



Economic effects of changes to labour hire laws

Prepared for Minerals Council of Australia

June 2019

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Glossary

Acronym	Full name
CAGR	Compound annual growth rate
CGE	Computable General Equilibrium
DAE	Deloitte Access Economics
DIDO	Drive in, Drive out
EA	Enterprise Agreement
FIFO	Fly in, Fly out
FWA	Fair Work Act
MCA	Minerals Council of Australia
NES	National Employment Standards
GDP	Gross Domestic Product

Executive summary

Workers value certainty. Businesses value flexibility. And both have a point.

Setting the rules and regulations around labour hire workers versus direct employees therefore involves trying to achieve the most certainty while preserving the greatest flexibility for businesses to adjust the size of their workforce as needed.

That can't be done with one-size-fits-all legislation, because flexibility is more important to the sustainable prosperity of some industries than others.

Mining is a case in point. The minerals sector is Australia's most productive sector, with just 2% of the nation's workforce generating 8% of national income. And miners earn more than workers in any other industry.

But those high returns come with high risks. Mining also has bigger and more regular cycles – its output and its revenues have the largest ups and downs among all the major industries:

- Partly that's because global commodity demand is very cyclical – and has become more so over the years.
- Partly these large cycles are driven by something as simple as cyclones and floods.
- Partly it is because mineral projects require different skill at different points in their lifecycle.
- And partly it is because Australia's minerals sector sells into world markets: meaning that increases in costs can't be passed on to consumers: they mean lost sales.

In sum, **that says mining is incredibly valuable to Australia, and it says that labour flexibility is incredibly valuable to mining.**

Even so:

- Less than one in twenty workers in this sector is a part-timer.
- The use of labour hire workers in the mining industry ranks behind that in manufacturing, the utilities and in finance and accounts for only around one in ten workers in the sector.
- The gap in pay between those that have access to leave entitlements and casual workers is smaller in mining than the economy overall.
- And the median earnings of casuals in mining is not only the highest of all industries, but it is around a fifth higher than that of all workers in Australia.

But what if the flexibility available to the minerals sector were to be curtailed? Deloitte Access Economics has been engaged by the Minerals Council of Australia (MCA) to analyse the likely economic effects of legislating for labour hire workers and service contractors to always receive the same pay and conditions as direct employees in the Australian minerals sector.¹

The mining industry has been a vital part of Australia's prosperity for over two centuries, with its importance to society and to the Australian economy becoming more pronounced in recent years.

Mining differs from most other industries, including having a pronounced project lifecycle.

As a result of this lifecycle, the exploration, development, extraction and closure stages of a mining project vary significantly in terms of the skills of the workforce required at any one time as well as

¹ The Australian minerals sector is defined in this report to include all industries within the Australian Bureau of Statistics (ABS) definition of the mining industry excluding oil and gas extraction. Any references to the mining industry in this report align with the ABS definition of the mining industry which includes oil and gas extraction alongside coal mining, metal ore mining, non-metallic mineral mining and quarrying, exploration and other mining support services. The economic modelling in this report focuses solely on the Australian minerals sector and does not analyse the effects of this policy change on other industries in the economy. Given the prevalence of labour hire usage in other industries, the economic effects of this policy would also have an impact on other sectors of the economy. That hasn't been included in the results provided here.

across different regions, mines and commodities. This leads to variable labour demand across the project lifecycle with specialist workers often required to fill niche roles.

In addition, **miners operate in highly competitive global markets, so their production has to respond to sudden changes in demand and prices.** Even weather conditions (especially in the wake of cyclones and floods) can often have a notable impact. The industry also has a high degree of capital intensity, and so requires specialised skills to fully realise the value of the industry's capital stock. These factors mean the industry faces a rather more uncertain and unpredictable operating environment than average. That affects its investment, hiring and production decisions.

Given **the resultant value of flexibility to mining** and its demand for labour, miners draw on both labour hire workers and service contractors at various stages of the project lifecycle.

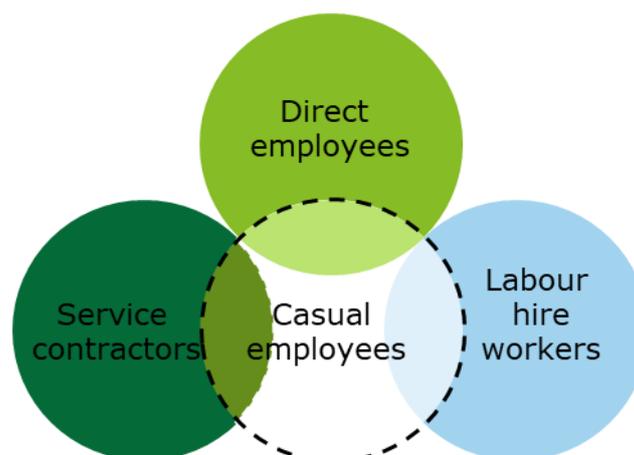
Employment arrangements in the minerals sector

To understand the potential implications of changes to conditions for labour hire workers in the sector, it is important to distinguish between directly hired employees, labour hire workers and service contractors in the minerals sector:

- Directly hired employees are employed by the minerals company utilising their services, which is the standard employment relationship.
- Service contractors are companies engaged to undertake specific, often specialised tasks for minerals companies. Service contractors will have their own workforces and will supply their own equipment and tools in most cases.
- Labour hire workers are employed by a labour hire company but undertake work for the host minerals company. Unlike service contractors, labour hire workers typically work under the direction of the host company. Around one-in-ten workers in the minerals sector are labour hire workers, the fourth highest such share among the major industries (behind manufacturing, the utilities, and financial and insurance services).

As illustrated in Figure i, the labour used by mining companies typically consists of either direct employees, labour hire workers or service contractors. Employees in each of these categories can be casual or permanent employees. Historically the proportion of labour hire workers employed casually is understood to be higher than for direct employees and those employed by service contractors, but labour hire workers are not necessarily casual workers and by the same token not all casual employees are labour hire workers.

Figure i The relationship between employment types and casual employment in the mining industry



Source: Deloitte Access Economics

Remuneration in the mining industry

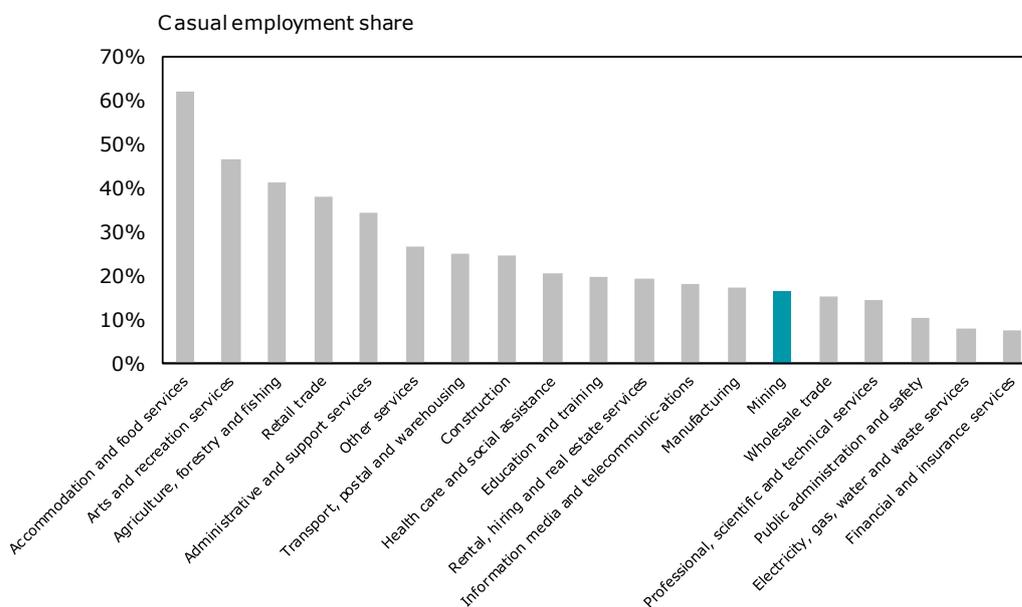
When considering changes in labour laws, it is worth considering the mining industry more broadly, its workforce and rates of pay. **Miners are the highest paid workers in the nation.** A substantial 96% of mining workers are full-timers. They earn a 64% premium to full-time workers in the

economy broadly. The mining industry is therefore an industry which would not be a key focus of policy makers concerned with low pay and precarious conditions.

There is no publicly available data on the remuneration of labour hire workers in the mining industry. There is data on remuneration of casual workers, although as noted in Figure i not all casual workers in the minerals sector will be labour hire workers and not all labour hire workers are necessarily casual workers.

In the mining industry, non-casuals earned around a 24% premium over casuals.² However, these groups may have different occupational and skill structures. The gap in average weekly pay between those that have access to leave entitlements and casual workers is considerably smaller in mining than the economy overall (at 127%). Part of this difference is likely because mining casuals are more likely to work full-time than other casuals in the broader economy. Mining also has only 1% of non-managerial employees dependent on an award for their wages and conditions. The share of casuals in mining has been rising in recent years, but remains lower than most industries as shown in Chart i below.

Chart i: Casual shares of employment by industry



Source: ABS Cat No 6333.0.

The use of labour hire workers or service contractors in the minerals sector can provide **advantages for employers:**

- It offers employers flexibility in meeting variable demand for labour, allowing them to more readily increase and decrease their workforce according to production needs.
- Similarly, they offer the scope to meet demand for specialised, limited-duration tasks – a feature of this sector.

Labour hire can also provide **advantages to labour hire employees:**

- By providing employment opportunities which may not have been available otherwise and may act as a conduit to permanent employment.
- By providing flexibility in their decision to supply labour.

² Non-casual workers are defined as those with access to leave entitlements.

Potential **disadvantages** associated with labour hire from a host company perspective include concerns over culture and loyalty, as well as the quality of labour. From an employee perspective, **disadvantages** can include the relative precariousness of work and potentially lower wages than comparable permanent workers at the host company.

The *Keep it in the regions* inquiry raised concerns surrounding the increased use of casual labour hire by mining companies and an increase in fly-in, fly-out (FIFO) and drive-in, drive-out (DIDO) workforces. In particular, concerns have been raised that labour hire arrangements and casual work arrangements more broadly are exploitative, pushing workers to lower paid, less secure work. Subsequently, changes in the law have been mooted which would give labour hire workers the same pay and conditions as analogous permanent workers at the host company. Owing to uncertainty over the scope of the law, Deloitte Access Economics also considered the potential for changes in the law to apply to service contractors in the minerals sector.

Survey findings

To develop a more detailed evidence base on the extent of the use of labour hire, motivations for employing labour hire workers and service contractors, and to understand the advantages and disadvantages of these arrangements from an employer perspective, Deloitte Access Economics surveyed members of the MCA. Table i sets out the number of full-time equivalents (FTEs) and labour hire workers covered by the survey and the proportion residing in regional areas.

Table i: Deloitte Access Economics Labour Hire Survey: minerals sector profiling

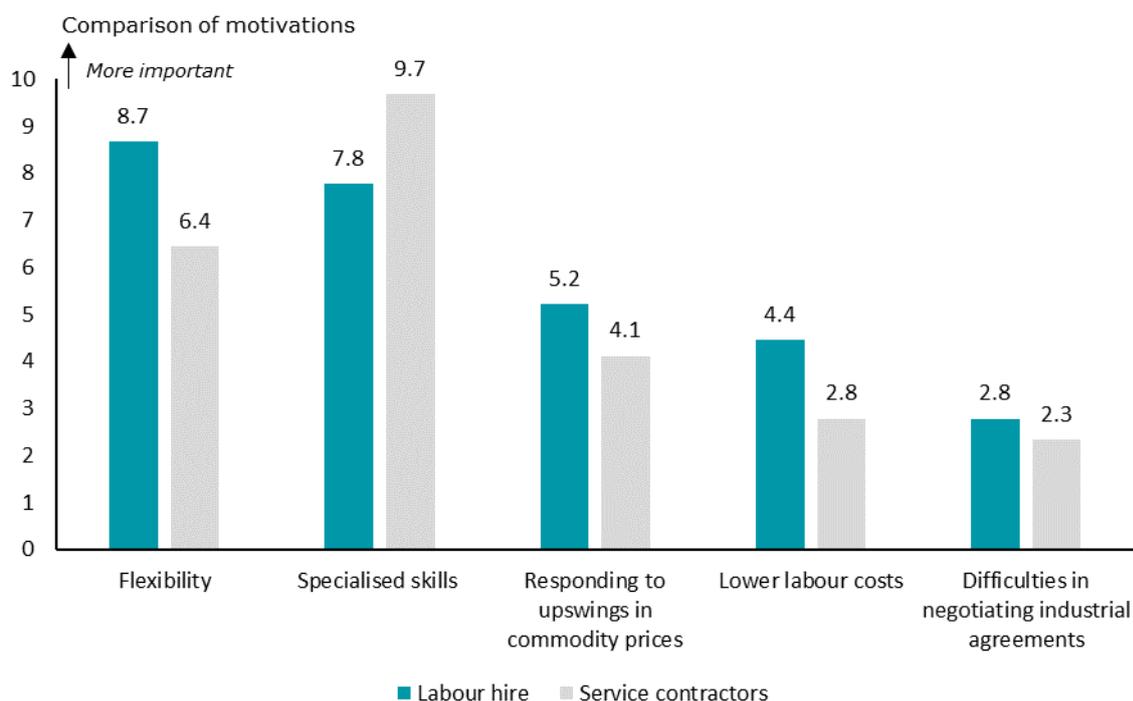
Indicator	Survey result
FTEs covered	80,260
Labour hire workers covered	8,595
Labour (including contractor) share of operating costs	38.5%
Proportion of labour hire workers residing in regional areas	69.8%

Source: Deloitte Access Economics Labour Hire Survey

The survey found labour hire workers comprised around 11% of the minerals sector workforce, similar to the ABS estimate of 9.8% for the broader mining industry. A relatively high proportion resided in regional areas, which is similar to the mining workforce as a whole (with data from the 2016 Census indicating that 58.2% of mining workers reside outside Australia's eight capital cities). This is a notable contrast to the Australian workforce more broadly, with the Census indicating only 31.4% of workers resided outside of the capital cities. This highlights that employees in the minerals sector, whether labour hire or permanent employees, are more likely to reside in regional areas. The fortunes of regional Australia is thus closely tied to the minerals sector.

Surveyed employers noted that it was **flexibility and specialised skills rather than remuneration differentials which were more important as a motivation** for utilising labour hire workers and services contractors. Flexibility here reflects the ability of minerals companies to draw on labour hire at short notice to meet a short-term demand for labour.

Chart ii: Comparison of motivations for using labour hire workers and services contractors



Source: Deloitte Access Economics Labour Hire Survey

Chart ii shows how respondents rate various motivations for utilising labour hire workers and services contractors, with 1 being 'not important at all' and 10 being 'critically important'. Respondents were also asked about potential disadvantages of using labour hire workers and service contractors. The key reasons noted included:

- Challenges in retaining labour hire workers and service contractors when the labour market was buoyant, leading to higher turnover rates.
- The need to maintain safety standards and cultural alignment between FTEs and labour hire workers.
- The risk of labour hire workers being less engaged due to their often shorter relationship with the host company.

The survey then asked respondents to consider their likely response to changes in the law such that labour hire workers and service contractors were entitled to the same pay and conditions as ongoing employees (**the scenario**), including full entitlements to leave and other permanent conditions as per existing workplace agreements. Survey respondents indicated that the direct impact would **reduce the efficiency of labour by around 7% for minerals companies, leading to around a 3% increase to total operating costs.**

In total, 57% of minerals respondents indicated they would not change the size of their workforce in response to the proposed change, while **43% indicated they would have a smaller workforce than under the status quo** (no changes to labour laws), with the average reduction across all respondents being around 3%. In total, **62.5% of respondents indicated the proposed changes to labour hire laws would weigh on future investment decisions.**

Utilising the survey results, Deloitte Access Economics modelled the impact of a scenario in which labour hire workers and service contractors were entitled to the same pay and conditions as ongoing employees on the minerals sector and the broader economy.

As the focus of this report is on the impact of this policy on the minerals sector, the results do not consider the direct impact of changes in labour hire laws on other sectors of the economy. Rather, the results simply capture the direct impact of the changes to labour hire laws on the minerals sector

(that is, mining less oil and gas) and any flow-on effects from the direct impact on the minerals sector to other sectors in the economy as a result of supply linkages. That is, the scenario does not include the direct impact of the proposed policy on operating costs for other sectors, which was not included in the scope of the survey.

Changes to the law relating to labour hire workers and service contractors was estimated by survey respondents to reduce the efficiency of labour in the minerals sector by around 7.4%. The estimated reduction in the efficiency of labour was used as an input to the Deloitte Access Economics – Regional General Equilibrium to examine the net impact on the Australian economy. At the aggregate level, **employment is estimated to decline – relative to where it would otherwise have been – by around 6,400 FTE jobs per year** over the period 2019 to 2031. Over that period, **the economy would be smaller than otherwise by \$15.3 billion in net present value (NPV) terms**, with the decline in annual GDP peaking at \$2.8 billion in 2031.

Importantly, the impact on output by sector varies notably. The sectors that experience the greatest decline in value added are the minerals sector and other business services and financial services, as these are key suppliers of inputs to the minerals sector. By comparison, a number of other sectors expand as labour previously used in the minerals sector moves elsewhere in the economy, although in aggregate employment declines as a result of the policy change.

The results suggest that a broad policy that sought to require that labour hire workers and service contractors receive the same pay and conditions as permanent employees is likely to impact the international competitiveness of Australian minerals industry and in turn reduce employment and investment.

Australia’s mining industry has been a long-term success story, despite highly competitive global markets and the challenge provided by cyclical commodity prices. Its ability to be flexible in response to that is central to its success – and hence to the prosperity of the wider Australian economy.

Deloitte Access Economics’ analysis indicates the use of temporary work in the minerals sector is largely dominated by that need for flexibility and specialised skills, reflecting in particular:

- the dynamic nature of the mining project lifecycle,
- the relative volatility of global demand, and
- the impact of extreme weather events.

1 Background

Around one quarter of the Australian workforce is employed on a casual basis, a trend that has coincided more recently with the growth of the 'gig' economy as online platforms have created new employment opportunities. While this use of temporary work arrangements has provided many workers with increased flexibility in terms of work arrangements and hours, concerns have been raised about the potential impact of these developments on employee's rights and conditions. This concern has led to a range of proposals to change current policies around temporary workers such as those employed by labour hire companies who work as temporary employees with their host employer.³ Concerns about the potential for temporary workers to undermine the pay and conditions of permanent employees are often raised in low-paid industries and occupations.

Against this backdrop, Deloitte Access Economics has been engaged by the MCA to analyse the likely economic effects of legislating for labour hire workers to always receive the same pay and conditions as direct permanent employees on:

- The productivity and competitiveness of minerals operations in Australia.
- The viability of new projects.
- Employment opportunities for minerals sector workers, especially new entrants.
- The economies of selected mining regions, states and the nation.

While any changes to labour laws would affect all industries in the economy, the focus of this report is on the minerals sector. As such, the findings of this report focus on the implications for the mining industry and should not necessarily be seen as reflecting the likely effects of changes to labour hire laws in other industries which have different operating structures and employment arrangements – and are thus each likely to be affected differently by imposition of policy changes that require labour hire workers to receive the same pay and conditions as permanent employees.

As there is some uncertainty as to how proposed changes to labour hire laws may apply to contractors, this report also considers the prevalence of contractors in the minerals sector and the potential impact if they were treated like labour hire workers in the event of legislative changes.

Australia's mining industry is unique, with our favourable endowment of natural resources combining with highly efficient operations to give rise to global success stories. The industry directly employs around 256,000 individuals and in 2017, Deloitte Access Economics found that mining activity directly and indirectly supported over 1.1 million FTE jobs.⁴ This includes the activities of the mining equipment, technology and services (METS) sector and the jobs created in other industries by economic activity in the mining industry. Resource and energy exports accounted for 70% of Australia's merchandise exports and 55% of goods and services exports in 2017-18.⁵

As a result, proposed changes could have a significant impact on Australia's vitally important mining industry and in turn, the broader Australian economy. It is important to consider not just the direct impact of any change to the law, but also the indirect effects as the miners and the economy adjusts to the change. In the case of the mining industry, this involves a consideration of job levels, profits and future investment relative to the status quo.

The remainder of the report is structured as follows:

³ ALP 2018, *Same Job, Same Pay: Time to Tackle Unfair Labour Hire* < http://www.billshorten.com.au/same_job_same_pay_time_to_tackle_unfair_labour_hire_tuesday_17_july_2018 >.

⁴ Deloitte Access Economics 2017, *Mining and METS: Engines of economic growth and prosperity for Australians* < <https://www2.deloitte.com/au/en/pages/economics/articles/mining-mets-economic-growth-prosperity-engines.html> >.

⁵ Department of Industry, Innovation and Science, *Resources and Energy Quarterly December 2018* < <https://publications.industry.gov.au/publications/resourcesandenergyquarterlydecember2018/documents/Resources-and-Energy-Quarterly-December-2018.pdf> >.

- **Chapter 2:** profiles Australia's broader mining industry, exploring its size, capital intensity, international competitiveness and recent performance.
- **Chapter 3:** considers the nature of the employment relationship and the nature of labour hire and service contracts.
- **Chapter 4:** explores the economic rationale for the use of temporary work arrangements and examines the prevalence of temporary work in Australia in both the mining industry and the broader economy.
- **Chapter 5:** describes the survey Deloitte Access Economics distributed to members of the Minerals Council of Australia and summarises key findings for the minerals sector.
- **Chapter 6:** builds on the foregoing chapters by using Computable General Equilibrium (CGE) modelling to estimate the likely impact of the economy of changes to labour hire laws.

2 Australia's mining industry

Key findings

- The mining industry is Australia's highest paying industry, directly employs around 256,000 Australians and accounts for around 8% of the Australian economy. Mining plays a vital role in contributing to regional communities and stimulating demand in other sectors of the economy.
- Mining is unique among industries given the differing stages of the project lifecycle which require varying types of capital and labour at any one time. The exploration, development, extraction and closure stages of a mining project differ in the skills of the workforce required, as well as across geographies and commodities.
- The cyclical nature of the mining industry is demonstrated by the volatility of commodity prices over the past several decades. The booms and busts in commodity markets reinforce the need for a flexible business model.
- The Australian mining industry is highly capital intensive and competes against a range of international competitors to attract investment.

2.1 Importance of the mining industry

The large endowment of high quality natural resources forms the bedrock of Australia's comparative advantage in mining. Australia has the world's largest Economic Demonstrated Reserves (EDR) of iron ore, gold, nickel and zinc and Australia's EDR of bauxite, copper, silver and black and brown coal all rank in the top five in the world. The natural resource base combined with globally competitive firms has put Australia in the top five producers worldwide for 19 different commodities including gold, aluminium, iron ore, rare earths, mineral sands, zinc, lead and coal.⁶

Australia's mining sector is historically a vital part of the economy and more recently has been a major driver of economic growth.

- In 2017, Deloitte Access Economics found mining and mining equipment, technology and services (METS) activity (excluding oil and gas) supported over 1.1 million full-time equivalent (FTE) jobs.⁷
- Resource and energy exports (including oil and gas) accounted for 70% of Australia's merchandise exports and 55% of goods and services exports in 2017-18.⁸

The mining industry accounts for 7.7% of GDP, making a substantial contribution to overall output as well as an important industry for growth.⁹ Mining also makes an important contribution to other sectors through a range of flow-on effects boosting demand in other industries. The broader mining and METS sector plays a substantial role in supporting economic activity in regional areas of Australia, contributing around \$38 billion in value added and directly and indirectly supporting

⁶ Geoscience Australia 2017, *Australia's Identified Mineral Resources 2017* < http://www.ga.gov.au/_data/assets/pdf_file/0005/58874/Australias-Identified-Mineral-Resources-2017.pdf >.

⁷ Deloitte Access Economics 2017, *Mining and METS: engines of economic growth and prosperity for Australians* < <https://www2.deloitte.com/au/en/pages/economics/articles/mining-mets-economic-growth-prosperity-engines.html> >.

⁸ Department of Industry, Innovation and Science 2018, *Resources and Energy Quarterly December 2018* < <https://publications.industry.gov.au/publications/resourcesandenergyquarterlydecember2018/documents/Resources-and-Energy-Quarterly-December-2018.pdf> >.

⁹ Australian Bureau of Statistics, *Australian National Accounts: National Income, Expenditure and Product, September 2018*, Cat No 5206.0.

94,000 FTE jobs in the Pilbara region of Western Australia in 2015-16.¹⁰ Mining and METS also contributed \$15.2 billion in value added and directly and indirectly supported 94,000 jobs in the Hunter region in New South Wales during 2015-16.

Regional areas also benefit from local procurement initiatives and significant community investment. For example, the BHP Local Buying Program and Local Buying Foundation and Rio Tinto Local Procurement Program support small businesses to engage and bid for work with BHP and Rio Tinto.¹¹ By June 2017 Rio Tinto had committed \$244 million to Cape York suppliers and engaged directly and indirectly 71 Western Cape and Indigenous businesses as part of \$1.5 billion in direct spending to 704 Queensland suppliers. Rio Tinto has also partnered with local Indigenous businesses such as Gumatj Corporation, Australia's first Indigenous-owned mining company, in the development of the Gulkula bauxite mine.

BHP has committed more than \$240 million to 1,093 small businesses since the establishment of the Local buying Program in 2012. BHP also provides community investment through its Social Investment Framework, providing \$50.4 million worth of social investments across Australia by BHP in 2016-17.¹²

2.1.1 Mining workforce

Around 256,000 people are directly employed in the mining industry as of November 2018,¹³ representing around 2% of the total workforce. Together mining and METS supported around 10% of total FTE employment.¹⁴ Mining is also the highest paid industry with average full-time weekly earnings of \$2,711 in May 2018, compared to the all industry average of \$1,651, a premium of 64%.¹⁵ Chart 2.1 shows that those working in the mining industry have enjoyed a significant and stable wage premium relative to those working in other industries over the past two decades.

¹⁰ Deloitte Access Economics 2017, *Mining and METS: engines of economic growth and prosperity for Australians* < <https://www2.deloitte.com/au/en/pages/economics/articles/mining-mets-economic-growth-prosperity-engines.html> >.

¹¹ Minerals Council of Australia 2018, Submission to the House of Representatives Standing Committee on Industry, Innovation, Science and Resources Inquiry *into how the Mining Sector can support businesses In Regional Economies*.

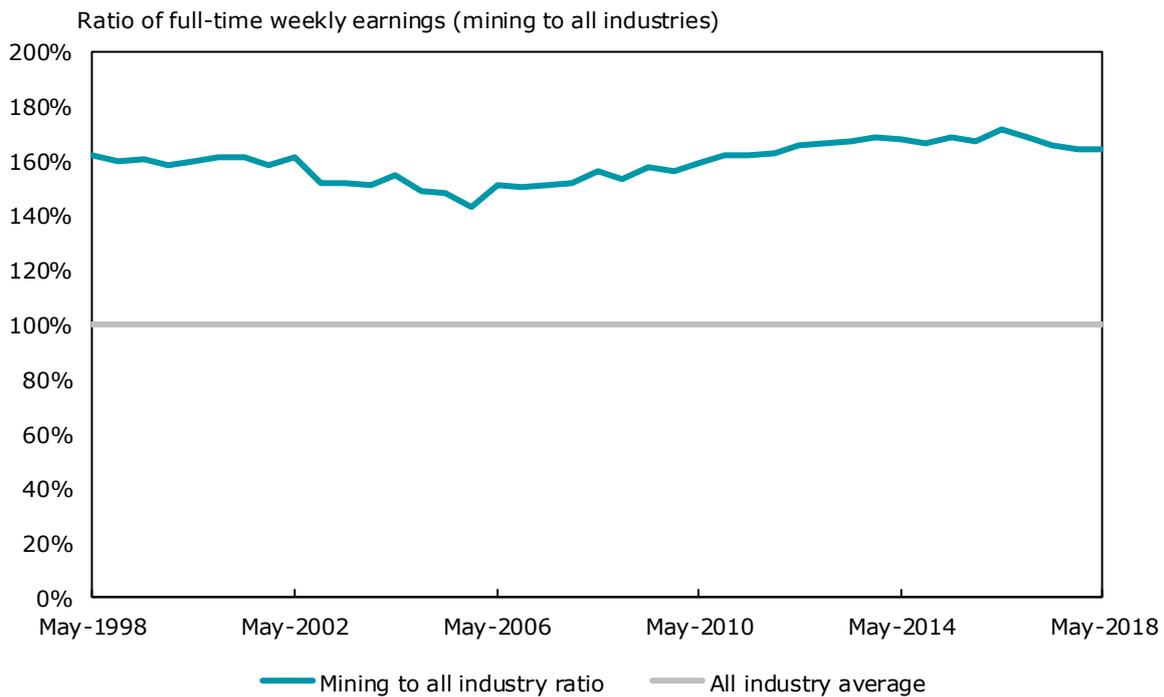
¹² BHP 2018, *BHP Inquiry into how the mining sector can support businesses in regional economies*

¹³ Australian Bureau of Statistics, *Labour Force, Australia, Detailed, Quarterly, November 2018*, Cat No 6291.0.55.003.

¹⁴ Deloitte Access Economics 2017, *Mining and METS: engines of economic growth and prosperity for Australians* < <https://www2.deloitte.com/au/en/pages/economics/articles/mining-mets-economic-growth-prosperity-engines.html> >.

¹⁵ Australian Bureau of Statistics, *Average Weekly Earnings, Australia, May 2018* Cat No 6302.0.

Chart 2.1: Ratio of full-time weekly earnings (mining industry to all industries)

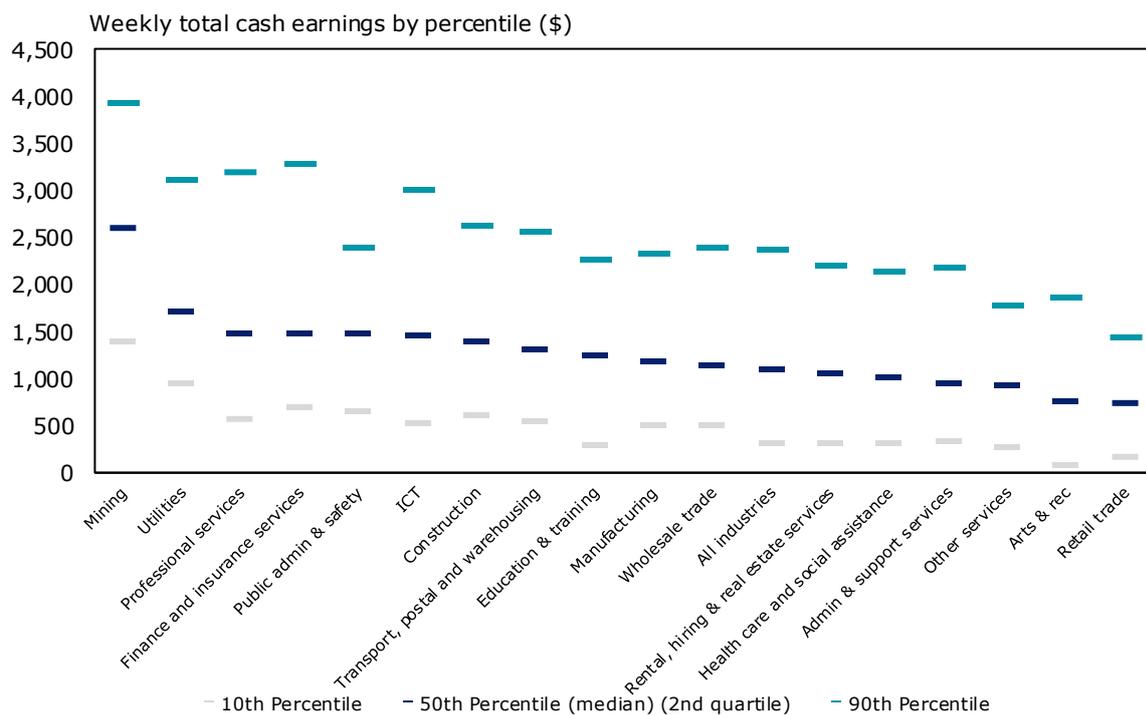


Source: ABS Cat No 6302.0.

Chart 2.2 shows the distribution of weekly earnings for industries in the Australian economy by the 10th percentile, the 50th percentile (median) and the 90th percentile. This chart shows that the mining industry has a high wage floor. That is, weekly earnings for workers at the 10th percentile of the distribution of earnings in the mining industry are substantially higher than for workers at the 10th percentile of the distribution of earnings in other industries. Weekly cash earning for mining employees in the 10th percentile of the distribution are also above the weekly pay rates set out in the Mining Industry Award 2010 which range from \$776.58 to \$1,069.58 per week.¹⁶

¹⁶ Fair Work Ombudsman, 'Pay Guide – Mining Industry Award 2010', available at: <file:///C:/Users/blodewijks/Downloads/mining-industry-award-ma000011-pay-guide.pdf>.

Chart 2.2: Distribution of weekly earnings (by percentile, 2018)

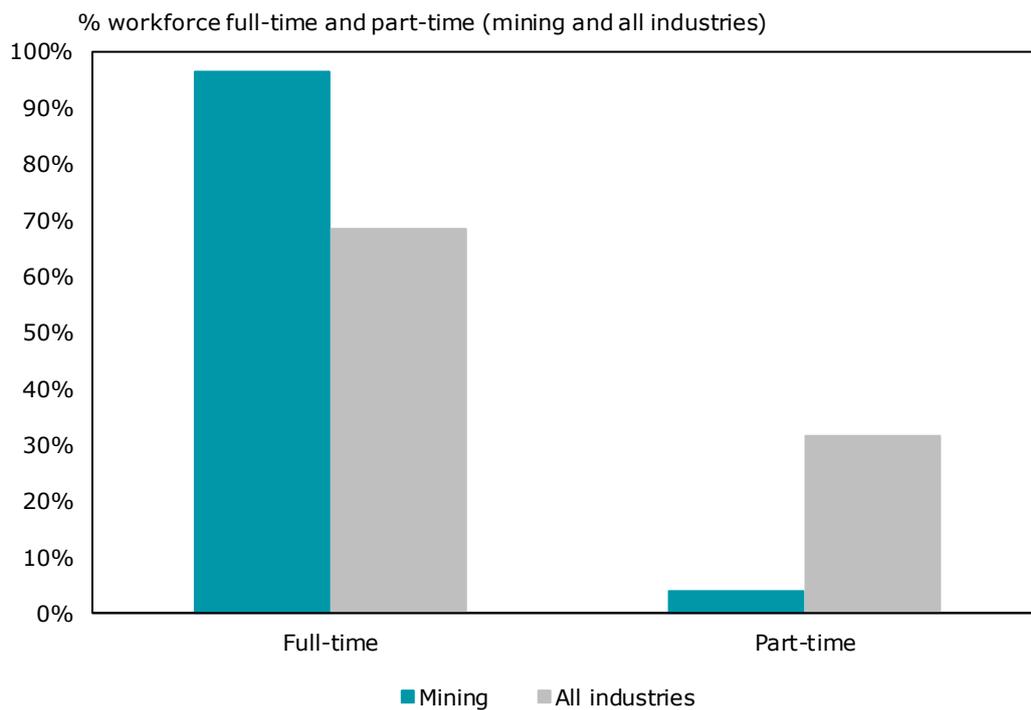


Source: ABS Cat No 6306.0.

The mining industry also has a significantly higher proportion of full-time workers relative to the overall economy (Chart 2.3). Around 96% of the mining workforce is full-time (and 4% part-time), while 68% of the broader workforce is full-time (and correspondingly 32% part-time).¹⁷ In addition to the low part-time share, the mining industry also has a relatively low share of casual workers at 16% compared to almost 25% across all industries, with the casual workforce across different industries discussed more fully in Chapter 4

¹⁷ ABS 2018, *Labour Force, Australia, Detailed, Quarterly, November 2018*, Cat No 6291.0.55.003.

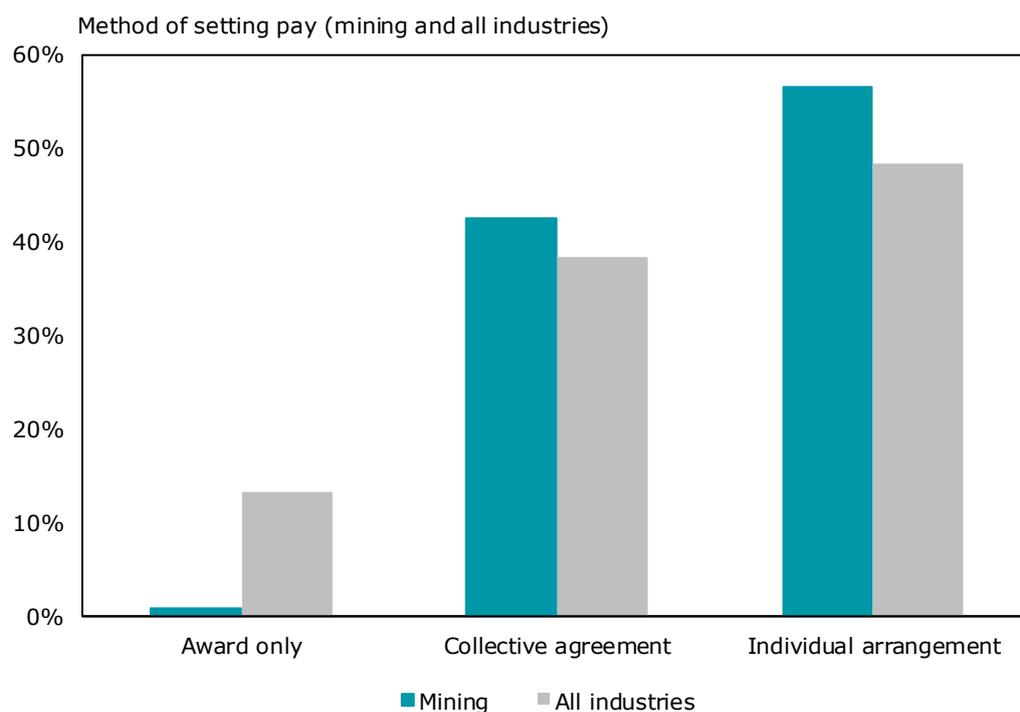
Chart 2.3: Full-time and part time proportions (mining and all industries, November 2018)



Source: ABS Cat No 6291.0.55.003.

Examining full-time non-managerial employees in the mining industry by method of setting pay shows 57% are covered by an individual arrangement, 42% by a collective agreement and 1% by the Award only (Chart 2.4). The major difference to the all industry average is a higher proportion of individual arrangements (57% versus 48%), a similar level of collective arrangement (42% versus 38%) and correspondingly a much lower share of Award pay levels (1% versus 13%).

Chart 2.4: Method of setting pay (mining and all industries)

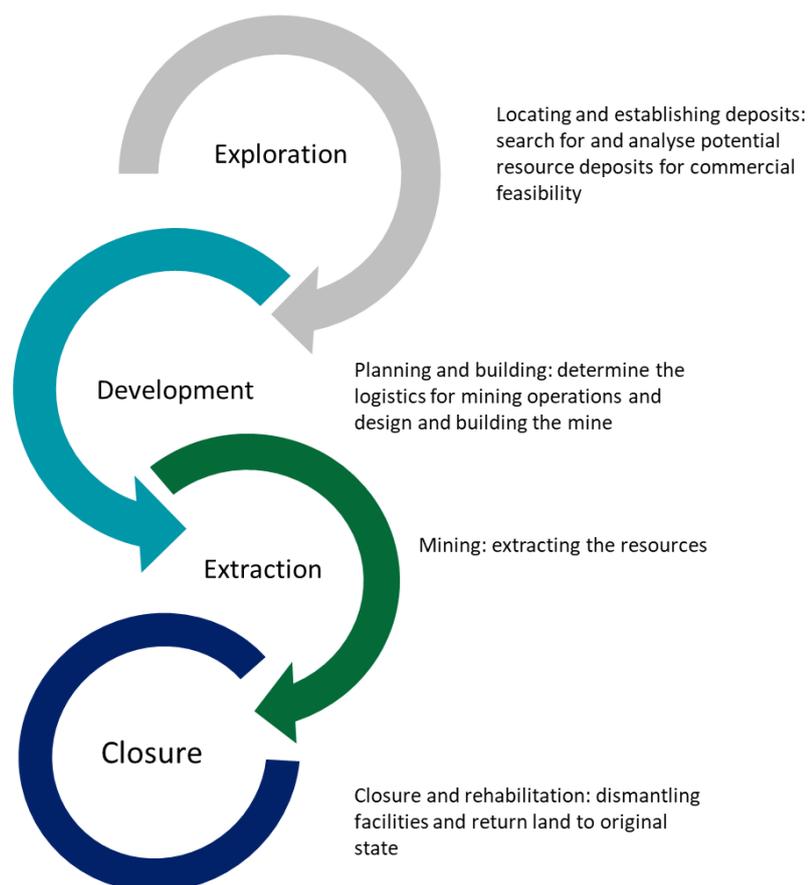


Source: ABS Cat No 6306.0.

2.2 Nature of the mining industry

The mining industry in Australia is characterised by a long project lifecycle that includes several distinct stages including exploration, construction, operation, maintenance and eventual closure of the mine (Figure 2.1). These phases vary significantly in terms of the skills of the labour force required as well as across different regions, mines and commodities. This leads to variable labour demand across the project lifecycle with specialist labour often required to fill niche roles.

Figure 2.1: Mining project phases



Source: Deloitte Access Economics

In this respect, the mining industry is very different to other industries which may have a more homogeneous demand for labour, for example a school or hospital, where the services provided do not change drastically from day-to-day or year-to-year. The nature of the mining industry requires the employment of specialist skills at particular phases of a mine's operating lifecycle. In addition, extreme weather events can affect mining operations with a subsequent need for flexibility and different skills.

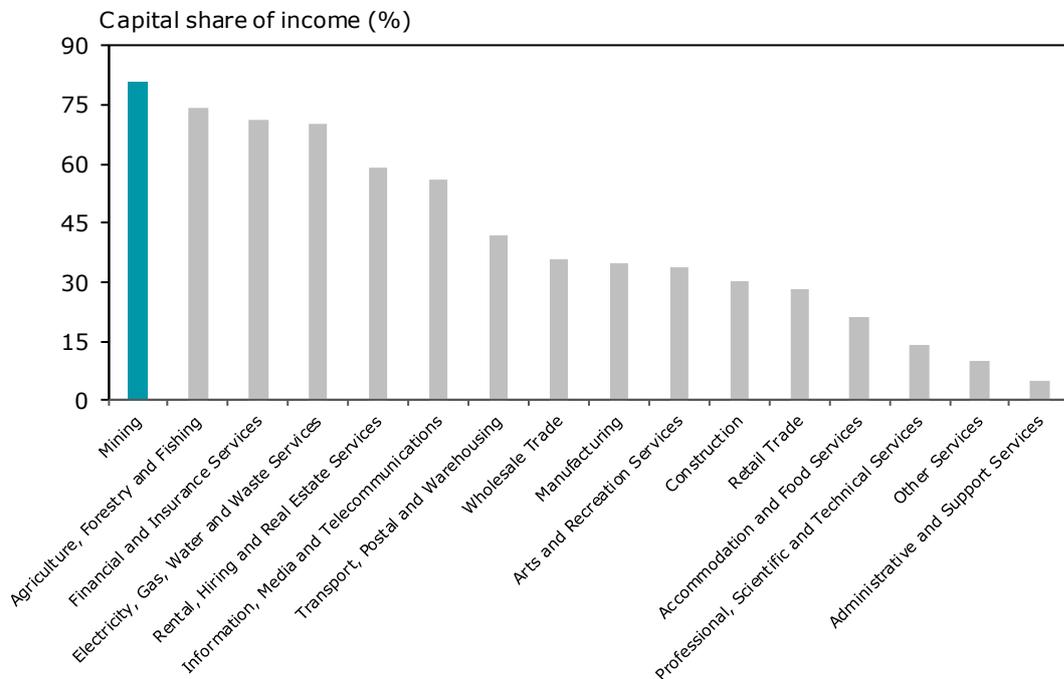
2.2.2 Capital intensity

As shown in Chart 2.5 below, the mining industry is Australia's most capital intensive industry. ABS statistics show that the capital share of income for the mining industry was around 81% in 2017-18, compared to around 51% for the broader market sector.¹⁸ The mining industry is marked by large

¹⁸ The 12 industry market sector comprises the following industries where labour productivity is better measured than is the case for other industries: Agriculture, forestry & fishing; Mining; Manufacturing; Electricity, gas, water & waste services; Construction; Wholesale trade; Retail trade; Accommodation & food services; Transport, postal & warehousing; Information, media & telecommunications; Financial & insurance services; and Arts & recreation services.

investments in capital for long-life projects. Unexpected changes to costs can therefore have implications for both the expected return on future investments by mining companies (particular given the large amount of sunk capital costs required) and can lead to significant impacts on the return on investment over the life of the mine (particularly for mines that are relatively new).

Chart 2.5: Capital intensity by industry

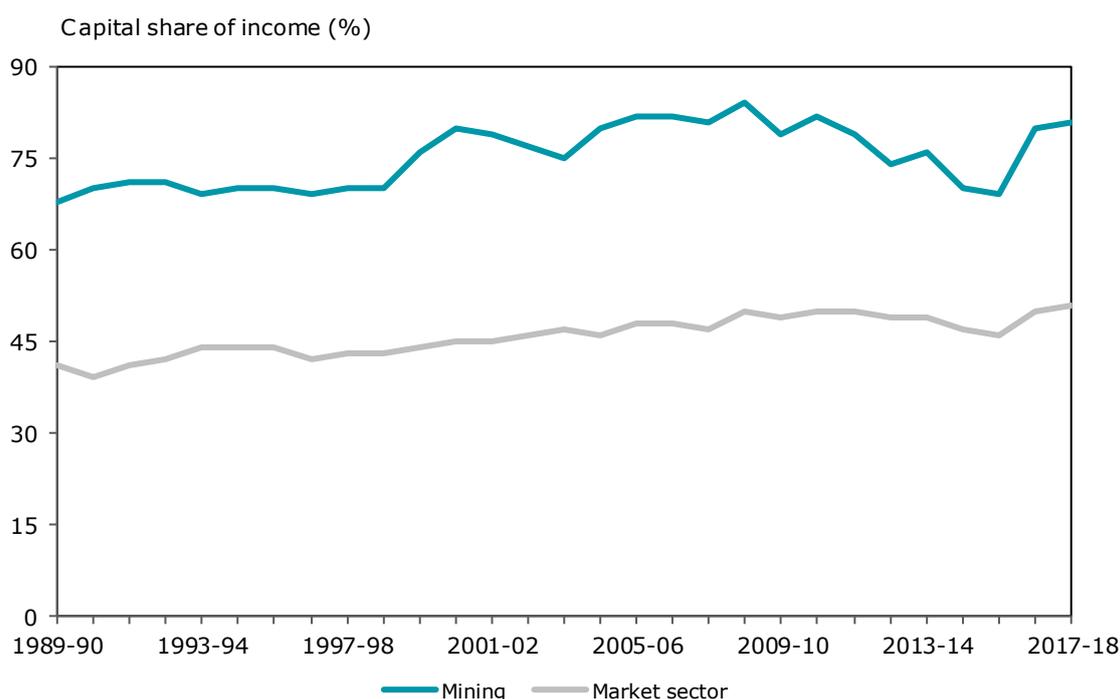


Source: ABS Cat No 5260.0.55.002.

Chart 2.6 shows how the capital share of income has evolved over time both for mining and other industries in the Australian economy. The chart shows that mining has always been much more capital intensive than the broader market sector.

That is relevant for a range of reasons, including the resultant implications for flexibility. As a nation, Australia has invested a lot in the minerals sector, and the ability to get the most out of that investment is important for the nation.

Chart 2.6: Capital intensity by industry



Source: ABS Cat No 5260.0.55.002.

At a broad level, the high level of capital intensity in the mining industry should not be surprising. Mining requires very large capital investments to be made in land, industrial machinery and equipment and the like in order to extract and transport resources, while many service-based industries do not have these requirements and tend to be much more labour-intensive.

2.2.3 International competitiveness

Australia's mining industry operates in an internationally competitive environment.

In particular:

- Australia is not the only mineral producer in the world;
- Miners will choose among global alternatives on the basis of Net Present Value (NPV) rankings or similar investment ranking approaches; and
- Changes to labour hire arrangements can negatively change the cost profile of operating in Australia and change the relative NPV rank of Australian development opportunities within the global development pipeline.

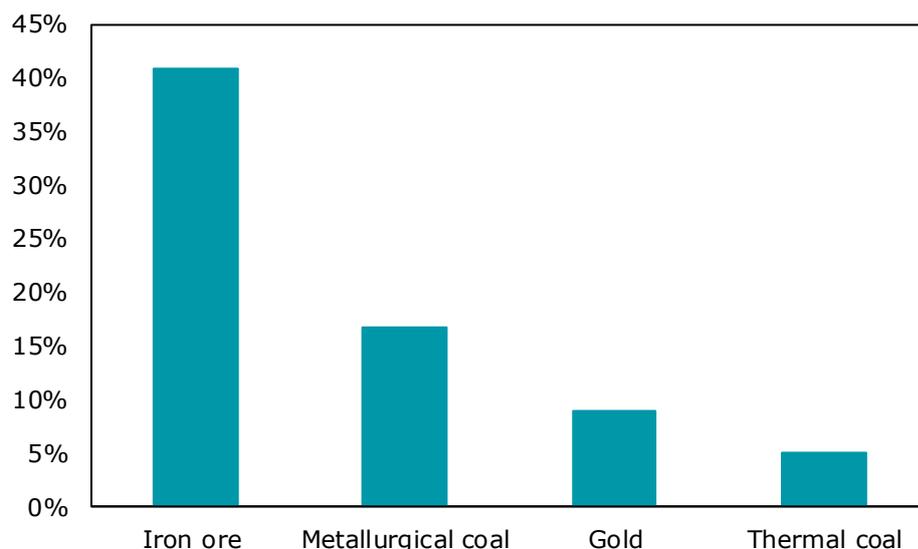
As a result, changes to labour law arrangements could have an impact on the share of investment by global mining companies that Australia receives and hence the output of the Australian minerals sector. A loss of output also implies foregone employment, as well as profits and company taxation and royalty revenue for governments.

That is particularly important where lower cost overseas opportunities are plentiful. This is the case for coal as Australian projects are already towards the higher end of the average cost spectrum and risk being further deferred in the global queue if costs increase in Australia versus those in the rest of the world.¹⁹

¹⁹ Reserve Bank of Australia 2014, *Statement on Monetary Policy – August 2014 Box B: Iron Ore and Coal Cost Curves*, < <https://www.rba.gov.au/publications/smp/2014/aug/box-b.html> >.

For example, although Australia is the second largest net exporter of coal in the world (after Indonesia) and the fourth-largest producer, there is significant competition from other advanced and emerging nations. Other large coal producers include countries such as China (the largest producer), India (second), the United States (third), Indonesia (fifth), Russia (sixth) and South Africa (seventh). Aside from Indonesia and Australia, the largest coal exporters are Russia, Colombia, the United States and South Africa respectively.²⁰ Australia produces a much larger share of global metallurgical coal production, around 17%, than thermal coal, around 5%. Australian exports of metallurgical coal were worth \$38 billion in 2017-18 with thermal coal exports worth \$23 billion, making Australia the first and second largest exporter in the world respectively.²¹

Chart 2.7: Australian share of world production by commodity, 2017



Source: Department of Industry, Innovation and Science

With minerals companies looking for investment opportunities across the globe, this underscores the need to keep Australian mines cost competitive relative to other potential mine sites globally. The alternative is a loss of investment, output and employment. The magnitude of changes to operating costs and the broader economic effects are estimated and discussed in Chapters 5 and 6 of this report.

2.3 Recent performance of the mining industry

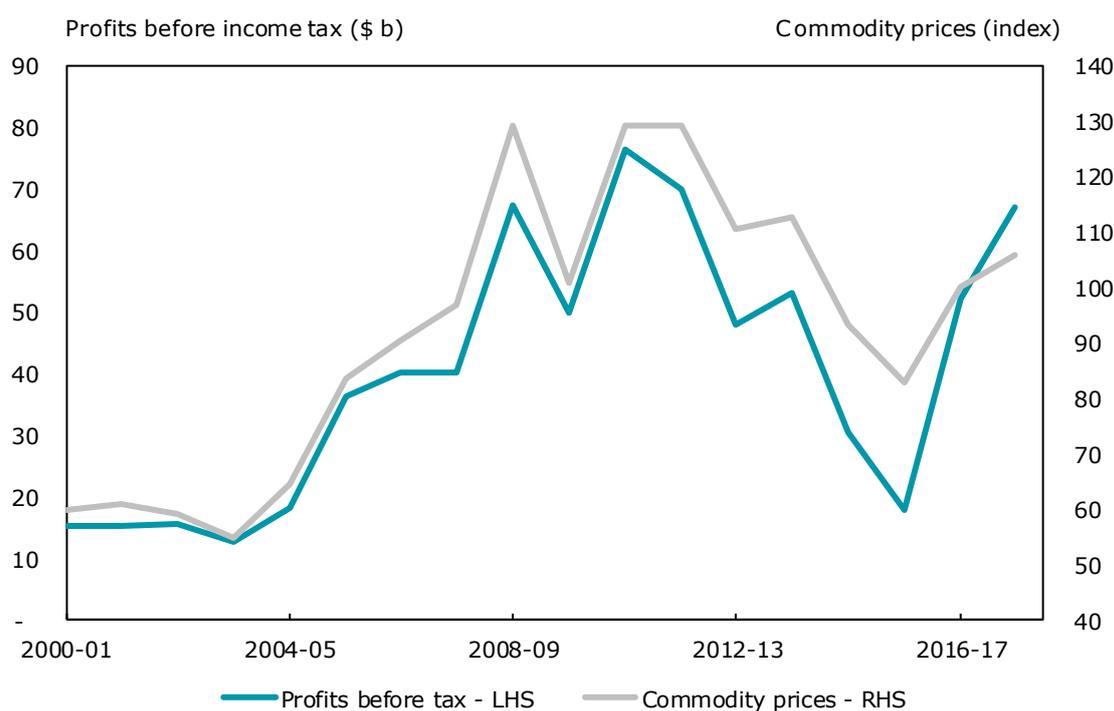
The first decade of the century saw a boom in commodity prices on the back of rapid growth in demand from an urbanising China. Chinese output growth accelerated from 8.3% in 2001 to reach 14.2% in 2007 with construction and industrial production activity boosting demand for commodities. From 2000-01 to 2008-09 the RBA Commodity Price Index more than doubled.

Australian producers responded to elevated prices and profits by investing in additional capacity. Owing to the nature of the mining project cycle, there is a significant time lag between investment in new mines and additional production occurring.

²⁰ International Energy Agency 2018, *Key World Energy Statistics*, <<https://www.iea.org/statistics/kwes/supply/>>.

²¹ *ibid.*

Chart 2.8: Mining industry profits and commodity prices, 2000-01 to 2017-18



Source: Deloitte Access Economics, ABS Cat No 5676, RBA Commodity Prices.

The shock of the Global Financial Crisis caused a worldwide slowdown and a subsequent plunge in commodity prices. From 2008-09 to 2009-10 commodity prices fell by around 22%.²² Stimulus unleashed by various governments in response to the crisis led to a recovery in the global economy. Importantly for Australia, in late 2008 China announced a RMB 4 trillion stimulus package largely focused on investment related activity. The stimulus packages provided by China and other nations following the Global Financial Crisis supported commodity prices which had a relatively short-lived downturn, as shown in Chart 2.8. That external support also helped produce a rebound in mining industry profitability.

After this rebound, increased output from the mining investment boom combined with a gradual slowing in Chinese economic growth, as China sought to orient away from industrial-led and towards consumer-led growth. This caused an oversupply of many commodities and reductions in commodity prices. From 2013-14 to 2015-16 prices fell by around 26%.

However, in response to slowing growth, China again utilised infrastructure-focused stimulus, which combined with unprofitable production leaving the market, helped to boost commodity prices. In turn, mining profits have rebounded significantly. However, large-scale investment in new capacity by miners has not followed the most recent rise in prices.

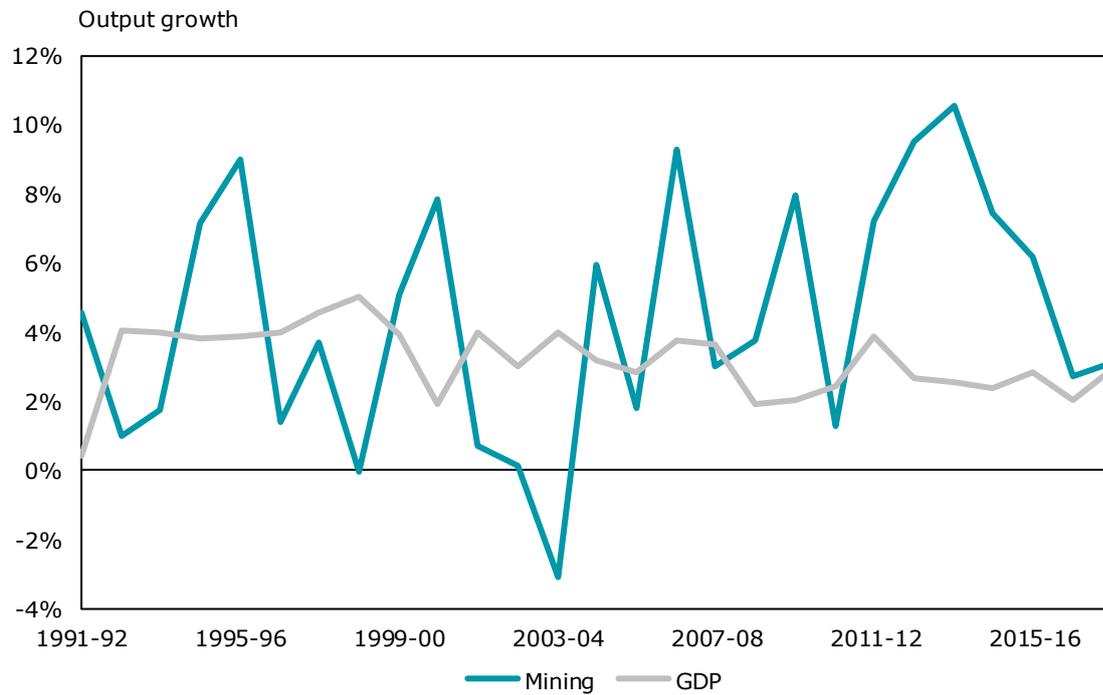
These recent trends demonstrate the inherent cyclicity in the Australian mining industry, with volatile commodity prices playing a major role in the performance of the industry. This volatility underscores the need for a flexible business model to operate in a capital-intensive, globally competitive industry. Chart 2.9 shows how output in the industry has fluctuated since the early 1990s.

On average, output growth from the mining industry has been considerably stronger than the broader economy over the past decade, growing at an annual average rate of 5.8%, compared to 2.6% for the economy more broadly. Similarly, employment has outperformed, increasing at a robust 4.4% annual average rate over the same period compared to 1.6% for the economy more

²² Using a four-quarter average of \$A commodity prices in each financial year.

broadly. This growth led to mining employment more than doubling from 89,000 in 2002-03 to approximately 225,000 2017-18.²³

Chart 2.9: Mining output growth and GDP, 1991-92 to 2017-18

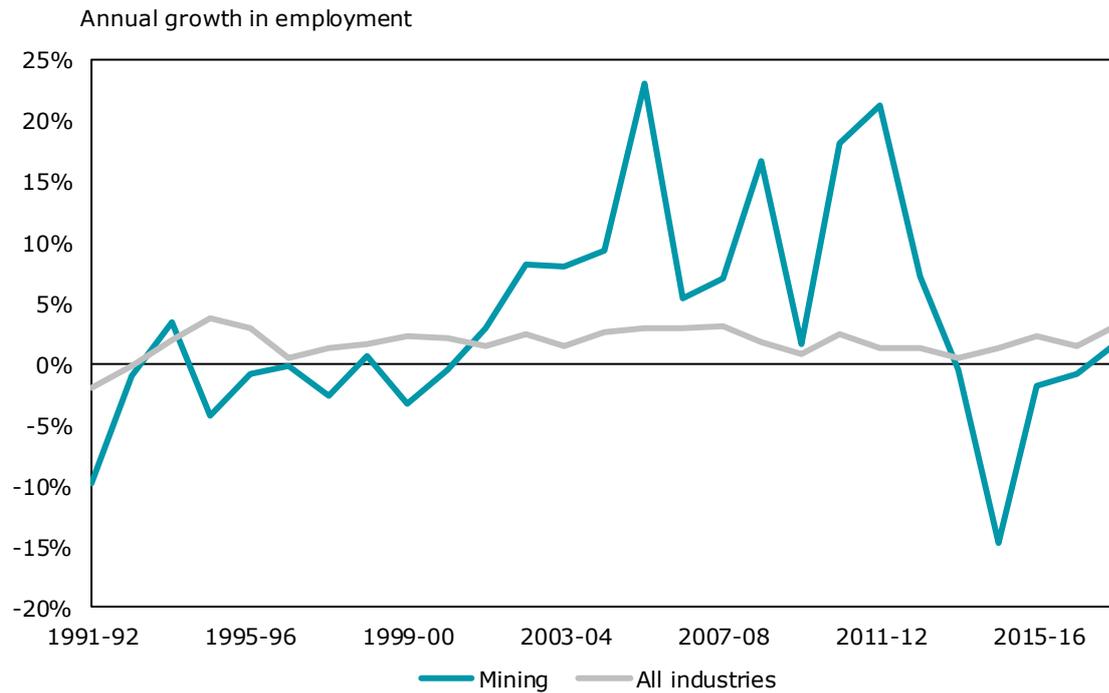


Source: Deloitte Access Economics

The cyclical nature of the mining industry is also reflected in employment growth (see Chart 2.10). Overall, employment in the mining sector grew by more than 40% over the last decade and has more than doubled over the last fifteen years.

²³ ABS 2018, *Labour Force, Australia, Detailed, Quarterly, November 2018*, Cat No 6291.0.55.003. Note financial year employment numbers are the average of the four relevant quarters and as a result the total employment number for mining in 2017-18 does not match the most recent employment estimate published by the ABS.

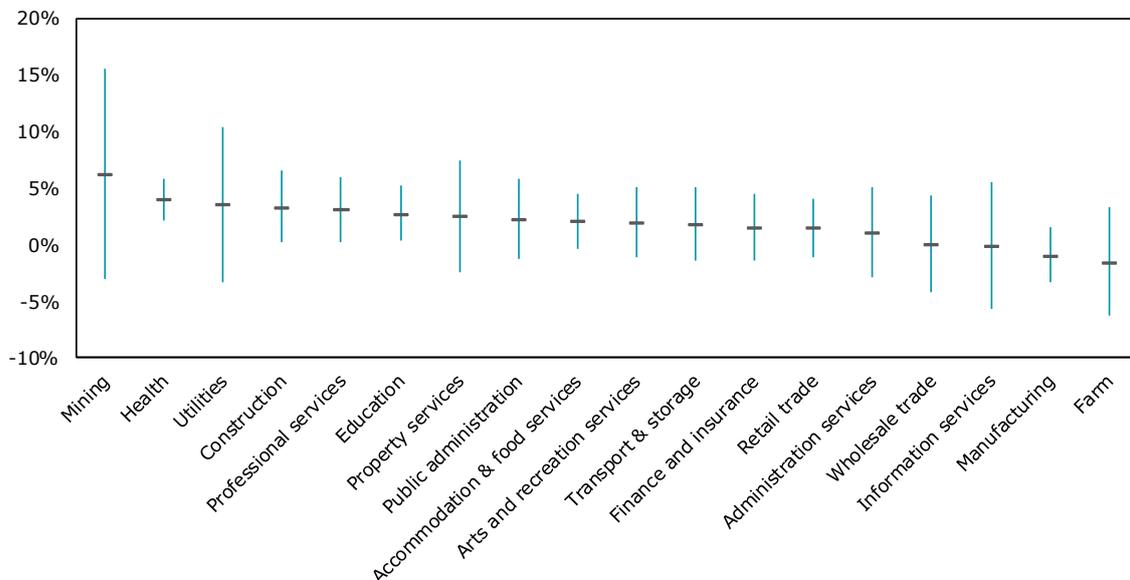
Chart 2.10: Mining and all industry employment growth, 1991-92 to 2017-18



Source: Deloitte Access Economics

Since 2000-01 the mining industry has experienced the most variable employment growth of any industry, with labour demand fluctuating as mining activity moved through key project stages (see Figure 2.1) and amidst volatility in commodity prices.

Chart 2.11: Variability of employment growth, 2000-01 to 2017-18

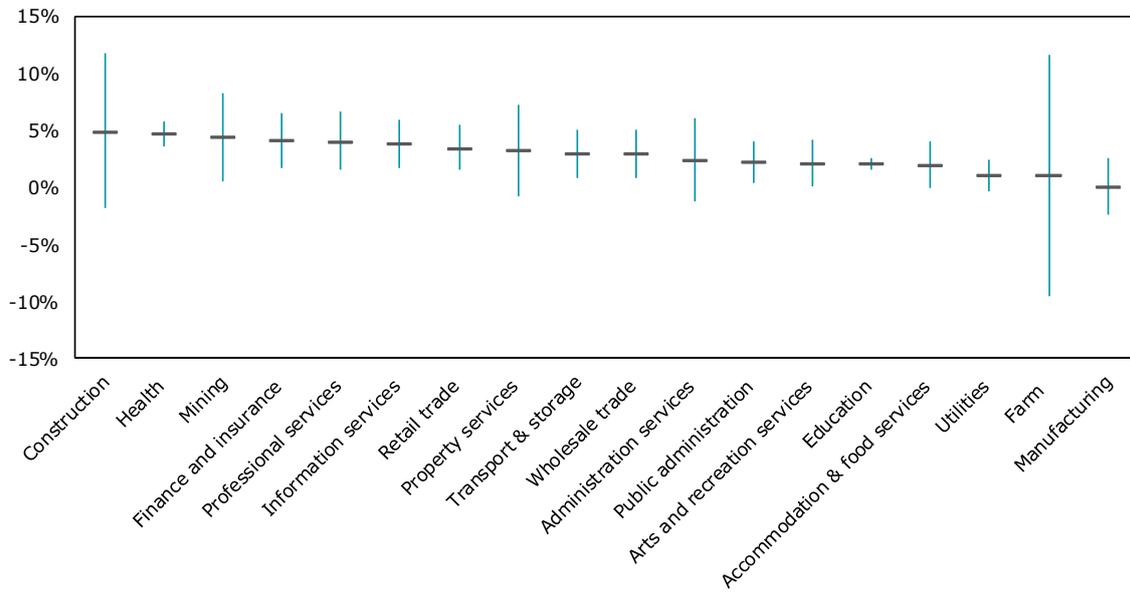


Source: Deloitte Access Economics

Note: Chart shows CAGR for employment growth from 2000-01 to 2017-18 plus and minus the standard deviation of growth

Variability in employment was greater than other industries such as construction, agriculture and retail. The variable employment figures were also largely reflected in output, with mining having the fourth most variable growth, behind agriculture, construction and property services (see Chart 2.12).

Chart 2.12: Variability of output growth, 2000-01 to 2017-18



Source: Deloitte Access Economics

3 The employment relationship

Key findings

- This chapter considers the nature of the employment relationship and differences between different types of employees. In Australia, there are three main types of contracts; permanent, fixed-term and casual.
- Casual workers do not have a firm commitment in advance of future work and do not receive entitlements such as annual leave. Casuals will normally receive a loading to reflect their lack of entitlements, however recent developments in the law indicate this is not conclusive of casual status.
- Importantly, casual employees can be labour hire workers, work for service contractors or be full time employees. Casual employment is not synonymous with labour hire.
- Service contractors are utilised in the mining industry and will have their own industrial relationships in terms of the labour they use to fulfil contractual obligations.

This Chapter describes the different types of employment contracts in Australia (permanent, fixed term and casual) and the different employment arrangements that apply in the minerals sector. Distinguishing between the both the type of employment contract and employment relationship is important as while many labour hire employees are employed casually, casual employment and labour hire are not synonymous.

3.1 Types of employees

Employees are persons, who enter into a contract with an employer to provide labour in return for payment. In Australia, there are three main types of employment contracts: permanent (full-time or part-time), fixed term (whether full-time or part-time) and casual. The differences between these types of contracts are briefly outlined in Table 3.1.

Table 3.1: Different types of employment contracts

Type of employment contract	Features
Permanent	<ul style="list-style-type: none">• Have a continuing employment relationship and expectation of work with their employer and accrue entitlements such as annual and sick leave.• An employee or employer can end employment by giving/paying the employee the required notice and paying out leave and any other entitlements owed.
Fixed-term	<ul style="list-style-type: none">• Fixed-term contracts are designed to limit the duration of the employee's employment.• Fixed-term contracts fall into two categories: 'specified period' or 'specific task'.• A fixed term contract can be used to employ someone on either a full-time or part-time basis. However, the employee is considered to be a permanent employee during the term of the contract and as such will accrue entitlements such as annual and sick leave.

Casual

- Considered part of the temporary workforce. *Fair Work* notes that “a casual employee does not have a firm commitment in advance from an employer about how long they will be employed for, or the days (or hours) they will work”.²⁴
 - Does not get paid sick or annual leave.
 - Can end employment without notice, unless required under a registered agreement, award or employment contract.
 - In return for lack of entitlements, entitled to higher hourly rate than equivalent full-time or part-time employees, referred to as ‘casual loading’ (typically in the order of 15-25%).
-

Source: Deloitte Access Economics, Fair Work Australia.

A full-time employee will work on average, around 38 hours a week. The actual hours of work are agreed between the employer and the employee and/or set by an award or registered agreement.²⁵ A part-time employee works less than 38 hours a week and usually works regular hours each week, for example ‘three days a week’.²⁶ They are entitled to the same benefits as a full-time employee, but on a *pro rata* basis.

3.1.2 Recent developments in the law relating to casual work

The definition of what constitutes a casual worker was examined by a recent decision of the Federal Court²⁷ concerning a truck driver working in the mining industry, employed by the labour hire company WorkPac Pty Ltd.

The employee had been terminated by the company after working there for nearly four years in a nominally casual position. The worker felt his work with the company was akin to regular employment, due to his work being in 12.5 hour shifts in a “seven days on, seven days off continuous roster arrangement”. The worker took the labour hire company to court, claiming leave entitlements; which would be available to permanent workers but not casuals.

As to the nature of the worker’s employment, the Federal Court ruled in favour of the truck driver. The Court’s decision confirms that in considering whether an employee is a casual or permanent for the purposes of the *Fair Work Act*, the common law definition applies. In contrast, modern awards commonly specify that a casual employee is an employee who is engaged as such and paid a casual loading. A key factor in the decision was the worker’s employment taking on a regular and systematic complexion rather than being random or *ad hoc* nature. The decision also indicated that paying a 25% casual loading fee is no surety in proving a worker is a casual.

This recent decision has been referred to as a major decision in the labour law landscape. Recently, Minister for Jobs and Industrial Relations Kelly O’Dwyer introduced a regulation to stop casual workers ‘double dipping’ on loadings and entitlements, while promising to codify the right to convert to permanent employment. The new regulation, which came into effect on 18 December 2018, says that employers found to have wrongly categorised employees as casual workers, will be able to ask the court to offset casual loadings already paid against any orders to back pay workers for entitlements such as leave. A disallowance motion has been introduced in the Senate, which may remove this regulation.²⁸

The legal profession has noted the change to the *Fair Work Regulations 2009* attempts to clarify the confusion surrounding ‘casual’ employee entitlements and alleviate concerns of employers at risk of

²⁴ Fair Work Australia 2018, *Casual employees* < <https://www.fairwork.gov.au/employee-entitlements/types-of-employees/casual-part-time-and-full-time/casual-employees> >.

²⁵ Fair Work Australia 2018, *Full-time employees* < <https://www.fairwork.gov.au/employee-entitlements/types-of-employees/casual-part-time-and-full-time/full-time-employees> >.

²⁶ Fair Work Australia 2018, *Part-time employees* < <https://www.fairwork.gov.au/employee-entitlements/types-of-employees/casual-part-time-and-full-time/part-time-employees> >.

²⁷ *Workpac v Skene* (2018), FCAFC 131.

²⁸ Parliament of Australia 2019, *Disallowance Alert 2019* < https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Regulations_and_Ordinances/Alerts >.

the double dipping scenario. However, until the law is tested, there remains a degree of uncertainty surrounding the definition of casual workers in Australia.

Separately, a recent ruling from the Fair Work Commission has stated that a casual has a right to request to become permanent after 12 months of regular and continuous employment. Deloitte Access Economics understands similar terms are already in many of the labour hire EAs that would have application to the mining industry. As a result, this would not be a significant change from the status quo.

While recent legal decisions concerning the definition of casual employment are likely to impact the industrial relations landscape for temporary workers, they are largely outside the scope of the current engagement which investigates the likely effect of changes in the law, which require labour hire workers and contractors to receive the same pay and conditions as permanent employees at the host company. It is true that many labour hire workers are casual workers, but their contract of employment is with the labour hire company and not the host company. Similarly, host companies may hire their own casual workers, without involving labour hire companies in the process. In other words, there is no equivalence between casual workers and labour hire workers.

3.2 Service contractors

The minerals sector often utilises 'service contractors' to perform specific tasks such as rehabilitation or mine closure. A contract is made between the minerals company and another company (the contracted company) with specialist skills. The services contractor receives monetary consideration for delivering services to the minerals company. The services contractor will generally have autonomy in delivering services in fulfilment of the contract. It will utilise its own workforce, and carries risk for fulfilling its contractual obligations.

From consultation, Deloitte Access Economics understands that service contractors tend to have a large number of permanent employees that they use to deliver services to minerals companies. Correspondingly, service contractors have relatively low usage of labour hire or directly-hired casual workers.

The contracted company likely has its own employment relationship with its employees. As noted by the Fair Work Ombudsman, "When you contract another business to provide you with labour, the contractor you engage may hire new staff or have existing employees that carry out the services for you. Or they may subcontract the work to another business".²⁹ The terms and conditions of such arrangements are generally not visible to the minerals company utilising the contracted company's services.

Practical example: A minerals company contracts with an engineering firm to provide remediation services for damage to a railway line. The scope of work is clearly defined by the contract as is the monetary consideration for the remediation services. The engineering company utilises its own specialised workforce and tools and equipment to fix the railway line. The engagement is concluded when the railway line is remedied in accordance with the contract.

3.3 The labour hire relationship

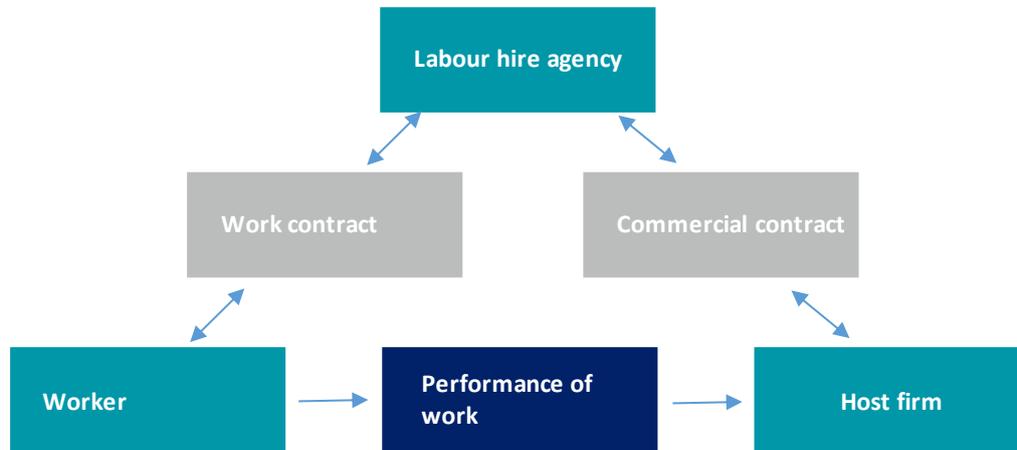
Labour hire workers enter into an employment contract with a labour hire agency (their employer). The labour hire agency has a commercial contract with a host firm to supply labour, whereby the worker performs work for and is supervised by the host firm (see Figure 3.1). The host firm pays the labour hire agency who then pays the worker, as the worker has no contract with the host firm.³⁰ Many labour hire workers are employed on a casual basis. However, as the *Skene* case showed, this is not always the case.

²⁹ Fair Work Ombudsman, *Guide to labour contracting*.

³⁰ Fair Work Commission 2018, *Labour hire workers* < <https://www.fwc.gov.au/unfair-dismissals-benchbook/coverage/people-excluded/labour-hire-workers> >.

The labour hire relationship differs from a services contractor relationship as the host company has more oversight and direction over the workers in question. Labour hire workers are therefore more likely to work in operations which are in the ordinary course of the host company's operations.

Figure 3.1: Labour hire arrangement



Source: Adapted from A Stewart, Stewart's Guide to Employment Law (4th ed, 2013)

Practical example: due to a planned expansion of output at a coal mine, a minerals company seeks additional labour. The minerals company enters into an employment contract with a labour hire agency for ten additional workers. The labour hire workers work at the coal mine, under the direction of the minerals company. In appearance, they may look like permanent employees of the minerals company. However, their contract of employment is technically with the labour hire agency and so their pay and conditions may differ from the permanent employees they are working with. The labour hire workers continue to work for the host company until the host company ends the contract with the labour hire company.

Labour hire workers are still covered by the relevant modern award and the *National Employment Standards*, irrespective of what employment conditions are in place at the host firm.³¹ Similarly, host organisations do have obligations to comply with workplace health and safety regulations and State and Commonwealth equal opportunity legislation.³²

The below is adapted from the Fair Work Ombudsman³³ and indicates differences between labour hire workers and service contractors. The services contractor is a corporate legal entity that contracts with the host minerals company and has its own workforce to deliver services.

³¹ Fair Work Ombudsman 2018, *On-hire employee services – workplace obligations* < <https://www.fairwork.gov.au/how-we-will-help/templates-and-guides/fact-sheets/rights-and-obligations/on-hire-employee-services-workplace-obligations> >.

³² *ibid.*

³³ Fair Work Ombudsman, *Independent contractors and employees* < <https://www.fairwork.gov.au/how-we-will-help/templates-and-guides/fact-sheets/rights-and-obligations/independent-contractors-and-employees> >.

Table 3.2: Differences between labour hire workers and service contractors

Indicator	Labour hire worker	Services contractor
Degree of control over how work is performed	Typically under the contract with the labour hire company, the labour hire performs work under the direction and control of the host company.	Has a high level of control in how the work is done.
Hours of work	Generally works standard or set hours (note: a casual employee's hours may vary) while at the host company.	Under the agreement with the host company, decides what hours are required to work to complete the specific task.
Expectation of work	Usually has an ongoing expectation of work, at least as long as their services are engaged (via the labour hire company) by the host company.	Usually engaged for a specific task.
Risk	Bears no financial risk (this is the responsibility of their employer).	Bears the financial risk for making a profit or loss on each task.
Tools & equipment	Generally provided by the employer, or a tool allowance is provided.	Uses their own tools and equipment.
Method of payment	Paid regularly (e.g. weekly, fortnightly, monthly).	Has obtained an ABN and submits an invoice for work completed or is paid at the end of the contract or project. A services contractor will pay their own employees regularly.

Source: Fair Work Ombudsman, Deloitte Access Economics.

3.4 The law and temporary work

The *Fair Work Act 2009* (Cth) ('FWA') regulates employment relations effectively for all companies in Australia. The National Employment Standards ('NES') contained in Part 2-2 are minimum standards that apply to the employment of 'national system employees' (a term defined by s 13). Relevantly, s 86 of the FWA excludes casual workers from the entitlement to annual leave and the ancillary benefits provided by the NES.

Enterprise Agreements (EAs) made under the FWA must satisfy the 'better off overall test' (BOOT). This test is based on the relevant modern award that covers any employees covered by the proposed enterprise agreement. It requires that each 'award covered' employee and each prospective award-covered employee must be better off under the agreement than they would if the relevant modern award applied to them. It is therefore important to note that in the case of labour hire workers in the mining industry, the BOOT applies to the employee's relevant industry award and not the host company's EA.

In the case of labour hire companies, the EA applying at the labour hire company will likely be different to the EA operating at the host company. For that reason, pay and conditions may differ between labour hire workers at a host company and permanent employees at the host company.

From an employee perspective, it may be the case that a labour hire EA is better in some respects than the EA at the host company, but worse in others. Under the proposed policy, the labour hire worker would be subject to the EA at the host company, with a resultant change in pay and non-pay conditions. The worker may receive both benefits and costs by being covered by the EA at the host company, relative to their prior employment situation. This will be a question of fact, depending on the EAs in question and it illustrates the complexities of the proposed policy.

4 Characteristics of labour use in the mining industry

Key findings

- Owing to fluctuations in labour demand, many employers employ workers to help meet changes in labour demand or draw on specialist skills where required.
- Service contractors can be engaged on a temporary basis from the host minerals company perspective, but workers for service contractors have an employment relationship with the service contractor.
- There are a range of different reasons why both employers and employees may find temporary work a suitable arrangement for them.
- Publicly available data relating to remuneration of labour hire workers in the mining industry is scarce. Given many labour hire workers are casual, remuneration of casual workers in the mining industry compared to permanent workers provides a potential proxy (albeit an imperfect one since not all labour hire employees are casual and not all casual workers are labour hire employees) for the relative remuneration of labour hire workers.
- Labour hire use in the mining industry (around one-in-ten workers) is relatively high in comparison to other industries.
- Despite an increase in the share of casuals in recent years, the mining industry employs far fewer casuals than the economy more broadly. Casual workers in the mining industry tend to earn less than their permanent counterparts, but still earn high wages relative to the economy more broadly.

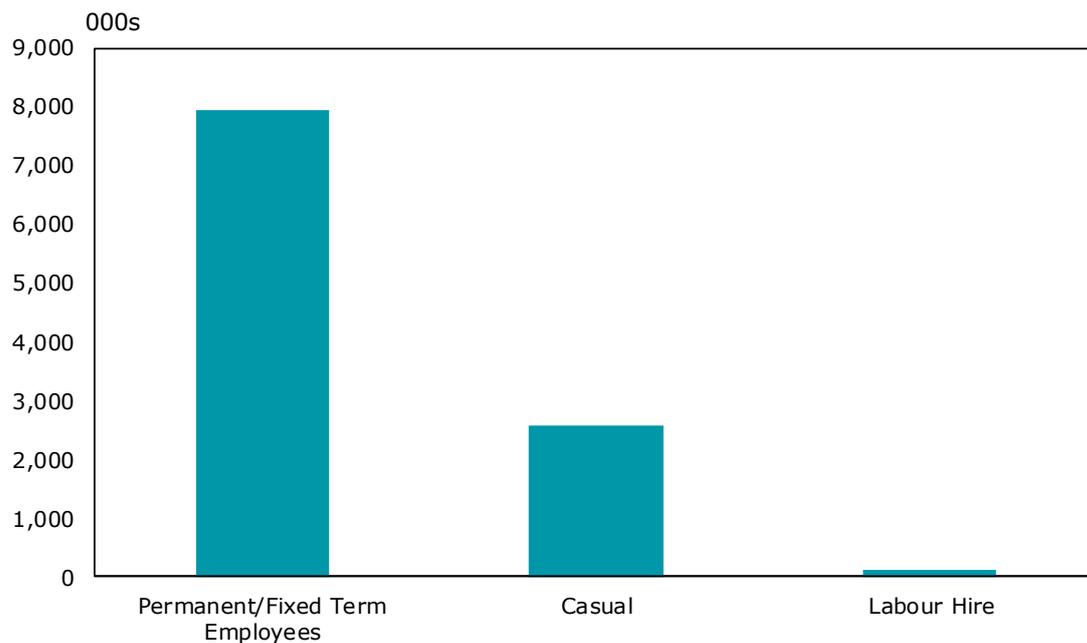
4.1 Temporary work arrangements

Businesses often make use of a temporary (or contingent) workforce to meet variable demand for labour. The most common types of workers used are casual employees and/or employees from labour hire arrangements.

In Australia, there were 2.6 million casual employees in August 2018, amounting to around 25% of the total workforce.³⁴ There were 126,000 employees who were paid by a labour hire company. The figure for labour hire workers may be an underestimate due to confusion by workers as to whether the labour hire company or their host company was their employer.

³⁴ ABS 2018, *Characteristics of Employment, Australia, August 2018*, Cat No 6333.0.

Chart 4.1: Australian workforce by type of employment, August 2018



Source: ABS Cat No 6333.0.

4.2 Why firms and workers may enter into temporary work arrangements

4.2.1 Firms

The use of temporary workers provides host companies with the ability to respond to variations in labour demand in the course of their business. There are a range of circumstances in which a firm's demand for labour may be variable over time:

- **Busy periods:** such as Friday or Saturday nights for restaurants, the Christmas period for retailers or end of financial year for a range of industries;
- **Seasonality:** with very different demand for labour at some points due to weather conditions and the seasonality of northern hemisphere heating demand.
- **Specialised labour:** to complete tasks requiring specialised skills, outside of the ordinary course of business, or for particular phases of output.
- **Geography:** where a business regularly moves across geographies and would have difficulty maintaining an ongoing workforce in a remote area.
- **Volatility in output or input prices:** businesses which are subject to considerable variation in world prices for outputs or key inputs, are likely to have higher (lower) labour demand when output prices are higher(lower) or input prices are lower (higher).

Host companies may utilise temporary workers to flexibly cover permanent employees who are on extended leave, a common example being maternity leave. In addition, temporary work arrangements may provide a useful mechanism to train up workers who are new to the industry, with a view to transitioning them into the permanent workforce of the host company.

Firms also face trade-offs in using large numbers of temporary workers. There are risks that temporary workers are not as engaged as regular employees, reflecting their often fleeting relationship with the host company. Differences could also emerge on firm culture and standards between permanent and temporary workers.

Businesses may find an optimal level in their mix of permanent and temporary work arrangements, balancing the certainty and commitment of a permanent workforce base with the flexibility and specialised skills that temporary arrangements can provide. This balance point will be different for different businesses.

In the case of labour hire, host firms have greater flexibility to utilise workers during peak periods without ongoing requirements during quieter periods. In doing so, firms can obtain labour for specified tasks or a specified period of time, without concerns about hiring and firing costs or leave entitlements. Some studies suggest adjustment costs could be as much as one year of payroll costs for an average worker of a firm. As a result, when 'flexibility' is considered in the context of temporary work, rigidities relating to hiring and firing are an important aspect. Under the scenario where labour hire workers are required to receive the same pay and conditions as permanent workers, it may be significantly more costly for host firms to end the use of labour hire workers. For instance, host firms may face the issues they face when terminating permanent employees, such as minimum notice periods, requirements to pay out accrued entitlements and the risk of unfair dismissal cases.

As noted by the Federal Reserve Bank of Chicago:³⁵

"In contrast to hiring and firing permanent employees, using temporary workers allows firms to adjust labour without adjustment costs. A firm can skip the recruiting process, including pre-screening and basic training, by using Temporary Hiring Services agencies. When the contract is terminated, a firm does not typically make a severance payment".

As a result, some labour economics studies conjecture that the growth of the temporary labour industry has increased the efficiency of labour market search,³⁶ making it possible for manufacturers and other firms to vary their output levels without running into bottlenecks. In that sense, a move to greater use of temporary labour can help to improve firms' flexibility to adjust output levels to changing market conditions.

The era of high commodity prices contributed to a stronger incentive for the mining industry to use labour hire workers to satisfy their rapidly growing labour needs. Expanding exploration and overall industry growth raised demand for specialised labour. However, subsequent declines in mining activity contributed to reduced incentive for contract and labour hire use in the industry. Various other industries use contract and labour hire services during periods of high workload and for project work. These include transport, communications, hospitality, agriculture, real estate, media, retail, wholesale, education and culture.

4.2.2 **Workers**

Workers enter into labour hire arrangements for a number of reasons. The opportunity cost of entering into labour hire contracts may be unemployment or a less attractive employment opportunity elsewhere.

In addition, many workers may benefit from the flexibility provided by labour-hire arrangements, whereby they can work for a range of employers, balance employment with self-employment (for example on a farm) and accept or decline new work depending on what suits their preferences. As noted by the Productivity Commission in a 2006 report:³⁷ worker wellbeing "needs to be assessed in relation to the personal circumstances of individuals in particular socio demographic groups, and over the course of time".³⁸

In exposing them to a range of employers, labour hire work may also provide a conduit to permanent employment at a host company. As a result, labour hire arrangements can be mutually beneficial for workers and employees alike. In other circumstances, workers may be dissatisfied with labour hire arrangements. This may be the case where they have moved from permanent employment to a labour hire arrangement, potentially with feelings of reduced job security. Some of the concerns that have been highlighted about temporary work arrangements in Australia are set out in section 4.3 below.

³⁵ Federal Reserve Bank of Chicago (Yukako Ono) 2009, *Why do firms use temporary workers?*

³⁶ L.Katz and A.Krueger 1999 *The high pressure U.S. labor market of the 1990s*, Brookings Papers on Economic Activity Vol. 30 No.1, pp.1-87.

³⁷ Productivity Commission 2006, *The Role of Non-Traditional Work in the Australian Labour Market* < <https://www.pc.gov.au/research/completed/non-traditional-work> >.

³⁸ *ibid.*

4.3 Concerns about temporary work in Australia

Concerns have been raised that labour hire arrangements tilt the balance of power too far in favour of employers. It has been argued that workers can face:

- Uncertain employment conditions;
- Low wages;
- Horizontal inequities among workers at the same firm depending on whether they are permanent employees or not; and
- A lack of entitlements (such as annual leave) due to the prevalence of casual workers at labour hire firms.

4.3.1 “Keep it in the regions” inquiry

In November 2018, the findings of the “Keep it in the regions” Parliamentary inquiry³⁹ into the mining industry’s role in regional communities were released. The inquiry found that labour hire could negatively affect people living in the bush and raised concerns about the increased use of labour hire by mining companies and the rise of fly-in, fly-out (FIFO) and drive-in, drive-out (DIDO) workforces. *“The Committee was concerned by the increased use of casual labour hire by mining companies and the associated increases in FIFO and DIDO workforces associated with this practice. Workers who are employed under this model face financial difficulty and are often forced to move to capital cities for work, creating a ‘second class’ of mining employee”*⁴⁰ it was put forward.

Recommendation 19 was that the:

“Federal Government conduct a review into the use of casualised workforces and labour hire companies in the mining and other sectors with a view to amending the FWA in order to prohibit the move towards replacing directly-employed, full-time workers with ‘permanent casual’ employees and other similar casualised employee types.

*Changes to the Act should also include provisions that guarantee that employees have a legal right to convert from casual to permanent after a set period of time”.*⁴¹

CFMMEU submitted that mining companies started moving from permanent employees to a casual labour hire workforce in 2012 and the beginning of the mining downturn. The CFMMEU submitted:⁴²

- 33% of underground mine workers and 44.5% of open cut mine contractors are now casualised labour hire workers
- Labour hire workers are paid on average 30 percent less than permanent workers (even taking into account casual loading, and considering unpaid leave arrangements)
- 82% of mining industry job advertisements on Seek were placed by labour hire companies
- 72% of workers on labour hire contracts reported that they are worse off than their previous employment in regards to pay and conditions.

The Committee noted concerns about the increase in FIFO and DIDO workforces and the potential detriment to regional towns as the social and economic benefits of mining have shifted to urban centres.⁴³

While there may be a link between labour hire usage and FIFO and DIDO practices, the two should not be necessarily conflated or assumed to be causally linked. Permanent employees at mining companies may also work on a FIFO or DIDO basis. As noted in the inquiry, *“in some cases, mining companies rely on FIFO workers due to the extreme distance of their mining operations from any sizable working population”.*⁴⁴

³⁹ Parliament of the Commonwealth of Australia 2018, *Keep it in the regions* (Parliamentary Inquiry).

⁴⁰ *ibid*, p.155.

⁴¹ *ibid*, p.157.

⁴² *ibid*, p.143.

⁴³ *ibid*, p.136.

⁴⁴ *ibid*, p.154.

Further, the Productivity Commission has argued that labour mobility improves the overall resilience of the economy and spreads the benefits of the mining boom into other regions.⁴⁵

A detailed consideration of the FIFO/DIDO practices is outside the scope of this engagement.

4.4 Temporary workers and labour hire

This section sets out the best available broad data on the actual use of labour hire and temporary workers in the mining industry, and is complemented by results from the survey of MCA members, discussed in the next chapter.

4.4.1 Labour hire in Australia

In August 2018 across all industries there were 126,000 employees that were paid by a labour hire company or employment agency, accounting for 1.2% of all employees. This compares with November 2001, the earliest available comparable data, when 2.2% of all employees were paid by an employment agency or labour hire firm.⁴⁶

The median weekly earnings for employees who were paid by a labour hire or employment agency were \$1,023, versus \$1,071 for employees who were not registered with a labour hire or employment agency.⁴⁷ Education qualifications tend to be quite similar, with 64% of labour hire workers having non-school qualifications including 21% with a bachelor degree compared 66% and 22% of employees not registered with a labour hire firm.⁴⁸

Almost four fifths of labour hire employees in 2018 were employed on a casual basis, compared to a quarter of all employees.⁴⁹ Note, this data source does not provide the same information on the proportion of mining labour hire employees who are employed on a casual basis.

4.4.2 Labour hire and temporary workers in the mining industry

Prevalence of labour hire and temporary work

The use of labour hire employees across industries varies significantly, from around 2% in education and training to over 11% in manufacturing (see Chart 4.2). In 2016, almost one-in-ten (9.8%) of mining workers were employed through a labour hire or recruiting agency firm, the fourth highest across all industries. Differences across industries can reflect the nature of activities in the sector, cyclical factors and the desire for flexibility among employees and employers.

The number of employees in the mining sector who found work through a labour hire company fell slightly from 24,000 in 2014 to 21,000 in 2016 which is the latest year for which data is available. The data from 2014 indicated that only 28% of labour hire workers in the mining industry who had found their job through a labour hire firm indicated that they continued to be paid by a labour hire firm or employment agency. The average across all industries was 21%.⁵⁰

⁴⁵ Productivity Commission 2017, *Transitioning Regional Economics: Study Report*, < <https://www.pc.gov.au/inquiries/completed/transitioning-regions/report/transitioning-regions-report.pdf> >.

⁴⁶ ABS 2001, *Forms of Employment, Australia, November 2001*, Cat No 6359.0.

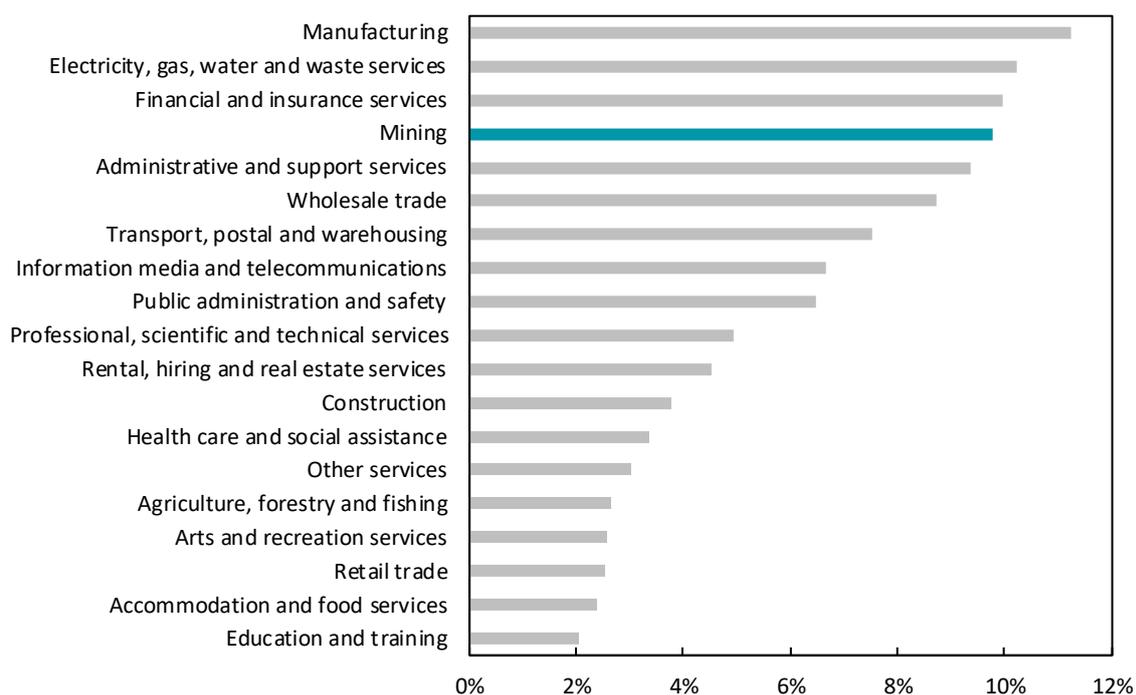
⁴⁷ *ibid.*

⁴⁸ *ibid.*

⁴⁹ ABS 2018, *Characteristics of Employment, Australia, August 2018*, Cat No 6333.0.

⁵⁰ *ibid.*

Chart 4.2: Percentage of workers employed through a labour hire firm or employment agency (2016)

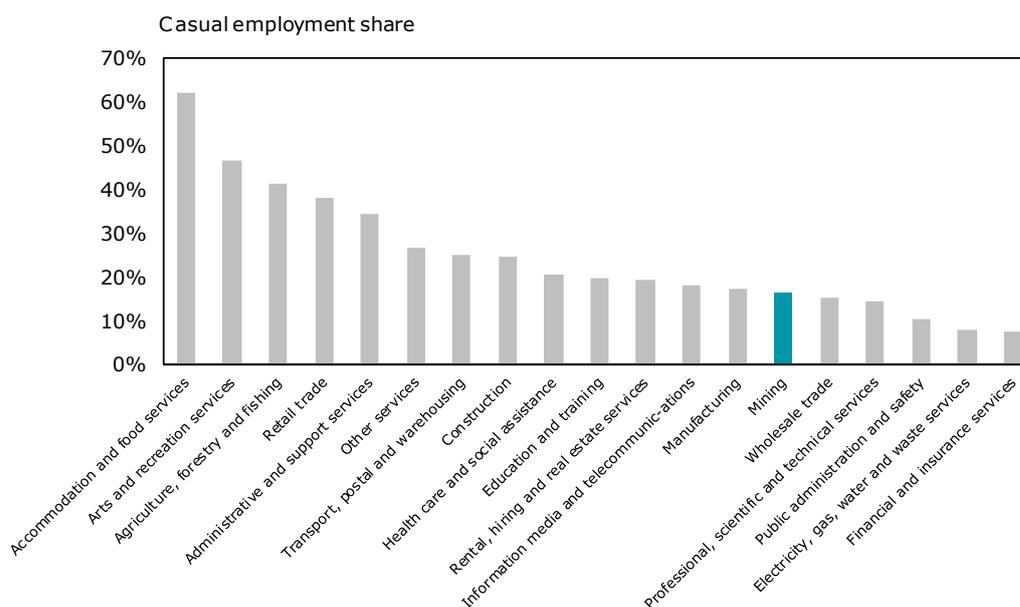


Source: ABS Cat No 6333.0.

The share of casual workers in the mining industry is relatively low at 16%, this compares with over 62% in accommodation and food services and 41% in agriculture (Chart 4.3). However, the share of casual workers in the mining industry has been increasing since this data was made available on a quarterly basis in 2014.⁵¹ The share of casual workers in the economy as a whole is higher at 24.6%.

⁵¹ ABS 2018, *Labour Force, Australia, Detailed, Quarterly, November 2018*, Cat No 6291.0.55.003.

Chart 4.3: Casual shares of employment by industry



Source: ABS Cat No 6333.0.

4.4.1.2 Remuneration

Temporary workers in the mining industry are well compensated in comparison to workers in the broader Australian economy.

Like the broader workforce, Deloitte Access Economics' understanding is that a substantial proportion of labour hire workers in the mining industry are employed on a casual basis. For that reason, publicly available information on remuneration of casual workers in the mining industry is considered as a proxy for the remuneration of labour hire workers in the mining industry. Deloitte Access Economics is cognisant that it is not a perfect representation as many casual employees may not be labour hire employees and this is part of the reason a more targeted survey question was asked.

Casual workers in the mining industry, defined as those without paid leave entitlements, have median weekly earnings over \$1,609 in 2018, the highest of all industries in the economy.⁵² Their median weekly earnings are also more than a fifth larger than the median *full-time* worker across all industries (\$1,320).⁵³

The gap in average weekly pay between those that have access to leave entitlements and casual workers in the mining industry is 24% (\$2,000 and \$1,609). While this measure is imperfect in measuring the pay differential between labour hire workers and analogous permanent workers in the mining industry (as labour hire workers and casuals are not equivalent), this proxy estimate is nonetheless worthwhile for sense checking survey estimates of the pay differential between labour hire workers and analogous permanent workers in the minerals sector.

The gap in average weekly pay between those that have access to leave entitlements and casual workers is smaller in the mining industry (24%) than the economy overall (\$1,219 and \$536 respectively or 127%).⁵⁴ Part of this difference is likely because mining casuals are more likely to

⁵² ABS 2018, *Characteristics of Employment, Australia, August 2018*, Cat No 6333.0 Table 3.1.

⁵³ *ibid*, Table 2.1.

⁵⁴ *ibid*, Table 3.1.

work full-time than other casuals in the broader economy. As discussed in Chapter 2, some 96% of the mining workforce is full-time, much higher than the economy more broadly.

5 Labour Hire Survey

Key findings

- Deloitte Access Economics distributed a survey to members of the MCA in relation to their use of labour hire workers and service contractors. In profiling the industry, results were largely consistent with ABS data in respect of usage of labour hire workers and the remuneration gap between permanent workers and labour hire workers. The industry is also a relatively high user of service contractors.
- The key motivation for firms in the minerals sector utilising labour hire workers was flexibility, while for service contractors it was access to specialised skills. A desire for lower labour or operating costs more broadly was seen as a less important motivation for the use of labour hire workers or service contractors.
- The survey asked firms to contemplate a scenario whereby labour hire workers and service contractors receive the same pay and conditions as permanent employees. This scenario is expected to result in lower rate of labour efficiency, and therefore higher total operating costs. In turn, this is expected to lead to a loss of employment in the minerals sector, and moderate the appetite for further investment.

5.1 Survey design

Deloitte Access Economics developed a survey to better understand the likely economic impacts of the proposed legislative change relating to labour hire workers on the Australian minerals sector. Due to uncertainty surrounding the scope of the proposed legislative change, Deloitte Access Economics also gathered information on service contractors.

The survey was distributed to a sample of MCA members and the results are displayed in aggregate in this report.

Respondents were asked questions relating to:

- Motivations for using labour hire workers (service contractors) as opposed to permanent employees,
- Main advantages and disadvantages of using labour hire workers (service contractors)
- The cost differential between permanent employees and analogous workers hired under labour hire contracts (services contracts).

Respondents were then asked to consider a scenario where the law were to change so that labour hire workers and service contractors were legally required to receive the same pay and conditions as analogous permanent employees at their company.

Respondents were asked to estimate the likely effect on their cost base (assuming no change to behaviour at this stage). Respondents were subsequently asked a range of questions about future changes in workforce and investment as a result of the scenario. Finally respondents were asked to provide any other comments (in free text) in relation to the scenario.

5.2 Survey results

5.2.1 Minerals sector profiling

Deloitte Access Economics received survey responses from nine members of the MCA, involved in the minerals sector in Australia.⁵⁵ Results below have been aggregated, while any free text responses have been anonymised.

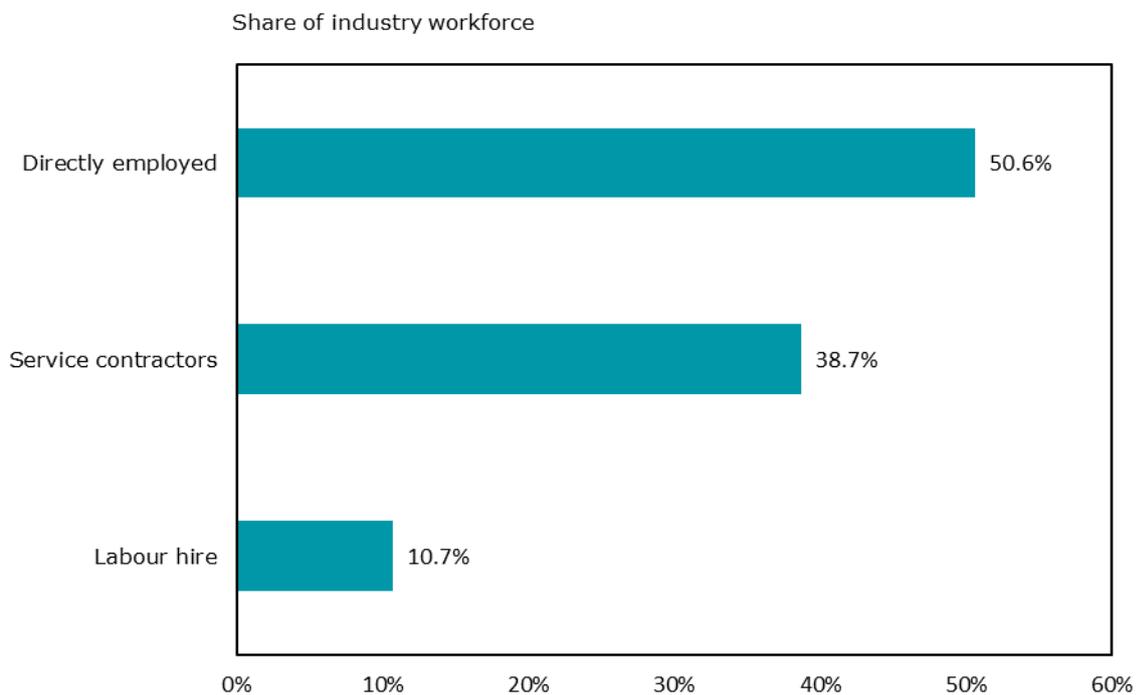
The combined workforce, including temporary workers such as directly hired casuals, labour hire workers and service contractors (FTE basis) across respondents was over 80,000 people, meaning the sample was a significant one in relation to the size of the broader mining industry (around one third). The workforce is defined broadly here and includes those physically performing work in the

⁵⁵ Different questions had different numbers of responses, with a maximum of nine.

minerals sector, even though they may be technically employed in other industries, as in the case of service contractors who often provide specialised services. As discussed in Chapter 3, service contractors have their own industrial arrangements for their employees and these usually will not be visible to the company which has contracted their services; often for a fixed fee or 'time and materials' basis.

Chart 5.1 shows that a relatively small share of workers in the minerals sector are labour hire workers (10.7%). The share of labour hire workers in the survey population aligns relatively closely with the ABS data in the 2016 Characteristics of Employment Survey discussed in Chapter 4, which showed 9.8% were labour hire workers. In contrast, a larger share are service contractors (39%), with the contracted company having its own workforce arrangements. The remaining share of the workforce utilised by the industry consists of either permanent or fixed-term employment or directly hired casuals (that is, no labour hire company is involved).

Chart 5.1: Share of minerals sector workforce (sample)



Source: Deloitte Access Economics Labour Hire Survey

Table 5.1 contains key summary information from respondents. Respondents were asked to estimate average weekly earnings for labour hire workers at their company. The average estimate was a significant \$2,316 (or around \$120,769 per annum on an annualised basis). This confirms that relative to average rates of pay in other industries, labour hire workers in the minerals sector are very well remunerated.

In Chapter 4, Deloitte Access Economics noted the median weekly earnings for workers in the mining industry without leave entitlements was \$1,609, less than those with leave entitlements (\$2,000). The survey estimate is noticeably higher, partly because it refers to full-time earnings, rather than a simple median of earnings (which includes part-time workers). It may also differ due to the differences between average and median weekly earnings and due to the characteristics of the nine respondents in question (generally large minerals sector companies), who may have different average pay rates to smaller minerals operations or those in oil and gas.

Table 5.1: Deloitte Access Economics Labour Hire Survey: minerals sector profiling

Indicator	Survey result
FTEs covered	80,260
Labour hire workers covered	8,595
Labour (including contractor) share of operating costs	38.5%
AWE for labour hire worker	\$2,316 (\$120,769 p.a.)
Premium (paid to permanents over labour hire)	23.5%
Premium (paid to permanents over service contractors)	6.9%
Proportion of labour hire workers residing in regional areas	69.8%

Source: Deloitte Access Economics Labour Hire Survey

On average, respondents indicated that all else equal, and including all relevant on-costs (such as super and leave loadings), the average cost difference of a permanent employee compared to a worker (doing the same work) hired under a labour hire contract was 23.5%. In other words, survey responses measured the difference in total expenses for utilising labour hire workers as opposed to analogously skilled and experienced permanent workers taking into account super and leave loadings. This difference is similar to the result found from ABS data where permanent employees in the mining industry earned 24% more than their counterparts without access to leave entitlements. This indicates that while labour hire workers in the minerals sector are well remunerated, they tend to earn less than equivalent permanent employees.

The premium was smaller for service contractors (6.9%), with some respondents indicating service contractors may out-earn permanent workers. Some responses also indicated it was more difficult to estimate the cost differential between a worker engaged as a services contractor and an analogous permanent employee at the host company. This is because the employment conditions of workers employed by the services contractor are often not completely visible to the company using their services. As a result, this estimate should be treated with some caution.

The survey found a substantial proportion (69.8%) of labour hire workers resided in regional areas, that is, outside of capital cities. This is slightly higher than the broader population of workers in the mining industry. Results from the 2016 Census indicate that 58.2% of those working in the mining industry lived outside capital cities (as captured by the ABS definition of Greater Capital City Statistical Areas).

More broadly, 2016 Census data indicated that only 31.4% of workers resided outside of the capital cities. As a result, the minerals sector is disproportionately important for regional employment, which has been a focus for policy makers, as evidenced by Federal Government's *Regions 2030 – Unlocking Opportunity* agenda.⁵⁶ While this survey has not explicitly considered indigenous employment, based on the nexus of indigenous and regional employment, it follows that job losses would be likely to disproportionately negatively affect indigenous employment as well.

As a result, the income received by labour hire workers does play a significant role in the support of regional economies, with relatively high paying jobs, particularly in regions which are often dominated by agricultural and service-sector jobs.

⁵⁶ Commonwealth of Australia (Department of Infrastructure and Regional Development), 2017, *Regions 2030 – Unlocking Opportunity* < <https://www.regional.gov.au/regional/publications/files/regions-2030.pdf> >.

Motivations for using labour hire and service contractors

Respondents were asked to rank a range of reasons for using labour hire workers and service contractors as opposed to permanent employees where 1 = not important at all and 10 = critically important. These reasons were:

- Lower labour costs;
- Flexibility (ease of increasing and decreasing workforce in relatively seamless manner);
- Specialised skills (e.g. rehabilitation, planned maintenance, shutdown etc);
- Responding to upswings in commodity prices; and
- Difficulties in negotiating more flexible and competitive industrial agreements.

While flexibility and specialised skills were the two main motivators for both, flexibility was more important for labour hire workers (8.7) and specialised skills was more important for service contractors (9.7). This is consistent with the perception that service contractors are engaged to undertake specialised work which is outside of the day-to-day business of the company paying for the services, such that engaging ongoing employees with the expertise in question, would be inefficient. The flexibility afforded by service contractors was another important motivation, although less important than in the case of labour hire workers. Similar to labour hire workers, responding to upswings in commodity prices, a desire for lower labour costs and difficulties in negotiating industrial agreements ranked lower in terms of motivations. Discussion of free text responses in regards to advantages and disadvantages of using labour hire and service contractors is contained in Appendix A.

Chart 5.2: Motivations for using labour hire and service contractors (average across respondents)



Source: Deloitte Access Economics Labour Hire Survey

Alongside motivations for using labour hire workers and service contractors, respondents also were asked about potential disadvantages of using labour hire workers and service contractors. The key reasons noted included: challenges in retaining labour hire workers and service contractors when the labour market was buoyant leading the hire turnover rates; the need to maintain safety standards and cultural alignment between FTEs and labour hire workers; and the risk of labour hire workers being less engaged due to their often short term relationship with the host company.

Respondents were also asked if they had any comments on the interaction of labour hire workers and FIFO or DIDO practices. The relationship between the two was raised as an issue in the *Keep it in the regions* Parliamentary inquiry. Some comments included:

- The sourcing process for direct hire and labour hire employees is the same and the method of travel is not a factor taken into consideration.
- In practice, labour hire is used only when there is a business reason to do so, and there is no interaction with FIFO or DIDO practice. We have policies and processes in place to support local employment with our permanent staff.
- Majority is DIDO from regional centres, no fixed policy on residential location, i.e. no barriers to reside in local communities.
- Regional FIFO has been a benefit to regional [State in question].⁵⁷
- If the site is a FIFO site, all employees must fly in. FIFO arrangements make it easier for labour hire workers to access multiple sites from the same base.
- We do not operate a FIFO arrangement, but do support limited DIDO. A flexible workforce worker will choose their place of residence having reference to where he/she expects to find work, and is often prepared to work flexibly across sites and use DIDO arrangements to support their lifestyle choices.
- Labour hire employees are fully integrated within the mining teams. The majority of labour hire are used for shutdown labour, and such are usually on site for less than one roster swing at a time – less onerous than for (permanent) employees or the mining service contractors.

Responses were consistent with the argument that FIFO/DIDO practices and the use of labour hire workers should not necessarily be conflated.

5.2.2 Responses to scenario

Questions then asked how respondents would react to the scenario where the law were to change so that labour hire workers and service contractors were legally required to receive the same pay and conditions as analogous permanent employees at their company. Key results in relation to the scenario are contained in Table 5.2.

Table 5.2: Deloitte Access Economics Labour Hire Survey: minerals sector profiling

Question	Survey result
Forecast % increase in labour costs ⁵⁸	7.4%
Forecast % increase in total operating cost	2.8%
Proportion indicating they would reduce size of workforce	42.9%
Proportion indicating they would accelerate investment in labour-saving technologies	42.9%
Proportion believing negative effect on future investment decisions	62.5%

⁵⁷ State not named due to confidentiality concerns.

⁵⁸ This figure comes from a question which asks respondents to consider the changes in labour costs (assuming they kept the exact same workforce) if the policy was applied to both labour hire workers and service contractors. For the purposes of this question, changes in labour costs also includes spending on contracts whereby the host company effectively obtains labour. It is worth noting that if we multiply the average difference in costs for labour hire workers and service contractors (asked elsewhere in the survey) by their share of the survey workforce the difference in costs would be 5.2%. However, a larger number of survey respondents responded to this question on the impact on labour costs of the policy than the question on the wage premium for service contractors which could explain the difference.

On average, respondents answered that all else equal (i.e. assuming they kept the exact same workforce across permanents, labour hire workers and service contractors), the percentage increase in labour costs from a policy that required both labour hire employees and service contractors to be provided the same pay and conditions as permanent employees would be 7.4%.⁵⁹ This is analogous to a 7.4% reduction in the efficiency of labour use. Given that, respondents indicated labour costs comprised on average around 39% of total operating costs, the scenario implies around a 2.8% increase in total operating costs for the minerals sector.

Respondents were then asked given this change to costs, if they would reduce the size of their workforce as a result. Some 43% of respondents indicated they would reduce the size of their workforce as a result, while the remainder indicated they would not reduce the size of their workforce. For the 43%, only a portion of these respondents were comfortable estimating the percentage reduction in their workforce. Across this portion, the resulting estimate of a 7.5% reduction in their workforce (on an FTE basis) should be treated with caution given a very small sample size. No respondent indicated that they would increase the size of their workforce in response to the scenario.

Respondents were then asked about how the scenario may affect their investment. A significant proportion of respondents (43%) indicated they would consider accelerating movements toward labour-saving technologies (such as autonomous vehicles) as a result of this scenario. The remainder (57%) indicated the scenario would not affect their baseline progression in terms of technology.

A majority of respondents (62.5%) indicated the scenario would negatively affect future investment decisions, while 37.5% said it would not. Thinking of *past* investments, 25% of respondents indicated there were projects which may not have been viable without labour hire workers while 50% indicated this was not the case and 25% were unsure. Across all respondents, it was estimated 1% of past projects would have not proceeded under the scenario being considered. One respondent noted the lower labour hire worker rates enabled some mining operations to continue that would have otherwise been put into care and maintenance during a challenging period in terms of global commodity prices.

Respondents were asked to rank the main downsides as a result of the scenario. Consistent with the responses relating to motivations for using labour hire (service contractors), the main downside anticipated was a loss of flexibility, with a higher wage bill a secondary concern. Finally, respondents were given the opportunity to provide free text responses on the scenario, with these contained in Appendix A.

Respondents were separately asked about the likely effect of mandatory rights to request casual conversion. Results are also contained in Appendix A.

5.2.3 Survey summary

The labour hire survey provided valuable qualitative and quantitative insight in relation to the use of temporary workers by the minerals sector. Key findings were:

- The key motivation for utilising labour hire workers was added flexibility, while the key motivation to engage service contractors was access to specialised skills.

⁵⁹ The 7.4% figure comes from a question which asks respondents to consider the change in labour costs (assuming they kept the same workforce) if the policy was applied to **both** labour hire workers and service contractors. It is worth noting that if we multiply the average difference in costs for labour hire workers and service contractors (asked elsewhere in the survey) by their respective shares of the survey workforce, the difference in costs is 5.2%. However, a larger number of survey respondents responded to this question on the combined impact on labour costs of the policy than the question on the wage premium for service contractors which may explain the difference in these two figures.

- Consistent with ABS data, while it was true temporary workers tended to earn less than their permanent counterparts, this was not a key motivator of using labour hire workers.
- The prevalence of FIFO and DIDO practices and the use of labour hire and service contractors showed little relation according to respondents.
- There are a range of important nuances involved with the usage of labour hire workers and service contractors. For instance, mining companies may not be able to provide specialised workers continuity of employment, while working for a services contractor company allows this as they work on different engagements.
- The flexibility afforded by labour hire and service contractors has helped minerals companies survive challenging commodity cycles and incentivised investment through an improvement to risk and reward profiles for new projects.
- Under the scenario contemplated, on average respondents indicated labour costs would rise. A significant percentage of respondents indicated job losses would result, while others indicated there would be no change to their workforce as a result.
- A significant percentage of respondents would consider accelerating labour-saving technologies above and beyond their baseline investment.

6 Impact on the economy of changes to labour hire laws

Key findings

- This chapter considers likely economic effects on the minerals sector as a result of changes to labour hire laws. It utilises survey results to inform the economic modelling task.
- Economy wide modelling is used to examine the likely impact on the broader economy of the proposed changes to labour hire laws in the minerals sector. Since the focus of this report is on the impact on the minerals sector it does not consider the impact of changes in labour hire laws on other sectors of the economy and the results should be viewed in this context.
- Overall, the results suggest that both output and employment are likely to decline as a result of the scenario with the estimated decline in employment averaging 6,400 FTEs between 2019 and 2031 and the estimated decline in GDP equalling \$15.3 billion in NPV terms over this period.

6.1 Introduction and modelling framework

To analyse the impact of proposed changes to labour hire laws on the broader economy an economy wide model, specifically Computable General Equilibrium modelling, was used to examine how the expectations of the impact on the sector formed through the survey would be likely to impact the broader economy.

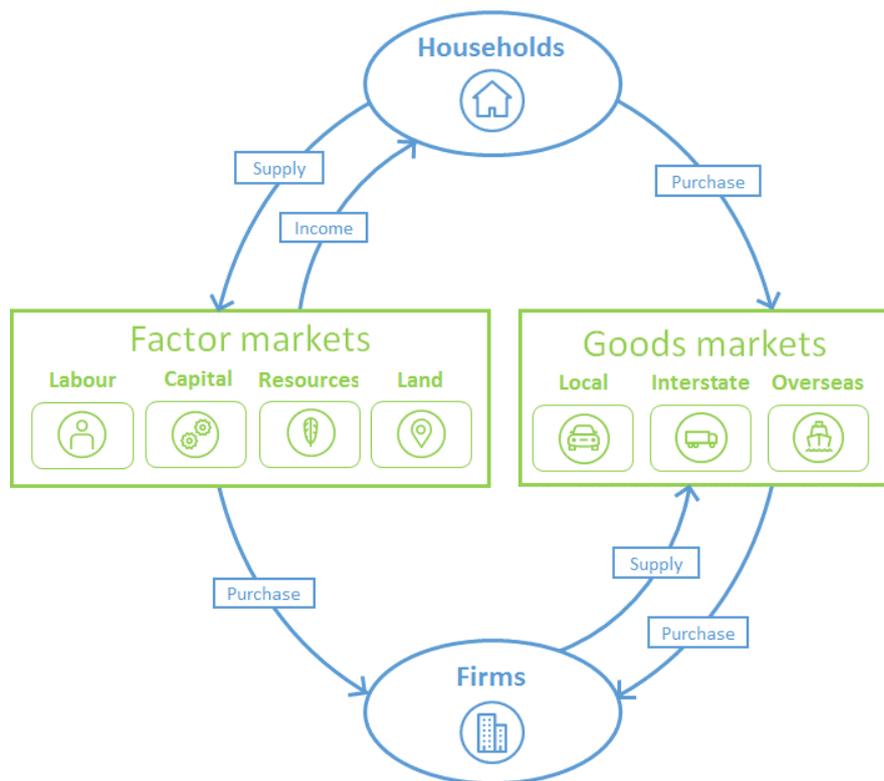
Computable general equilibrium (CGE) modelling is the framework that is best suited to modelling the impact of large projects or policies on the economy. In this framework, it is possible to account for resourcing constraints and opportunity costs and to model changes in prices and the behaviour of economic agents in response to changes in the economy. This project has used the Deloitte Access Economics Regional General Equilibrium Model (DAE-RGEM). This is a model of the Australian and world economy and represents the interaction of households and firms with factor markets and goods markets over time. DAE-RGEM represents all economic activity in the economy, including production, consumption, employment, taxation and trade.

The impact of potential changes to labour hire laws in the minerals sector has been modelled. The laws mean that labour hire workers are subject to the same pay and conditions as those who are directly employed through the host minerals firm. The CGE modelling measures the potential economic impacts of this change on the minerals sector and the Australian economy more broadly.

Figure 6.1 is a stylised diagram showing the circular flow of income and spending that occurs in DAE-RGEM. To meet the demand for products, firms purchase inputs from other producers and hire factors of production (labour and capital). Producers pay wages and rent (factor income) which accrue to households. Households spend their income on goods and services, pay taxes and put some away for savings. More detail on the modelling framework used is provided in Appendix B.

For this project, the model has been explicitly modified to represent the Australian economy along with the relevant components of the minerals sector, including coal, minerals and other mining.

Figure 6.1 Stylised diagram of DAE-RGEM



Source: Deloitte Access Economics

6.2 Inputs

The modelling inputs are based on the findings from the survey, which covered a number of Australian minerals companies to understand the current usage of labour hire workers, and the likely responses by firms to changes to labour hire laws.

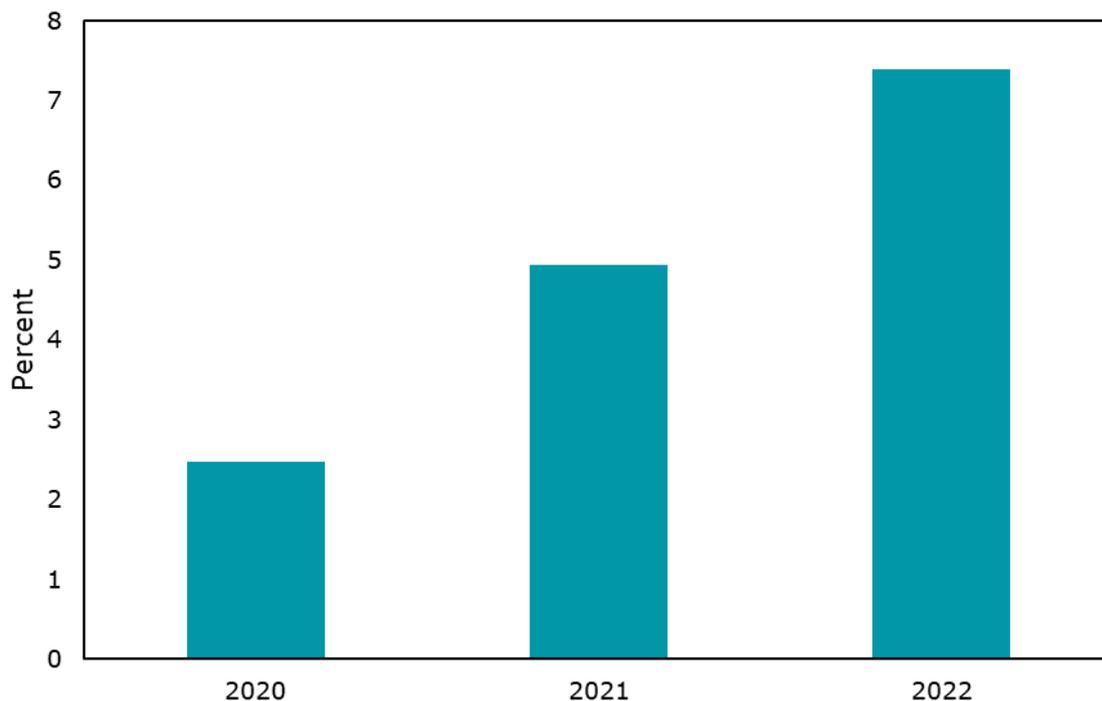
From this survey, it was found that labour costs could increase in the order of 7.4% across a number of minerals industries, including coal, iron, gold and other mining. These industries are captured in the modelling, specifically:

- Coal mining
- Minerals and other mining (includes metal ores, non-metallic minerals and quarrying).

The modelling assumes that there is a ramp up period from 2020 to 2022 as the change in policy is incorporated in employment policies and contracts, at which point the labour costs for the mineral sector are 7.4% higher, as illustrated in Chart 6.1. For the purposes of implementing the shock in the model, the increase in labour costs were modelled through an increase in the payroll tax rate in the respective minerals industries.

Importantly, a change in labour hire laws could also impact other industries in the economy, albeit to varying degrees. Since the focus of this report is on the impact on the minerals sector it does not consider the impact of changes in labour hire laws on other sectors of the economy and the results should be viewed in this context. If the change in labour hire laws had impacts on labour productivity in other sectors of the economy this could have different impacts on GDP and employment as well as sectoral output.

Chart 6.1 Modelled percentage change in labour productivity for the minerals sector (relative to base), Australia



Source: Deloitte Access Economics

6.3 Results

The results from the economic modelling are presented as deviations in real gross domestic product (GDP), aggregate employment and sectoral results (including industry gross value added and employment by industry) relative to a business as a usual scenario where the proposed labour hire laws are not enacted.

6.3.1 Gross domestic product

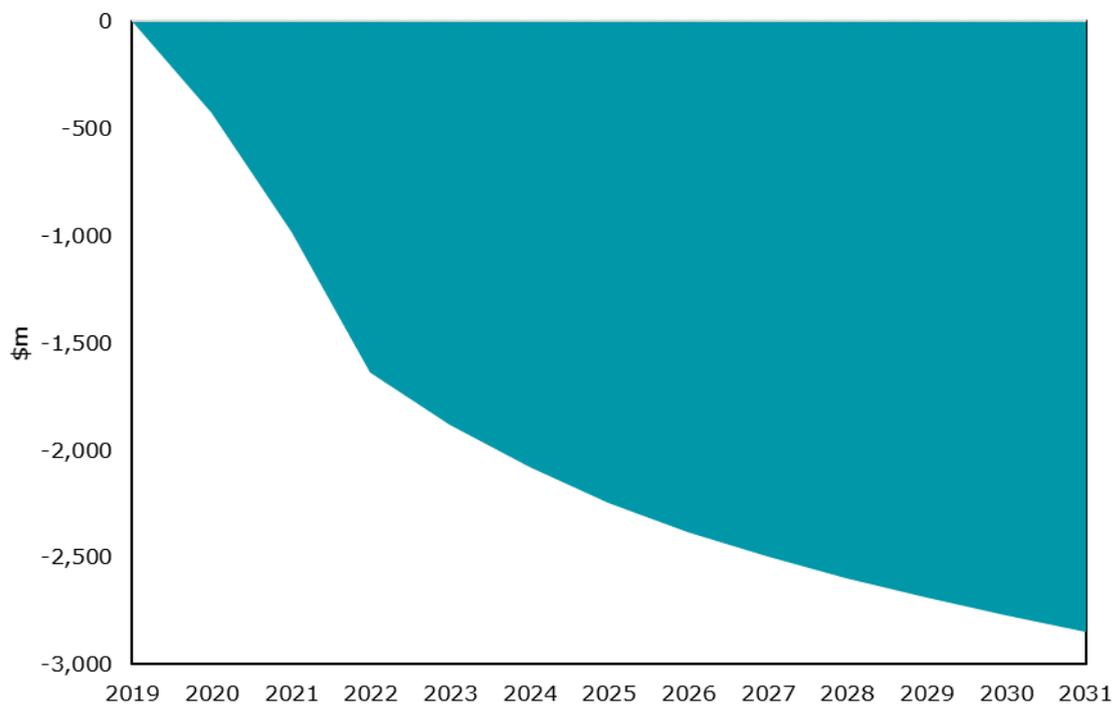
The results from the modelling indicate that the increased labour costs in the minerals sector would decrease GDP by \$15.3 billion in NPV terms over the period 2019 to 2031.⁶⁰

Chart 6.2 presents the impact of the increased labour costs in the coal, minerals and other mining industries on real GDP over the time period 2019 to 2031. By 2022, GDP is estimated to be about \$1.6 billion lower in that year. This decline is largely driven by the higher input costs (specifically, real wages) for the minerals sector, which in turn reduces its competitiveness. In addition to these direct effects, the modelling also captures the flow-on effects (both positive and negative) to other industries in the Australian economy. The industry impacts (including value added and employment) are discussed in more detail in section 6.3.3.

Over time, this impact is magnified as Australia becomes less competitive and subsequently attracts less investment, with GDP declining by over \$2.8 billion by the end of the simulation in 2031 in that year. This illustrates the point that such a policy would not only impact current minerals projects, but also the prospects of future projects in Australia. Specifically, the modelling indicates that, at its lowest point in 2022, investment could decline by around \$3.8 billion in that year.

⁶⁰ All NPV calculations in this section use a 7 percent real discount rate.

Chart 6.2 Impact on real gross domestic product, Australia, 2019-2031



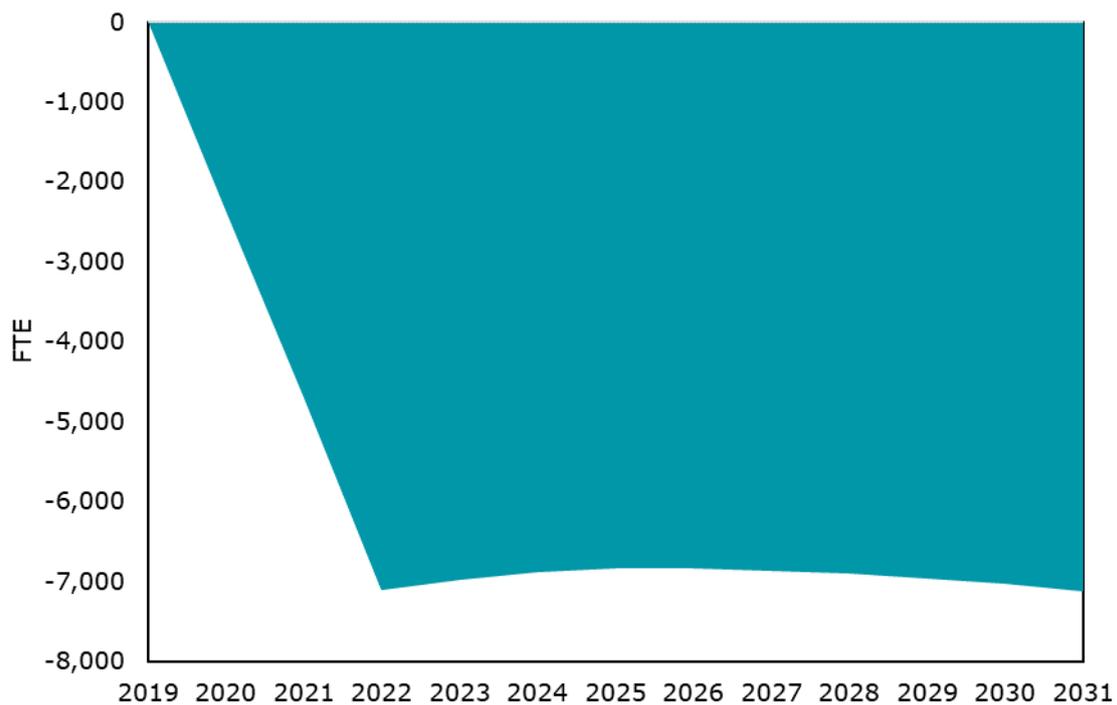
Source: Deloitte Access Economics

6.3.2 Aggregate employment

The modelling indicates that the proposed changes in the labour hire laws would result in the decline of around 6,400 FTE jobs per annum over the period 2019 to 2031 in Australia.

Chart 6.3 highlights that deviation in aggregate employment follows a broadly similar path as GDP, declining sharply to 2022 as the labour costs ramp up. By 2022, there are an estimated 7,100 fewer FTE jobs, remaining around this level until the end of the simulation in 2031.

Chart 6.3 Impact on aggregate FTE employment, Australia, 2019-2031



Source: Deloitte Access Economics

6.3.3 Sectoral results

This section considers the sectoral impacts, including value added and employment by industry. At the aggregate level, GDP and employment decline; however, by observing the industry story in more detail, it is possible to understand which industries will gain and lose, and by how much.

The increased labour costs in the coal and 'minerals and other mining' sectors directly reduces economic activity in these sectors by \$5.8 billion and \$6 billion respectively over the period 2019 to 2031. This, in turn, will further reduce economic activity in other supply chain related industries, such as construction, financial services and other business services.

Some industries, however, will benefit overall as the economy wide real wage rate declines and they are able to utilise cheaper resources (specifically, labour). These industries subsequently become more competitive, for example, agriculture and manufacturing sectors (including food processing, light manufactures and heavy manufactures).

As expected, the change in employment by industry broadly resembles the change in value added in each respective industry. Employment in the coal and 'minerals and other mining' industries decrease by 2,300 and 4,900 FTE jobs per annum respectively. The employment impacts are particularly pronounced in labour intensive industries that supply intermediate inputs to the minerals sector, namely, construction, which is estimated to lose around 4,000 FTE jobs per annum. It should be noted that this is driven by the direct impacts of increased labour costs, but also by the loss of future investment in the Australian economy.

In summary, the modelling indicates that the overall economy wide impact to the Australian economy as a result of the proposed policy would be negative in terms of the change in GDP and aggregate employment.

Conclusions

This report has considered Australia's minerals sector and the potential impact of changes in the law such that labour hire workers are legally required to receive the same pay and conditions as permanent employees at the host company they work at. Owing to uncertainty about the scope of this change to the law, Deloitte Access Economics has also considered its potential application to service contractors at the host company as well as labour hire workers.

The Australian mining industry is a major driver of the overall Australian economy and plays a vital role in contributing to regional communities. The skilled and diverse workforce is the highest paid across all industries and is dominated by full-time employment with a lower share of casual workers than the Australian economy more broadly. Investment plays a major role in the mining industry, with large investments in land, equipment and machinery across long and uncertain time horizons. Australia's mining industry operates in an internationally competitive environment, competing for investment against other mineral producing regions.

The mining industry has a uniquely cyclical business model given the differing stages of the project lifecycle and its exposure to global commodity markets. The past two decades demonstrate how sensitive output and employment in the industry is to prevailing global conditions. The rapid rise and fall in commodity prices and the industry moving through the various project stages caused considerable output variability.

Like other industries in the Australian economy, the mining industry uses both labour hire workers and service contractors in addition to direct employees. In the case of labour hire employees, the employee is hired by a labour hire company but provides services for, and under the direction of, the host company. Many labour hire employees are employed casually by the labour hire company but that need not always be the case. Service contractors are engaged by the minerals sector often for a specific task and the services contractor will retain more autonomy over their workforce in fulfilling their contractual requirements.

This report discussed how casual employment, service contractors and labour hire are used by employers to flexibly adjust the size of their workforce to meet busy periods and respond to volatility in commodity prices and weather as well as to draw on specialised skills. The use of labour hire in the Australian mining industry is relatively high compared to other industries. However, the use of casual employees in the mining industry is relatively low at 16% compared to 24.6% across all other industries.

Casual employees in the Australian mining industry are paid less than permanent or fixed term employees in the mining industry but significantly more than casuals in the wider economy. Indeed, median weekly earnings of casuals in the mining industry are more than one fifth higher than of the median full-time worker in the Australian economy.

To develop a more detailed evidence base on the extent of the use of labour hire, Deloitte Access Economics surveyed members of the MCA on their use of labour hire. The survey found that labour hire workers comprised around 11% of the minerals workforce, similar to the ABS estimate of 9.8% for the broader mining industry. Consistent with ABS data, the survey also found that labour hire workers earned less than their permanent counterparts, but still earned high wages (\$2,316 per week), well above the average for full-time workers in the economy as a whole. That said, it was the flexibility to adjust the size of their workforce as needed and specialised skills rather than remuneration differentials which was more important as a motivation for utilising labour hire workers (and service contractors).

The survey then asked respondents to consider their likely response to changes in the law such that labour hire workers and service contractors were entitled to the same pay and conditions as ongoing employees (the scenario), including full entitlements to leave and other permanent conditions as per existing workplace agreements. Survey respondents indicated that the direct impact would reduce

the efficiency of labour by around 7% for minerals companies, leading to around a 3% increase to total operating costs.

In total, 57% of minerals respondents indicated they would not change the size of their workforce in response to the proposed change, while 43% indicated they would have a smaller workforce than under the status quo (no changes to labour laws), with the average reduction across all respondents being around 3%. In total, 62.5% of respondents indicated the proposed changes to labour hire laws would weigh on future investment decisions.

Changes to the law relating to labour hire workers and service contractors was estimated by survey respondents to reduce the efficiency of labour in the minerals sector by around 7.4%, which in turn was estimated to lead to a decline in aggregate employment by around 6,400 FTE jobs per year over the period 2019 to 2031. Over that period, the economy would be smaller than otherwise by \$15.3 billion in net present value (NPV) terms, with the decline in annual GDP peaking at \$2.8 billion in 2031.

The results suggest that a broad policy that sought to require that labour hire workers and service contractors receive the same pay and conditions as permanent employees is likely to impact the international competitiveness of the Australian minerals industry and in turn reduce employment and investment.

Australia's mining industry has been a long-term success story, despite highly competitive global markets and the challenge provided by cyclical commodity prices. Its ability to be flexible in response to that is central to its success – and hence to the prosperity of the wider Australian economy.

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Appendix A Additional survey information

A.1. Key benefits/disadvantages of labour hire and service contractors (free text)

In free text comments, respondents were asked to provide if any additional comments on the main benefits of using labour hire. Some comments referred to:

- Flexibility: the ability to increase and decrease the workforce to meet business needs. Changing business needs can reflect factors such as wet weather, production demands and the life cycle of mines.
- Scale or intensity of activity (such as campaign mining/washing) at times requiring temporary labour.
- Volatility of selling price and input costs requires ability to increase/reduce labour easily to remain competitive.
- Labour hire allowing flexibility for new entrants into the industry.
- Boosting growth in the industry due to improving risk/return trade-offs.
- Sourcing labour that might otherwise not be available.
- Obtaining specialised skills when needed for short time frames, such as shutdowns.

Respondents were also asked about the main disadvantages of using labour hire. Some comments referred to:

- Maintaining safety standards and cultural alignment between FTEs and labour hire workers.
- Retaining labour hire workers in a buoyant market for employees / high turnover rate.
- Variable productivity and quality of worker.
- A risk that labour hire workers are not as engaged, reflecting their often fleeting relationship with the host company.

Respondents were again asked in free text the main benefits of using service contractors. Some comments included:

- Utilising specialist and/or hard to source skills, often with a positive impact from utilising service contractors from the local residential region in the supply chain.
- Obtaining skills (and equipment) for non-core work, i.e. work additional to base production and business services.
- Examples of where contractors engaged in the case of open-cut mining: mining engineering, scheduling and planning, load and haul operations and mining fleet maintenance. Examples of where engaged in underground mining: development, production and fleet maintenance. Contractors can also be used for blasting service, product and accessory supply and engineering and technical support.
- Services contractor companies allow for continuity of work for individuals, which might not be available on a company by company basis.
- Service contractors are often better placed to invest in training and skills due to the specialised nature of their service.
- Mining companies lack skills to deliver non-mining services such as cleaning, camp management and transportation.
- Obtaining labour where it would be harder otherwise, for instance in the case activities that have a relatively near-term cessation date. Mining service contractors have a far greater capacity to find their employees alternate employment as they win new contracts and can re-allocate their capital equipment and labour accordingly.

Respondents were also asked about the main disadvantages of using service contractors. Some comments included:

- High cost and reliance on specialist contractors may inhibit internal FTE opportunities and skills development.
- Inconsistency of performance from service contractors and maintaining safety standards and cultural alignment with permanent employees.
- Intellectual property not retained and expensive to use.
- The ramp up (mobilisation) and ramp down (demobilisation) of service contractors can be inefficient.
- Can be hard to obtain their services, as service contractors may be in high demand and contracted elsewhere.
- Issues relating to turnover and engagement.

A.2. Casual conversion

In light of the *Workpac v Skene* case, respondents were also asked if a term was included in Modern Awards to allow casual workers a right to request permanent employment after a certain period of working a consistent schedule ('casual conversion'), would this impact the degree of use of labour hire workers by their company. Most respondents (56%) indicated this would not affect their hiring practices while a significant proportion were unsure (33%) and only 11% indicated it may negatively affect usage of labour hire workers. As a result, casual conversion was not seen as a major change to the status quo.

Respondents were then asked in regards to the automatic rights to request casual conversion, what impact this would have on the total size of their workforce. Consistent with the above response, no material impact was foreseen relative to the base case. The majority of respondents (67%) indicated the total size of their workforce would not change, while some were unsure (33%).

A.3. Final free text comments on scenario

Some comments included:

"Any proposed changes to laws receiving service contractors and labour hire workers receiving the same pay and conditions as permanent employees of the host employer or principal will be detrimental to the mining industry (as a whole) and particularly harmful to the mining services sector."

"Any proposal to mandate labour costs for labour hire or services contractor workers, based on rates paid by the host employer or a mine owner does not have regard to the underlying economics of labour hire or service contractors' business.

As an example, there is a distinct difference between the economics that affect a mine owner versus a services contractor within the mining industry. The mining services sector relies on its comparatively low cost base, driven by operational efficiency and cost competitiveness. The ability to flexibly manage labour cost is a key part of the mining services sector's competitive advantage. If it is legislated that a mining services contractor must provide the same pay and conditions as owner operator organisations, this has no regard to the fact that a mining services contractor does not directly receive an increase in revenue based solely on improved commodity prices.

In addition, to remove the ability for services providers to be competitive on labour costs may result in owner miners preferring to insource work that was previously the remit of mining service contractors. This in turn will result in a lack of market competition in the mining services sector"

"The vast majority of labour hire employees we use are already permanent employees with the labour hire company and as such receive the normal benefits and conditions of permanent employee. Where the labour hire employees are casual, they receive the 25% loading. Our [words removed]⁶¹ labour hire employees are permanent with the labour hire company and are already paid the same as the Company employees they work alongside doing the same jobs. These changes will have minimal impact on current workforce planning/strategy."

⁶¹ Specific occupation of workers removed for confidentiality reasons.

“Labour hire companies already offer Full-time – fixed term engagements”

“The flexibility afforded to employers by being able to source relevant skilled labour in the form of FTE’s, labour hire and service labour has improved the efficiency of operations and has led to some higher cost operations remaining in operation through the bottom of the cycle in 2015 and 2016.

Being able to source skilled employees is a two way street. Many employees like the flexibility afforded to them by being able to access labour hire or service arrangements. There is nothing that precludes a labour hire employee or a service labour supplier from seeking Full-time employment.”

“We've been working for several years to reduce the number of labour hire people working in our business both for cost reasons and because of the view that they can be less engaged.”

Appendix B Economic modelling framework

The Deloitte Access Economics regional general equilibrium model (DAE-RGEM) is a large scale, dynamic, multi-region, multi-commodity computable general equilibrium model of the world economy with bottom-up modelling of Australian regions. The model allows policy analysis in a single, robust, integrated economic framework. This model projects changes in macroeconomic aggregates such as GDP, employment, export volumes, investment and private consumption. At the sectoral level, detailed results such as output, exports, imports and employment are also produced.

The model is based upon a set of key underlying relationships between the various components of the model, each which represent a different group of agents in the economy. These relationships are solved simultaneously, and so there is no logical start or end point for describing how the model actually works. However, they can be viewed as a system of interconnected markets with appropriate specifications of demand, supply and the market clearing conditions that determine the equilibrium prices and quantity produced, consumed and traded.

DAE-RGEM is based on a substantial body of accepted microeconomic theory. Key assumptions underpinning the model are:

- The model contains a 'regional consumer' that receives all income from factor payments (labour, capital, land and natural resources), taxes and net foreign income from borrowing (lending).
- Income is allocated across household consumption, government consumption and savings so as to maximise a Cobb-Douglas (C-D) utility function.
- Household consumption for composite goods is determined by minimising expenditure via a CDE (Constant Differences of Elasticities) expenditure function. For most regions, households can source consumption goods only from domestic and imported sources. In the Australian regions, households can also source goods from interstate. In all cases, the choice of commodities by source is determined by a CRESH (Constant Ratios of Elasticities Substitution, Homothetic) utility function.
- Government consumption for composite goods, and goods from different sources (domestic, imported and interstate), is determined by maximising utility via a C-D utility function.
- All savings generated in each region are used to purchase bonds whose price movements reflect movements in the price of creating capital.
- Producers supply goods by combining aggregate intermediate inputs and primary factors in fixed proportions (the Leontief assumption). Composite intermediate inputs are also combined in fixed proportions, whereas individual primary factors are combined using a CES production function.
- Producers are cost minimisers, and in doing so, choose between domestic, imported and interstate intermediate inputs via a CRESH production function.
- The supply of labour is positively influenced by movements in the real wage rate governed by an elasticity of supply.
- Investment takes place in a global market and allows for different regions to have different rates of return that reflect different risk profiles and policy impediments to investment. A global investor ranks countries as investment destinations based on two factors: global investment and rates of return in a given region compared with global rates of return. Once the aggregate investment has been determined for Australia, aggregate investment in each Australian sub-region is determined by an Australian investor based on: Australian investment and rates of return in a given sub-region compared with the national rate of return.

- Once aggregate investment is determined in each region, the regional investor constructs capital goods by combining composite investment goods in fixed proportions, and minimises costs by choosing between domestic, imported and interstate sources for these goods via a CRESH production function.
- Prices are determined via market-clearing conditions that require sectoral output (supply) to equal the amount sold (demand) to final users (households and government), intermediate users (firms and investors), foreigners (international exports), and other Australian regions (interstate exports).
- For internationally-traded goods (imports and exports), the Armington assumption is applied whereby the same goods produced in different countries are treated as imperfect substitutes. But, in relative terms, imported goods from different regions are treated as closer substitutes than domestically-produced goods and imported composites. Goods traded interstate within the Australian regions are assumed to be closer substitutes again.
- The model accounts for greenhouse gas emissions from fossil fuel combustion. Taxes can be applied to emissions, which are converted to good-specific sales taxes that impact on demand. Emission quotas can be set by region and these can be traded, at a value equal to the carbon tax avoided, where a region's emissions fall below or exceed their quota.

Below is a description of each component of the model and key linkages between components.

B.1. Households

Each region in the model has a so-called representative household that receives and spends all income. The representative household allocates income across three different expenditure areas: private household consumption; government consumption; and savings.

The representative household interacts with producers in two ways. First, in allocating expenditure across household and government consumption, this sustains demand for production. Second, the representative household owns and receives all income from factor payments (labour, capital, land and natural resources) as well as net taxes. Factors of production are used by producers as inputs into production along with intermediate inputs. The level of production, as well as supply of factors, determines the amount of income generated in each region.

The representative household's relationship with investors is through the supply of investable funds – savings. The relationship between the representative household and the international sector is twofold. First, importers compete with domestic producers in consumption markets. Second, other regions in the model can lend (borrow) money from each other.

- The representative household allocates income across three different expenditure areas – private household consumption; government consumption; and savings – to maximise a Cobb-Douglas utility function.
- Private household consumption on composite goods is determined by minimising a CDE (Constant Differences of Elasticities) expenditure function. Private household consumption on composite goods from different sources is determined by a CRESH (Constant Ratios of Elasticities Substitution, Homothetic) utility function.
- Government consumption on composite goods, and composite goods from different sources, is determined by maximising a Cobb-Douglas utility function.
- All savings generated in each region is used to purchase bonds whose price movements reflect movements in the price of generating capital.

B.2. Producers

Apart from selling goods and services to households and government, producers sell products to each other (intermediate usage) and to investors. Intermediate usage is where one producer supplies inputs to another's production. For example, coal producers supply inputs to the electricity sector.

Capital is an input into production. Investors react to the conditions facing producers in a region to determine the amount of investment. Generally, increases in production are accompanied by

increased investment. In addition, the production of machinery, construction of buildings and the like that forms the basis of a region's capital stock, is undertaken by producers. In other words, investment demand adds to household and government expenditure from the representative household, to determine the demand for goods and services in a region.

Producers interact with international markets in two main ways. First, they compete with producers in overseas regions for export markets, as well as in their own region. Second, they use inputs from overseas in their production.

- Sectoral output equals the amount demanded by consumers (households and government) and intermediate users (firms and investors) as well as exports.
- Intermediate inputs are assumed to be combined in fixed proportions at the composite level. As mentioned above, the exception to this is the electricity sector that is able to substitute different technologies (brown coal, black coal, oil, gas, hydropower and other renewables) using the 'technology bundle' approach developed by ABARE (1996).
- To minimise costs, producers substitute between domestic and imported intermediate inputs is governed by the Armington assumption as well as between primary factors of production (through a CES aggregator). Substitution between skilled and unskilled labour is also allowed (again via a CES function).
- The supply of labour is positively influenced by movements in the wage rate governed by an elasticity of supply is (assumed to be 0.2). This implies that changes influencing the demand for labour, positively or negatively, will impact both the level of employment and the wage rate. This is a typical labour market specification for a dynamic model such as DAE-RGEM. There are other labour market 'settings' that can be used. First, the labour market could take on long-run characteristics with aggregate employment being fixed and any changes to labour demand changes being absorbed through movements in the wage rate. Second, the labour market could take on short-run characteristics with fixed wages and flexible employment levels.

B.3. Investors

Investment takes place in a global market and allows for different regions to have different rates of return that reflect different risk profiles and policy impediments to investment. The global investor ranks countries as investment destination based on two factors: current economic growth and rates of return in a given region compared with global rates of return.

- Once aggregate investment is determined in each region, the regional investor constructs capital goods by combining composite investment goods in fixed proportions, and minimises costs by choosing between domestic, imported and interstate sources for these goods via a CRESH production function.

B.4. International

Each of the components outlined above operate, simultaneously, in each region of the model. That is, for any simulation the model forecasts changes to trade and investment flows within, and between, regions subject to optimising behaviour by producers, consumers and investors. Of course, this implies some global conditions that must be met, such as global exports and global imports, are the same and that global debt repayment equals global debt receipts each year.

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