EXECUTIVE SUMMARY

This report describes the forecast economic impacts of the COVID-19 pandemic on the City of Melbourne (CoM) Local Government Area (a small central area within broader metropolitan Melbourne) and Victoria, highlighting a range of response actions for the government in rebooting the Victorian economy. This report examines three scenarios of impact and compares them to pre-COVID projections: Scenario 1 (a scenario in line with latest government projections), Scenario 2 (a slower recovery with prolonged public health measures in 2020) and Scenario 3 (a quicker and stronger recovery).¹

The City of Melbourne and Victoria are significantly impacted by the COVID-19 pandemic, with monthly job losses threefold higher than those of the 90s recession

In Scenario 1, economic output² in the CoM is estimated to be $49 billion or 8 per cent lower than pre-COVID projections, over the five years examined. This is driven by significantly reduced activity in tourism, food and entertainment activities. For the whole of Victoria, economic output is estimated to be almost 4 per cent lower than pre-COVID projections over five years.

The recession is forecast to be sharper and deeper than any observed since Australia has collected consistent economic data: In April 2020, Victoria lost 128,000 jobs compared to 38,000 in March 1991 (the largest single month job reduction in Victoria in the 90s recession). This COVID-led recession may only be analogous to the impacts arising from the concurrence of WWI and the Spanish Flu pandemics.

Over the next five years, the output impact in CoM will represent 54 per cent of Victoria’s total output impact, emphasising the importance of Melbourne to the state economy as well as the codependency. This is a disproportionate impact given that the CoM makes up approximately 24 per cent of Victoria’s economy. Similarly, co-dependencies could also be drawn to the national economy, which has historically been driven by growth in the major cities.

Figure 1 describes the impacts to economic output and jobs for CoM compared to those for the Rest of Victoria under Scenario 1.

¹ Scenario 1 aims to be a central scenario in line with latest government projections, but it is noted that state and federal projections were published on 23 July shortly before Stage 4 lockdowns. Scenario 2 aims to show the largest likely decline from Stage 4 restrictions, so a true central scenario is likely to be between Scenario 1 and 2.

² Measured in this report as a gross value-added term, gross local product (GLP) when referring to the CoM or gross state product (GSP) when referring to the whole state of Victoria.
Figure 1 Economic output and jobs impacts in 2020 in the CoM compared to the rest of Victoria (Scenario 1 compared to pre-COVID projections)

**Output**
The CoM suffers a disproportionate loss of output in 2020 compared to earlier projections

- **CoM**: 13% decrease
- **Rest of Vic.**: 6% decrease

**Jobs**
Job losses are likewise more acute: the CoM is projected to shed 50k or 10% of jobs in 2020.

- **CoM**: 10% decrease
- **Rest of Vic.**: 4% decrease

Source: PwC analysis comparing pre-COVID forecast to Scenario 1, refer to technical appendix for modelling detail and assumptions. Note: Employment results are presented as the average result for the entire year and job losses are expected to vary from this average at particular points. Throughout this report ‘jobs’ refers to a headcount of employed people, in line with CoM’s Census Land Use and Employment (CLUE) database

**CoM** is bearing the brunt of the jobs and output decline across Victoria. This is largely due to the significant reduction in COM’s transient daily population of workers and visitors because of social distancing measures - the daily population of CoM in 2020 in Scenario 1 is estimated by PwC to be only 34 per cent (on average) of 2019 daily averages. This adversely impacts businesses in the City that service this population, particularly Retail, Accommodation and Food Services and Arts and Recreation Services.

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**The City of Melbourne is critical to leading Victoria out of the COVID-19 recession**

Over the next five years neither the CoM nor Victoria will get back to projections of pre-COVID jobs and economic output, highlighting the codependency between these economies. Amid uncertainty around future disease developments, border controls and the return of workers to workplaces, analysis reveals that:

- if COVID-19 is contained rapidly and most workers return to the City (Scenario 3), a quicker and stronger recovery will deliver:
  - $74 billion less Victorian state-wide economic output over five years compared to pre-COVID projections (or 80,000 less jobs as an average annual over the five years)
  - a corresponding to $41 billion reduction over five years in CoM economic output compared to pre-COVID estimates (or 19,000 less jobs as an average annual over five years).

- conversely, a deeper impact in 2020 from increased public health measures and a prolonged recovery marked by increased public health risk and fewer workers returning physically to CoM (Scenario 2) will result in:
  - a reduction in Victorian state-wide economic output of $327 billion below pre-COVID projections across the five years examined (or 398,000 less jobs as an average annual over the five years).
  - a corresponding reduction of $110 billion over five years in CoM economic output compared to pre-COVID estimates (or 79,000 less jobs as an average annual over the five years).

This shows that the difference between a slower and quicker recovery over the five years is $69 billion in CoM economic output. This highlights the importance of the speed and strength of recovery and cements the importance of the CoM in driving Victoria’s response.
As Victoria's CBD, the CoM can continue to drive growth in productivity and living standards

Increasing digitalisation of the economy has enabled many organisations to explore remote working over the last two decades. COVID-19 has accelerated this trend, with many businesses augmenting existing technologies and adopting new ones to enable widespread remote working for their employees and remote service delivery for their customers.

The benefits of remote working to businesses and individuals are widely recognised. These can include improved access to labour markets and reduced spend on physical presence for organisations, increased leisure time for individuals through reduced time spent commuting and balancing of work and family responsibilities which creates more diversity and participation in the labour market.

But there are also likely to be costs from immediate and widespread remote working, with flow-on impacts across the economy:

- Roles and functions that involve creative, collaborative and innovative activity have established benefits of relying on a high degree of face-to-face interactions between workers. This is likely to continue until digital skills, tools and ways of working are in place that sustain a rebalancing of facetime and remote time.

- Evidence indicates that these are the activities that drive business and productivity growth in economies, and that colocation in areas of economic agglomeration supports these outcomes.

- In Victoria, many of these activities are concentrated in the services sectors and corporate headquarters in the CoM. Organisations in these sectors gravitate towards CBDs as they are best served by transport infrastructure, allowing access to a large and diverse market for skilled labour. This highlights CoM’s role as the engine of productivity growth for Victoria.

A focus on rebooting the CoM and encouraging a return to workplaces should therefore be a priority and could serve to mitigate these potential impacts, at least until such a time as the evidence in support of sustaining a more distributed and geographically fragmented workforce is available and digitalisation is more even across the economy.

This is not suggesting a return to the pre-COVID status quo as either realistic or desirable - remote working will be more common in the future. However, it is unlikely that it will always be appropriate for all workers. CBDs will continue to be a clustering point for businesses and workers and the CoM’s resilience in the face of these trends can be supported by actions cementing its role as Victoria’s CBD.

Respond, recover and regenerate policy levers are key to resuscitating the CoM economy so that it can deliver Victoria back to growth

Since March 2020 the CoM has implemented several immediate measures to respond to the pandemic, including outbreak prevention and support for businesses, artists, community, and investment in capital stimulus.

Looking toward the future, this report has identified a range of response actions that can enable the recovery, noting immediate further work is required to:

- test the feasibility and benefits of individual actions and develop appropriate plans

- on the back of feasibility and benefits assessment and planning, specify the asks of different organisations and how these can translate to outcomes.
Proposed response actions fall across three time horizons:

- **Respond**: actions that can be taken now, focussed on critical needs, subject to the latest health advice
- **Recover**: short-term responses to the ongoing impacts of the crisis
- **Regenerate**: responses targeted at rebuilding for the future, reflecting on the knowledge of what was temporary and what will have lasting effects.

Actions are grouped within five themes identified as critical to supporting the recovery:

- **Strategic planning**: actions focused on measuring, evaluating and responding to outcomes as they evolve
- **Public infrastructure**: targeted consideration of and investment in public infrastructure that can speed the recovery
- **Tourism**: actions that can reignite the tourism sector as we emerge from the pandemic
- **Industry**: support for businesses targeted towards responding to the prevailing challenges in each period
- **Pandemic public health response**: actions to safeguard wellbeing and enable behaviours supportive of economic recovery.

Table 1 below describes the proposed actions across the identified timeframes.
Table 1 Key response actions by recovery phase*

<table>
<thead>
<tr>
<th>Strategic planning</th>
<th>Respond (now)</th>
<th>Recover (1 year)</th>
<th>Regenerate (4 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>→ Define leading indicators that will guide appropriateness of actions taken across recovery phases</td>
<td>→ Evaluate ongoing CoM and Victorian economic performance to understand what CoM and State Government investment is still required and what can be scaled back</td>
<td>→ Evaluation on an ongoing basis the impacts of actions to inform government decision making</td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ Call to advocate for the city’s economic reactivation to all levels of government by informing government stakeholders of ongoing impacts and evaluation of response actions</td>
<td>→ Liaise across and between governments to understand lessons and inform decision making</td>
</tr>
<tr>
<td>Public infrastructure</td>
<td>→ Investment in small scale shovel ready infrastructure projects and maintenance work</td>
<td>→ Investment in strategic planning for major infrastructure pieces to align with a reshaped economy</td>
<td>→ Continue to consider fast rail connections to the CoM</td>
</tr>
<tr>
<td></td>
<td>→ Delivery of alternative transport options (walking paths, cycle paths) in the CoM that enable social distancing</td>
<td>→ Investment in medium and large-scale infrastructure projects with established benefits in the post-COVID environment. This can include commencing or bringing forward planned investments and undertaking new investments</td>
<td>→ Refresh planning of Melbourne’s precint design - such as more regional hubs for the spokes - to support rather than detract from the city</td>
</tr>
<tr>
<td></td>
<td>→ Review large-scale infrastructure projects to validate benefits that are now uncertain</td>
<td></td>
<td>→ Continued investment in digital infrastructure across the State</td>
</tr>
<tr>
<td></td>
<td>→ Investment in recreational infrastructure in CoM</td>
<td></td>
<td>→ Continued investment in ‘last mile’ infrastructure for people coming in from the regions to the City to enable a seamless journey to their destination</td>
</tr>
<tr>
<td></td>
<td>→ Explore opportunities for iconic new investments that can draw workers and visitors back to the CoM</td>
<td></td>
<td>Work in partnership with Melbourne Airport and major airlines to maintain connectivity between Melbourne and domestic and international destination and ensure Melbourne remains a primary arrival point for Australia</td>
</tr>
<tr>
<td>Tourism</td>
<td>→ Pacific campaign to reboot the tourism and entertainment industries and manage the perceptions of Melbourne as a great place to visit</td>
<td>→ Continued investment in tourism and perception management campaign, including on international scale</td>
<td>Strategic planning of trade relationship in a changed global economy where industries may be more insular and travel patterns altered</td>
</tr>
<tr>
<td></td>
<td>→ Provide subsidies to increase occupancy rates in CoM hotels</td>
<td>→ Provide incentives to organisations to promote and deliver large scale events, including the Australian Open and Grand Prix</td>
<td>Support of ongoing innovation and R&amp;D investments in reshaped industries</td>
</tr>
<tr>
<td></td>
<td>→ Provide incentives for event management organisations to COVIDSsafe medium-sized events and draw tourists back into the city</td>
<td>→ Consider visa fast-tracking for international students in high-demand subjects</td>
<td>Re-examine priority industries in a reshaped economy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ Incentivise the redevelopment of office spaces in the CoM to respond to prevailing vacancy levels, including to residential buildings and social infrastructure</td>
<td>Work with impacted industries to develop and implement specific resilience and recovery plans</td>
</tr>
<tr>
<td>Industry</td>
<td>→ Support for businesses to COVIDSafe their offices or venues and encourage physical return of workforce to CBD</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>→ Provide incentives (rental subsidies or reduced rates) to retail businesses to minimise empty shopfront vacancies</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>→ Work with StartupVIC and InvestVIC to boost confidence and financial viability in the startup sector and support innovative projects</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>→ Manage rollout of vaccines (to the extent these are available) across jurisdictions</td>
<td></td>
</tr>
<tr>
<td>Pandemic public health response</td>
<td>→ Amendments in transport infrastructure, including changes to gates in stations and guidance on seating on public transport</td>
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<td></td>
</tr>
</tbody>
</table>

*Implementation of actions outlined in the ‘Respond’ phase should be subject to the latest health advice*
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COVID-19 HAS LED THE COMM AND VICTORIAN ECONOMIES INTO AN UNPRECEDENTED RECESSION

The COVID-led recession is sharper and deeper than any other in living memory

“We have never seen an economic shock of this speed, magnitude and shape, reflecting that this is both a significant supply and demand shock.” - Secretary to the Treasury

The global impacts of the Coronavirus disease (COVID-19) are unprecedented. In the six months since it was first detected onshore on 25 January 2020, Australia has grappled with the unpredictable and inconsistent impacts of the disease, both on the public health system and on federal, state, and local economies. Governments have restricted domestic and international travel, announced stimulus packages, and implemented the JobKeeper and JobSeeker payment schemes to contain the spread of the disease while protecting Australian jobs. Despite this, the nation is now suffering its first recession in 29 years with the Federal Government announcing its largest budget deficit since 1946 in the Economic and Fiscal Update in July 2020. The recession ends 35 quarters of uninterrupted growth for the nation.

Unlike historical crises, however, the COVID-led recession is global, health-driven, and has not been shown to discriminate by geography or industry. The monthly change in jobs in Australia and Victoria can support the contextualisation of the impacts of the pandemic on the nation’s economies. Australians in the workforce at the time will remember the early 90s recession as a period of widespread underemployment and unemployment, with 66,000 jobs lost nationally in a single month in January 1991. Remarkably, the monthly loss in jobs in Australia in April 2020 was 607,000 - nine times the loss experienced during the 90s recession (see Figure 2). The order of magnitude is also significant in Victoria, with 128,000 jobs lost in April 2020, compared to 38,000 in March 1991 (the largest single month job reduction in Victoria in the 90s recession).

Figure 2 Monthly change in jobs in Australia (1978 - 2020)

Source: ABS Labour Force

3 Dr Steven Kennedy (2020), Opening Statement to the July 2020 Senate Select Committee on COVID-19.
The recession is significantly impacting the CoM and Victorian economies

CoM encompasses the Melbourne CBD, Southbank, Docklands and many of Melbourne's inner-city suburbs, and is one of the State’s most unique local government areas.

Figure 3 City of Melbourne boundary

Source: Based on ABS cat. 1270.0.55.003 and Google data.

The municipality is characterised by a transient and growing population, a highly skilled professional workforce, strong arts and tourism industries, vibrant night-time economy and world-renowned sporting and cultural facilities.

This report estimates the economic impacts of the COVID-led recession on CoM and Victoria.

Scenario 1 (the central scenario) is aligned to the expectations defined in the Economic and Fiscal update published by the federal government and the Department of Treasury and Finance Victorian Economic Update, both released on 23 July. It estimates economic impacts to CoM and Victoria in a situation where:

- infections are assumed to be largely contained in the State by the end of the 2020 calendar year
- workers and visitors are enabled to physically return to the city from 2021.

This scenario estimates the expected impacts of the COVID-led recession on the CoM and Victorian economies. Given the uncertainty that surrounds the recovery of these economies, later in this report two alternative scenarios are explored which demonstrate how these impacts change in different circumstances.

Under this scenario, the economic contribution for CoM over five years to 2024 is estimated to be $49 billion lower than pre-COVID projections (see Figure 4). This accounts for 54 per cent of the loss for the whole of Victoria over the same period, which is estimated at $90 billion (see Figure 5).

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5 It is noted that this is prior to Stage 4 conditions and there is little transparency in those forecasts about the assumption of continued public health measures. However, they remain the most up to date government economic forecasts to inform this first scenario. A scenario that looks at a deeper contraction in 2020 from further public health measures is explored below (Scenario 2).
The jobs impact shown above reflect the employment that is economically deemed to occur in the city (i.e. the formal place of work would be in the city even if being temporary or partially delivered remotely). This reflects the economic value being created, but significantly understates footfall impacts as it shows remote working as ongoing employment. For example, over the five years examined employment in the CoM is estimated to be 6 per cent below the pre-COVID forecast. However, incorporating the ongoing impacts of remote working, the average daily worker population over five years is estimated to be 35 per cent below the pre-COVID forecast. This is most pronounced in 2020, where the employment is 10 per cent below pre-COVID forecast but average daily worker population is estimated to be 82 per cent below the pre-COVID forecast.

A summary of these results is shown in the table below.

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6 PwC analysis, refer to technical appendix for modelling detail and assumptions.
7 PwC analysis, refer to technical appendix for modelling detail and assumptions.
Table 2 Scenario 1 summary results

<table>
<thead>
<tr>
<th></th>
<th>CoM - jobs (five year average annual)</th>
<th>CoM - economic output (five year cumulative)</th>
<th>Victoria - jobs (five year average annual)</th>
<th>Victoria - economic output (five year cumulative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-COVID</td>
<td>526,000</td>
<td>$582 billion</td>
<td>3,499,000</td>
<td>$2,386 billion</td>
</tr>
<tr>
<td>Scenario 1</td>
<td>495,000</td>
<td>$533 billion</td>
<td>3,386,000</td>
<td>$2,296 billion</td>
</tr>
<tr>
<td>Difference</td>
<td>-30,000</td>
<td>-$49 billion</td>
<td>-123,000</td>
<td>-$90 billion</td>
</tr>
</tbody>
</table>

Source: PwC analysis, refer to technical appendix for modelling detail and assumptions. Difference may not sum due to rounding.

When compared to other Australian jurisdictions, Victoria has been hardest hit by the COVID-19, with the Department of Treasury and Finance estimating the State will record negative economic growth in the 2019-20 and 2020-21 financial years. The second wave of the virus in late July, and the Stage 3 and Stage 4 restrictions it has prompted in regional and metropolitan areas respectively, will only magnify the impacts on the State's economy. A significant proportion of these impacts have been recorded in the CoM alone.

**CoM makes up a significant proportion of the Victorian economy, with each critically dependent on the other**

CoM is a significant contributor to the strength of the Greater Melbourne economy, which has been recognised as one of the world’s most competitive and resilient economies. In 2019, CoM had a Gross Local Product (GLP) of $104 billion, equating to approximately 37 per cent of the Greater Melbourne economy, 24 per cent of the Victorian economy, and 7 per cent of the Australian economy. The municipality acts as Victoria’s transport, tourism, and employment hub, connecting businesses and individuals to goods and services across the State’s regional cities.

CoM is the State’s financial and economic hub supporting 497,000 jobs, primarily in professional, scientific and technical services; financial and insurance services; and in accommodation and food services. Approximately one-third of workers in CoM (163,300) are employed on a part-time, casual or contract basis, with these roles concentrated in the arts and recreation services, and accommodation and food services industries. With a highly skilled workforce, CoM’s unemployment rate has consistently remained lower than that of Greater Melbourne’s.

CoM is the fastest growing municipality in Australia in percentage terms. While it is home to just under 180,000 residents, on an average weekday, the population of the municipality grows to almost one million, as people travel in from the suburbs to the CBD for work, and both domestic and international tourists arrive to explore the city’s culinary, cultural, and sporting offerings. Greater Melbourne’s night-time economy was valued at $3.5 billion in 2019 and is an attractive offering for tourists and business travellers. The municipality's economy is supported by close to 17,000 businesses, including the headquarters of many local, national and international companies, peak bodies, and government and non-government agencies.

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8 The Economist Intelligence Unit (2019), The Global Liveability Index.
9 PwC analysis; City of Melbourne and Geographia (2018), City of Melbourne Economic Profile.
10 City of Melbourne and Geographia (2018), City of Melbourne Economic Profile.
11 City of Melbourne and Geographia (2018), City of Melbourne Economic Profile.
12 City of Melbourne and Geographia (2018), City of Melbourne Economic Profile.
13 City of Melbourne (2020), Melbourne profile: Melbourne facts and figures.
As a component of the whole of Victoria, CoM is disproportionately affected compared to previous economic forecasts

There are two main drivers behind this:

- CoM is seeing the largest negative impact because it is a centre of discretionary activity that has fallen away, activity that depends highly on footfall and daily populations that depend on the movement of workers, tourists and students. CoM is the heart of where people socialise, the night time economy, tourism and cultural and artistic activity. In a COVID-19 environment, people’s radius of activity has tightened, consumption either occurs around the home or has moved online, the gravity of the city has decreased.

- The pre-COVID forecast has higher growth for CoM than the state-wide average. The activity and industries that occur in the city were driving future growth.

So, CoM had the highest pre-COVID growth as well as the largest contraction, doubling in the incremental impact of COVID-19. These comparative impacts are shown in Figure 6.

**Figure 6 Index of comparative growth impacts**

The magnitude of the loss in CoM is driven by the unique industry mix in the municipality when compared to the rest of Victoria. Industries that experienced significant growth over the past two decades and were well positioned to continue to drive growth for the city, including Accommodation and Food Services, Retail Trade, Education and Training, and Arts and Recreation, have instead borne the brunt of the COVID-led recession.

**Industry-specific impacts in the CoM and Victoria**

The below explores the impact on particularly impacted industries. The disproportionate impact on different sectors is likely to change the industrial mix in CoM in the short term, but the longer-term impacts after the initial period modelled in this report remain very uncertain.
Education and Training

CoM is home to several world-class tertiary institutions, including the University of Melbourne, which was the largest exporter in the State by value in 2019. The closure of domestic and international borders has forced the deferral of thousands of international student enrolments in 2020, significantly impacting institutions like the University of Melbourne which relies on overseas student fees for 35 per cent of its income.\(^\text{15}\) It will also impact the local economies which house these institutions, with ABS data showing for every $1 lost in university tuition fees, another $1.15 is lost in the broader economy due to student spending.\(^\text{16}\)

Accommodation and Food Services and Retail Trade

CoM and other cities, by nature of their density and the transience of their populations, will experience more adverse impacts as a result of social distancing measures. A shift to remote working, coupled with domestic and international travel restrictions, has at one point during the event resulted in a 90 per cent decrease in pedestrian numbers in the city when compared to the same time last year.\(^\text{17}\)

This has significantly impacted industries that are dependent on foot traffic, including Accommodation and Food Services and Retail Trade. While the economic impacts look to be smaller in Retail Trade due to the inelastic consumption of staples and increased spending at larger online retailers, the recession has forced the closure or temporary cease in trading of hundreds of smaller discretionary retail businesses without an online presence. The longer-term impacts of the restrictions on brick and mortar stores is unclear, with the percentage of people shopping online increasing to 76 per cent in May 2020, compared to 39 per cent four years ago. While consumers were already drawn to the benefits of online shopping prior to the onset of the COVID-19 pandemic, it has accelerated its adoption. It has prompted some retailers to consider the permanent closure of brick and mortar stores as leases expire over the coming year.\(^\text{18}\)

Accommodation and Food Services has been one of the most impacted industries in all parts of Australia. However, CoM is particularly impacted because of reliance on footfall. In 2020, CoM employment in Accommodation and Food Services is estimated to decline by 42 per cent in Scenario 1, compared to a decline of 30 per cent in the whole of Victoria in the same scenario.\(^\text{19}\)

Arts and Recreation

Melbourne is known globally for its vivid arts and recreation offerings, including creative and performing arts heritage activities, and sports and recreation activities. The sector accounts for approximately 5 per cent of the City of Melbourne’s total employment.\(^\text{20}\) The industry is, however, overexposed to the impacts of the pandemic due to the discretionary nature of its consumption and its high proportion of casual, contract, and part-time workers. Unlike many other industries, social distancing is near impossible for many arts and recreation activities, both as workers and as consumers. Further, the industry has a complex and less flexible supply chain, with many components (venues, logistics, AV services) booked far in advance. These factors magnify the impacts of COVID-19 on the sector, with research showing that over half of those employed in the arts and recreation sector nationally could lose their jobs as a direct consequence of the pandemic.\(^\text{21}\) These factors

\(^\text{15}\) Department of Education, Skills and Employment (2018), Australian university incomes.
\(^\text{17}\) City of Melbourne (2020), News and media: Pedestrian counts the lowest in decades.
\(^\text{18}\) ABC (20 May 2020), Retailers reconsider need to reopen all stores as COVID-19 disruption sends shoppers online.
\(^\text{19}\) PwC analysis, refer to technical appendix for modelling detail and assumptions
\(^\text{20}\) City of Melbourne and Geographia (2018), City of Melbourne Economic Profile.
also make it difficult for these businesses to bounce back, meaning they will be one of the last to return to a ‘normal’ operating model.

Construction and property

The pandemic response has likewise impacted the construction sector, with building approvals dropping significantly.\(^22\) Stage four lockdowns in place in Victoria have further constrained jobs and output in construction.

In an environment where many more people are working from home, demand for commercial floorspace and development is reduced. There is also potential for flow-on impacts to retail floorspace demand, given fewer workers and visitors in the City translates to fewer customers in retail areas.

It is unclear to what degree this could impact office and retail space demand and therefore commercial property values in the longer run, however views on this are emerging.

While occupancy rates for commercial buildings are still high,\(^23\) suggesting many employers may be playing a game of ‘wait and see’ before making any significant adjustments to their workplaces, many anticipate asking rents will reduce. For example, market commentators are expecting falls in asking commercial rents of between 10-40 per cent in Melbourne.\(^24\)

Evidence of this trend is beginning to surface. Analysis by CBRE indicates that sublease vacancies (representing vacant office space made available by firms reducing their footprint) in Melbourne CBD were at historical highs by the end of June 2020.\(^25\) This increase in vacancies has already impacted asking rents: In Melbourne CBD in the June quarter, net effective rents in the prime office space market fell by 5.4 per cent from $454 to $430 a square metre.\(^26\) The stage four lockdowns currently in place are expected to have led to further increases in office space vacancies and reductions in net effective rents, however data beyond June are not yet available.

These trends in vacancies and asking rents would flow through to downward pressure on property valuations for commercial and retail properties. Critically, reduced valuations would impact CoM’s ratable income, lowering its capacity to support the City through the pandemic and reactivate it once lockdowns are lifted.


\(^{25}\) CBRE (July 2020), Melbourne sublease market update.

VICTORIA’S ECONOMIC RECOVERY WILL BE DRIVEN BY THE CITY OF MELBOURNE

The COVID-19 recession is complex and rapidly evolving, and there is a great deal of uncertainty around what the recovery looks like for our cities, regions and communities. This raises the major question of the role of CoM in shaping the State’s short-term recovery, and the impact of policy changes in CoM on Victoria’s economy.

The Victorian economy intrinsically relies on the CoM economy for its goods and services, and vice versa

Not only is the CoM the largest single area economy making up a large component of the Victorian economy (as discussed above), the supply chains between the two economies mean they each rely on the functioning of the other.

There are two main ways the supply chains are linked: functions within a single industry or organisation can be split across regions and different industries can specialise in different regions.

An example of a single industry operating across city and state economies is manufacturing. Although the industry occurs in all parts of the state, there is an important interaction between the city and the rest of the state in the functions that are performed. Most of the manufacturing occurs outside of the CoM - with only 5 per cent of total Victorian manufacturing employment is in the CoM.27 However, the functions that occur in the CoM are suited to being most productively executed there. For example, 14 per cent of professionals (covering corporate and research and development roles) in the manufacturing industry work in CoM, a significantly denser employment cluster.28 Technician and labourer manufacturing roles are significantly more likely to occur within the greater city area, but not centralised, while the production of raw materials for manufacturing (such as agricultural produce for food manufacturing) will occur in the regions. Without the complementary functions occurring in different environments, the economic activity in each area could not occur.

There are industries in which CoM specialises. Figure 7 highlights the top five industries by proportion of total Victorian employment in CoM. These are industries where employment clusters more in the CoM than pure scale would suggest.

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27 PwC analysis, refer to technical appendix for modelling detail and assumptions
In terms of economic links, financial and insurance services are particularly important here as they are a key enabler of almost all economic activity. Almost every industry has financial and insurance services in their supply chain and requires them to operate. And most of those services are provided from within the CoM. Without this, industries across the state-wide economy would not be able to operate in the way they do currently.

Similar enablement functions are performed by sub-industry components that also specialise within CoM - particularly tertiary education and professional services. Tertiary education, though not necessarily directly purchased by businesses, is a key way that Victoria improves the knowledge and productivity of its workforce, and a significant component of that occurs within CoM. Again, without this critical city activity, the Victorian economy as a whole would suffer reduced intellectual capacity. Professional services, providing businesses the advice they need in legal, accounting and other functions in order to be productive also comes significantly from the CoM (although is generally more spread across the state).

These enabling functions support productivity generally which is explored further below.

**CoM is the heart of drawing tourism consumption into Victoria**

In the year to March 2020, Victoria hosted 95.5 million visitors, including international and domestic overnight visitors, and those visiting the State for a daytrip only. The tourism expenditure for these visitors was $31.3 billion, which amounts to spending of approximately $85.6 million per day in the State. With the exception of visitors from China, the top source markets by overnight visitor spend were visitors from Victoria, New South Wales, Queensland, and South Australia, highlighting the significance of Victoria as a colourful domestic travel destination.

The Greater Melbourne region drew 39.6 per cent of these visitors to Victoria. For international tourists, who make up only 3 per cent of visitors to Victoria but 26 per cent of tourism expenditure, Melbourne provides a gateway for arriving visitors to explore the rest of the state.

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For the year ending December 2019, the top five places and attractions attended by domestic and international overnight visitors who visited Melbourne included: Melbourne CBD shopping, Southgate / Southbank, Federation Square, Queen Victoria Market, and Crown Melbourne. CoM is home to all five of these hotspots, which collectively hosted 14.2 million visitors over the year. However, CoM has much more to offer to tourists, drawing millions with its festivals, local cafes, laneway restaurants, and arts, cultural and sporting events. It is no surprise that CoM’s unique offering drives the food services, retail trade, accommodation and education and training sectors, which account for 68 per cent of tourism employment in Victoria.

### CoM is the productivity and growth engine of Victoria

CoM is Victoria’s professional services centre and is the core driver of productivity growth, with education and training, financial and insurance services, and professional, scientific, and technical services accounting for 36 per cent of the municipality’s gross local product. These industries are all underpinned by digitalisation, highlighting CoM’s role as a digital capital of Victoria.

Digitalisation is of increasing importance to the delivery of tertiary education services. For over a decade, international education has been Victoria’s largest services export industry, generating $12.6 billion in export revenue for Victoria in 2018-19, and attracting over 250,000 international students. CoM is home to several world-class tertiary institutions, including the University of Melbourne.

Melbourne’s startup economy, concentrated largely in the City of Melbourne, is another strong driver of jobs growth and productivity. The sector is supported by a dedicated startup agency, LaunchVic, and is valued at $3.2 billion which represents 40 per cent growth over the 12 months to December 2019. The Life Sciences and FinTech subsectors are the largest contributors to the city’s startup economy, with the latter accounting for 80 per cent of key funding investment across Australia in the last financial year. These startups thrive in environments, such as that found in CoM, characterised by an abundance of talented founders and employees, strong investment opportunities, proximity to research organisations, universities, and corporate organisations, and a conducive policy environment. With its rapid annual growth, the startup sector is generating jobs growth, securing local economies as creators of innovation, and attracting multinational corporations to the City of Melbourne, distinguishing it from other municipalities in Victoria.

Figure 8 shows the incremental productivity of a worker in CoM above the average across Victoria for a range of industries. In aggregate, city workers produce 23 per cent more value add than the average Victorian worker. This is driven, in part, by the concentration of diverse businesses in the Melbourne CBD and Docklands precincts and the associated agglomeration economies for CoM. These benefits include operating efficiencies, the attraction of a diverse pool of highly skilled workers into a competitive environment, and technological and knowledge spillovers which drive innovation in CoM’s professional and creative sectors. The GLP of CoM has grown by over 40 per cent in the 10 years as the economy has shifted its focus from manufacturing and mining towards knowledge, professional services, and biotech services.

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33 Tourism Research Australia (2020), *2018-19 State Tourism Satellite Accounts (STSA)*.
34 City of Melbourne and Geographia (2018), *City of Melbourne Economic Profile*.
35 Deloitte (2020), *Productivity is not an accident: The economics and impact of Victoria’s start up ecosystem* shows that startups cluster within 2km of the Melbourne CBD
37 PwC analysis, refer to technical appendix for modelling detail and assumptions

17
agglomeration benefits arising from the concentration of these services, for example, the financial and insurance services in Docklands or the biotechnology precinct in Parkville, are attractive to companies, their investors, and their employees.

**Figure 8 Productivity by industry (GVA per worker), Victoria compared to CoM, increment above whole of Victoria (measured as GVA per worker) (2019)**

Source: PwC analysis, refer to technical appendix for modelling detail and assumptions. Note: This excludes industries skewed by very large or very small proportions of state-wide employment occurring in CoM, namely Agriculture, Mining, Financial Services and Utilities.
UNCERTAINTY SURROUNDS THE SPEED AND STRENGTH OF THE RECOVERY

The post-COVID economic outcomes for CoM and Victoria are uncertain

The recovery hinges largely on our ability to manage the disease whether through suppression and containment or prevention via a vaccine. Furthermore, the CoM economy is reliant on the return of significant numbers of office workers to the City to drive local consumption, supporting the local businesses that underpin the City’s attractiveness as a destination to work, visit and study.

On the other hand, there could be benefits to businesses, workers and the economy from an increased tendency towards remote working in the future, where those who would have historically commuted into the City for office jobs instead complete their work at home. A range of impact areas has been identified in the context of an increased tendency towards remote working in the future, or a ‘distributed workforce’.

Figure 9 Impact areas flowing from an increased tendency towards remote working in the future

<table>
<thead>
<tr>
<th>01</th>
<th>Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour market accessibility; productivity and economies of agglomeration; cost of factors of production; entrepreneurship and innovation; location decisions of firms; future skills requirements; impacts to sports and entertainment precincts.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>02</th>
<th>Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trip patterns (origins and destinations); network demand; congestion (economic costs); transport costs (vehicle operating, fuel etc.); transport revenues (PT farebox, tolls, other); freight movement and efficiency (particularly last mile)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>03</th>
<th>Infrastructure and government services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience/viability of existing infrastructure networks; benefit realisation from planned projects; changes in demand for new infrastructure (and associated costs); social infrastructure demand/supply (schools, healthcare etc.)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>04</th>
<th>Liveability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of living (housing, transport, energy costs etc.); leisure time (relative to commute time changes); proximity to availability of local services/amenities (in working from home context); location decisions of households</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>05</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy demand/consumption (household, business); greenhouse gas emissions (transport, energy); air quality</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>06</th>
<th>Property and construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand/supply; investment attractiveness of asset classes; occupancy; pricing/yields; project pipeline; Capacity of existing planning frameworks to absorb change; second order effects on property/construction jobs</td>
<td></td>
</tr>
</tbody>
</table>

Source: PwC analysis

It is uncertain which impacts will be experienced and to what degree. Surrounding these potential impacts are a range of questions about the future for remote working and the speed and strength of economic recovery.
Critical uncertainties surrounding CoM and Victoria’s economic recovery

Stickiness of remote working

- Social distancing measures are having an enormous impact on how business is conducted as companies, workers, suppliers and customers adapt to remote working.
- When the pandemic eventually runs its course or a vaccine is found, a key question for decision-makers is the degree to which remote working will stick.
- A significant shift to remote working would have major implications for where goods and services are consumed, and the way people move around the city.
- Over time, this shift could precipitate a redistribution of households and businesses away from existing centres leading to new spatial structures and patterns of opportunities and costs.

Shape of the economic recovery

- The longer-term economic impacts of COVID-19 combined with remote working and distributed workforces could have massive implications for Melbourne and Victoria.
- The pace and scale of the economic shock caused by COVID-19 means that Australia has already changed, and further change is inevitable.
- The contraction of some industries and accelerated growth of others is likely to lead to a pronounced adjustment to the economic structure of our cities and regions.
- A strong recovery could increase the speed and degree of any changes arising from the stickiness of remote working and any consequential impacts on population and economic geographies.

Source: PwC analysis

Two alternative scenarios can be used to explore these uncertainties and potential impacts and highlight implications for decision makers

To understand the difference in the impacts on CoM and Victoria in alternative circumstances, two scenarios have been modelled to Scenario 1.40

- **Scenario 2 (Increased risk and prolonged recovery):** Infections and public health measures continue into 2021, slower return to CoM workplaces / resumption of visitation from within and outside Greater Melbourne. This includes significantly more impact in 2020 with prolonged severe public health measures.
- **Scenario 3 (Quicker and stronger recovery):** Rapid containment of disease (potentially through vaccine development), individuals have confidence in taking public transport and returning in larger numbers to office environments. Visitation more rapidly resumes in CoM with retail and hospitality quickly coming back online.

The results show that a rapid containment of COVID-19 and workers and visitors return to CoM, enabling a **quicker and stronger economic recovery** delivers (see Figure 11):

- **$7 billion more economic output in CoM** over five years than expected in Scenario 1 (or $41 billion compared to pre-COVID forecast)
- **An annual average of 11,000 more jobs in CoM** over five years than expected in Scenario 1 (or 19,000 compared to pre-COVID forecast)

Conversely, a **prolonged recovery marked by increased public health risk** and fewer workers returning physically to CoM will result in:

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40 Scenario 1 aims to be a central scenario in line with latest government projections, but it is noted that state and federal projections were published on 23 July shortly before Stage 4 lockdowns. Scenario 2 aims to show the largest likely decline from Stage 4 restrictions, so a true central scenario is likely to be between Scenario 1 and 2.
- **$62 billion less economic output in CoM** over five years than expected in Scenario 1 (or $110 billion compared to pre-COVID forecast)
- **An annual average of 48,000 fewer jobs in CoM** over five years than expected in Scenario 1 (or 79,000 compared to pre-COVID forecast)

Figure 11 CoM economic output and employment in alternative scenarios

![CoM economic output and employment graph](image)

Source: PwC analysis, refer to technical appendix for modelling detail and assumptions.

The results follow a similar pattern in the Victorian economy. **Over five years, a quick and strong recovery for the Victorian economy delivers $16 billion in economic output above what is expected in Scenario 1, while a prolonged recovery results in a further loss of $236 billion in economic output** (Figure 12).

Similarly, a quick and strong recovery will support an average annual additional 33,000 jobs in Victoria above Scenario 1 over five years to 2024, while a slow and prolonged recovery will see the loss of 285,000 jobs over the same period.

Figure 12 Victoria economic output and jobs in alternative scenarios

![Victoria economic output and jobs graph](image)

Source: PwC analysis, refer to technical appendix for modelling detail and assumptions.

A summary of these results is shown in the table below.
### Table 3 Scenarios 2 and 3 summary results

<table>
<thead>
<tr>
<th></th>
<th>CoM - jobs (five year average annual)</th>
<th>CoM - economic output (five year cumulative)</th>
<th>Victoria - jobs (five year average annual)</th>
<th>Victoria - economic output (five year cumulative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-COVID</td>
<td>526,000</td>
<td>$582 billion</td>
<td>3,499,000</td>
<td>$2,386 billion</td>
</tr>
<tr>
<td>Scenario 1</td>
<td>495,000</td>
<td>$533 billion</td>
<td>3,386,000</td>
<td>$2,296 billion</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>447,000</td>
<td>$471 billion</td>
<td>3,101,000</td>
<td>$2,060 billion</td>
</tr>
<tr>
<td>Scenario 2 difference from Scenario 1</td>
<td>-48,000</td>
<td>-$62 billion</td>
<td>-285,000</td>
<td>-$236 billion</td>
</tr>
<tr>
<td>Scenario 2 difference from pre-COVID</td>
<td>-79,000</td>
<td>-$110 billion</td>
<td>-398,000</td>
<td>-$327 billion</td>
</tr>
<tr>
<td>Scenario 3</td>
<td>506,000</td>
<td>$540 billion</td>
<td>3,418,000</td>
<td>$2,312 billion</td>
</tr>
<tr>
<td>Scenario 3 difference from Scenario 1</td>
<td>11,000</td>
<td>$7 billion</td>
<td>32,000</td>
<td>$16 billion</td>
</tr>
<tr>
<td>Scenario 3 difference from pre-COVID</td>
<td>-19,000</td>
<td>-$41 billion</td>
<td>-80,000</td>
<td>-$74 billion</td>
</tr>
</tbody>
</table>

Source: PwC analysis, refer to technical appendix for modelling detail and assumptions. Difference may not sum due to rounding.

These results can guide actions to reboot the CoM and Victorian economies

These scenarios highlight the importance of disease control and the opening of domestic and international borders to the speed and strength of recovery for Victoria’s economy. Response actions within the influence of CoM and the Victorian Government can continue to focus on these factors.

While disease control and reopening of borders (subject to appropriate health considerations) are clear objectives to be pursued, a critical uncertainty relates to the longer term ‘stickiness’ of remote working and its impacts on longer-term economic growth for the City and the State.

Cities have been critical to the strength of economies for centuries

Cities’ concentration of diverse businesses and a highly skilled workforce drive competition and innovation, operating efficiencies and knowledge spillovers which contribute to productivity growth, lifting living standards. In Victoria, these benefits have been driven by the face-to-face interactions in the CoM as the State’s knowledge hub.
The long-term outcomes of a remote workforce are not yet well understood

While many businesses have transitioned to remote working, and many employees have embraced the benefits this can bring, the long-term impacts on productivity are unclear. The benefits to businesses and individuals of an increased level of remote working include:

- businesses can potentially hire from further afield, and with a greater pool of talent this means they may be more likely to find the best person for a job
- workers can dedicate more time to productive activities or to enjoying leisure time, given reduced hours are spent in transit to workplaces.

There are also likely to be some costs, and these could affect different businesses and individuals differently. Some roles and businesses, such as inbound call centres, may not incur significant impacts from remote working. Other roles that depend more on face-to-face interaction between workers or with customers could be adversely affected, as evidenced by the job losses in retail and food industries. There also may be some longer-term mental health costs from missing social interactions.

Remote working has not yet been tested at scale for an extended period, however, early evidence shows that the shift to remote working could push productivity down by as much as 3 per cent.\(^4\) It remains unclear, however, whether the levels of innovation and productivity growth that have historically been driven by agglomeration economies like the CoM can continue in a remote setting in the long-term.

Preferences around remote working suggest an ongoing need for a CBD in Melbourne

Over time, and especially within the last six months, many Australians have embraced the benefits that come with remote working. There is a building evidence base that there will be some preference for remote working in the longer term.\(^5\) However, this evidence points towards a mix of remote and centralised work. For example, between 40 and 60 per cent of individuals have revealed a preference for working two or three days a week from home in the longer-term. Similarly, organisations have indicated a desire to move some functions or proportions of their workforce to remote working, with a recent study by Gartner showing that 74 per cent of companies plan to permanently shift 5 per cent or more of their workforce to remote work post-COVID.\(^6\)

For many businesses, a completely remote working model is unfeasible, with most still requiring some face-to-face interactions. Individuals likewise have reported an intention to attend physical workplaces post-pandemic, albeit at a reduced frequency. For these interactions to occur, a physical meeting place in a central and widely accessible business district is still a requirement - otherwise firms will lose access to skilled workers.

Rates of digital adoption are high in some areas, but this is not universal. Infrastructure is also critical

Digitalisation has enabled parts of our society to rapidly move away from a reliance on only physical coexistence. Many businesses, in particular large businesses, have over the past several months adopted new technologies to enable remote working for their employees and service delivery for their customers.

The digitalisation of our workforce is however an ongoing process and is in early stages of development in Australia. The National Broadband Network deployment has just been completed and carriers have only recently commenced the roll out of 5G networks. While most Australians are employed by small- and medium-

\(^4\) Australian Financial Review (19 August 2020), *How working from home hurts the economy*.

\(^5\) Boston Consulting (2020), *Personalisation for your people: How COVID-19 is reshaping the race for talent*.

\(^6\) Lavelle J, April (2020), *Gartner CFO Survey Reveals 74% Intend to Shift Some Employees to Remote Work Permanently*. 
sized businesses, only 16 per cent of these businesses have a fibre connection, limiting their capacity to rapidly scale-up to remote operation.

A completely remote economy will also need to be supported by a robust operating model and suitable public infrastructure. Transportation connectivity affects firms’ access to markets, materials, workers, customers, and information. It is often cited as a critical location decision factor, in that it can increase employment or firm density through increased access to labour and better links between companies, which in turn drives productivity increases.\textsuperscript{44}

Additionally, the nature of public transportation (over and above road-based forms of connectivity) can deliver higher density concentrations of activity and therefore productivity by making more efficient use of valuable land.\textsuperscript{45} Knowledge-based industries and innovation clusters, such as the professional services cluster within CoM, benefit particularly from public transit nodes.\textsuperscript{46} As a nation, we have invested in hub-and-spoke economies such as the CoM, and we are not yet prepared to move away from them. In the short and medium-term future, digital economies may not perform and grow as effectively as in the hybrid physical and digital economies in which we worked and lived prior to the pandemic.

\textbf{In line with this evidence, policy levers that could reactivate areas of economic agglomeration are valuable to the recovery.} It is acknowledged however that these economic conditions have never been encountered before and policy makers must remain agile to refining and changing levers based on a live view of the current environment, including the economic impacts flowing from widespread remote working in the longer-term.

\textbf{This points to the CoM as the critical element of Victoria’s recovery} both as a centre of agglomeration and a leader in digitalisation.

\textsuperscript{44} See, for example, Graham, D (2007), Agglomeration, Productivity and Transport. Journal of Transport Economics and Policy.
\textsuperscript{46} Centre for Transit Oriented Development (2011), Transit-Oriented Development (TOD) and Employment.
IMPLICATIONS FOR DECISION-MAKERS

The analysis highlights that the return of knowledge workers to the CBD is important to supporting the CoM’s and hence Victoria’s recovery from COVID-19. In this way, the recovery depends not just on disease developments but also actions from federal, state and local policy makers. There are four distinct phases for the economic recovery for CoM and Victoria as shown in Figure 13.

Figure 13 Phases of recovery from the recession

CoM represents a quarter of the Victorian economy, and its recovery is critical to driving productivity, consumption, and growth within the State. In July 2020, the Victorian government announced a $3 billion economic survival and jobs package which offers eligible businesses waivers for payroll taxes and liquor license fees, a Business Support Fund for hard hit sectors, and a Working for Victoria Fund to support displaced workers apply for different types of work. Over the past six months, CoM has also implemented several additional measures to control the spread of the disease while supporting individuals and businesses through the impacts of COVID-19 restrictions, including:

- A $50 million COVID-19 Recovery Package and a freeze on rate increases this year.\(^{47}\)
- $168.5 million in infrastructure for our local community and economy, including progressing the Queen Victoria Market renewal.\(^{48}\)
- A ‘cleaning blitz’ in CoM to improve hygiene in the municipality and increase public confidence, including increased frequency of high pressure cleans of street furniture and cleaning of public toilet blocks; the

\(^{47}\) City of Melbourne (19 May 2020), News and media: Rebuilding Melbourne’s economy with stimulus and rates relief.

\(^{48}\) City of Melbourne (19 May 2020), News and media: Infrastructure delivery to kick-start our economy.
installation of new soap dispensers in toilet blocks in Melbourne’s busiest parks; and the deep cleaning of priority park assets.\textsuperscript{49}

- \textbf{\$17 million} in artists and arts organisations in the coming year through grants, investment in public art and programming.\textsuperscript{50}

- \textbf{\$5 million in financial support for small to medium sized businesses} to invest in online and e-commerce capabilities, take part in training and professional development, and undertake capital works projects.\textsuperscript{51}

- The \textit{extension of hours for construction activity} to fast-track the completion of projects and protect jobs.\textsuperscript{52}

- The provision of \textbf{free temporary parking permits} for up to 8,000 frontline workers.\textsuperscript{53}

In addition to other measures, these ‘lockdown’ actions have supported Victorians through volatile economic circumstances. However, the recent return to Stage 4 restrictions has resulted in the suspension of some of these actions and the introduction of others. To continue to support a strong medium and long-term recovery of the CoM economy, and in turn, the Victorian economy, CoM needs the support of the State Government. The asks of the government from CoM broadly fall into two categories:

- actions in the State’s control, to support the recovery of the CoM economy

- financial backing for CoM to deliver programs of work targeted at enabling a faster recovery (e.g. investment).

This report identifies potential future actions for governments by recovery phase and highlights the key policy areas, including jobs creation, public health and safety measures, and economic activation and confidence building.

These future actions are pathways for consideration and are not intended to be a prescriptive list of recommendations. Immediate further work is required to:

- test the feasibility and benefits of individual actions and develop plans

- on the back of feasibility and benefits assessment and planning, specify the asks of different organisations and how these can translate to outcomes.

The proposed actions are detailed below in Table 4.

\footnotesize
\begin{itemize}
  \item City of Melbourne (24 March 2020), News and media: Council steps-up cleaning efforts.
  \item City of Melbourne (21 May 2020), News and media: \$17 million investment to protect Melbourne’s arts and culture.
  \item City of Melbourne (26 March 2020), News and media: Grants open for businesses affected by COVID-19.
  \item City of Melbourne (2 April 2020), News and media: Construction hours extended in response to COVID-19.
  \item City of Melbourne (5 May 2020), News and media: Frontline parking permits in response to COVID-19.
\end{itemize}
<table>
<thead>
<tr>
<th>Strategic planning</th>
<th>Public infrastructure</th>
<th>Tourism</th>
<th>Industry</th>
<th>Pandemic public health response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Respond (now)</strong></td>
<td><strong>Recover (1 year)</strong></td>
<td><strong>Regenerate (4 years)</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Strategic planning**
  - Investment in small-scale shovel-ready infrastructure projects and maintenance work
  - Delivery of alternative transport options (walking paths, cycle paths) in the CBD that enable social distancing
  - Review large-scale infrastructure projects to validate benefits that are now uncertain
  - Investment in recreational infrastructure in CoM
  - Explore opportunities for iconic new investments that can draw workers and visitors back to the CoM

- **Public infrastructure**
  - Public campaign to rebrand the tourism and entertainment industries and manage the perceptions of Melbourne as a great place to visit
  - Provide subsidies to increase occupancy rates in CoM hotels
  - Provide incentives for event management organisations to promote and deliver large scale events, including the Australian Open and Grand Prix
  - Consider visa fast-tracking for international students in high-demand areas

- **Tourism**
  - Support for businesses to COVID-safe their offices or venues and encourage physical return of workforce to CBD
  - Provide incentives (rental subsidies or reduced rates) to retail businesses to minimise shopfront vacancies
  - Work with StartupVIC and InvestVIC to boost confidence and financial viability in the startup sector and support innovative projects

- **Industry**
  - Amend transport infrastructure, including changes to gates in stations and guidance on seating on public transport

- **Pandemic public health response**
  - Amend transport infrastructure, including changes to gates in stations and guidance on seating on public transport

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*Implementation of actions outlined in the ‘Respond’ phase should be subject to the latest health advice*
# DETAILED RESULTS APPENDIX

Table 4 Scenario 1 industry level results (CoM)

<table>
<thead>
<tr>
<th>Industry Category</th>
<th>Jobs (headcount)</th>
<th>Economic output (GLP, $ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
<td>2020</td>
</tr>
<tr>
<td>Agriculture, Forestry and Fishing</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Mining</td>
<td>3,200</td>
<td>3,100</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>12,600</td>
<td>12,300</td>
</tr>
<tr>
<td>Electricity, Gas, Water and Waste Services</td>
<td>12,400</td>
<td>12,300</td>
</tr>
<tr>
<td>Construction</td>
<td>7,500</td>
<td>7,200</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>6,400</td>
<td>6,400</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>22,100</td>
<td>19,800</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>49,300</td>
<td>28,800</td>
</tr>
<tr>
<td>Transport, Postal and Warehousing</td>
<td>16,300</td>
<td>15,500</td>
</tr>
<tr>
<td>Information Media and Telecommunications</td>
<td>26,500</td>
<td>24,600</td>
</tr>
<tr>
<td>Financial and Insurance Services</td>
<td>69,300</td>
<td>64,700</td>
</tr>
<tr>
<td>Rental, Hiring and Real Estate Services</td>
<td>10,100</td>
<td>9,500</td>
</tr>
<tr>
<td>Professional, Scientific and Technical Services</td>
<td>87,300</td>
<td>84,400</td>
</tr>
<tr>
<td>Administrative and Support Services</td>
<td>16,900</td>
<td>16,400</td>
</tr>
<tr>
<td>Public Administration and Safety</td>
<td>47,400</td>
<td>50,100</td>
</tr>
<tr>
<td>Education and Training</td>
<td>27,000</td>
<td>21,300</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>43,600</td>
<td>46,300</td>
</tr>
<tr>
<td>Arts and Recreation Services</td>
<td>25,700</td>
<td>21,500</td>
</tr>
<tr>
<td>Other Services</td>
<td>13,200</td>
<td>11,200</td>
</tr>
<tr>
<td>Non-industry categories</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>497,200</td>
<td>455,800</td>
</tr>
</tbody>
</table>

Source: PwC analysis, refer to technical appendix for modelling detail and assumptions. Jobs rounded to nearest hundred and output rounded to the nearest million. Difference may not sum due to rounding.
## Table 5 Scenario 2 industry level results (CoM)

<table>
<thead>
<tr>
<th>Industry Category</th>
<th>Jobs (headcount)</th>
<th>Economic output (GLP, $ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
<td>2020</td>
</tr>
<tr>
<td>Agriculture, Forestry and Fishing</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Mining</td>
<td>3,200</td>
<td>2,900</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>12,600</td>
<td>11,600</td>
</tr>
<tr>
<td>Electricity, Gas, Water and Waste Services</td>
<td>12,400</td>
<td>11,600</td>
</tr>
<tr>
<td>Construction</td>
<td>7,500</td>
<td>6,800</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>6,400</td>
<td>6,100</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>22,100</td>
<td>19,800</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>49,300</td>
<td>26,400</td>
</tr>
<tr>
<td>Transport, Postal and Warehousing</td>
<td>16,300</td>
<td>14,600</td>
</tr>
<tr>
<td>Information Media and Telecommunications</td>
<td>26,500</td>
<td>23,300</td>
</tr>
<tr>
<td>Financial and Insurance Services</td>
<td>69,300</td>
<td>61,300</td>
</tr>
<tr>
<td>Rental, Hiring and Real Estate Services</td>
<td>10,100</td>
<td>9,000</td>
</tr>
<tr>
<td>Professional, Scientific and Technical Services</td>
<td>87,300</td>
<td>79,900</td>
</tr>
<tr>
<td>Administrative and Support Services</td>
<td>16,900</td>
<td>15,600</td>
</tr>
<tr>
<td>Public Administration and Safety</td>
<td>47,400</td>
<td>47,400</td>
</tr>
<tr>
<td>Education and Training</td>
<td>27,000</td>
<td>20,200</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>43,600</td>
<td>43,900</td>
</tr>
<tr>
<td>Arts and Recreation Services</td>
<td>25,700</td>
<td>20,400</td>
</tr>
<tr>
<td>Other Services</td>
<td>13,200</td>
<td>10,600</td>
</tr>
<tr>
<td>Non-industry categories</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>497,200</strong></td>
<td><strong>431,500</strong></td>
</tr>
</tbody>
</table>

Source: PwC analysis, refer to technical appendix for modelling detail and assumptions. Jobs rounded to nearest hundred and output rounded to the nearest million. Difference may not sum due to rounding.
TECHNICAL APPENDIX

The rapid analysis presented in this report aims to leverage existing analysis and scenarios to demonstrate potential recovery paths from the economic downturn catalysed by the COVID-19 pandemic. Given that at the time of writing this report, Victoria is still under a lockdown order, there is still a great deal of uncertainty in what the impacts of COVID-19 will be. Therefore, this analysis presents scenarios, anchored by the descriptive situations described below, rather than predictive forecasts.

Scenario analysis

For all analysis CoM is taken to mean the local government area as defined by CoM’s Census of Land Use and Employment (CLUE). To align with existing CoM analysis, CLUE employment is used as the starting point for all analysis. As per below, other sources were used to inform GLP per worker estimates, but those were then always calibrated back to CLUE employment levels.

The approach to the analysis was conducted in the following stages:

● calibration of pre-COVID forecast
● calibration of Scenario 1 central post-COVID case
● analysis of Scenarios 2 and 3 around the central Scenario 1.

The calibration of the pre-COVID forecast relied on the following:

● forecasts by industry at the national level were informed by PwC’s Australia Rebooted
● the Victorian component of those forecasts, calibrated using:
  o current Victorian proportions of each industry from PwC’s Geospatial Economic Model (GEM)
  o relative population growth for Victoria from Victoria in the Future, and national population comparisons from ABS Population Projections, Series B
  o headline forecasts of Victorian economic conditions in Victoria’s 2019-20 Budget
● the CoM component of the Victorian forecast, calibrated using:
  o current employment by industry from CLUE
  o GVA for that employment informed by historical Geographia analysis of CoM and PwC’s GEM
  o relative population growth for the labour pool that serves CoM (Greater Melbourne) from Victoria in the Future.

The calibration of Scenario 1 (central post-COVID) relied on the following (which are also adopted for Scenarios 2 and 3 except where explicitly called out as scenario assumptions below):

● forecasts by industry at the national level were taken from existing PwC economic forecast for Australia Rebooted
the Victorian component of those forecasts was calibrated using:

- relative population growth for Victoria post-COVID provided by DELWP and DPC, and national population forecasts from the federal Economic and Fiscal Update from 23 July
- headline forecasts of Victorian economic conditions in the Victorian Government Economic Update from 23 July

the CoM component of the Victorian forecast was calibrated using:

- relative population growth for the labour pool that serves CoM (Greater Melbourne) from the post-COVID population forecast provided by DELWP and DPC
- calibration within the education industry to account for university clustering within CoM using ABS Census employment by LGA and detailed industry class
- calibration within the retail industry to account for footfall differences (examining types of occupations within retail to isolate those most impacted by shutdowns)
- calibration within the food services industry to account for footfall differences (based on working from home preferences)
- calibration to productivity of CoM workers based on working from home preferences and relative GVA per worker outcomes in different regions.

The descriptive scenarios analysed were as follows:

- Scenario 1 (Central scenario) to illustrate the impact of COVID-19 on the CoM and rest of Victoria. COVID-19 infections in Victoria are largely contained by the end of the 2020 calendar year, giving households confidence in returning to CoM workplaces in 2021 and opportunities for retail and hospitality to largely reopen in that timeframe. Visitation to CoM resumes in 2021.
- Scenario 2 (Increased risk and prolonged recovery). The current wave of infections and related public health measures in Victoria continues into 2021, resulting in a slower return to CoM workplaces and resumption of visitation from within and outside Greater Melbourne.
- Scenario 3 (Quicker and stronger recovery). Rapid containment of disease (potentially through vaccine development) gives individuals comfort in taking public transport and returning in larger numbers to office environments. Visitation more rapidly resumes in the City with retail and hospitality quickly coming back online.

The detailed assumptions to describe these scenarios are included in the following table.

It is important to note that all three scenarios have the same underlying population forecast (as provided by DELWP). This is an area of uncertainty that will impact further economic growth (as recent growth across Australia has relied on population growth) that is still too unknown to be changed across scenarios.
Table 5 Scenario parameters and assumptions

<table>
<thead>
<tr>
<th>Factor</th>
<th>Scenario 2 (Increased risk and prolonged recovery)</th>
<th>Scenario 1 (Aligned with latest government projection)</th>
<th>Scenario 3 (Quicker and stronger recovery)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial 2020 impact</strong></td>
<td>Informed by Victorian Government Economic Impact and Federal Economic and Fiscal Update (both from 23 July) but replicating the decline in the June 2020 quarter to also occur in the September 2020 quarter, reflecting a second lockdown major decline</td>
<td>Aligned to Victorian Government Economic Impact from 23 July</td>
<td>Aligned to Victorian Government Economic Impact from 23 July</td>
</tr>
<tr>
<td><strong>Workforce physical return to CoM</strong></td>
<td>40% in 2022, recover over 5 years (based on coming out of current lockdown in a slightly slower manner, appropriate policies in place and lesser sentiment on returning)</td>
<td>60% in 2021, recover over 5 years (based on coming out of current lockdown in a timely manner, appropriate policies in place and current sentiment on returning)</td>
<td>80% in 2021, recover over 5 years (based on coming out of current lockdown in a slightly quicker manner, appropriate policies in place and lesser sentiment on returning)</td>
</tr>
<tr>
<td><strong>Return of international tourists</strong></td>
<td>Remains at low level (20% of pre COVID) for additional year, with recovery beginning in 2022 (based on infection rates, appropriate policies, international agreements, general sentiment)</td>
<td>Base case 2020 (20% of pre COVID, covers first few months), recovery over 5 years (based on infection rates, appropriate policies, international agreements, general sentiment)</td>
<td>Recovers over 3 years (based on infection rates, appropriate policies, international agreements, general sentiment)</td>
</tr>
<tr>
<td><strong>Return of international students</strong></td>
<td>Remains at low level for an additional year (based on infection rates, appropriate policies, international agreements, general sentiment)</td>
<td>Base case 2020 (20% of pre COVID, covers first few months), recovery over 5 years (based on infection rates, appropriate policies, international agreements, general sentiment)</td>
<td>Recovers over 3 years (based on infection rates, appropriate policies, international agreements, general sentiment)</td>
</tr>
<tr>
<td><strong>Return of domestic visitors (interstate, intrastate, daily)</strong></td>
<td>Remains at low level for an additional year (based on infection rates, appropriate policies and consumer sentiment)</td>
<td>Base case 60% of pre COVID, then 5-year recovery (based on infection rates, appropriate policies and consumer sentiment)</td>
<td>Recovers over 3 years (based on infection rates, appropriate policies and consumer sentiment)</td>
</tr>
<tr>
<td><strong>Victorian business location decisions</strong></td>
<td>Loss in 2021 of major employers (2,500 jobs) *</td>
<td>No disproportion unemployment in CoM outside industry mix and impacts of above</td>
<td>Onshoring additions in 2021 (2,500 jobs) *</td>
</tr>
</tbody>
</table>
A range of values were explored in informing these assumptions. It is important to note that this is an additional assumption on top of all the other factors that will have employment impacts. This assumption is not about where existing jobs will be delivered from, but businesses deciding to fundamentally move from other states/international into CoM or leave CoM for another state/country. 2,500 was chosen because although a variety of levels were investigated, higher levels were overshadowing the effects of the other factors and were without a basis to demonstrate such an extreme effect.

** This assumption is not about business relocation within Victoria, but business relocations whereby employers move from other states or countries into CoM or leave CoM for another state/country.

These factors informed the following adjustments from Scenario 1 for Scenarios 2 and 3:

- **Initial impact** - Scenario 3 remains the same as Scenario 1. Scenario 2 assumes that a Stage 4 lockdown would move the 2020 impact away from current government forecasts and the September quarter would have additional contractions in GSP in line with those occurring in the June quarter in line with the first set of lockdowns.

- **Workforce return** - these assumptions informed the amount of consumption on food services in CoM from worker daily population, as well as the productivity of workers (calibrated to an increment of the difference between GVA per worker by industry in the CoM compared to rest of Victoria).

- **International tourists** - these assumptions informed the export consumption component in a range of consumer industries (retail, accommodation, food services, transport) based on average consumption profiles of international tourists from Tourism Research Australia

- **International students** - these assumptions informed the export component of the education industry

- **Domestic visitors** - these assumptions informed the domestic consumption component in a range of consumer industries (retail, accommodation, food services, transport) based on average consumption profiles of domestic tourists from Tourism Research Australia

- **Location decisions** - these assumptions were treated as exogenous increase or decrease of employment in the CoM.

The main results modelled are jobs (expressed as a headcount in line with CLUE and ABS Labour Force Statistics) and economic output (as a value-added measure, reflecting gross state product for Victoria and gross local product for the CoM).

It is important to note, with reference to workforce return, that jobs that would occur in the CoM but for public health restrictions are still economically considered to be CoM employment. This economic definition would continue until such time there is no connection to the city location anymore (i.e. no office, no plan to return, a full time remote working agreement in place). Therefore the modelling impacts show productivity decreases and less footfall related consumption due to working from home, as above, as well overall declines in employment due to the economic conditions but do not consider the same job now being conducted outside of Melbourne to be a loss to one area and a gain to another. The only true ‘displacement’ is food and retail consumption, but that occurs in the context of much larger overall job losses, so will not be a net increase in employment in any one area.
Daily population estimate

The above modelling does not explicitly estimate daily population in the city, as it is looking at averages across a year. However, the analysis presented in this report does present a high-level estimate of daily population to illustrate footfall impacts. That high-level average estimate takes:

- pre-COVID average daily populations provided by CoM split between workers, students, residents and visitors (split between metro, regional, domestic and international and accompanying children)
- assumed that worker daily population will change in line with total employment and working from home trends (as per assumptions and modelling results above)
- student daily population will change in line with employment in education and international student assumptions (as per above)
- visitors will change in line with travel assumptions above
- resident population will be unchanged from trend.

PwC’s Geospatial Economic Model

As per above, PwC’s GEM was used to inform relative economic output per employee and information of comparative size and industry mix of the Victorian and CoM economies within the national economy. While CLUE was treated as the core dataset for sizing the CoM economy, PwC’s GEM helped translate that headcount information into economic output values.

PwC’s GEM calculates economic output in a manner consistent and reconcilable with the ABS. The methodology was developed in consultation with ABS experts.

In addition to identifying the core economic output of each location the model can also:

- Track the composition and estimated performance of 19 industries, in a consistent manner, in each of the 2,300 locations, as opposed to understanding industry composition and performance at a state or national level.
- Estimate productivity (output / worker) and the effects of clustering, density (output / m2), agglomeration and productivity metrics.
- Estimate the wages received by employees, company profitability and taxes generated in each location, by industry.
- Correlate these outputs to social and demographic factors, access to essential infrastructure and customer preference data.