

THE SECRET AGENT REPORT

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environments

The Inside Perspective

"Be careful about reading health books. Some fine day you'll die of a misprint."

MARKUS HERZ

3 HEALTHY ENVIRONMENTS by Jodie Walker

- 11 **RESIDENTIAL REVIEW** by Paul Osborne
- 13 COMMERCIAL REVIEW by Paul Osborne
- 14 **QUARTERLY SCORECARD** April, May & June 2015
- 15 **QUARTERLY TURNOVER** April, May & June 2015
- 16 APARTMENTS

Quarterly price comparisons and median change

18 HOUSES Quarterly price comparisons and median change

TOWNHOUSES

20

Quarterly price comparisons and median change

Cover Art Whichever stage of civilisation we revert to, there's always an apple around. (c) Sheng Yi Lee 2015

by Jodie Walker

This report aims to uncover the dangers of some of the seemingly harmless things that may be found in our internal living environment. A few of these you may be aware of - others might surprise you.



Introduction

Heating certainly makes our homes more comfortable in the midst of winter. After a long day at work, setting up next to the warm flames of a fireplace is a tempting option for many who have such a feature in their home. However, caution should be taken here. Fireplaces are terrible for your health - and for your neighbour's, too.

In the developing world, over 4 million people die from diseases caused by heating and cooking with solid fuels. (WHO, 2014) The smoke that is released from burning solid fuels, like those from an open fireplace, is referred to as wood smoke. The pollutants in wood smoke include Polycyclic Aromatic Hydrocarbons, Carbon Monoxide and Fine Particles, and are essentially toxic to the human body. Common symptoms of breathing too much of these in can include eye irritations, headaches, damage to the respiratory system and aggravation of pre-existing heart or lung conditions. Frequent exposure to high concentrations can lead to cancer and death. (EPA, 2013)

Whilst you may think that these compounds escape your home through the chimney, this is incorrect. Research has shown that these compounds mostly re-settle in your home or in the homes surrounding yours. (Naeher et al, 2007) A natural substance as innocent as wood can be as bad for you as cigarettes, or fumes from the exhaust pipe of a truck. It is safer to treat a fireplace as an ornamental feature rather than a source of heat.

Secret Agent wanted to dig deeper into other potential hazards in the home, which could impact how we choose to live and maybe even how we purchase a property. We have divided this month's report into 6 domestic health risks: light, mould, indoor air quality, noise, carpets and electromagnetic radiation.

As a prospective homebuyer, it is advisable to take the findings from this report as serious considerations prior to purchasing a property. The long term benefits of living in a healthy environment is a price that is worth paying for.

Healthy Environments Vol.33 July 2015

Healthy Environments

Light

Light plays a crucial role in our biological systems and ultimate wellbeing by altering the timing of many physiological processes in the body. "Light is the most potent environmental signal that impacts the human circadian clock." (Chang et al, 2015) While light is a common consideration by many new home owners, usually this only goes as far as thinking about the amount of natural light or the style of the fittings.

The problem nowadays is that over a 24 hour period we are exposed to a lot more light and a lot less darkness. Even small amounts of exposure to light during the evening can suppress the release of the sleep facilitating hormone melatonin, making it more difficult to fall asleep. (Zeitzer et al, 2000) Hence, good quality, blockout curtains are essential at night and exposure to light during the day is important to keep your circadian rhythm in cycle.

In the past, people experienced high exposure to light only during the hours between sunrise and sunset. In our new environments full of artificial lights, the natural pattern of light and darkness exposure has been altered. During sleep, completely shielding a room from external light might not be enough. Further evidence is growing to show that the small amount of artificial light emitted from electrical devices (TVs, chargers, digital clocks) can disrupt your circadian clock, leading to a decline in sleep quality and duration. This goes on to influence our mood, behaviour and many other physiological and cellular functions. (Mercola, 2014)

It is not just the light emitted from devices in your bedroom that can disrupt sleep. A study comparing the effects of reading a book before bed on an e-reader (artificially emitted light) versus a printed book (reflected light) found that the printed book was much better for getting a good night's sleep. Participants who read from a light emitting device such as an iPad were less sleepy during the evening, took longer to fall asleep, had reduced melatonin secretion and were less alert the next morning. (Chang et al, 2015)

Many of us check emails, social media or reply to a text message before bed. This could have implications on staff productivity in the workplace or a child's concentration at school.

If you think you can handle being a little tired throughout your daily life, you might want to consider the chronic effects of sleep deficiency on your body. Melatonin suppression at night can increase your risk of cancer and impair the immune systems, meaning you are likely to get sick more. (Dumont et al, 2012) It has also be linked to obesity (Reiter et al, 2012), and heart disease (Rodriguez et al, 2010).



Low exposure to natural light has its own set of problems. The sun is the best source of Vitamin D, which is necessary for bone health. Homes that do not receive any direct sunlight may pose health risks for the occupants if they do not spend any time outdoors during the day. Certain types of windows block UV rays that stimulate Vitamin D production in the body. Deficiency has been linked to an increased risk of a number of conditions including Type 1 Diabetes, certain cancers, depression, cognitive decline, pregnancy complications, autoimmunity, allergy, cardiovascular disease and frailty. (Holick et al, 2013)

Whilst natural light is essential to keep your circadian cycle running properly, unfiltered sunlight is required to maintain adequate Vitamin D levels. The two come hand in hand. Most properties with plenty of natural light have a North facing aspect and access to direct sunlight.

- 1 Daytime areas such as living and dining rooms should have the most exposure to natural light.
- 2 North facing aspects are preferable, ensuring access to sunlight in the heart of winter.
- **3** If a property does not have many windows, look for skylights instead.
- 4 If a property does not have sunny outdoor areas, it may be wise to choose a house near a park and spend time there for a short period each day.



Mould

The correct balance of light and darkness is not only vital for our health, but also for the health of microorganisms such as mould.

We pick up mould spores unknowingly during our daily activities, allowing them into our homes when we return. Many building materials contain the right nutrients to support mould growth, such as wet wood products, ceiling tiles, carpets and paints. (CDC, 2012) All else that is needed is a dark and moist environment. Often the darkest areas of a house are also poorly ventilated due to a lack of windows and air circulation. This allows for moisture to build - whether it be in the air, under paint or as condensation on a surface. Those mould spores you dispersed throughout the house have found their perfect place to propagate.

According to the WHO (2009), the most significant effects of indoor mould on health are an increased prevalence of respiratory symptoms and exacerbation of asthma.

Mould can also cause upset to the immunological system and cause allergies. This is especially the case for people who have a sensitivity to mould or are immunocompromised. Acute effects include headaches, frequent sneezing, watery eyes, rashes and coughing. In addition to causing ill-health in humans, mould can cause substantial damage to your property. For example, there are a variety of mould species that grow particularly well on wood. These can quickly spread throughout the wooden foundations of a home without you even realising, causing decay and destruction to the entire building. (WHO,2009)

Effectively distributed ventilation is the key to avoiding mould growth on internal surfaces. Ultimately, the building needs to be constructed with good insulation and well-maintained. Common signs of a potential mould problem include visible growth, a mould like odour, the presence of condensation, recurring water damage and leaks. It is best to catch this problem earlier rather than later to save your health and your home. We all know how hard it can be to remove mould once it settles in.

- 1 If light is limited, good ventilation is paramount. Cross ventilation can be achieved when windows are present on opposite ends of a room.
- 2 Ensure that bathrooms and kitchens have good exhaust fans installed, if not, look for windows that can be opened.

Indoor Air Quality

In addition to mould spores, indoor air in your home can contain many other pollutants. The wood smoke emitted from a fireplace is one such example. Less visible combustion compounds in the home include Carbon Monoxide (CO), Nitrogen Dioxide (NO2) and Formaldehyde.

While unflued gas heaters may be more energy efficient and cheaper to buy initially, they are one of the main sources of the toxic gases CO and NO2.

According to a study of New Zealand homes, households using unflued gas heaters had more than three times the level of NO2 in their living rooms, and when these were replaced with an alternative form of heating, the level of NO2 decreased by 67%. (Gillespie, 2008) In a comparison of homes in London, it was found that those relying on electric sources of heating and cooking had similar concentrations of NO2 and CO indoors to outdoors. In homes using unflued gas heating and gas cooktops, the median concentrations were higher than typical outdoor levels, and in some cases, they were even higher than concentrations taken at an intersection of a congested road in Central London. (Stevenson, 1985)

You might be compelled to believe that a better option might be the new unflued gas heaters as they are marketed as being low-NO2 emitting. Before you go and replace an old unit, take note. A comparison of the effects of these so-called low NO2 unflued heaters with flued gas heaters in 22 New South Wales schools found that students still experienced increased coughing and wheezing when exposed to the unflued heaters. Among students who already had asthma, there was increased airway inflammation and use of their asthma medication. (Marks et al, 2010)

Similarly, a Canadian study confirmed that NO2 levels are significantly elevated inside homes using gas heating systems and gas cooktops. (Gilbert et al, 2006) Further, a CSIRO analysis found that some low emission heaters produced less NO2 but emitted more CO and Formaldehyde. Most significantly, the NO2 levels emitted were still higher than ambient air and WHO guidelines. (Brown et al, 2004)

Let's not blame everything on the way we heat our home. Your desks, cabinets, bookshelves, bed heads, crockery and even kitchen countertops could be contributing to pollution in your home. Melamine is often used to make these furniture as it is cheap, durable, lightweight and can withstand high temperatures. On the flip side, it contains an



abundance of Formaldehyde which is released as a gas into the environment. Formaldehyde concentrations are higher in homes which have more melamine furniture. (Gilbert et al, 2006) The gas is released in highest concentrations when the furniture is new and can continue to be released (at smaller concentrations) for many months and even years.

Whilst opening your windows may help reduce the concentration of Formaldehyde, if you live close to a busy road or freeway, this may contribute further to unsafe levels of CO and NO2 in your home. We have a new obsession with trying to build our homes to be more energy efficient. Homes of the past were a lot more drafty, allowing some of the CO and NO2 to be dispersed in fresh air. With our tightly sealed homes and increasingly congested roads, CO and NO2 levels are able to build up and remain stagnant in our indoor environments.

Why is all of this important? CO poisoning can happen quickly - headaches, dizziness, nausea and fatigue can eventuate in death if concentrations reach high enough levels. NO2 can cause eye, ear and throat irritation, impaired lung function and increased respiratory infection. Formaldehyde can cause sensory irritation, headaches and is a known carcinogen linked to various cancers including leukaemia. (Golden, 2011)

We tend to believe we are safe from pollution when we are indoors with the windows closed. In actual fact, we might be doing ourselves more harm being indoors compared to sitting outdoors next to a busy highway.

- 1 Avoid buying homes facing main roads or highways.
- 2 Look for homes with split system heating and cooling units instead of gas heaters. Electric cooktops are also preferable.
- **3** Inspect the material of any built in furniture to minimise melamine in your home.



Noise Pollution

Indoor air pollution is not limited to dust and toxic gases. Sounds from the external environment can also be considered a pollutant in the home if it is unwanted. Construction and transportation are the major contributors to noise pollution in inner city Melbourne homes.

The health effects of excessive noise are serious. They include an increased risk of cardiovascular disease, hearing loss, sleep disturbance and decreased productivity.

A European study looking into the effects of noise pollution on health found that approximately 3% of deaths caused by coronary heart disease can be linked to long term exposure to traffic noise, especially at night. (Mead, 2007)

When purchasing a home in the inner city, traffic noise is something that generally comes with the home. Residents usually get used to this after a few weeks, eventually not even noticing the noise at all. However, your body does not ignore the noise, no matter how used to it you think you become.

"The biological effects are imperceptible, so that even as you become accustomed to the noise, adverse physiological changes are nevertheless taking place, with potentially serious consequences to human health." (Prasher, 2007)

As our population rises and urbanisation continues, noise pollution will continue to increase in magnitude. Whilst it is difficult to fully prevent, you can minimise some disturbance by making use of sound absorbent materials and barriers. For example, double glazing windows, properly insulating the walls and cleverly placing trees and fences to muffle noise sources.

- 1 Try to avoid buying on a main road or nearby a train station/tram line.
- 2 Consider the layout of the property and where the bedrooms and living areas are situated in relation to major sources of noise and traffic (if not a main road, then a park or school).
- 3 If you are keen on a property overlooking a busy road, cleverly placed vegetation and other barriers can muffle and absorb sound.

Carpet

Carpets and rugs make a home feel warm and can add character to a room. So long as the condition looks good, most people don't give a second thought as to how old or dirty their carpets actually are. Simply run a vacuum cleaner over your floors on a weekly basis and you will discover just how much dust and dirt your carpets can contain - even if they appear clean on the surface.

Carpets harbour dust, allergens, heavy metals such as lead, mould spores, bacteria, and many other organic and inorganic compounds. (Lioy et al, 2002) Deep dust accumulates in older carpets and most people do not vacuum thoroughly enough to remove this. While the superficial dust fills the vacuum, the deep dust becomes surface dust or airborne with further activity on the carpet.

In some conditions, lead may be brought to the surface and can easily be inhaled or picked up by babies and children playing on the carpet. Lead toxicity in children has been linked to learning and behavioural problems as well as developmental defects. (Gaitens et al, 2009) A major source of lead contamination in homes built prior to 1970 is paint. Lead based paint can still be found in older homes and this can deteriorate (chipping, peeling, flaking from surface) and settle with dust onto the floor. On average, it takes about 7 minutes per square meter of carpet to completely remove all dust, including deep dust, using a high quality vacuum cleaner. Depending on the amount of dust, it can take up to 90 minutes per square meter. (Roberts et al, 2005)

The reality is that carpet is very hard to properly clean so that it is free of particulates. For those who are especially sensitive to dust, having floorboards or tiles could be a safer alternative and also requires less maintenance.

- Look for properties with a greater proportion of tiles or floorboards compared to carpet or consider replacing carpet with these.
- 2 If the house is old, consider what type of paint is on the walls and find out whether they have been repainted since 1970.





Electromagnetic Fields

Most of us have heard about electromagnetic fields (EMFs) before. These exist naturally in the environment and are also produced by all electronic equipment such as TVs, computers and radios. (WHO, 2015)

Much research has been done on the health effects of EMFs, however there has been no firm evidence suggesting any health risks associated with EMFs. No one really knows how they affect the human body and therefore any concerns should not simply be dismissed. Many health authorities provide precautionary recommendations for limiting your exposure to EMFs, such as sitting as far away as possible from your TV or computer, switching off power points when not in use and avoiding sleeping nearby electrical equipment such as clock radios and mobile phones. (LFA, 2007)

What you might not be aware of is the newest and biggest source of EMFs in the modern home; Wi-fi networks. These pose a threat to health as they have substantially increased our exposure levels to EMFs. Communication antennas and satellites, including mobile phone towers, have been popping up all over the world since the early 90s. All of these emit radiation for up to 24 hours of the day.

At the same time, the amount of unexplained cancers, cancer clusters and other chronic diseases have also increased. (Benson, 2007) Since chronic diseases such as cancer can develop over many years, it might be the case that not enough time has passed for a causal link between Wi-fi and these diseases to be established yet. Furthermore, there are a number of environmental factors that can increase your chance of developing cancer - EMFs may be just one part of the story. The important thing to consider is that we are not immune to these invisible fields of energy. They do not simply enter our phones and computers without passing through our body first.

"The human body has its own delicate and sensitive electrical system, which is easily affected by the many electromagnetic frequencies we are surrounded by and which penetrate our bodies daily." (Benson, 2007)

The concern over Wi-fi is so great that it has been banned from some schools and libraries across many parts of Europe including Germany, France and the United Kingdom. (Bijlsma, 2011)

The European Environmental Agency (EEA) has stated that immediate action should be taken to reduce exposure and suggests that Wi-fi could lead to a huge health crisis in the future, similar to what we saw happen with lead paint in petrol, asbestos and smoking. (Lean, 2007)

If you have found your perfect home and it happens to be next to a phone tower, you should find out how much radiation you are actually exposed to inside the home before dismissing it. A home that is in close proximity to a phone tower does not mean it will be exposed to high radiation levels. Also, measures can be taken to shield against the radiation emitted from phone towers. A combination of protective paint, fabrics and window film can block out approximately 99% of the radiation, but this does not work for EMFs emitted from your own wireless devices. In this case, you should aim to switch off the router whenever it is not in use and limit the amount of wireless devices you choose to keep in your home.

Society is now heavily reliant on computers, the internet and wireless technologies. Whilst the way you heat your house and how clean you keep your carpet can be decided upon, it seems that there is no escaping EMFs. Even if you do not use Wi-fi, or turn it off at the switch at night, your neighbour's Wifi may contribute to strong EMFs in your home.

As technology continues to advance, our exposure levels to EMFs will also increase. Humans have evolved traditionally in a setting with very low levels of natural radiation. Artificial radiation levels are currently billions of times higher than what our grandparents were exposed to. (Benson, 2007) It begs us to ask the question: would going backwards by plugging in internet cables and reconnecting the landline phone actually help us move towards a healthier future?

Buying Tips:

- Try to avoid properties near mobile phone or communication towers. If this is unavoidable, consider using special paints and window screens to shield your home.
- 2 Choose homes further away from known Wi-Fi hot spots such as cafes, universities and libraries.

Conclusion

On its own, a microscopic cancer cell is very hard to detect. The same can be said for many invisible hazards in your home that can have huge effects on your wellbeing. We spend a lot of time cleaning our homes so that they appear tidy, but often this may not be enough to eliminate chemical and biological matter that we cannot see with the naked eye.

Secret Agent is acutely aware that property should not just be treated as buildings that meet objective requirements but also as environments that promote healthy living.

The purpose of this report was to uncover some of the health effects that can arise from the internal environment we live in, and to share ways for buyers to identify each of these risks easily.

Our natural habitats have evolved to great extents since our prehistoric origins. Technology continues to advance and sometimes it is easy to get caught up in the excitement of new tools, so much that we tend to ignore the things we cannot see until it is too late.

Whilst we may appear to be continuously pushing the frontier of science and technology, progress creates unknown problems that reveal themselves in time. Until then, we had best guard ourselves against the invisible dangers of the modern environment, starting with our own home.

^{*}Full list of references can be found at the back of this report (p.22).

Residential Review

by Paul Osborne



Property reaches its half way point

Welcome to the start of the new financial year.

The extraordinary bull market continues to shoot forward. Results continued to accelerate in much of the inner city in a backdrop of falling housing supply.

With winter entrenched, buyers have less choice and are having to compete with more competition to facilitate a purchase.

The question is when the market is going to take a breather. It would defy gravity for this pace to continue, especially with increased supply due in Spring.

The recent sale of 62 Danks Street Albert Park is an example of the annual change for some inner city homes. 62 Danks Street sold in February 2014 for \$1,075,000, and it resold in June for \$1,315,000, without any further improvements.

At Secret Agent, we feel that a little more caution will start to enter the market for a number of reasons. Firstly, media exposure on the expensiveness of the property market has never been greater. Media can have a large influence on the decision making process for prospective buyers and vendors.

Starting this new financial year, we also have the 3% increase in stamp duty for foreign buyers. This is a substantial increase and is specific to the Victorian market, which could cause foreign investment to consider other interstate options. We also have Greece and the issue of its default which has continued to spook sharemarkets.

- 1 **\$2,350,000** 12 Vale Street, East Melbourne
- 2 **\$2,180,000** 14 Maugie Street, Abbotsford
- 3 \$2,500,000 19 Bowen Street, Richmond
- 4 \$4,580,000 20 Studley Avenue, Kew
- 5 \$3,550,000 33 Hastings Road, Hawthorn East
- **5 \$4,660,000** 39 Lambeth Avenue, Armadale

- 7 \$2,006,000 62 Walker Street, Clifton Hill
- 8 \$1,551,000 83 Chapman Street, North Melbourne
- 9 \$1,710,000 83 St Vincent Street, Albert Park
- 10 **\$2,060,000** 194 Drummond Street, Carlton
- 11 \$1,710,000 273 Richardson Street, Middle Park
- 12 \$1,400,000 536 Canning Street, Carlton North

The RBA (Reserve Bank) looks like it will hold interest rates steady for the short term, while carefully watching Europe (Greece) and signals provided by the Federal Reserve (US) and provide monetary response based on this information. China this month has cut official interest rates in response to a 7% correction in the stock market in single a day. Our property market is no longer provincial in nature, but international. World events play a bigger part in our once local market. The health of the markets can be attributed to easy or cheap credit, and foreign investment.

Locally, the trend within inner Melbourne and Sydney is that they are are likely to have greater disparities in housing values, compared to the rest of the country. Australians are choosing to live in big cities and within the urban centres, rather than to push out.

Melbourne and Sydney make up 35% of Australia's total population. Most worldwide countries have much more distributed population within their borders. This is perhaps a reason why property in our cities can become so expensive, with the centres of Melbourne and Sydney making an overwhelming contribution to Australian GDP. Career growth and stable income are pursued by the general population, and living close to work becomes vital in the decision to buy a home.

Providing overseas events remain contained, it is difficult to see that the market won't keep charging forward in the short term. Over the medium term, the risks remain high for some form of correction. Tighter lending practices or just a higher interest rate should do the trick to make this happen.

From our monthly data within inner city areas we track, the current rolling quarter has been strong. Inner city homes now have a median value of \$1,201,000 with a median m² rate of \$5,314 (up 5.21%), while townhouses have seen a decline in m² rates to \$5,692, down 11.51%.

Stock inventory has dropped 13.81% for houses as the winter market starts to become noticeable within our data. School holidays and a preference for Spring conditions by sellers is a usual market occurrence. Townhouses were also down 11.8%, limiting choice to the market. Apartments experienced a small increase in inventory as Melbourne's building boom continues to supply the market. Our current boom markets for houses are Carlton North, Brunswick, Fitzroy North, Port Melbourne and Flemington. Port Melbourne has now had five straight quarters of uninterrupted growth, while Flemington has had a staggering six straight quarters. Both of these suburbs are leading the way. Boom apartment markets remain along the city fringe, with North Melbourne and Port Melbourne performing most strongly.

We note that houses in Prahran have now experienced 4 rolling quarters of declining values, while East Melbourne and Hawthorn have also experienced declining conditions within our data. Often the areas with the greatest values are the ones to oscillate most in monthly statistics. Apartments in Clifton Hill are the most alarming, with four straight rolling quarters of declining values.

Commercial Review

by Paul Osborne

The commercial market continued its strong run for the final month of the financial year.

In South Yarra, two residential homes located side by side on Commercial Road on approximately 605m² of land, in a residential growth zone, sold for \$2,400,000. While an old Victorian icon at 2 Mill Place Melbourne blew the top off its reserve price by selling for \$4,020,000.

Shop 6, 450-460 Chapel Street South Yarra which was a 136m² shop sold for \$2,050,000, or \$15,000 per m². The tenant 7-Eleven was considered a prime tenant and the return of \$140,000 per annum helped the return on investment nudge over 6.5% net.

The trend so far this year continues; any commercial investments with strong risk-free cashflow are being highly sought by the market. Prime development sites, especially those that conform to the new zoning changes for high density development, are also in demand. However, local developers are cautious about the continuing amount of new building which is set to peak over the coming few years.

Tighter lending standards may also be felt in the commercial investment market over the coming quarter and we will watch this with interest.

Some large CBD assets continue to hit the market and time will tell whether the high pace of new benchmark setting will continue, especially in regards to foreign investment.



- 1 **\$4,020,000** 2 Mill Place, Melbourne
- 2 \$1,850,000 2-4 Down Street, Collingwood
- 3 \$2,400,000 17 & 19 Commercial Road, South Yarra
- **4 Undisclosed** 64-66 Orrong Road, Elsternwick
- 5 Undisclosed 122-128 & 130-136 Berkeley St, Carlton
- 6 **\$5,120,000** 123-127 Martin Street, Brighton
- 7 \$2,200,000 150-154 Ferrars Street, South Melbourne
- **\$3,400,000** 195 Lonsdale Street, Melbourne
- 9 **\$1,690,000** 293-295 High Street, Prahran
- 10 \$2,050,000 Shop 6, 450-460 Chapel St, South Yarra

Quarterly Scorecard APR, MAY & JUN 2015

	Apartments		Houses		Townhouses			
QUARTERLY GROWTH/DECLINE	+0.19%	$\mathbf{\uparrow}$	+8.08%	$\mathbf{\uparrow}$	+0.40%		$\mathbf{\uparrow}$	
MEDIAN PRICE	\$536,000 \$618,547		\$1,201,000 \$1,435,409	\$888,000 \$1,023,0				
MEDIAN SQM	-		\$5,314 +5.21%	$\mathbf{\uparrow}$	\$5,692	-11.51%	\mathbf{V}	
STOCK INVENTORY	3221 +0.03%	1	237 -13.81%	\mathbf{V}	89	-11.80%	\mathbf{V}	
воом	North Melbourne Port Melbourne	†	Brunswick Carlton North Fitzroy North Flemington Port Melbourne	* * * *	-			
BUST	Albert Park Clifton Hill Docklands Fitzroy Hawthorn Kensington Melbourne	$\rightarrow \rightarrow \rightarrow \rightarrow \rightarrow \rightarrow \rightarrow \rightarrow$	Cremorne East Melbourne Fitzroy Hawthorn Prahran	$\leftrightarrow \leftrightarrow \leftrightarrow \leftrightarrow$	-			

YEAR ON YEAR LOOK





NOTES · Over the quarter, houses are still strong at 8% growth. Apartments and townhouses slowed down to just above o%.

• Compared to last year, house and townhouse prices are all up by over 10%, while CBD apartments are about 3.5% more expensive in real terms.

• Listings are down for all property types, as should be expected as the market heads into the winter months.

- LEGEND 1. Inner Melbourne is defined by suburbs falling into the 8km radius of the CBD.
 - 2. Overall growth/decline is based on changes in median price between quarters.
 - 3. A boom! is recorded when a category records three consecutive quarters of positive growth.
 - 4. A bust! is recorded when a category records two consecutive quarters of negative growth.

Quarterly Turnover APR, MAY & JUN 2015

		Apartments	Apartments (by area)	Houses & Townhouses	Houses & Townhouses (by area)	Apartments	Apartments (by area)	Houses & Townhouses	Houses & Townhouses (by area)
	Docklands	3.53%		-		4.26%	1.72%	8.89%	10.46%
Central	Melbourne	0.91%	1.26%	-	-	1.44%		-	
	Southbank	1.07%		-		1.21%		1.57%	
	Brunswick	1.01%		0.80%	0.66%	1.40%		0.81%	0.88%
	Brunswick East	1.13%		0.80%		2.08%	1.13%	0.84%	
	Carlton	0.89%		0.61%		0.80%		1.29%	
	Carlton North	0.38%		0.77%		1.52%		0.86%	
	Clifton Hill	0.40%		1.03%		0.40%		1.36%	
Inner	Collingwood	0.71%	0 7/0/	0.19%		1.76%		0.83%	
North	Fitzroy	0.82%	0.70%	0.83%		0.96%		0.57%	
	Fitzroy North	1.00%		0.70%		1.08%		1.18%	
	North Melbourne	0.07%		0.05%		0.74%		0.68%	
	Northcote	0.93%		0.68%		1.81%		0.82%	
	Parkville	0.82%		0.29%		0.58%		0.72%	
	Princes Hill	-		-		-		0.16%	
	Abbotsford	1.39%		0.80%		2.60%	1.58%	1.27%	1.41%
	Burnley	-	4 400/	0.49%		0.00%		0.49%	
	Cremorne	-		0.00%		0.55%		0.79%	
Inner	East Melbourne	1.13%		0.53%		2.00%		0.89%	
East	Hawthorn	0.97%	1.10%	0.95%	0.99%	1.34%		1.20%	
	Prahran	1.23%		1.25%		1.60%		1.65%	
	Richmond	1.23%		1.10%		1.60%		1.44%	
	South Yarra	1.07%		0.99%		1.61%		1.75%	
	Albert Park	1.18%		0.53%		0.59%		0.71%	
Inner	Middle Park	1.26%	1 100/	1.02%	0.050/	0.63%	1.55%	0.77%	0.99%
South	Port Melbourne	1.25%	1.10%	1.32%	0.95%	1.88%		1.41%	
	South Melbourne	0.79%		0.99%		1.48%		0.89%	
	Flemington	0.89%		0.72%		0.71%		0.79%	
Inner	Kensington	1.35%	1 010/	0.85%	0 779/	2.31%	1 550/	0.99%	1.000/
West	Travancore	0.42%	1.01%	0.74%	0.77%	2.08%	1.55%	0.37%	1.02%
	West Melbourne	1.06%		0.40%		1.77%		2.20%	

PREVIOUS QUARTER (JAN, FEB, MAR 2015) CURRENT QUARTER (APR, MAY, JUN 2015)

Total sales for the period against total housing supply. Table compiled from data collected from January to June 2015. Total private dwellings information from the 2011 Census Report from the Australian Bureau of Statistics.

Apartments PRICE COMPARISONS BY ROLLING QUARTERS

	PREVIOUS QUARTER (JAN, FEB, MAR 2015)			CURRENT QUARTER (APR, MAY, JUN 2015)						
	Average Price	Median Price	Lowest Sale	Highest Sale	Average Price	% change	Median Price	% change	Lowest Sale	Highest Sale
Docklands	\$742,757	\$600,000	\$360,000	\$1,880,000	\$698,444 🗸	-5.97%	\$600,000 -	0.00%	\$355,000	\$1,485,000
Melbourne	\$568,177	\$445,000	\$165,000	\$2,120,000	\$558,795 🗸	-1.65%	\$500,000	12.36%	\$179,000	\$2,100,000
Southbank	\$661,985	\$515,000	\$295,000	\$1,900,000	\$633,048 🗸	-4.37%	\$522,250	1.41%	\$300,000	\$2,800,000
Brunswick	\$456,267	\$475,000	\$260,000	\$665,000	\$498,000 个	9.15%	\$500,000	5 .26%	\$225,000	\$1,290,000
Brunswick East	\$459,763	\$455,050	\$285,000	\$600,000	\$479,676 🛧	4.33%	\$480,000	5 .48%	\$267,500	\$917,500
Carlton	\$413,770	\$251,500	\$125,000	\$1,185,000	\$354,000 🗸	-14.45%	\$330,000	31.21%	\$138,000	\$720,000
Carlton North	*\$681,000	*\$681,000	\$632,000	\$730,000	\$578,571 🗸	-15.04%	\$390,000 、	-42.73%	\$300,000	\$1,410,000
Clifton Hill	*\$732,500	*\$732,500	\$575,000	\$890,000	*\$387,000 🗸	-47.17%	*\$387,000 、	-47.17%	\$325,000	\$449,000
Collingwood	\$530,500	\$570,000	\$185,000	\$693,000	\$646,125 🛧	21.80%	\$633,500	11.14%	\$395,000	\$1,025,000
Fitzroy	\$764,356	\$745,000	\$120,000	\$1,310,000	\$706,750 🗸	-7.54%	\$640,000 、	-14.09%	\$276,000	\$1,400,000
Fitzroy North	\$538,773	\$545,000	\$296,500	\$770,000	\$542,375 🛧	0.67%	\$476,750	-12.52%	\$350,000	\$930,000
North Melbourne	*\$400,000	*\$400,000	\$400,000	\$400,000	\$542,375 🛧	35.59%	\$509,000	▶ 27.25%	\$407,500	\$818,000
Northcote	\$461,438	\$427,000	\$261,000	\$750,000	\$472,865 个	2.48%	\$489,000	14.52%	\$235,000	\$708,000
Parkville	*\$545,200	*\$580,000	\$390,000	\$650,000	*\$711,500 🛧	30.50%	*\$711,500	22.67%	\$413,000	\$1,010,000
Princes Hill	-	-	-	-	-		-		-	-
Abbotsford	\$802,500	\$607,500	\$291,000	\$1,525,000	\$765,250 🗸	-4.64%	\$773,500	27.33%	\$270,000	\$1,275,000
Burnley	-	-	-	-	-		-		-	-
Cremorne	-	-	-	-	*\$474,000		*\$474,000		\$474,000	\$474,000
East Melbourne	\$749,313	\$648,500	\$410,000	\$1,920,000	\$1,037,375 🛧	38.44%	\$940,000	▶ 44.95%	\$379,000	\$3,815,000
Hawthorn	\$610,009	\$501,000	\$87,500	\$2,095,000	\$598,377 🗸	-1.91%	\$517,000	3 .19%	\$105,000	\$1,990,000
Prahran	\$540,038	\$584,000	\$125,000	\$980,000	\$540,121 🛧	0.02%	\$500,000	-14.38%	\$115,000	\$1,410,000
Richmond	\$511,625	\$488,500	\$270,000	\$1,650,000	\$550,705 🛧	7.64%	\$537,000	9.93%	\$286,000	\$1,250,000
South Yarra	\$662,696	\$562,500	\$245,000	\$3,100,000	\$691,700 个	4.38%	\$560,000	-0.44%	\$280,000	\$5,150,000
Albert Park	*\$750,000	*\$525,000	\$475,000	\$1,670,000	*\$574,667 🗸	-23.38%	*\$537,000	2.29%	\$537,000	\$650,000
Middle Park	*\$846,250	*\$765,000	\$370,000	\$1,485,000	*\$641,167 🗸	-24.23%	*\$527,500	-31.05%	\$511,000	\$885,000
Port Melbourne	\$700,806	\$593,000	\$355,000	\$1,850,000	\$921,977 🛧	31.56%	\$685,000	▶ 15.51%	\$435,000	\$3,300,000
South Melbourne	\$708,850	\$630,000	\$371,000	\$1,531,000	\$722,068 个	1.86%	\$607,000	-3.65%	\$227,500	\$2,200,000
Flemington	\$419,433	\$419,000	\$274,000	\$686,000	\$427,583 个	1.94%	\$426,500	1.79%	\$285,000	\$596,000
Kensington	\$520,344	\$508,500	\$357,500	\$775,000	\$473,960 🗸	-8.91%	\$471,750	-7.23%	\$315,000	\$735,000
Travancore	*\$368,750	*\$368,750	\$317,500	\$420,000	*\$460,000 个	24.75%	*\$460,000	24.75%	\$285,000	\$695,000
West Melbourne	\$600,714	\$641,000	\$460,000	\$750,000	\$653,417 🛧	8.77%	\$542,500	-15.37%	\$415,000	\$1,361,000

Table compiled from data collected from January to June 2015. A dash indicates no recorded sales for the quarter, inability to show a quarterly change or no quarterly change. Directional arrows indicate change in comparison to the previous rolling quarter. * indicates an average or median value calculated using 5 sales or less.

Apartments QUARTERLY MEDIAN CHANGE BY SUBURB



Based on data collected from January to June 2015. Princes Hill, Burnley and Cremorne were omitted due to insufficient data. * indicates a median value calculated using 5 sales or less.

Houses PRICE COMPARISONS BY ROLLING QUARTERS

	PREVIOUS QUARTER (JAN, FEB, MAR 2015)				CURRENT QUARTER (APR, MAY, JUN 2015)					
	Average Price	Median Price	Lowest Sale	Highest Sale	Average Price	% change	Median Price	% change	Lowest Sale	Highest Sale
Docklands	-	-	-	-	-		-		-	-
Melbourne	-	-	-	-	-		-		-	-
Southbank	-	-	-	-	-		-		-	-
Brunswick	\$868,310	\$832,000	\$645,000	\$1,340,000	\$921,529 ↑	6.13%	\$905,000 个	8.77%	\$610,000	\$1,900,000
Brunswick East	\$862,425	\$835,500	\$670,000	\$1,200,000	\$1,010,818 🛧	17.21%	\$900,000 个	7.72%	\$793,500	\$1,450,000
Carlton	\$1,442,938	\$1,278,750	\$790,000	\$2,780,000	\$1,280,706 🗸	-11.24%	\$1,202,000 🗸	-6.00%	\$740,000	\$2,605,000
Carlton North	\$1,115,967	\$1,060,000	\$660,000	\$1,775,000	\$1,366,063 🛧	22.41%	\$1,160,000 个	9.43%	\$810,000	\$2,920,000
Clifton Hill	\$1,133,658	\$1,001,000	\$752,000	\$1,945,000	\$1,288,429 个	13.65%	\$1,147,500 个	14.64%	\$929,000	\$2,006,000
Collingwood	*\$883,000	*\$848,000	\$741,000	\$1,060,000	\$916,900 个	3.84%	\$902,500 个	6.43%	\$618,000	\$1,420,000
Fitzroy	\$1,575,818	\$1,312,000	\$1,060,000	\$3,580,000	\$1,425,833 🗸	-9.52%	\$1,266,000 🗸	-3.51%	\$862,000	\$2,600,000
Fitzroy North	\$1,206,071	\$1,107,500	\$740,000	\$3,571,000	\$1,492,030 个	23.71%	\$1,330,000 个	20.09%	\$740,000	\$3,400,000
North Melbourne	-	-	-	-	\$1,031,611		\$960,000		\$688,500	\$1,551,000
Northcote	\$1,024,114	\$921,000	\$600,000	\$1,860,000	\$1,082,651 个	5.72%	\$1,005,000 个	9.12%	\$642,500	\$1,755,000
Parkville	*\$1,695,000	*\$1,695,000	\$1,515,000	\$1,875,000	*\$1,423,875 🔸	-16.00%	*\$1,445,250 🗸	-14.73%	\$855,000	\$1,950,000
Princes Hill	-	-	-	-	*\$1,300,000		*\$1,300,000		\$1,300,000	\$1,300,000
Abbotsford	\$976,167	\$958,500	\$775,000	\$1,250,000	\$1,112,000 个	13.91%	\$925,000 🗸	-3.50%	\$610,000	\$2,180,000
Burnley	-	-	-	-	-		-		-	-
Cremorne	-	-	-	-	*\$1,079,625		*\$1,053,750		\$986,000	\$1,225,000
East Melbourne	*\$3,121,667	*\$2,750,000	\$2,000,000	\$4,615,000	*\$2,204,000 🗸	-29.40%	*\$2,000,000 🗸	-27.27%	\$1,720,000	\$3,150,000
Hawthorn	\$3,213,741	\$2,955,000	\$1,025,000	\$9,000,000	\$2,180,851 🗸	-32.14%	\$1,830,000 🗸	-38.07%	\$465,000	\$6,850,000
Prahran	\$1,457,957	\$1,250,000	\$890,000	\$2,650,000	\$1,288,052 🗸	-11.65%	\$1,216,000 🗸	-2.72%	\$820,000	\$2,380,000
Richmond	\$1,227,039	\$1,210,000	\$720,000	\$2,600,000	\$1,247,875 🛧	1.70%	\$1,150,000 🕹	-4.96%	\$740,000	\$2,740,000
South Yarra	\$1,953,393	\$1,846,250	\$680,000	\$4,290,000	\$2,130,379 🛧	9.06%	\$1,700,000 🗸	-7.92%	\$820,000	\$4,555,000
Albert Park	\$1,388,471	\$1,303,500	\$840,000	\$2,520,000	\$1,916,045 🛧	38.00%	\$1,710,000 个	31.19%	\$1,160,000	\$4,210,000
Middle Park	\$2,894,000	\$2,350,000	\$1,051,000	\$5,500,000	\$2,929,667 个	1.23%	\$2,551,500 个	8.57%	\$1,640,000	\$5,750,000
Port Melbourne	\$1,285,638	\$1,250,000	\$765,000	\$2,400,000	\$1,788,702 🛧	39.13%	\$1,492,500 个	19.40%	\$820,000	\$4,560,000
South Melbourne	\$1,314,500	\$1,175,000	\$750,000	\$2,710,000	\$1,512,692 🛧	15.08%	\$1,250,000 个	6.38%	\$750,000	\$3,210,000
Flemington	\$953,750	\$810,000	\$570,000	\$1,760,000	\$1,317,813 🛧	38.17%	\$915,750 ↑	13.06%	\$660,000	\$2,900,000
Kensington	\$893,000	\$795,000	\$530,000	\$1,350,000	\$927,333 🛧	3.84%	\$897,500 🛧	12.89%	\$590,000	\$1,400,000
Travancore	*\$837,500	*\$837,500	\$715,000	\$960,000	*\$1,000,000 个	19.40%	*\$1,000,000 个	19.40%	\$1,000,000	\$1,000,000
West Melbourne	*\$980,000	*\$980,000	\$980,000	\$980,000	*\$1,159,700 🛧	18.34%	*\$1,081,000 个	10.31%	\$875,000	\$1,660,000

Table compiled from data collected from January to June 2015. A dash indicates no recorded sales for the quarter, inability to show a quarterly change or no quarterly change. Directional arrows indicate change in comparison to the previous rolling quarter. * indicates an average or median value calculated using 5 sales or less.

Houses QUARTERLY MEDIAN CHANGE BY SUBURB



Based on data collected from January to June 2015. Docklands, Melbourne, Southbank, North Melbourne, Princes Hill, Burnley and Cremorne were omitted due to insufficient data. * indicates a median value calculated using 5 sales or less.

Townhouses PRICE COMPARISONS BY ROLLING QUARTERS

	PREVIOUS QUARTER (JAN, FEB, MAR 2015)				CURRENT QUARTER (APR, MAY, JUN 2015)					
	Average Price	Median Price	Lowest Sale	Highest Sale	Average Price	% change	Median Price	% change	Lowest Sale	Highest Sale
Docklands	-	-	-	-	*\$3,494,000		*\$3,494,000		\$888,000	\$6,100,000
Melbourne	-	-	-	-	-		-		-	-
Southbank	-	-	-	-	*\$1,172,500		*\$1,172,500		\$1,145,000	\$1,200,000
Brunswick	\$731,000	\$690,000	\$570,000	\$893,000	\$722,143	↓ -1.21%	\$740,000	↑ 7.25%	\$460,000	\$825,000
Brunswick East	\$764,000	\$715,000	\$575,000	\$1,085,000	\$685,200	↓ -10.31%	\$687,500	✔ -3.85%	\$458,000	\$805,000
Carlton	-	-	-	-	*\$1,230,000		*\$1,230,000		\$1,230,000	\$1,230,000
Carlton North	*\$860,000	*\$860,000	\$860,000	\$860,000	-		-		-	-
Clifton Hill	-	-	-	-	\$979,000		\$992,000		\$835,000	\$1,115,000
Collingwood	-	-	-	-	-		-		-	-
Fitzroy	*\$1,401,000	*\$1,401,000	\$1,401,000	\$1,401,000	-		-		-	-
Fitzroy North	*\$816,667	*\$680,000	\$620,000	\$1,150,000	\$999,125	↑ 22.34%	\$945,000	↑ 38.97%	\$630,000	\$1,468,000
North Melbourne	-	-	-	-	*\$720,000		*\$760,000		\$630,000	\$770,000
Northcote	\$855,833	\$825,000	\$700,000	\$1,142,000	\$761,833	↓ -10.98%	\$765,500	↓ -7.21%	\$650,000	\$840,000
Parkville	-	-	-	-	*\$940,000		*\$940,000		\$940,000	\$940,000
Princes Hill	-	-	-	-	-		-		-	-
Abbotsford	*\$652,733	*\$578,275	\$577,500	\$802,425	*\$752,000	↑ 15.21%	*\$749,000	↑ 29.52%	\$737,000	\$770,000
Burnley	*\$1,030,000	*\$1,030,000	\$1,030,000	\$1,030,000	-		-		-	-
Cremorne	-	-	-	-	-		-		-	-
East Melbourne	-	-	-	-	-		-		-	-
Hawthorn	\$1,093,429	\$1,055,000	\$629,000	\$1,400,000	\$1,017,857	✔ -6.91%	\$899,000	↓ -14.79%	\$461,000	\$1,508,000
Prahran	*\$998,250	*\$925,000	\$885,000	\$1,258,000	*\$1,195,000	↑ 19.71%	*\$1,195,000	↑ 29.19%	\$1,000,000	\$1,390,000
Richmond	\$1,065,067	\$1,061,000	\$667,000	\$1,400,000	\$1,031,789	✔ -3.12%	\$980,000	↓ -7.63%	\$809,000	\$1,350,000
South Yarra	*\$925,625	*\$830,000	\$615,000	\$1,427,500	\$1,391,667	↑ 50.35%	\$1,200,000	1 44.58%	\$810,000	\$2,600,000
Albert Park	*\$1,382,000	*\$1,382,000	\$1,382,000	\$1,382,000	*\$910,000	↓ -34.15%	*\$910,000	↓ -34.15%	\$890,000	\$930,000
Middle Park	*\$963,000	*\$963,000	\$963,000	\$963,000	-		-		-	-
Port Melbourne	\$1,113,643	\$991,000	\$735,000	\$1,632,500	\$1,304,200	↑ 17.11%	\$1,320,000	↑ 33.20%	\$825,000	\$1,990,000
South Melbourne	*\$1,438,000	*\$1,438,000	\$1,438,000	\$1,438,000	*\$1,466,667	↑ 1.99%	*\$1,300,000	↓ -9.60%	\$900,000	\$2,200,000
Flemington	*\$647,000	*\$647,000	\$599,000	\$695,000	*\$610,000	↓ -5.72%	*\$610,000	↓ -5.72%	\$610,000	\$610,000
Kensington	\$643,125	\$627,750	\$516,000	\$885,000	\$805,462	↑ 25.24%	\$810,000	↑ 29.03%	\$590,000	\$1,041,000
Travancore	-	-	-	-	-		-		-	-
West Melbourne	*\$935,000	*\$935,000	\$935,000	\$935,000	*\$725,000	↓ -22.46%	*\$725,000	↓ -22.46%	\$650,000	\$800,000

Table compiled from data collected from January to June 2015. A dash indicates no recorded sales for the quarter, inability to show a quarterly change or no quarterly change. Directional arrows indicate change in comparison to the previous rolling quarter. * indicates an average or median value calculated using 5 sales or less.

Townhouses

QUARTERLY MEDIAN CHANGE BY SUBURB



Based on data collected from January to June 2015. Docklands, Melbourne, Southbank, Carlton, Carlton North, Clifton Hill, Collingwood, Fitzroy, North Melbourne, Parkville, Princes Hill, Burnley, Cremorne, East Melbourne, Middle Park and Travancore were omitted due to insufficient data. * indicates a median value calculated using 5 sales or less.

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The data upon which this report is based was sourced from: The Australian Bureau of Statistics (abs.gov.au/census), The Department of Human Resources, Google Maps, Land Victoria (land.vic.gov.au), propertydata.com.au, realestateview.com.au, realestate.com.au, domain.com.au, Fairfax, Residex, various individual real estate agents operating in inner Melbourne, and other specialised sources as noted in the content.

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