# PRD. REAL ESTATE

**> Australia Bushfires** The Real Estate Perspective



# **EXECUTIVE SUMMARY**

Australia was hit by a severe bushfire disaster in September 2019 which continued until late January 2020<sup>1</sup>. The effect of this was not only felt nationally, but on a global scale, with financial and practical aid extended by numerous countries<sup>2</sup>.

Although Australia has experienced a major bushfire event every year over the past five decades, the recent bushfires were significantly more destructive, with many regions reeling at the unprecedented scale and intensity of these events<sup>3</sup>.

While the bushfire impact has been devastating for many, this report aims to shine a light on the potential silver linings for affected areas.

#### **BUSHFIRE CASE STUDIES**

Implementing a case study based method allows for the comparison of a variety of historical Australian bushfire events, even if they vary in scale and location<sup>4</sup>. Bushfire events from within the past two decades were selected based on the below key criteria:

- The availability of four key datasets at an appropriate Statistical Area:
  - > Population,
  - > House sale prices,
  - > Approved building values, and
  - > Gross Regional Product
- A minimum population of 5,000 residents in the year of occurrence
- A significant area of destruction with notable fatalities or injuries caused and property damage resulting from the bushfires.

	Canberra Bushfires	Black Saturday Bushfires	Perth Hills Bushfire	Pinery Bushfire
Year of fire	2003	2009	2011	2015
Selected Area for study	Canberra, ACT	Nillumbik LGA, VIC	Armadale LGA, WA	Wakefield LGA, SA
Est. Population in year of fire	327,357	62,785	65,395	6,950
Insurance cost	\$350.0M	\$1.07B	\$35.0M	\$61.0M
Area affected	160,000ha	430,000ha	10,000ha	85,000ha
Fatalities	4	173	0	2
Injuries	435	414	12	90
Homes lost	488	2,029	72	91

**POST-BUSHFIRE OUTCOMES** 

Many affected by the September 2019/ January 2020 bushfires will be in the process of evaluating damages and losses and considering their available options, including the possibility of rebuilding.

This report evaluates four case studies on bushfire events across Australia from the past two decades, all of which differed in terms of: population size (within the area), size of area of affected, and total damage and cost.

Three different measures were utilised: Gross Regional Product (GRP) per capital growth, total approved building value, and median house price index.

This report identifies positive recovery trends from previous bushfire events in recent Australian history between the period of 2003 to 2015 from two perspectives: a) regional economic productivity, and b) the real estate view.

It is without a doubt there is an initial negative economic impact on bushfireaffected local areas. Yet through all analysed bushfire study areas, there is a clear economic upside in the years preceding the event. This is hopeful news for those affected by the recent bushfires who wish to remain in their local areas but are unsure about the economic viability of doing so.

#### INITIAL NEGATIVE



Loss of property including homes and businesses Possible decline in

population Risk of future insurance

unavailability

Economic productivity initially declines







Improvement to Gross Regional Product (GRP) growth rate

Increase in approved building value activity

Continued upward movement in home values Strategic recovery plans

Community bonds strengthened

established

#### **KEY FINDINGS**

- Increase in GRP in one to three years following bushfire events.
- Upward trend in building values following the year of the bushfire, emphasising the role of the construction industry in the local economic recovery process.
- Continued upward trend in median house price index beyond two years following bushfire events, confirming the need for real estate agents to instill confidence within their locally affected markets.

1 2019-2020 Australian Bushfires, by Center for Disaster Philanthropy (2020). 2 'Call for help': International response to Australian fires, by N. Bonyhady (2020). 3 AUS:DIS - Database of losses from disasters in Australia 1967-2013, by M. Ladds, I. Macgee, and J. Handmer (2015); The Australian bushfires – why they are unprecedented, by Australian Academy of Science (2020) 4 Case study as a research method, by Z. Zainal (2007) © Copyright PRD 2020.



# THE RECOVERY PROCESS

There are various stages an economy experiences from a bushfire catastrophe, as shown in *Figure 1* below.

Initially the impact from such a disaster is largely attributed to the destruction of buildings and can have a multiplier effect on various businesses, potentially leading to a decline in overall economic productivity. However, in the medium and long-term, natural disasters can eventually lead to positive economic contribution, particularly through the significant short-term spending injected to rebuild affected areas<sup>5</sup>. This ultimately increases both Gross Domestic Product (GDP) and GRP figures (these being key measures of a geographical area's economic output), which benefits both the area affected and the wider national economy.



Figure 1: Cycle of Economic Impact and Recovery. Prepared by PRD Research.

#### BUSHFIRES AND THE REAL ESTATE MARKET

The impacts of bushfires on local real estate markets will vary depending on the scale of property destruction in the area, as well as the extent of insurance penetration<sup>6</sup>. Provided that areas affected by bushfires have high insurance penetration rates, the local property market will naturally provide opportunities for families to reconstruct their homes in growing communities. There are varying impacts on the real estate market in the short-term and long-term, as shown below.



5 J. Cox, as cited in Putting a price tag on a bushfire: the cost and the stimulus, by R. Williamson (2020); M. Thielant, as cited in Counting the cost of bushfire's fury, by M. Bennett (2020). 6 Wealthy will likely rebuild faster after fires than other communities, if California is any guide, by The Fifth Estate (2020). © Copyright PRD Real Estate 2020.



## ECONOMIC EFFECTS

This report examines the economic effects of a bushfire on a local economy. A key dataset for examination was GRP, which is a measure of a local area's net economic output<sup>7</sup>. Given the varying scale and operational nature of the case study areas, it was necessary to refine this data to produce a more directly comparable figure.

To ensure comparability, the annual change in GRP per capita was measured. Further, the data has been aligned to the year in which each bushfire occurred, with a five-year timeline on either side to observe the change in economic output of each area. This is presented in Figure 2 below.

Table 3 shows the average GRP growth for each area over one, three, and five years both before and after the bushfire, as well as GRP growth in the year of the bushfire occurring.



Figure 2. Annual change in GRP per capita around years of bushfires *Prepared by PRD Research. Source: National Institute of Economic and Industry Research, Australian Bureau of Statistics.*  In the year of each bushfire occurring, the affected local area saw GRP growth fall below its previous five-year average growth rate (except Canberra where data was unavailable prior to the event). This shows that a bushfire does have an immediate negative impact on an area economically.

However, there is a clear upside in the short-to-medium term:

- 1. Each of the four areas studied saw an increase in GRP growth in the year immediately following the bushfires.
  - For example, the Perth Hills Bushfire saw an increase in GRP growth from +0.2% in the year of the bushfire up to +5.8% in the year following.
- 2. Three-year average GRP growth rate after a bushfire were higher than the comparable period before the bushfire occurred (or in the case of the Pinery bushfire, the one-year growth due to other data being unavailable).
  - For example, the Black Saturday Bushfires saw a +2.8% three-year average growth rate after the bushfires, compared with -0.4% in the three years prior.

These examples confirm the notion of a real economic upside post-disaster, due to the increased activity required to restore businesses in each local area<sup>8</sup>.

It is important not to discount the effect of various macro and microeconomic conditions which occurred for each of these local areas over various years (for example, the impact of the Global Financial Crisis five years after the Canberra Bushfires). For this reason, it is important to only consider overall trends in GRP growth movement over the study period.

#### TABLE 3. AVERAGE CHANGE IN GRP PER CAPITA

	Canberra Bushfires	Black Saturday Bushfires	Perth Hills Bushfire	Pinery Bushfire
-5 Year average growth	N/A*	+0.3%	+4.6%	-3.1%
-3 Year average growth	N/A*	-0.4%	+3.5%	-3.0%
-1 Year growth	N/A*	0.0%	-0.9%	+4.0%
Year of bushfire	+0.4%	+0.2%	+0.2%	-4.5%
+1 Year growth	+3.1%	+0.5%	+5.8%	+9.7%
+3 Year average growth	+0.7%	+2.8%	+4.9%	N/A*
+5 Year average growth	+0.1%	+1.2%	+3.0%	N/A*

Disclaimer: \*N/A indicates data was unavailable for the period at the time of publication.

Prepared by PRD Research. Source: National Institute of Economic and Industry Research, Australian Bureau of Statistics.

7 (Australian Government Department of Infrastructure, Transport, Regional Development and Communication, 2019) 8 (Herbane, Elliott, & Swartz, 2004) © Copyright PRD 2020.



# THE REAL ESTATE PERSPECTIVE

#### TOTAL VALUE OF APPROVED BUILDING

Positive economic impact post-bushfire is further evidenced by the trend in total value of approved building in each local area.

Figure 3 shows a distinct spike in total value of approved building after the bushfires compared with beforehand. This implies an increase in employment for a variety of workers and is another indicator of the increased economic activity experienced post-bushfires.

#### MEDIAN HOUSE PRICE INDEX

This report seeks not only to understand the effect on the local area's economic productivity, but also on the value of an individually owned critical asset – the home.

The impact of the bushfires on median house prices in each affected study area has also been considered. For simple direct comparison, Figure 4 depicts a median house price index. The data was indexed to a base of 100, where the base year for each data point was the year of occurrence for each event.







Figure 4. Median house price index based on year of bushfire event Disclaimer: \*Data for Pinery Bushfire beyond three years after the bushfire was unavailable at the time of publication. Prepared by PRD Research. Source: Pricefinder.

As evidenced in Figure 4, there is a pertinent trend in median house prices of areas affected by bushfire:

- 1. Median house price flattened in the year of the bushfire, with minimal growth experienced (except for Canberra).
- 2. By the second year after the bushfires all median house price indices sat above those of the year of the fires.
- 3. There is a general trend of continued upward median house price in following years (however there was insufficient data for the Pinery bushfire to confirm this trend). For example, the Perth Hills fire had no index growth, remaining at 100 points in the year of the fire, however, this increased to 105 points two years after and continued to trend upwards.

Collectively, the case studies saw continued improvements in the median house price index values after the bushfire events, suggesting local property markets impacted by bushfires are capable of recovery in the medium-term also.

In fact, it could even be suggested that the creation of new dwellings to replace destroyed ones might even assist in further boosting median house prices through:

- 1. Members of the *construction industry* opting to use improved materials and construction techniques and seeking to even exceed minimum compliance in aspects of modern construction codes.
- 2. **Architects and planners** working together to produce more thoughtful designs that better respect the relationship between landscape and the built environment.
- 3. **Real estate agents** in impacted areas understanding the possible economic benefits, as they play a key role as educators. Being able to instil confidence by showing property markets will recover after bushfires is key to economic recovery. Real estate agents interact with potential owner-occupiers, prospective landlords and tenants and can help ensure they are confident to re-engage with bushfire affected property markets so that natural population growth continues after a bushfire.



# HOW CAN YOU HELP?

#### ENSURING ECONOMIC GROWTH POST-BUSHFIRE

To ensure positive outcomes post-bushfire, a series of immediate and medium-term actions needs to be actioned. Recovery hangs in the balance of various stakeholders, including:

- **Non-profit organisations**: to pass through donated funds for the immediate relief of financial stress of affected persons.
  - Federal, State, and local government bodies:
    - > To facilitate repairs or replacement of impacted infrastructure;
    - > Establish ongoing assessment of forward-thinking and risk-mitigating disaster policies and relevant assistance grants
    - > Establish ongoing assessment of insurance needs that have been insufficient to properly restore communities.
- **Fellow Australians**: to drive domestic tourism activity to affected areas and increase conscious purchasing of local goods and services. Direct expenditure on goods and services in these areas benefit individuals and businesses in affected communities, whether it be though dining, experiences, travel, accommodation or other tourism drivers.
- **Insurers:** to make quick assessments and finalise payouts or repairs so affected persons are less financially concerned when making decisions about relocating or staying.
- *Emergency services and government bodies*: to ensure clear access routes to affected communities for the free flow of tourism and transported goods and services for rebuilding.
- **Architects and planners**: to establish new buildings which are more considerate of their relationship with the natural environment and have higher standards of resistance.
- **Construction industry members**: to use superior materials, construction techniques and solutions which exceed modern construction code requirements for fire impact.
- **Real estate agents**: to inform the affected areas communities about the likelihood of property market recovery to assist in consumer confidence and help to recover normal population growth.





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Our extensive research capability and specialised approach ensures our clients can make the most informed and financially sound decisions about residential and commercial properties.

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Our research team is made up of highly qualified researchers who focus solely on property analysis.

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