable.

Distinctive features attributed to international business include: heterogeneity of actors (no representative consumer/producer); complexity of physical environment across the global economy; importance of knowledge to innovation, customer perceptions and links between technology and management; and the importance of learning in behavioural, market, technological and regulatory adjustments (Buckley and Casson 2020:244).

There is a presumption that firm interests and national interest are broadly aligned so that higher activity levels and profits at the firm level through the increased deployment of capital per unit of labour and/or the transfer of knowledge or ways of working will translate to higher real wages and income at the national level, than might otherwise be available. Recognising though, that multinational firm and host country interests are not always aligned, the OECD published voluntary guidelines for the operation of multinational enterprises. The broad intent of those guidelines is that enterprises should contribute to the economic, social and environmental progress of the countries in which they operate. Policy settings in the home country could also erode potential gains from multinational firm activity. If FDI were to be attracted by a tariff or a fiscal subsidy, the host country could well lose via income or wealth transfers offshore (Johnson 1972). This could also be the case if tax concessions or other transfers, the scope for anti-competitive behaviour or non-tariff measures conferred benefits to foreign firms that outweighed higher domestically accruing real wages and entrepreneurial incomes. The distribution of income accruing between the host and home countries of a multinational enterprise would also be affected by transfer pricing and taxation policies. Economic development across regions and associated economic integration and growth of multilateral enterprises has provided impetus for international guidelines on this matter for those enterprises and taxation administrations (OECD 2017)⁸.

Potential gains could also be eroded though policy settings that induce higher costs for multinational firms (such as via regulation and barriers to entry) or increases in the proportion of previously uncompetitive domestic firms in national activity (such as via subsidies or quotas). Such settings could reverse (or deny) the economic benefits of global business models to lower business value adding income and national income from levels otherwise attainable. For example, policies that unduly restrict multinational enterprise activity or limit the transfer of intellectual property, restrict the free movement of skilled labour or de-harmonise (or refrains from harmonising) regulations across nations could raise international technology transfer costs, lowering the number of multinational firms relative to domestic firms as businesses respond to a more restrictive and higher cost environment (for example see Buckley and Hashai 2020:109).

Australia, as an open economy with an institutional and governance framework that favours competition, seeks to guard against rent-seeking and other firm behaviour that may be contrary to community-wide interests.⁹

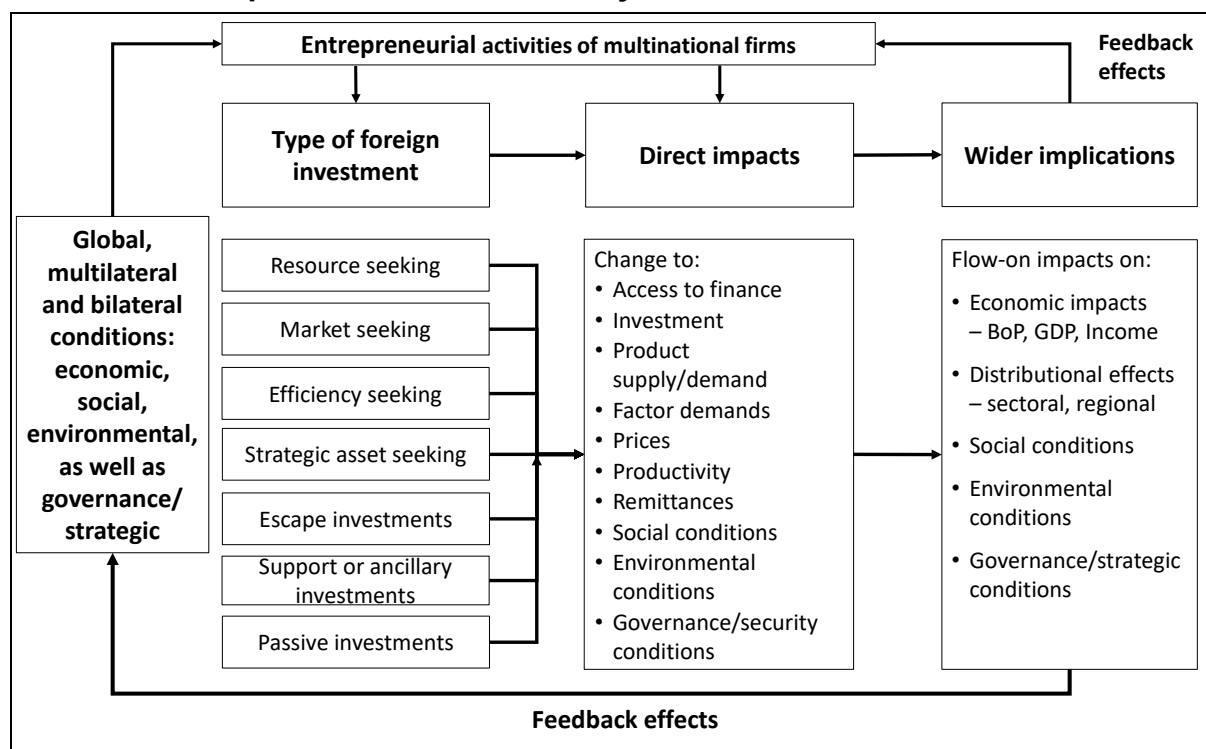
⁸ As noted in OECD (2017), earlier editions of the guidelines were issued in 1995 and 2010.

⁹ This aspirational goal may not, however, eliminate all impediments to the community reaching its potential. For example, remaining tariffs as well as trade and other preferences conferred by bilateral and regional trade agreements which have proliferated in the last two decades limit the community's capability to reach its productive potential.

Integrating business activity into an economy-wide framework – host country perspective

The impacts and benefits for a host country of multinational enterprise inward direct investment ultimately depends on how the operations of direct investors flow through to affect aggregate economic activity, the community, the environment as well as governance and strategic conditions. This section outlines an economy-wide analytical framework that conceptually links entrepreneurial activities of multinational firms with national outcomes (Figure 13). To do this, the framework delineates both the direct and economy-wide or flow-on general equilibrium effects of firms' entrepreneurial activity. Direct effects reflect the investment decisions and the operation of firms, or sectors, in the host economy. They would normally be conceived as partial equilibrium estimates of impacts and be measured with respect to product or factor markets or sectors that can be meaningfully related to broader, general equilibrium (national or global) frameworks. The direct effects would flow from the type of investment made by firms according to ownership advantages, locational attractions and potential to internalise benefits (OLI) (Dunning and Lundan 2008). They also would flow, not mutually exclusively, from firm activities in the production and delivery of goods and services, and the creation and appropriation of value from firm activities (Tallman et al. 2018, Buckley and Casson 2020 and Buckley and Hashai 2020).

Figure 13: **Economy-wide framework for assessing the impacts of FDI with respect to the host economy**



Based on: Dunning and Lundan 2008:66-72; Productivity Commission 2010:32, 2012; Tallman et al. 2018:522, 529, Casson 2018:385; Buckley and Casson 2020:246.

The framework is dynamic, in that, in addition to recognising the flow-on impacts of multinational firm operation in the host economy, it also recognises interactions between firms, the host economy and the global economy through a circular flow of feedback effects. Firms would respond through adaptive and dynamic capabilities (Tallman et al. 2018, Buckley and Hashai 2020). The wider implications would typically be estimated in general equilibrium or national frameworks in which the direct and flow-on effects could be

combined to depict a ‘deviation’ from a business as usual baseline.

The direct and flow-on economy-wide impacts of foreign participation would contribute to the growth process of the host economy whereby the growth in domestic output comes from the increase in effective labour and capital inputs given the resource and knowledge base of the host economy plus disembodied technological and organisational change which raises the productivity of labour and capital. In the neoclassical Swan-Solow growth model this process can be depicted as,

$$y = a + \alpha l + \beta k$$

where y is growth in value added production, l and k , are the growth in effective labour and capital inputs respectively, while α , and β are the elasticities of value adding output with respect to growth in effective labour and capital inputs, respectively. With constant returns to scale, $\alpha + \beta = 1$, $0 < \alpha, \beta < 1$. In this growth model, changes in the level of technology, effective organisation of inputs and environmental factors affecting economic growth is represented by a . At a national level, the growth in capital would be subject to the constraint that $S - I = X - M + R = NL$. That is, the gap between domestic saving (S) and investment (I) is equal to the balance of trade ($X - M$) plus (net) offshore net remittances (R) or net lending (NL) abroad. Net remittances to non-residents would be recognised as a negative R while net borrowing would be recognised as a negative NL . Recognising that the global economy is a closed system, global saving would be equal to global investment, that is, $GS = GI$ where GS and GI are global saving and investment, respectively.

For a given level of domestic saving, therefore, the most evident of direct impacts of foreign direct investment would be to increase access to finance for direct investment activities in the host country. In the first instance, this would be associated with cross-border direct investment flows to establish a direct investment relationship. Once this relationship is established, other foreign inflows may occur to fulfil investment plans. The new foreign investment may also make the activity more attractive as an investment destination for other investors, both domestic and foreign. Whatever the actual path, the overall impact would be an improvement in access to finance for activities for which there was previously a finance gap. The economy-wide realisation of changes in the balance of trade, net remittances and net lending would then depend on flow on effects of those transactions and the macro context.

While firm responses would be strongly contextual, the operating decisions of direct investors (either through a relationship of control or significant influence in the host country) are likely to have potential positive impacts in the first instance on:

- product demand and supply — new or different markets opened by the direct investment relationship and changes to the level and mix of goods or services supplied and used by direct investment enterprises, including through domestic and cross-border supply chains;
- value adding factor demands — shifts in the level of effective labour, capital and natural resources required through firm entry/restructuring, as well as changes in the occupational and skill mix of labour and capital technologies;
- prices — changes in units prices, for example, through increased competition, product marketing and supply sourcing decisions which may tend to lower prices in the longer run, and, oligopolistic competition and monopoly arising from firm-specific ownership advantages and proprietary knowledge that would tend to raise prices in an otherwise competitive market, or enable a firm to establish in a new market to compete against incumbent firms with deeper local knowledge, at least in the short run;

- productivity — reductions in value adding (effective labour and capital) and other inputs per unit of output through technological and organisational change introduced through firm-specific skills and capabilities; and
- remittances — the distribution of income to direct investors and other owners through the banking system net of reinvested earnings which accumulate as owner value in the direct investment enterprise.

Other streams of direct impacts of a wider kind are also possible. These include changes in: social conditions (such as cross-cultural differences between foreign direct investors and local communities, as well as regional and distributional effects of change); environmental conditions (such as the impact of new/modified production facilities on the built or natural environments); and governance and security considerations (such as, negotiation of provisions of bilateral and regional trade agreements as they relate to direct investment activity, adequacy of legal and regulatory frameworks including in the area of cross-border dispute settlement, management of contracts and conference of intellectual property rights, and management of the integrity of critical infrastructure and access to sensitive information of a national security kind).

The wider impacts represent both the direct and indirect effects of direct investment activity. In terms of economic impacts, the effects capture changes in finance, productivity, prices, the labour, capital and resources markets and remittances related to the direct investment activity, how these flow through to influence resource allocation through production and employment in other activities and ultimately to impacts on the national balance of payments, national output (GDP) and income. Direct and indirect economic impacts can be measured with respect to product or factor markets, sectors, regionally and nationally using standard national accounting metrics. On the other hand, wider social, environmental and governance impacts generally would not be measurable in such standard metrics so that evaluation of broader impacts and trade-offs with measurable economic effects would need to be context specific and draw on complementary information to inform judgements about likely community-wide effects.

Noting that estimates of direct effects are calibrated to partial equilibrium measures of the scale of new activities or call on existing resources, they lack an accounting of the opportunity cost of resource use in those new activities. In order to take account of such costs in assessing the impact of the new activity on the economy as a whole, a more comprehensive view is required that takes account of the scarcity of resources and interdependencies in the economy (for example, see Gretton 2013:20 for discussion in the context of input-output multiplier analysis).

Applying the positive rationales to potential benefits of Chinese FDI in Australia

The activity information on mainland Chinese investment in Australia presented above would suggest that a strong motivation of mainland Chinese direct investment in Australia has been of a resource seeking kind, particularly with respect to energy and metals and produce from agricultural activities. This would be most noticeably so if the output of the direct investment enterprises were shipped to mainland China or to establishments owned by mainland Chinese firms, but located in a third country. The direct investment, output and export changes and any productivity enhancing effects from scale economies and innovation to supply new markets would have beneficial flow-on general equilibrium effects for the Australian economy. However, to the extent that direct investment in Australia targets Australian firms that are technological leaders, the acquisition of technical capabilities to raise the productivity of the mainland Chinese investor at home could also be a motivation. To the extent that this

supports economic growth in China that flows to higher demand for Australian outputs or lower cost imported supplies, there could be beneficial cross-border flow-on effects for Australia. On the other hand, to the extent that the transfer diverts trade from Australia there could be a net loss to Australia. Overall, as noted, there is a presumption that the positive trade creation effects outweigh any trade diversion effects.

Investment in transport and infrastructure, entertainment and tourism, and real estate being location bound, could also be of a resource seeking kind. Such investment could also be of a market seeking, efficiency seeking (including through the diversification and management of risk by investors) or the passive investment kind. To the extent that the successful mainland Chinese investors acquire Australian assets for a higher price than offered by competing bidders, a capital gain would accrue to previous asset owners. To the extent that there are flow-on new investment, output, employment and price effects in Australia, there would also be positive direct and general equilibrium flow on effects to Australia and mainland Chinese investors. In the area of transport and infrastructure, access afforded by a direct investment relationship may be of long-term strategic importance, for example, in establishing a foothold in a transport corridor for trade between Australia, China and more widely.

The emergence of investment in the finance sector over the 2014 to 2016 period followed the establishment of a cross-border RMB clearing bank in Australia and coincided with a more flexible RMB trading exchange regime. To the extent that these developments are linked, new mainland Chinese FDI in the finance sector would appear to have an efficiency seeking motivation associated with foreign exchange transactions to support trade and investment between Australia and mainland China. This would suggest transaction cost reductions for importers and exporters, and a tendency towards greater integration of Australian and mainland Chinese commercial activities.

The final generic sector to gain greater prominence in the 2013 to 2016 period (Figure 6, above) is 'technology'. To the extent that this category covers information and communications technologies, a number of motivations are possible including resource seeking whereby the Chinese investor is seeking to acquire technological or organisational capability and market seeking whereby the Chinese investor is seeking to enter new markets, in this case Australia. Given the pace of technological and organisational change in the use of information and communications technologies, mainland Chinese investment in Australia in these areas could also include a strategic component relating to promotion of brands and the establishment of strategic alliances to foster longer-term firm growth. The introduction of new technologies and organisation are typically characterised as providing a fundamental source of productivity growth in national economies. A potential economic impact and benefit from FDI in this case would be the productivity improvements in the use of labour and capital, and the economic growth and higher domestic incomes that this may promote (Gretton et al. 2004).

Table 3 provides a summary of the likely main motivation, other key motivations and pathways to potential community-wide benefits for each of eighteen industry sectors. The table, built on the above theoretical framework, is intended to be comprehensive and to provide a reference point for investigations into the likely sectoral and economy-wide impacts and benefits of direct investment activity. Such investigations may be ex post and seek to enumerate the impacts of previous activity in order to draw inferences about the significance and direction of influence of multinational enterprise activity. The emphasis of such analyses would move from firm to sector to national analysis and consider: the role of entrepreneurs in decision making, employing labour and capital, creating markets and organisations to create value; the role of headquarters in the exercise of control and influence

over affiliates, determining where taxes are paid, and acting as financial and communications hubs; and the interaction between multiple firms (Buckley and Casson 2020:246). Analyses would consider how headquarters and affiliates took account of the external environment or sought to influence it, and how exogenous changes in the external environment influenced firm activity (Tallman et al. 2018:519,522, Buckley and Casson 2020:249 and Buckley and Hashai 2020:96). In an ex post analysis the outcome of policy and business decisions, given societal and environmental conditions is observed and an attempt would be made to determine how businesses evolved to influence the sector and national outcome.

Investigations may also take an ex ante view and seek to consider the prospective effects of changes in market conditions, the macro context, the technology and organisation of production and distribution, country differences and the regulatory environment (Productivity Commission 2010:30 ,Tallman et al. 2018:519, 522 and Buckley and Hashai 2020:96). In an ex ante analysis a business as usual *baseline* is depicted and an attempt is made to determine how this may differ with new policy setting, technologies or ways of working, or the introduction of new business models.

The sectoral analysis in Table 4 is focussed on motivations with a distinction between a likely main motivation for FDI in a sector and other likely key motivations and some likely pathways to community-wide impacts. Because business activities are firm and context specific (Dunning and Lundan 2008, Hennart 2009 and Buckley and Casson 2020), motivations and pathways for individual firms would vary (that is, there is heterogeneity of actors with no representative consumer/producer). Identifying and estimating direct effects at the sectoral level would therefore need to take account of firm heterogeneity such as through comparative studies of the individual business models and outcomes, statistical sampling of firms, econometric analysis or partial equilibrium modelling to draw inferences about the future. It would also involve moving from factors that may influence the formation of an international business model, to the direct effects of international business models on economic activity in the host country. Table 4 is intended to set some theoretical bounds around the possible direct impacts of direct investment activity and may be used in applied research of the impact of Chinese (and other) FDI activity in Australia.

Table 3: Summary of potential positive economic effects for the host economy, by sector

<i>Sector</i>	<i>Likely main motivation</i>	<i>Likely other key motivations</i>	<i>Some pathways to potential community-wide economic benefits</i>
Agriculture, Forestry and Fishing	Resource seeking	Market seeking – vertical market access Efficiency seeking – common governance of vertically integrated dispersed activities Strategic asset seeking – security of supplies	Additional funding to sector Higher valuation placed on rural land Higher operating surplus to FDI and co-owners with increased demand and/or lower costs – raising national income and the taxation base Reinvestment of earnings in local projects Increased demand for upstream supplies Spillover benefits to peer activities through new technologies, ways of working, new market links.
Mining	Resource seeking	Market seeking – vertical market access	Fill funding gap for new projects Higher valuation placed on existing

Sector	<i>Likely main motivation</i>	<i>Likely other key motivations</i>	<i>Some pathways to potential community-wide economic benefits</i>
		<p>Efficiency seeking – common governance of vertically integrated dispersed activities</p> <p>Strategic asset seeking – security of supplies</p>	<p>deposits</p> <p>Higher operating surplus from increased demand for existing and new deposits and/or lower costs through scale and knowledge advantages –raising national income and the taxation base</p> <p>Reinvestment of earnings in local projects</p> <p>Increased demand for upstream local supplies, financial and infrastructure services</p> <p>Spillover benefits through strengthened reputation as reliable suppliers with attendant increased demand</p> <p>Spillover benefits through new technologies, ways of working</p>
Manufacturing	<p>Market seeking – horizontal market access</p> <p>– vertical market access</p>	<p>Resource seeking – via processed agricultural and mineral products</p> <p>Efficiency seeking – economies of scale, scope, diversification</p> <p>Strategic asset seeking – competitive advantage, supply chain integration, security of supply</p>	<p>Additional funding for sector expansion</p> <p>Higher operating surplus from demand/supply led expansion of markets/value chains – raising national income and the national taxation base</p> <p>Reduced unit costs through economies of scale/scope/new technologies and ways of working</p> <p>Reinvestment of earnings in local projects</p> <p>Increased demand for upstream local supplies</p> <p>Spillover benefits to peer activities through new technologies, ways of working, developing new market links.</p>
Electricity, Gas, Water and Waste Services	Passive investment	<p>Efficiency seeking – economies of scale, scope, diversification</p> <p>Strategic asset seeking – strengthen joint capabilities, control over supply and distribution</p>	<p>Additional funding to sector</p> <p>Reduced unit costs through economies of scale/scope/new technologies and ways of working</p> <p>Reinvestment of earnings in local projects</p> <p>Increased demand for upstream local supplies</p> <p>Spillover benefits to peer activities through new technologies, ways of working, developing new market links.</p>
Construction	Strategic asset seeking – strengthen capabilities	<p>Resource seeking – gain proximity to location-bound markets</p> <p>Market seeking – promote</p>	<p>Fill funding gap for new projects</p> <p>Higher operating surplus from increased demand and/or lower costs through scale and knowledge</p>

<i>Sector</i>	<i>Likely main motivation</i>	<i>Likely other key motivations</i>	<i>Some pathways to potential community-wide economic benefits</i>
		<p>new markets between home and host region</p> <p>Efficiency seeking - economies of scale, scope, diversification</p>	<p>advantages –raising national income and the taxation base</p> <p>Reinvestment of earnings in local projects</p> <p>Increased demand for upstream local supplies, financial and infrastructure services</p> <p>Spillover benefits to peer activities through new technologies, ways of working, developing new market links.</p>
Wholesale Trade	Support or ancillary investments	<p>Efficiency seeking – economies of scale, scope, diversification</p> <p>Strategic asset seeking – secure supplies/distribution outlets within a value or marketing chain</p>	<p>Additional funding to sector</p> <p>Higher operating surplus from increased demand for local produce and/or lower costs through scale and knowledge advantages – raising national income and the taxation base</p> <p>Increased consumer surplus from increased availability of foreign supplies</p> <p>Reinvestment of earnings in local projects</p> <p>Increased demand for upstream local supplies, financial and infrastructure services</p> <p>Spillover benefits to peer activities through new technologies, ways of working, developing new market links.</p>
Retail Trade	As for Wholesale trade but with focus on private household final consumption		
Accommodation and Food Services	Resource seeking – location-based tourist destinations	<p>Market seeking – promote new markets between home and host country</p> <p>Efficiency seeking – gains from common governance of geographically dispersed activities</p> <p>Strategic asset seeking – gain control of distribution outlets</p> <p>Passive investment – investment income and capital gain from property ownership</p>	<p>Additional funding to sector</p> <p>Higher operating surplus from increased demand for local services and/or lower costs through scale and knowledge advantages – raising national income and the taxation base</p> <p>Reinvestment of earnings in local projects</p> <p>Increased demand for upstream local supplies, financial and infrastructure services</p> <p>Spillover benefits to peer activities through new technologies, ways of working, developing new market links.</p>
Transport, Postal	Resource seeking	Market seeking – promote	Additional funding to sector

<i>Sector</i>	<i>Likely main motivation</i>	<i>Likely other key motivations</i>	<i>Some pathways to potential community-wide economic benefits</i>
and Warehousing		<p>new markets in host region</p> <p>Efficiency seeking – afford financial gain from common governance of geographically dispersed activities</p> <p>Strategic asset seeking – provide foothold in local market</p> <p>Passive investment – investment income and capital gain from ownership</p>	<p>Higher operating surplus from increased demand for local produce and/or lower costs through scale and knowledge advantages – raising national income and the taxation base</p> <p>Increased consumer surplus from increased availability of foreign supplies</p> <p>Reinvestment of earnings in local projects</p> <p>Increased demand for upstream local supplies, financial and infrastructure services</p> <p>Spillover benefits to peer activities through new technologies, ways of working, developing new market links.</p>
Information Media and Tele-communications	Market seeking – promote new markets	<p>Resource seeking – access to location-specific technological capabilities</p> <p>Efficiency seeking – common governance of dispersed activities</p> <p>Strategic asset seeking – alliances to gain technological, commercial advantage over competitors or foothold in local market</p>	<p>Additional funding to sector</p> <p>Higher operating surplus from supply of new services and/or lower costs through scale and knowledge advantages – raising national income and the taxation base</p> <p>Increased consumer surplus from increased availability of new technologies and/or foreign supplies</p> <p>Reinvestment of earnings in local projects</p> <p>Increase demand for upstream local supplies, financial and infrastructure services</p> <p>Spillover benefits to peer activities through new technologies, ways of working, developing new market links.</p>
Financial and Insurance Services	Market seeking – supply services from host region	<p>Efficiency seeking – rationalise financing structure of resource base or market seeking investments between home and host regions</p> <p>Strategic asset seeking – promotion of financial service objectives of home country firm</p> <p>Escape investments – enable financial flows to take advantage of location-specific investor incentives</p>	<p>Additional funding to sector</p> <p>Higher operating surplus from supply of new services and/or lower costs through scale and knowledge advantages – raising national income and the taxation base</p> <p>Increased consumer surplus from increased availability of new technologies and/or foreign supplies</p> <p>Reinvestment of earnings in local projects</p> <p>Increased demand for upstream local supplies, financial and infrastructure services</p> <p>Spillover benefits to peer activities through new technologies, ways of</p>

<i>Sector</i>	<i>Likely main motivation</i>	<i>Likely other key motivations</i>	<i>Some pathways to potential community-wide economic benefits</i>
			working, developing new market links.
Rental, Hiring and Real Estate Services	Resource seeking – location bound real property	Market seeking – supply of services in host region Efficiency seeking – financial gain from common governance Passive investment – investment income and capital gain from ownership of financial instruments	Additional funding to sector Higher operating surplus from demand for new services and/or lower costs through common governance and knowledge advantages – raising national income and the taxation base Increased consumer surplus from increased availability of real estate services Reinvestment of earnings in local projects Increased demand for upstream local supplies, financial and infrastructure services Spillover benefits to peer activities through new technologies, ways of working, developing new market links.
Professional, Scientific and Technical Services	Market seeking – promote new markets	Resource seeking – access to location-specific technological capabilities, marketing and management expertise Efficiency seeking – common governance of dispersed activities Strategic asset seeking – alliances to gain technological or commercial advantage over competitors	Additional funding to sector Higher operating surplus from supply for new services and/or lower costs through scale and knowledge advantages – raising national income and the taxation base Increased consumer surplus from increased availability of new technologies and/or foreign supplies Reinvestment of earnings in local projects Increased demand for upstream local supplies, financial and infrastructure services Spillover benefits to peer activities through new technologies, skills transfer and scientific exchange, new ways of working, developing new market links.
Administrative and Support Services	Market seeking – through activities such as employment and travel services	Resource seeking – through facilitation of travel and employment service provision Efficiency seeking – through vertical market access between home and host regions Strategic asset seeking – through value chain promotion	Additional funding to sector Higher operating surplus from supply for new services and/or lower costs through scale and knowledge advantages – raising national income and the taxation base Increased (two-way) access to labour/employment opportunities between home and host regions Increased consumer surplus from

<i>Sector</i>	<i>Likely main motivation</i>	<i>Likely other key motivations</i>	<i>Some pathways to potential community-wide economic benefits</i>
			<p>increased availability of foreign services</p> <p>Reinvestment of earnings in local projects</p> <p>Increased demand for upstream local supplies, financial and infrastructure services</p> <p>Spillover benefits to peer activities through new technologies, ways of working, developing new market links.</p>
Public Administration and Safety	Normally the province of general government and not subject to FDI		
Education and Training	Resource seeking – location bound education services	<p>Market seeking – through horizontal and vertical market access</p> <p>Efficiency seeking – through rationalisation of market structure and economies of scale, scope and diversification</p> <p>Strategic asset seeking – strengthening of joint capabilities in human capital development</p>	<p>Additional funding to sector</p> <p>Higher revenues and operating surpluses from supply for new services and/or lower costs through scale and knowledge advantages – raising national income and the taxation base</p> <p>Increased two-way human capital development and availability of effective labour raising incomes in home and host economy</p> <p>Reinvestment of earnings in local projects</p> <p>Increased demand for upstream local supplies, financial and infrastructure services</p> <p>Spillover benefits to peer activities through new technologies, ways of working, developing new market links.</p>
Health Care and Social Assistance	Resource seeking – location bound services	<p>Market seeking – new markets between home and host regions</p> <p>Efficiency seeking – rationalisation of resource and market seeking investments, economies of scale, scope and diversification</p> <p>Strategic asset seeking – securing supplies in value added chains, distribution networks</p> <p>Passive investments – earn investment income and capital gain</p>	<p>Additional funding to sector</p> <p>Higher revenues and operating surpluses from supply for new services and/or lower costs through scale and knowledge advantages – raising national income and the taxation base</p> <p>Increased consumer surplus from availability of new or lower-cost health services in host region</p> <p>Reinvestment of earnings in local projects</p> <p>Increased demand for upstream local supplies, financial and infrastructure services</p> <p>Spillover benefits to peer activities through new technologies, ways of</p>

<i>Sector</i>	<i>Likely main motivation</i>	<i>Likely other key motivations</i>	<i>Some pathways to potential community-wide economic benefits</i>
			working, developing new market links.
Arts and Recreation Services	Market seeking – new markets between home and host regions in performing arts, sports and recreation (including horse and dog racing) and gambling	Resource seeking – access to location-bound supporting resources (such as event venues) and location specific skills Efficiency seeking – rationalisation of market and resource seeking activities Strategic asset seeking – securing supply and distribution chains	Additional funding to sector Higher revenues and operating surpluses from supply for new services and/or lower costs through scale and knowledge advantages – raising national income and the taxation base Increased two-way trade in arts and recreational services raising consumer surplus Reinvestment of earnings in local projects Increased demand for upstream local supplies, financial and infrastructure services Spillover benefits to peer activities through new technologies, ways of working, developing new market links.
Other Services	Market seeking – new markets between home and host regions in repair and maintenance, personal services	Resource seeking – access to location-bound resources (such as client base) and technical capabilities Efficiency seeking – economies of scale, scope diversification Strategic asset seeking – secure upstream supplies and downstream outlets Passive investments – investment income and capital gains	Additional funding to sector Higher revenues and operating surpluses from supply for new services and/or lower costs through scale and knowledge advantages – raising national income and the taxation base Increased two-way service trade raising consumer surplus Reinvestment of earnings in local projects Increased demand for upstream local supplies, financial and infrastructure services Spillover benefits to peer activities through new technologies, ways of working, developing new market links.

5 A forward-looking perspective

While mainland Chinese direct investment in Australia during the period 2008 to 2019 can be observed and conclusions can be drawn about investment activity and its possible impacts and benefits, what is uncertain is the likely extent and composition of such investment into the future. Some key influences are now considered.

Economic gravity is likely to tilt further towards China (and other non-OECD economies)

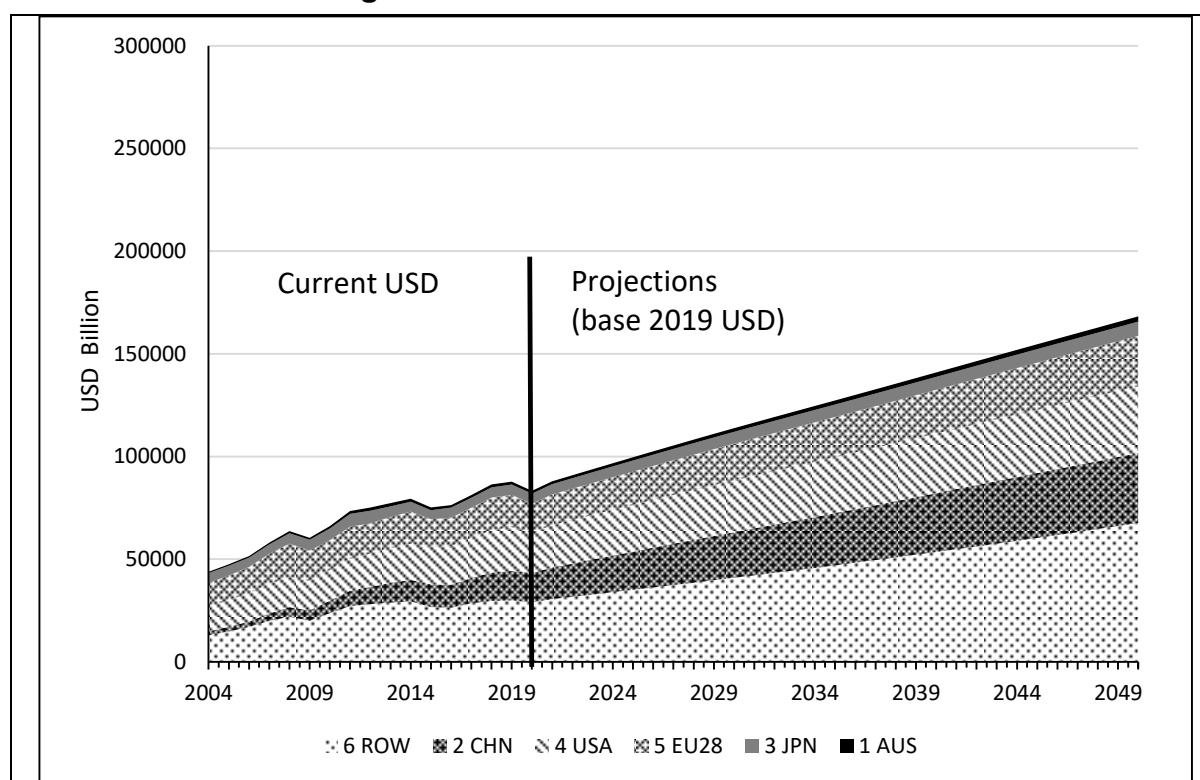
A continuation of ‘business as usual’ may suggest that mainland Chinese FDI in Australia will continue to increase in line with the expansion of the Chinese economy and the financial capabilities that this could bring. While any longer-term projections are subject to much uncertainty, according to estimates based on the Shared Socioeconomic Pathways (SSP) Middle of the Road output projections (SSP2, Dellink *et al.* 2017), with allowance for the impact of the disruptive effects of COVID-19,¹⁰ the quantum of output of the Chinese economy could double from the 2019 level by 2050.¹¹ Under this scenario, the contribution of mainland China to the value of global output could rise from about 16 per cent in 2019 to about 20 per cent in 2050 (Figure 14).¹² In contrast, the combined share of the US, EU28 and Japanese economies, together accounting for about 60 per cent of FDI stocks in Australia, could decline from around 50 to 40 per cent of global output by value. Economic gravity and the already strong trading relationship between mainland China and Australia, would suggest that the FDI relationship between the two countries would expand absolutely and relative to other trading and investment partners. The economic footprint of the Chinese economy relative to Australia’s will also mean a relatively small change in Chinese investment in Australia from a Chinese perspective could translate into a relative large change from an Australian perspective. This tendency would only increase over time.

¹⁰ See notes and sources, Figure 14.

¹¹ The model projections are based on 2011 prices and currency exchange rates projected forward to take account of relative price changes using a computable general equilibrium framework as described in Gretton (2018, 2019). For reporting, the results are up-rated to 2019 USD. Two other bases for reporting could be considered. One is to report estimates based simply on the relative prices and currency exchange rates of a reference year (in this case 2011 uprated to 2019). This approach would ignore the (downward) effects of technological and organizational changes on prices and relative price changes over time. If this approach were adopted, the projected share of mainland China in global real output could rise to about 30 percent (in 2019 relative prices). Another basis for reporting is purchases parity prices (PPP). PPP estimates systematically exceed real output estimates for developing economies because wage rates are lower in developing than developed countries, so that in real estimates, non-tradeable goods and services are given lower (per capita) values in developing compared to developed countries. As labour rates rise in developing countries relative to developed country wage rates, the difference between PPP and real estimates decreases. When benchmarked to a single base year, neither basis, however, takes account of ongoing terms of trade or relative factor prices changes over time. To capture such effects, it is necessary to rebase the respective estimates across time using a computable general equilibrium framework, as is done in this paper.

¹² For the year 2019, the correlation between projected shares in 2011 based USD and current USD shares (WB 2020) is 0.97. The broad relativities reported are, therefore, similar as between the original model estimates (not reported) and the re-rated estimates (reported).

Figure 14: **The projected growth of China’s footprint in the global economy – a medium-growth scenario**



Notes and sources: World Development Indicators (2020) for historical data from 2004 to 2019. Author projections based on: the IMF’s World Economic Outlook (IMF2020a) for 2020; IMF country reports (IMF 2019a,b, 2020b,c,d) for 2021. The data sources were used in combination to provide indicative projections for the rest of the world (ROW) region. The medium growth scenario — 2022 to 2050 — is based on the long-term economic growth projections to 2100 in the Shared Economic Pathways (Dellink *et al.* (2017) as annualized by van der Mensbrugge (2013) and aggregated according to Aguiar (2019). The growth scenario assumes medium growth across the global TFP frontier, convergence of economies toward that frontier, transition to openness, population, labour force, human capital and fossil fuel resource use and prices. The global dynamic modelling approach is described in Gretton (2018, 2019). As applied in this paper, the projections take into account changes in real (constant price) GDP by region, population, employment changes by skill group and the transition of the rate of gross saving to GDP in mainland China towards average values across other regions. The projections reported are up-rated from 2011 data base values to 2019-based values.

The possible deepening of the FDI relationship between China and Australia could, however, be tempered by longer-term growth in other countries including in Asia, South America and Africa. The same projections indicate that in combination, countries in these regions could increase their combined share of global output from about 34 per cent in 2019 (in current USD) to over 40 per cent by 2050. This expanded footprint, if realised or exceeded, would provide a base for deepening trade and investment relations between those regions and mainland China and a source of competition for global savings with uncertain impacts for Australia.

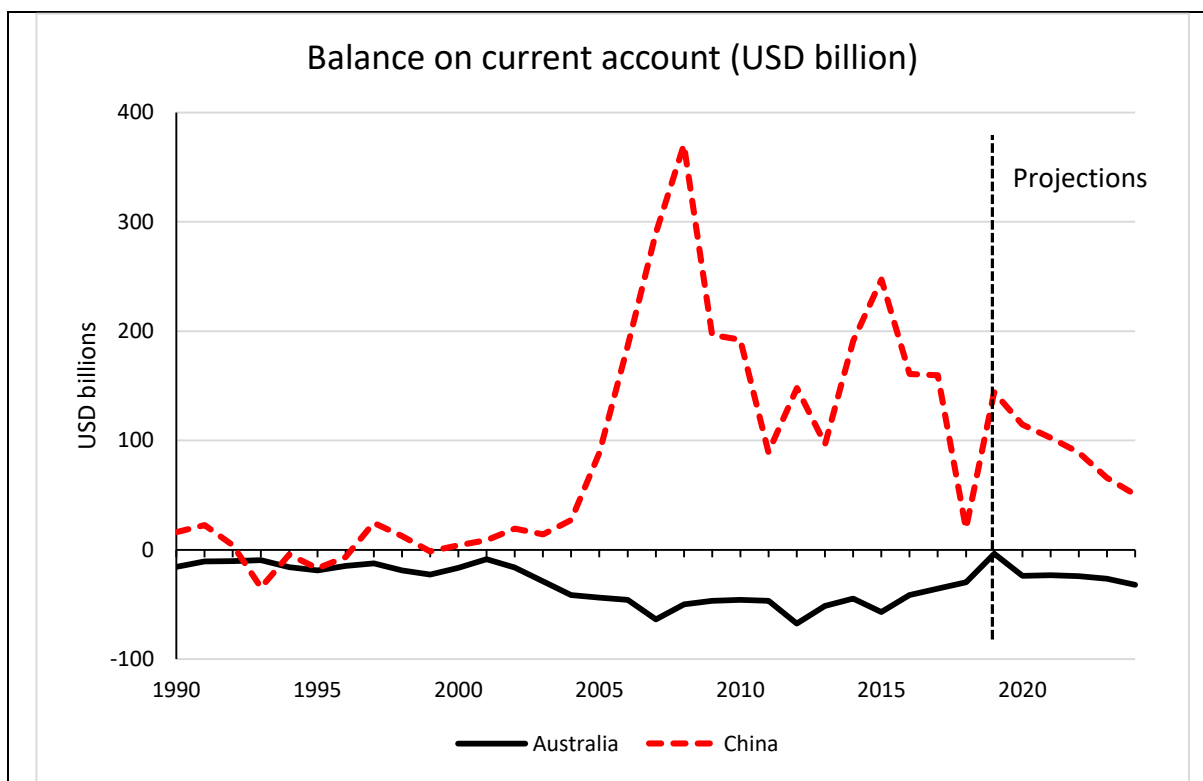
The surplus of lending over borrowing for China is projected to decline

The current account surplus for China exists because the sum of domestic savings exceeds the sum of domestic investment expenditures. It has expanded because the rate of saving has increased faster than the propensity to invest domestically. A number of domestic reasons have been suggested for the build-up of the current account surplus: the suppressed financial system in China has been unable to intermediate all domestic savings to investment; a growth

strategy based on export promotion and import suppression has flowed to a balance of trade surplus and, through this, a current account surplus (Woo 2018:665); and domestic distortions and policy gaps that affect the saving-investment balance, such as inadequate social spending gaps (IMF 2018:51). The current account surplus made China a capital exporting country particularly since its accession to the WTO in 2000 and reintegration with the global economy (Figure 15). Notwithstanding the expansion of the current account balance and accompanying net external lending, projections by the IMF are for the current account to move back towards balance. If realised, this would imply both a closer matching of domestic savings with domestic investment in net terms, and a higher level of imports relative to exports (or lower exports relative to imports).

Under this scenario, FDI by Chinese firms could only be maintained or increased if there were matching capital inflows to mainland China of a direct investment or of another kind, or if Chinese firms favoured foreign direct investment over portfolio and other investment.

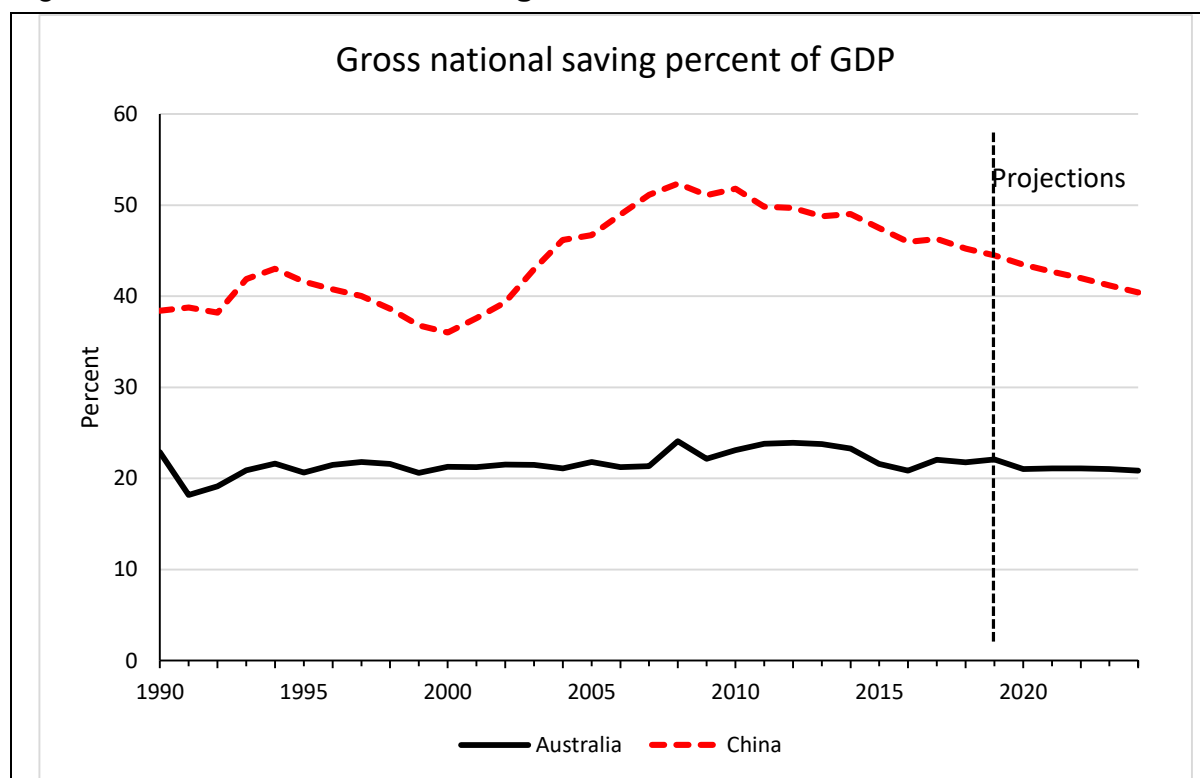
Figure 15: Future of China as a net lender and Australia a net borrower



Source: IMF, World Economic Outlook Database (accessed November 2019).

The associated projected decline in saving relative to GDP from historically high levels around the time of the GFC (Figure 16) suggests gradual rebalancing in social preferences between saving and consumption. This rebalancing is projected by the IMF to continue with increases in consumption demand (including social spending) ahead of real GDP growth and investment spending (IMF 2018:3). Although uncertain, the rebalancing will affect the supply of funds to FDI and other forms of foreign investment.

Figure 16: **Gross national saving as a share of GDP**



Sources: IMF, World Economic Outlook Database (accessed November 2019).

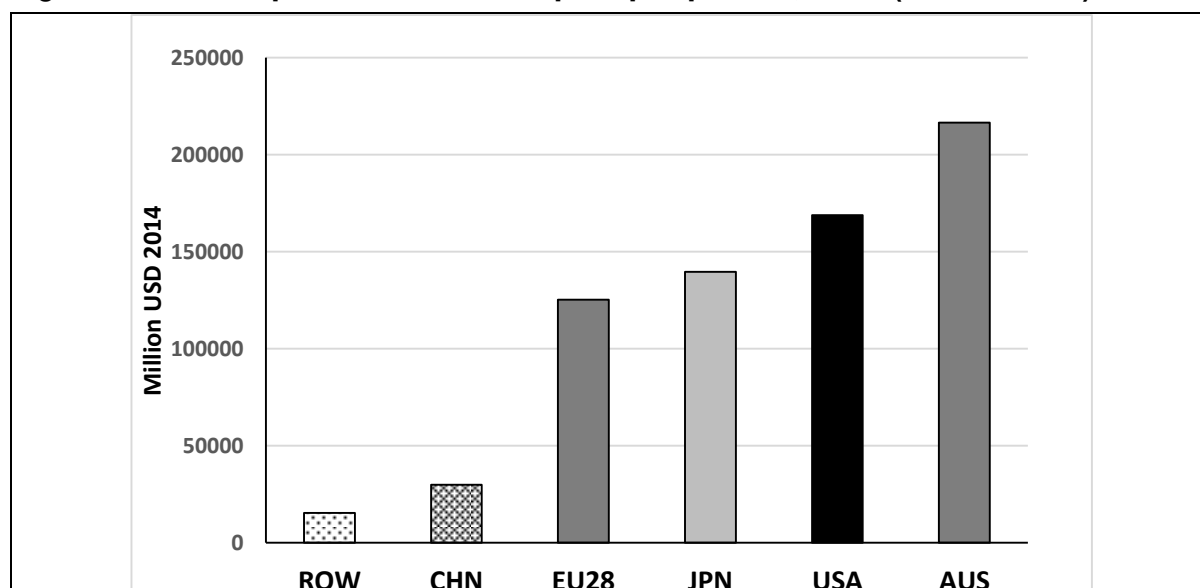
As the current account for China tends towards balance, any accompanying capital account liberalisation would potentially have important enabling effects on the two-way flow of finance between mainland China and abroad, including to Australia. Higher levels of effective financial market liberalisation (including capital account convertibility) could ease the movement of money both inward and outward, and help favour the more efficient allocation of funds between competing investments, potentially having positive effects on economic growth (Burman et al. 2013, Huang and Ji 2017:43, Huang and Wang 2018:301). A higher two-way flow of funds would be an enabling factor in the realisation of individual firm investment plans abroad and the pursuit of investment opportunities in China. In general, the more Chinese firms go towards closing the productivity gap with global firms at the productivity frontier and adopting business models adapted to creating value at home and abroad, the greater will be the opportunity for inward and outward FDI as well as portfolio and other foreign investment.

Capital deepening in mainland China will compete for funding

China's economic growth has provided the domestic saving to increase the national capital base. Domestic savings also has been complemented by direct investment inflows which have contributed to the assimilation of global technologies and ways of working, and the opening of markets for China's rapidly expanding export sector (Chen 2018:595). While growth over the reform period dating from 1978 has been exceptional and has led to China becoming an upper-middle income economy (Fang, Garnaut and Song 2018:5), there remains a substantial gap between fixed capital per person in China and developed economies, including Australia (Figure 17).¹³

¹³ The estimates are in real exchange rate adjusted terms. If the estimates were calculated on purchasers' price parity (PPP) terms, it would be expected that estimates for China (and the rest of the world region) would exceed the real estimates and suggest a narrower gap. This is because in the real estimates, non-tradeable goods

Figure 17: Comparison of fixed capital per person, 2014 (million USD)



Source: Aguiar, A. *et al.* 2019, 'The GTAP Data Base: Version 10', Journal of Global Economic Analysis, Volume 4 (2019), No. 1, pp. 1-27, at <https://www.jgea.org/resources/jgea/ojs/index.php/jgea/article/view/77/96> (Data Base identifier: v10_2014_Sept 2019).

Progressive closing of the gap will compete for domestic and foreign savings to fund new capital formation. Closing the gap will also generate competition for the resource and produced inputs (including metals and minerals) required to produce investment goods and services. It will put competitive pressure on Chinese FDI abroad over the period of convergence and add to the demand for foreign funds locally. Chinese firms will confront decisions as to whether to upgrade their current domestic operations, invest in emerging provinces or activities within China or invest abroad, including in Australia as they move up the productivity and scale ladder. Investing in emerging areas within China may face similar economic geography considerations to investment abroad, including resource seeking, market seeking or strategic asset seeking, and require the development of business models adept at operation across regions (in this case, provinces within mainland China). The development of internal markets could also give priority to efficiency seeking investments across geographically dispersed areas within China.

Subject to balance of payments constraints, it therefore will be an empirical question as to the balance struck between larger FDI by Chinese firms and larger domestic investment as per capita incomes rise and China moves up the productivity ladder. It will also be an empirical question as to the balance struck by firms between the functional forms of investment adopted — direct, portfolio or other investment.

Industry development goals in China are likely to influence the nature of Chinese originating FDI

The relatively recent ‘Made in China Statement’ announced strategic goals under which Chinese manufacturing industry (and supporting services) would be strengthened to fill gaps in innovation capacity, improve efficiency of resource utilisation, raise the quality of industrial infrastructure and extend the degree of digitalisation (State Council 2015). These

and services are given higher (per capita) values in developed compared to developing countries because wage rates are higher in developed compared to developing countries. As noted above, as labour rates rise in developing countries relative to developed country wage rates, differences between PPP and real estimates would decrease.

strategic goals involve the: consolidation of manufacturing power and increased digitisation by 2020; improvement in quality and innovation capacity with advanced integration of IT into industry by 2025; reaching of an intermediate level of manufacturing among manufacturing powers by 2035; and attaining a leadership peer role among manufacturing-country peers by 2049. The product areas of focus are diverse and include intelligent production lines and equipment, core intelligent componentry, precision manufacturing and industrialisation of intelligent vehicles and robots.

Achievement of these strategic goals is likely to deepen the trade and investment relationship between Australia and China and afford firm-specific advantages to Chinese direct investors in Australia. Australia being small globally across the spectrum of innovation activities and a net importer of new technologies and ways of working (PC 2016), could benefit economically from innovations originating in China and new direct investment embodying new technologies made accessible through direct investment (as well as other means). Such benefits may accrue through improved quality or variety in new goods and services (embodied technological change) and the technological and organisational change that would enable a more productive use of available labour and capital resources (disembodied technical change).

Continuing policy and regulation to preserve host country sovereignty

Commentaries about FDI in Australia have long referred to the need to distinguish between issues concerning economic behaviour of foreign subsidiaries and issues concerning the exercise of sovereignty by home governments over the foreign operations of national firms (Johnson 1972:9). Crawford *et al.* (1978:45) noted that dangers to Australia's political security are sometimes seen in the growth of international economic interdependence, more so through domination by foreign investors and business control than through trade dependence. Hanratty (1996) drew attention to a range of factors that were then entering into the public debate in favour of restricting inward foreign direct investment and those favouring policy liberalisation. Factors in favour of restricting inward investment were of an economic and a broader nationalist nature encompassing geopolitical, social and cultural considerations. Those of an economic nature refer to the potential for restrictions on exports to conform to global strategies of direct investors, an undermining of the domestic taxation base through transfer pricing and other profit shifting arrangements and a fostering of a longer-term dependence on foreign expertise at the expense of the development of local capacity. Forces identified by Hanratty (1996) as favouring greater FDI were associated with broad economic and international policy considerations that, at the time, outweighed concerns favouring greater restriction of foreign direct investment.

Under current arrangements in Australia, the Foreign Investment Review Board (FIRB) (established in 1976) advises the Treasurer and the Australian Government on Australia's Foreign Investment Policy and its administration. On advice from the FIRB, factors that the Australian Government will typically use to assess qualifying foreign investment proposals when applying a national interest test have evolved to include: the impact on the economy and community; national security, competition, other government policies (such as taxation), and character of investor (Treasury 2020:9). In order to strengthen the management of security risks associated with the growth in cross border capital flows, in June 2020, the Australian Government announced that it will introduce a new national security test for investments that raise national security concerns and which fall below the existing monetary thresholds (Treasury 2020:8). For investments above the thresholds, the broader national interest test would be applied as security is already a relevant factor in this test (Treasury 2020:8,9).

Interaction of trade-offs between potential economic benefits of Chinese FDI and broader Australian national interest considerations have surfaced, for example, in the oversight of direct investment by Chinese-based information and communications technology firms. With regard to these activities, in August 2018, the Australian government, with respect to 5G security to Australian carriers, stated: ‘the Australian government considers that involvement of vendors likely to be subject to extrajudicial directions from a foreign government that conflict with Australian law, may risk failure by the carrier to adequately protect a 5G network from unauthorised access and interference’ (Fifield and Morrison 2018). Security obligations will be administered under the Telecommunications Sector Security Reforms which commenced on 18 September 2018. The obligations will apply to all carriers. Because of security concerns, it has been reported that the Chinese companies Huawei and ZTE have been banned from providing 5G technology in Australia (ABC 23 August 2018, Canberra Times, 24 August 2018:13, China Daily 24 August 2018:41).

The interaction of such trade-offs have also occurred in other countries with respect to information and communications firms and 5G technologies, with approaches differing between jurisdictions. For example, in 2019, the United States Department of Commerce placed Huawei and certain affiliated entities on the Entity List and issued Temporary Licenses that authorised a limited range of transactions to continue, including to maintain services in remote areas (US Department of Commerce 2019a,b,c). The United Kingdom has so far followed a different path towards the balancing of economic with broader national interests with respect to Huawei by providing firm-specific oversight to Huawei’s involvement in the delivery of telecommunications infrastructure through the establishment of the HCSEC Oversight Board (for most recent report see HCSEC Oversight Board 2019). Following the Telecoms Supply Chain Review into market incentives and security risks likely to arise in the transition (in the UK) to full fibre and 5G mobile networks (UK Government 2018), the UK government announced that it intended to legislate to limit and control the presence of vendors designated a high security risk in the UK telecommunications network (Raab 2020).

While the take up of 5G technologies and Huawei and ZET have drawn particular attention, they have occurred within the context of an opening of global capital markets, the privatisation of many infrastructure assets in advanced economies and a six-fold increase in global FDI as a proportion to global product (OECD2020:6). Despite the economic opportunities created by this opening, concerns have grown among open, advanced economies that investors would not act in the national interest of host countries, with investments by sovereign wealth funds and government controlled investors contributing to those concerns (OECD 2020:6). Of the 55 countries for which an index of regulatory restrictiveness of foreign investment is estimated, the OECD identified 25 that had explicit acquisitions-related mechanisms to safeguard national security interests — including China, the United States, France, Germany, Italy, the UK, Japan, Australia, New Zealand and Canada (OECD 2020:16). The OECD analysis, however, did not reveal an obvious link between the degree of openness to FDI (as measured by the index) and the presence of an explicit mechanism to manage acquisition or ownership-related risk (OECD 2020:16). Policy and regulatory measures across countries are likely to have a material and continuing influence on the scale and direction of direct investment in global markets and the environment for inward to Australia and outward FDI from Australia.

As China moves towards the (shifting) global technology frontier, it is likely that there will be more frequent examples of frontier firms, like Huawei, originating in China or its territories. Some frontier firms in all likelihood will seek to exploit firm-specific advantage through export of new product varieties and through foreign direct investment and develop international business models capable of effectivity operating in the global market place. In

some cases, as in telecommunications, this may raise national interest concerns, such as around security, network resilience, and privacy. Other areas of particular attention may include: the protection of personal data; access to and management of critical infrastructure; and the evolution of dual use technologies such as cryptography (for example, blockchains) and artificial intelligence (for example, machine learning and robotics), and the development of quantum computing.

The management of security, network resilience and privacy concerns will involve trade-offs with economic concerns. The balance struck in such trade-offs will affect the level of new investment, the pace and direction of technological and organisational change in Australia (and elsewhere), and ultimately economic growth, material living standards and the quality of life. The management of those trade-offs will also be influenced by the responses of other countries through foreign investment review and approval mechanisms over which Australia may have little influence.

6 Some research directions

Efficient FDI can facilitate additional trade in goods and services, enable the achievement of economies of scale, and the transfer of more productive technology and ways of working, including in financial markets. The scale of benefits and how they are realised would depend on the circumstances surrounding individual projects. On the basis of discussions of business models in global competition, some research questions that could be leveraged to the CHIIA database include:

- How do business models adopted by Chinese investors in Australia, as identified in CHIIA, augment or complement business models adopted by domestic investors or other foreign investors to afford value to business and the wider community in the host and home countries?
- To what extent have Chinese firms investing in Australia, as identified in CHIIA, contributed to additional value through the introduction of new skills or the new use of existing skills, innovation through research and development, embodied and disembodied productivity improvements through technological or organisational change, and market or product development?
- To what extent have Chinese investments in Australia, as identified in CHIIA, been influenced by strategic or macro factors (including capital flight) and met by domestic policy and regulatory responses, and what are the likely impacts and longer-run implications of those investments and policy responses?

The framework above (Section 4) suggests that these could be assessed by reference to:

- whether the investments identified in CHIIA are driven by ownership advantages (O), locational attractions (L) or an advantage through the internalisation of network benefits (I);
- the commercial, economic and strategic motives for investments identified in CHIIA, as between resource seeking, market enhancing, efficiency improving or strategic asset seeking and the international business models adopted by multinational firms;
- the business activities in Australia that are the focus of direct investment from mainland China as identified in CHIIA, the geographic location in Australia and the role of these activities in international production and trade, including through global value chains, and the pathways to the realisation of potential community-wide benefits (Table 3, above);
- the scale of individual investment transactions recorded in CHIIA, including larger and small transactions;
- the ensuing direct economic impacts of investment projects identified in CHIIA including through access to finance (via cross-border and domestically-sourced equity identified in CHIIA and complementary finance), firm productivity, demand and supply for/of products and effects on labour, capital and resource markets and the likely flow-on effects to the wider economy (Figure 8, above); and
- the wider social, environmental, governance and security implications of projects identified in CHIIA.

Contextual factors that may be considered in assessing whether Australia is reaching its investment potential may include the:

- type of investments as between acquisition of existing assets and greenfield investments and whether there are regulatory or other barriers to the selection of the most economically advantageous mode by foreign firms;
- links between regulatory approvals to invest through FIRB and other screening mechanisms, legal commitments to invest, contracting and realisation of investments and ensuing economic flows and whether screening processes unduly restrict efficient investment;
- influence of the broader regulatory environment in mainland China and Australia on the level and nature of Chinese originating direct investment in Australia;
- role of direct investment in Australia as a small open economy with low barriers to entry/exit as an experimental destination for wider foreign direct investment by mainland Chinese firms across developed and developing economies;
- influence of commercial and regulatory confidentiality arrangements on the availability of data to investigate the potential and realised impacts and benefits of mainland Chinese investment in Australia; and
- nature and scale of broad economic forces that may influence mainland Chinese direct investment into Australia.

The analysis of the composition and impacts of past and even current FDI by Chinese firms in Australia would provide a retrospective commentary as a guide to future FDI activity and its potential economic and broader implications from which policy inferences could be drawn. Such analysis would cover a period characterised by substantial current account surpluses and the beginning of a return to external balance for mainland China. Over the period, there have been changes in the industry composition of investment and investments in activities deemed sensitive.

The economic and policy responses to the modern evolution of China in the global economy, are likely to occur in potentially rapidly changing circumstances. In particular, a shift within mainland China towards greater reliance on domestic relative to export demand and higher growth in consumption with lower growth in domestic saving that would have flow-on effects on its foreign investment activity, both inflows and outflows. Further capital deepening within China will add to the demand for domestically and foreign sourced savings while a shift towards the technological frontier in key sectors could be accompanied by a change in the nature of Chinese FDI in Australia (and elsewhere). A growing contribution to the global economy would further raise China's weight in the regional and global economy. A further increase in participation and influence in international institutions and forums such as the IMF, WTO, the UN and its agencies and the G20 proportionate to that weight is to be expected.

A deeper narrative of likely broad developments that could materially affect the level and composition of mainland Chinese investment in Australia over the medium to longer terms would, therefore, be worthwhile. It could investigate:

- broad economic trends how these may flow through to affect the China–Australia direct investment relationship including the transfer of technologies and ways of working through direct investment relationships;
- the potential for policy-induced change in investment flows to and from China and how change could flow through to affect the level and composition of Chinese FDI in Australia;

and

- the broader social, environmental, governance and strategic implications of prospective changes and how these could affect the foreign investment relationship between China and Australia.

Such analyses could be used to improve the preparedness of economic policy and domestic regulatory frameworks for changes in prospects, identify strategies to lower barriers to efficient investment and the transfer of technology between mainland China and Australia, and manage the privacy, security and resilience risks associated with substantive change in the FDI and wider investment relationships.

Appendix 1 Some definitions: Functional categories in the balance of payments capital account

Foreign direct investment: Direct investment is a category of investment associated with a resident in one economy having control or significant influence over the management of an enterprise that is resident in another economy (IMF 2009:101)

Portfolio investment: Portfolio investment is defined as cross border transactions and positions involving debt and equity securities where the investor in the home economy does not have control or significant influence over the management of the enterprise receiving the investment in the host economy (that is, debt and equity securities other than those included in direct investment) (IMF 2009:110)

Financial derivatives and Employee stock options (other than reserves): Financial derivatives is the group of financial instruments that are linked to another specific financial instrument or indicator or commodity and through which specific financial risks (such as interest rate risk, foreign exchange risk, equity and commodity price risk and credit risks) can be traded in their own right. The functional category Financial derivative does not include derivatives and options included in the functional category Reserves. Employee stock options are options to buy the equity of a company, offered to employees of the company as a form of remuneration (IMF 2009:110).

Other investment: Other investment is a residual category that includes positions and transactions other than those included in the other function categories. Subject to this qualification other investment includes: participation in some international organisations, equity in quasi-corporate enterprises that is not direct investment, currency and deposits, loans, insurance technical reserves, trade credit and accounts receivable/payable (IMF 2009:111).

Reserves: Reserves are those external assets that are readily available to and controlled by monetary authorities for meeting balance of payments financing needs, for intervention in exchange markets to effect the currency exchange rate, and for other related purposes (IMF2009:111).

Appendix table 1: **Comparison of CHIA with ABS estimates of Chinese direct investment in Australia (AUD billion)**

	2014	2015	2016	2017	2018	All years	All years (except 2017)
CHIA – Total	5.7	11.0	15.8	9.6	4.8	46.8	37.2
Cross-border transactions	3.1	4.3	11.4	2.8	3.2	24.8	22.0
Within-border transactions	2.5	6.7	4.4	6.9	1.6	22.0	15.2
ABS Mainland China and Hong Kong SAR							
Gross basis – increase^b	17.3	10.6	6.0	8.1	4.4	46.3	38.2
Equities (imputed) ^a	np	np	np	np	3.1	na	na
Reinvested earnings ^c	np	np	np	1.1	2.8	na	na
Gross basis – decrease^d	np	np	np	5.9	2.9	na	na
Net basis							
Direct investment in Australia	12.7	6.1	3.5	3.3	4.3	29.9	26.5
Equities and reinvested earnings	6.7	4.5	1.5	np	5.9	na	18.5
Other financial instruments	5.9	1.7	2.0	np	-1.6	na	8.0
Mainland China							
Gross basis - increase^b	11.8	6.1	3.3	4.4	3.2	28.8	24.4
Equities (imputed) ^a	np	2.4	np	np	2.7	na	na
Reinvested earnings ^c	np	-0.1	np	0.5	2.0	na	na
Gross basis – decrease^d	np	3.1	np	4.0	1.7	na	na
Net basis							
Direct investment in Australia	9.9	2.9	2.0	0.9	3.5	19.2	
Equities and reinvested earnings	3.0	2.3	0.5	np	4.7	na	10.6
Other financial instruments	6.8	0.6	1.5	np	-1.2	na	7.7
Hong Kong SAR							
Gross basis – increase^b	5.4	4.5	2.7	3.7	1.2	17.5	13.8
Equities (imputed) ^a	3.8	np	0.3	2.0	0.3	na	na
Reinvested earnings ^c	-0.1	np	0.6	0.6	0.8	na	na
Gross basis – decrease^d	2.5	np	1.8	1.9	1.2	na	na
Net basis							
Direct investment in Australia	2.8	3.2	1.5	2.4	0.8	10.7	8.2
Equities and reinvested earnings	3.7	2.1	0.9	2.6	1.1	10.5	7.9
Other financial instruments	-0.9	1.1	0.6	-0.2	-0.4	0.2	0.4

np Not published; na Not available (components not published). (a) Equity capital inflows on a gross basis are estimated by deducting reinvested earnings from Equity and reinvested earnings (net) under the simplifying assumption that all direct investment gross outflows are 'Other financial instruments'.

(b) A negative 'increase' can occur for foreign direct investment when the foreign direct investor borrows from the direct investment enterprise. (c) A negative reinvested earnings can occur when the direct investment enterprise makes a loss or its dividends are larger than its net income in the period.

(d) A negative decrease (gross basis) of foreign direct investment can occur when the foreign direct investor repays funds borrowed from its direct investment affiliate.

Sources: Author estimates; East Asian Bureau of Economic Research (EABER) 2019, *Chinese direct investment in Australia*, CHIA Database, ANU; DFAT (2019), *International Investment Australia*, 2018, Table 3 based on ABS (2019), *International Investment Position*, Australia: Supplementary Statistics, 2018, Cat. no. 53520 and unpublished ABS data.

Appendix table 2 Summary of mainland Chinese direct equity investment in Australia by sector (percent)

	<i>2014 to</i>					
	<i>2018</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>
Agriculture	2.9	1.4	2.6	6.0	0.3	0.1
Mining	22.3	35.3	12.2	12.9	47.4	11.0
Utilities	9.3	0.0	0.0	21.1	5.3	10.4
Manufacturing	10.0	0.3	15.0	0.0	4.5	54.8
Construction	3.7	4.5	13.0	0.4	0.0	0.0
Accommodation, Food	4.0	15.7	6.8	0.3	1.9	0.0
Rental, Real Estate	24.1	6.9	42.6	19.7	20.5	23.7
Transport, Storage	11.7	16.1	4.6	25.7	0.0	0.0
Information, Media, Telcos	1.9	15.9	0.0	0.0	0.0	0.0
Health Care	6.5	0.0	1.8	9.2	14.4	0.0
Other activities	3.5	4.0	1.4	4.6	5.7	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: East Asian Bureau of Economic Research (EABER) 2019, Chinese direct investment in Australia, CHIA Database.

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