

Housing Affordability Study Regional Overview

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ANALYSIS OF NEWS MEDIA

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ANALYSIS OF SOCIAL MEDIA

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MARKET ANALYSIS

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- > China
- > Hong Kong
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METHODOLOGY & GLOSSARY OF TERMS



This document presents the results of media analysis of coverage of housing affordability for Australia, China, Hong Kong, Malaysia, New Zealand and Singapore between 25 July and 31 August 2011.

The coverage analysed in this report includes:

- ▶ News content from the major print publications and television broadcast stations in the mentioned regions, which was monitored by Media Monitors.
- ▶ Social media conversations that originated from the mentioned regions, and that appeared on forums, blogs, news websites, review sites, Q&As, microblogs, the public pages of social networking sites and video sites (comments only),.

Sampling

Sampling was applied to the media coverage about housing affordability that was analysed for this report. This means that the total numbers of news articles and online posts in this report are indicative only, and not every article or social media post was qualitatively analysed.

The sample has been chosen to be representative of overall media coverage. This is done by:

- (a) Selecting news articles and online posts for analysis from representative media outlets and online channels; and
- (b) Setting a sub-sample for each market based on proportional size.

Thus, a spread of news articles and online posts across subjects, across markets and across the period has been analysed.

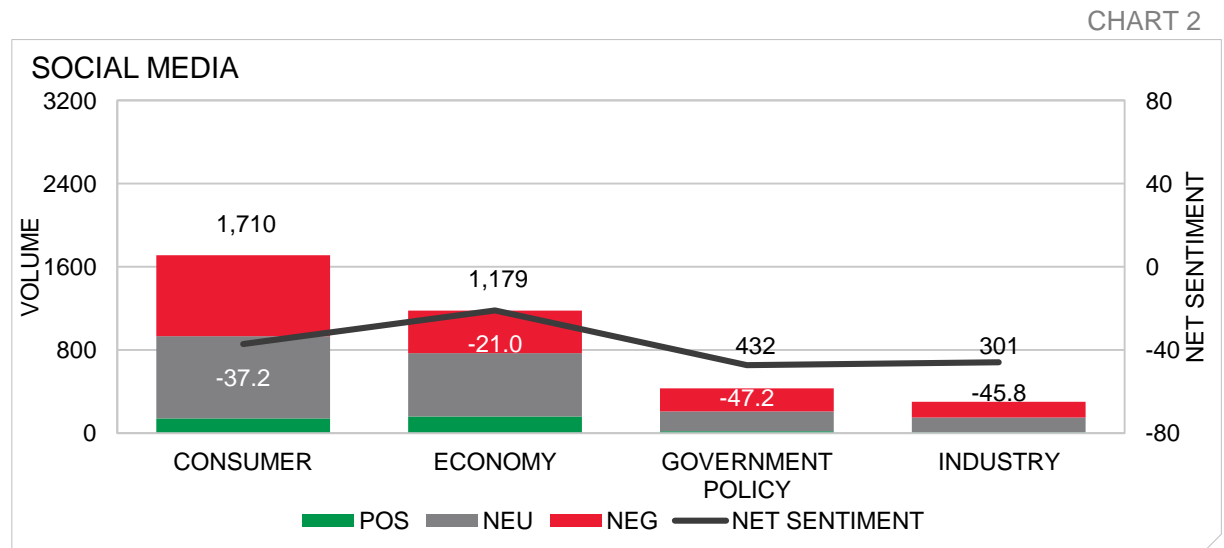
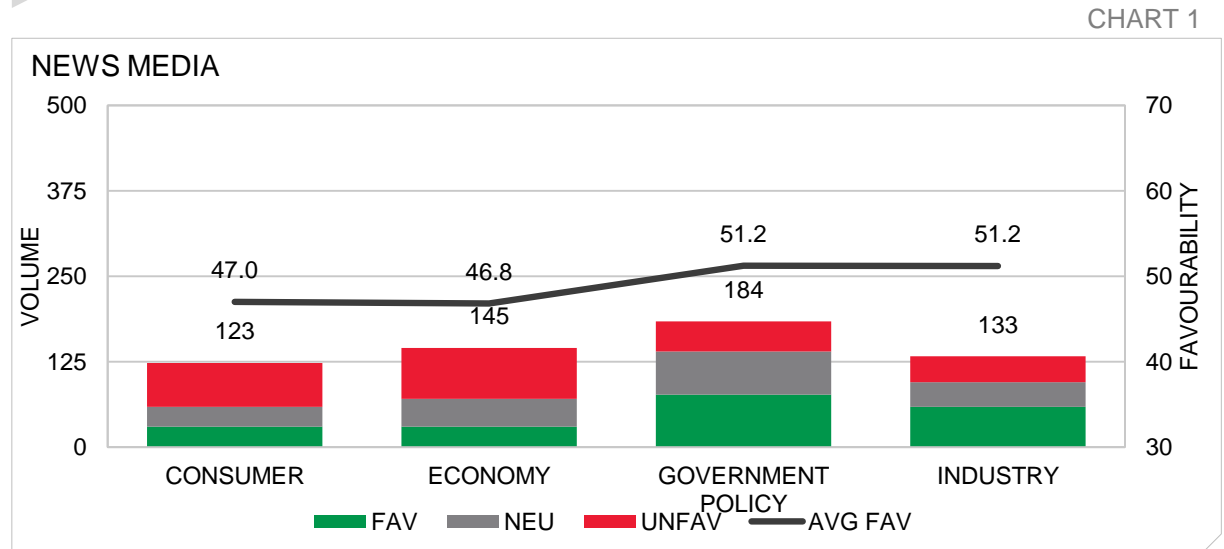
	SAMPLED NEWS MEDIA COVERAGE		SAMPLED SOCIAL MEDIA POSTS	
	VOLUME	FAVOURABILITY	VOLUME	SENTIMENT
		0 to 100 scale where 50 is neutral		-100 to +100 scale where 0 is neutral
AUSTRALIA	126	46.8	173	-31.2
CHINA	197	49.6	247	-40.0
HONG KONG	78	47.6	126	-17.9
MALAYSIA	135	52.4	187	-12.1
NEW ZEALAND	19	45.0	64	-20.2
SINGAPORE	30	50.0	80	-29.3



LEADING DISCUSSIONS

- > Across both news and social media in all countries, the general attitude expressed was that housing is not affordable.
- > One of the key differences in news and social media coverage between the regions was a concern about foreign investment. In China, Hong Kong and Singapore, news and social media coverage reported on concerns about the impact of foreign investment on housing affordability for the citizens of these regions. This topic was not as prominent in reporting in Australia and New Zealand.
- > China: Coverage included discussions about the effectiveness of the government's restriction of purchase policy, which is aimed at reducing house prices by controlling the number of houses or properties owned by individuals, especially foreign investors.
- > Hong Kong: A small proportion of the online public blamed investors from mainland China for causing an influx of capital into the country's property market and pushing up prices.
- > Singapore: A significant proportion of the public thought that unaffordable housing was due to the influx of foreign investment in Singapore, which increased the demand for housing.

These charts show the story focus of each report, article or online post that was analysed over the period.





- > Across all countries, government policy regarding housing was a commonly mentioned topic of news media coverage. This included discussion of:
 - > Australia's First Home Owner Grant;
 - > The Chinese Government's introduction of policies aimed at cooling down house prices;
 - > Hong Kong's reintroduction of the Home Ownership Scheme;
 - > The Malaysian Government's subsidies for developers to encourage them to construct affordable housing;
 - > The New Zealand Government's efforts to rebuild the earthquake-affected areas of Christchurch; and
 - > The Singaporean Government's policy on landed property and foreign investment.
- > Of all the countries analysed for this report, news media coverage in Malaysia was the most favourable. This was due to favourable reporting on the Malaysian Government's Pr1MA initiative, which aims to subsidise the development of affordable housing. However, the online public in Malaysia also seemed less focused on government policies, despite the media's favourable reporting, and instead more prominently discussed micro-concerns like the direct impact of increased house prices on their everyday lives.
- > News media and social media coverage in all other countries was quite critical of their respective governments and how these governments were addressing the issue of housing affordability.
 - > In China, two new government policies that were introduced to help address the issue – the restriction of purchase policy and welfare housing – were contentious. In particular, the restriction policy was criticised as encouraging spikes in prices rather than declines.
 - > In Australia, the First Home Owner Grant was criticised for inflating house prices.
 - > In Hong Kong, some online commentators suggested that the government was putting the needs of property developers and investors ahead of those of the public.
- > The sentiment expressed by most people that housing is not affordable is not surprising, given the frequent bleak predictions about the housing market that were conveyed in coverage by real estate representatives, economic analysts and academics. For instance, a number of university studies – some of which were funded by commercial interests – predicted that markets would remain unaffordable for several years, or that rises in income were not matching increases in house prices.
- > Social media coverage primarily focused on consumer issues. The nature of social media meant that housing affordability was generally discussed in this media type in the context of how it impacted on the consumer. Numerous online posts related to topics such as house prices, interest rates and mortgage repayments.
- > News media tended to report on housing affordability at a macro level, particularly framing stories from an economic perspective.
- > However, the global economic climate was not prominently reported as affecting housing affordability in news or social media. While some coverage acknowledged that the global economy has a flow-on effect on house prices and consumer confidence, local issues and the impact that they have on the housing market were more prominently discussed in both media types. Generally, concerns about housing affordability were reported in localised terms and in relation to local house prices, interest rates and government policy.

CONCLUSIONS

- > The notion of affordable housing in most countries is closely aligned to the economic standard of living in that country. Despite cultural, economic and government policy differences between countries, the basic premise across all regions was that affordable housing is a keystone feature of any society, as it enables a citizen to contribute to their country's economy.

Story focus by country – consumer



> As previously mentioned, social media conversations most frequently related to consumer issues, with consumer-focused coverage most prominently appearing on social media channels in China and Hong Kong. The net sentiment in these regions was low, corresponding with discussion in China and Hong Kong about house price versus income growth.

CHART 3

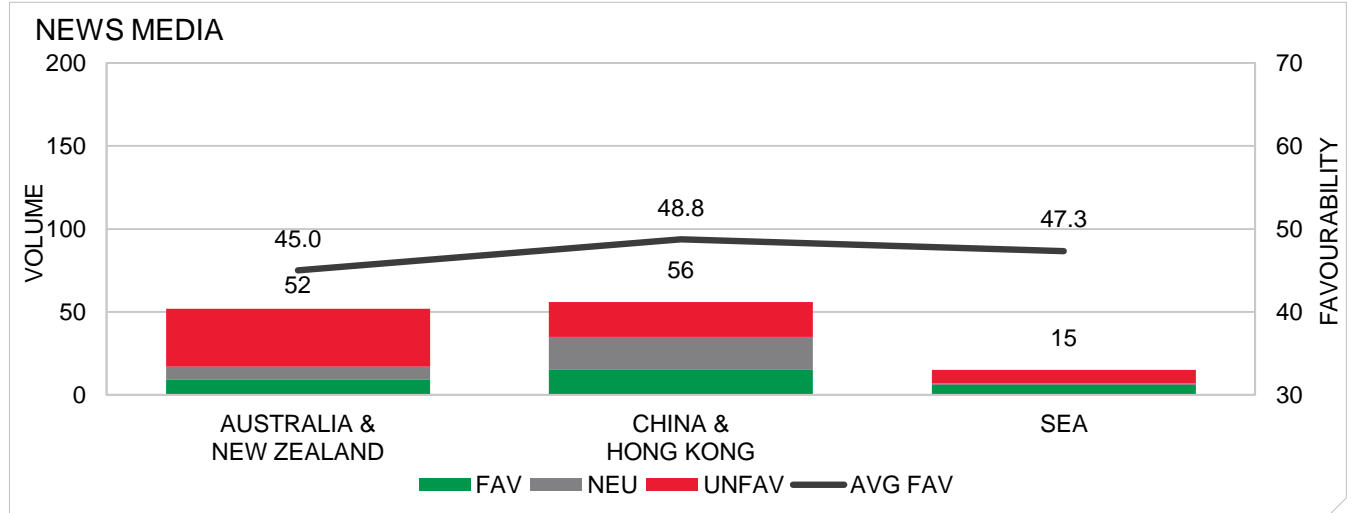
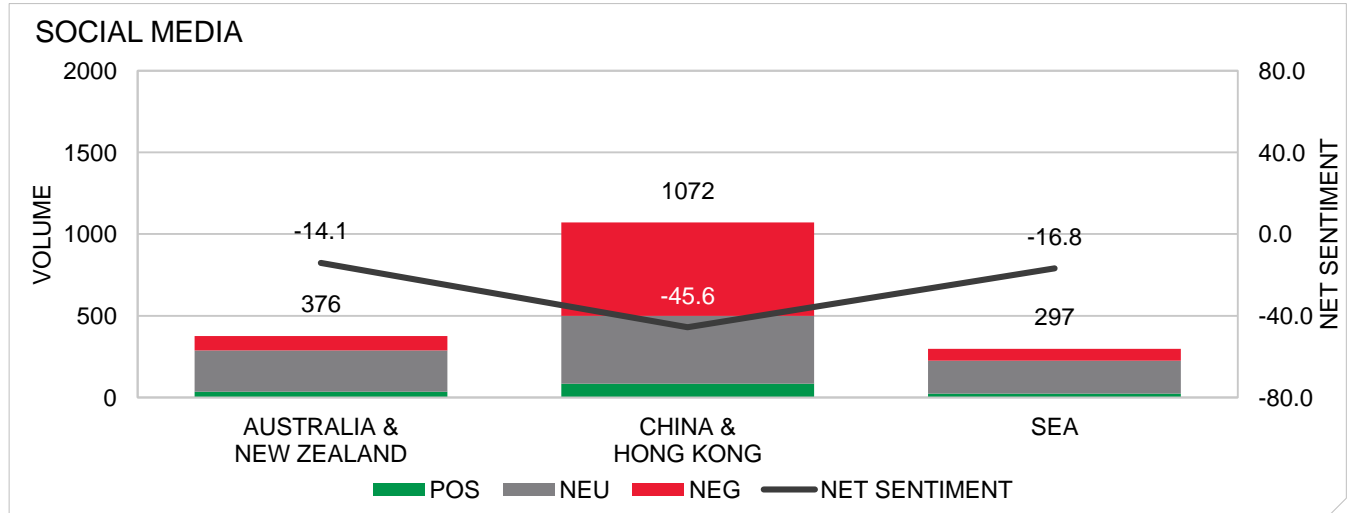


CHART 4



Story focus by country – government policy



- > Government policies were among the most frequent focus of news media coverage in the analysis period.
- > Government policy-focused news media reporting in Malaysia was the most favourable, with government sources successfully conveying that their policies were addressing housing affordability. Likewise, China news media coverage about government policy was slightly favourable overall.
- > However, social media net sentiment about government policy across all regions was negative – a clear demonstration of the difference between personal commentary and impartial news reporting.

CHART 5

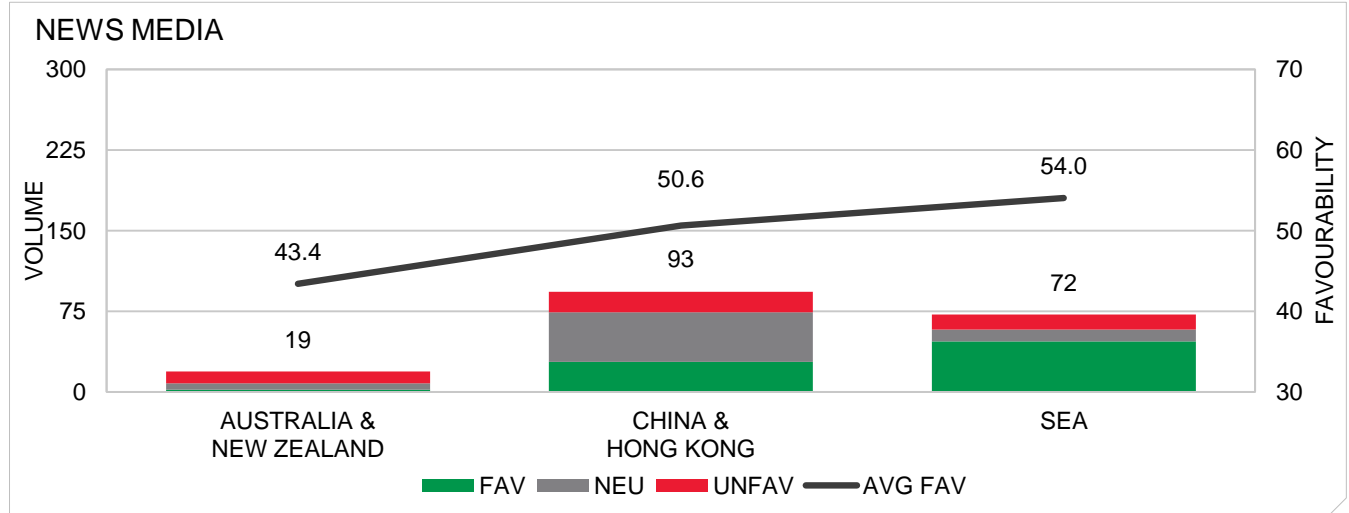


CHART 6

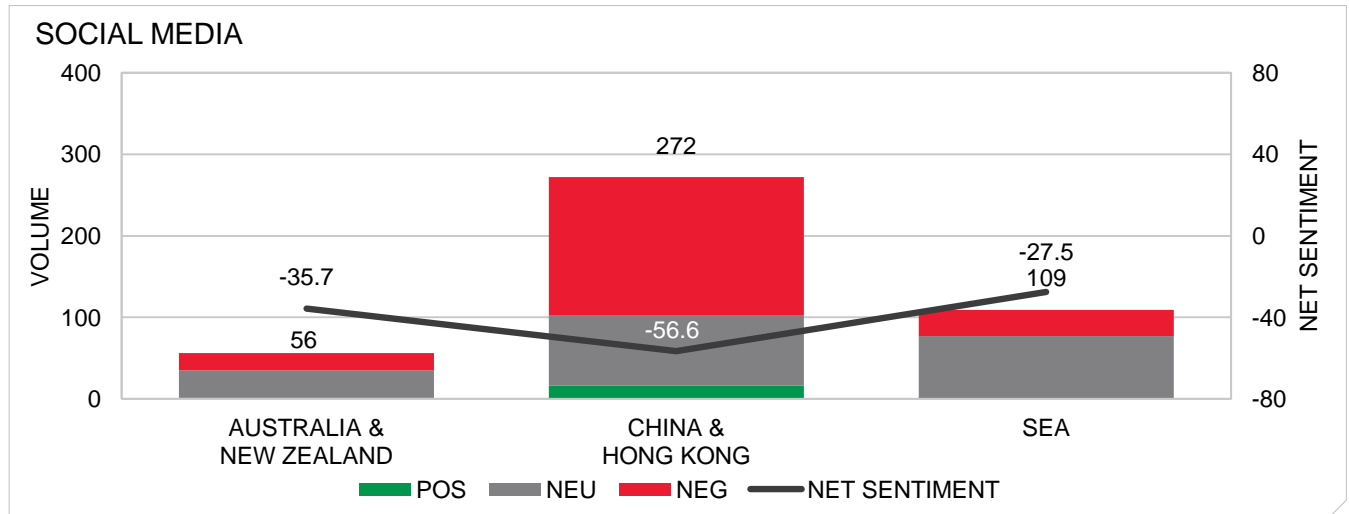


CHART 7

NEWS MEDIA

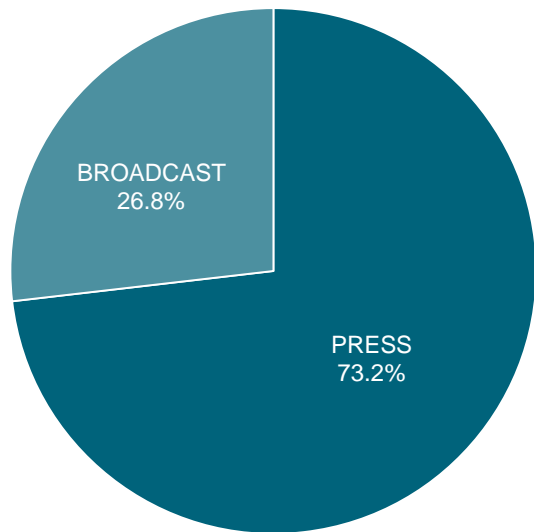
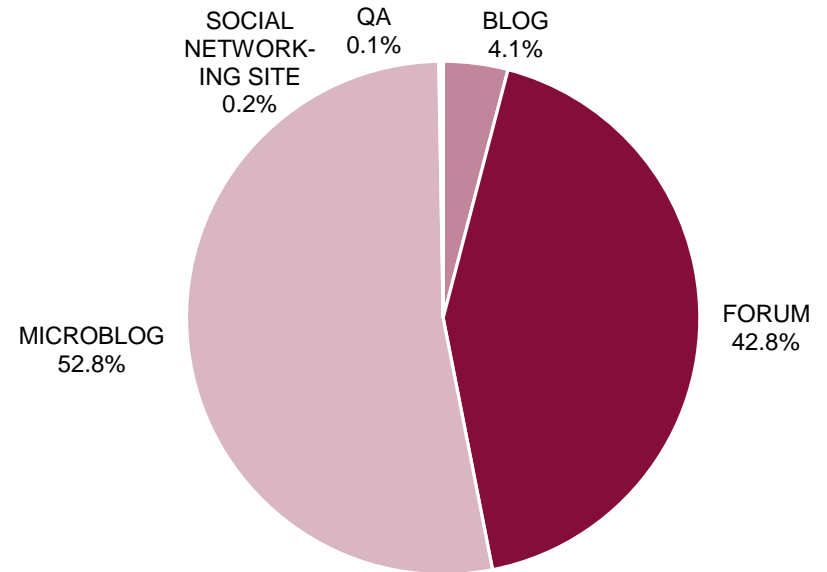


CHART 8

SOCIAL MEDIA



These charts show the breakdown of news media types and social media channels over the analysis period.

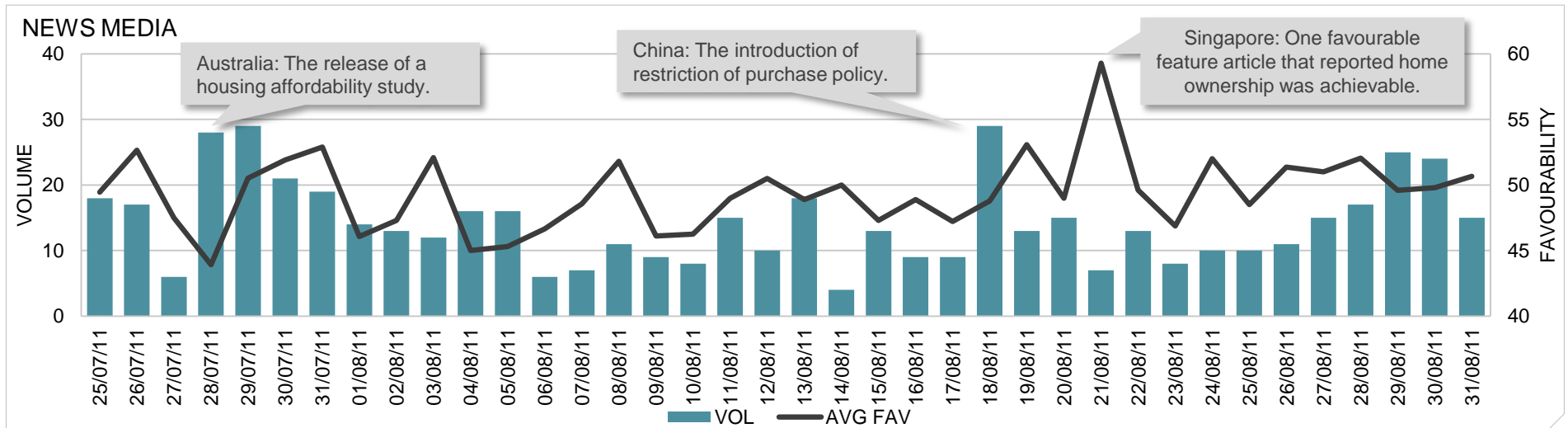
A significant volume of reporting was concentrated in press and social media for China and Australia. Reporting in social media mostly appeared on microblogs and forums, with the online public using these mediums to air their sentiments about housing affordability-related topics.

Trend analysis



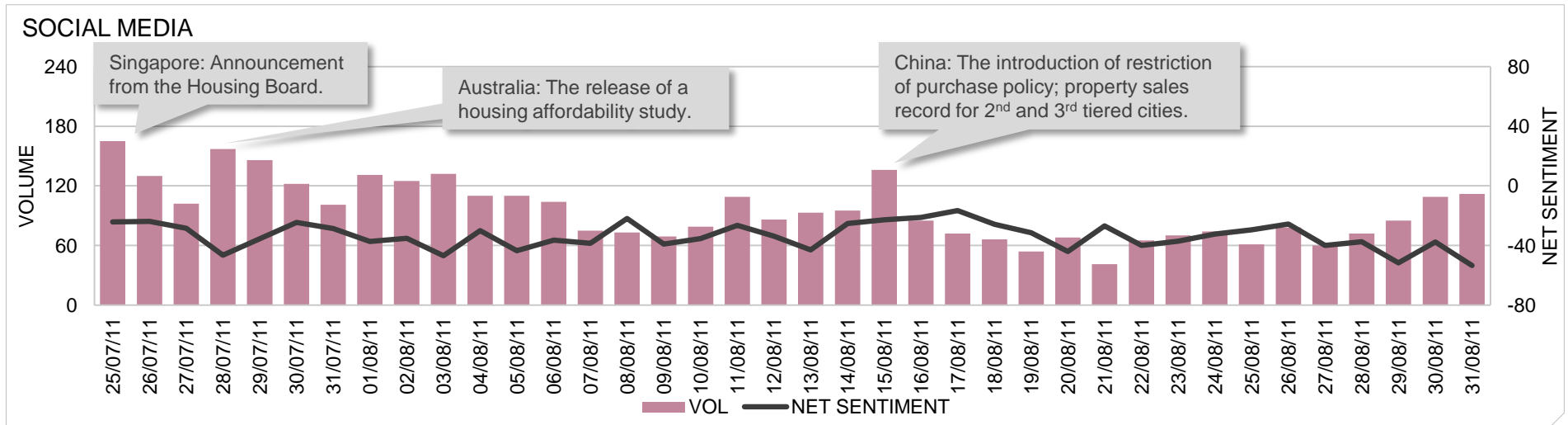
This chart shows the volume and favourability of articles analysed over the report period.

CHART 9



This chart shows the volume and net sentiment of online posts analysed over the report period.

CHART 10



Media & social sentiment versus economic indicators



These charts show the percentage change for house price to income growth, compared to the favourability of analysed news media or the sentiment of social media coverage in the respective countries.

CHART 11

- > The percentage change for house price to income growth gives an indication of the affordability of housing across the six markets analysed during the period. The differences in these economic indicators were, therefore, compared to the favourability of analysed news media and the sentiment of social media in the tracked countries.
- > In Hong Kong, where the increase in house prices far outweighed income growth, the net sentiment of social media was negative, and the average favourability of news media was unfavourable.
- > House prices also outweighed income growth in New Zealand. However, largely because of the relatively low volume of news media coverage, this reporting was neutral overall. The negative sentiment of analysed social media in this country was more reflective of the actual public opinions towards the housing market in New Zealand.
- > In China, the only country where income growth was higher than house price increases (although these figures were from major cities such as Beijing and Shanghai, and the situation in smaller cities was likely to be very different), the discussion in the more micro-focused social media space was unfavourable, while news media coverage was favourable on average.

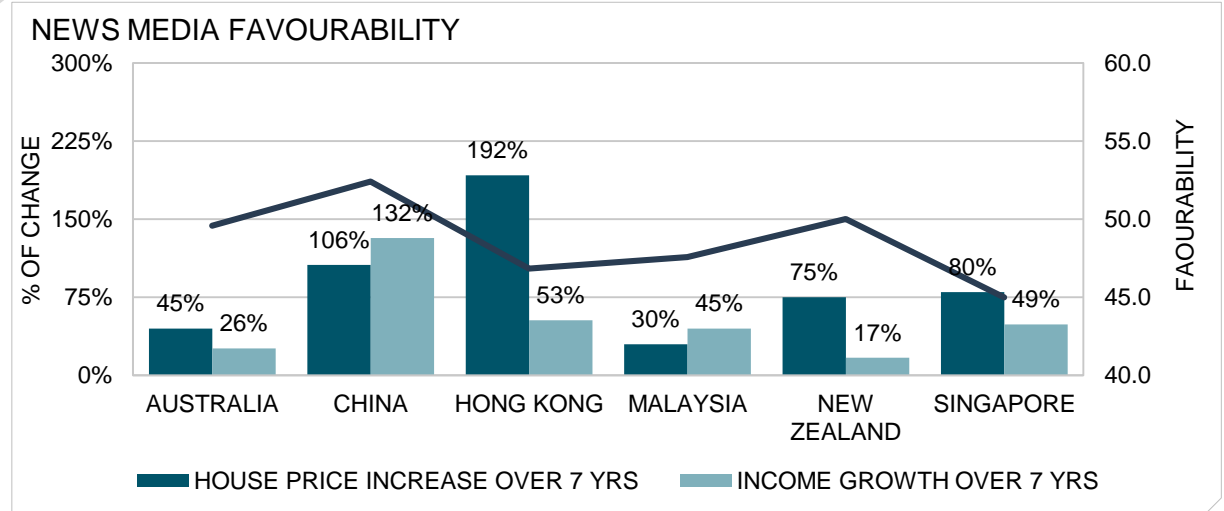
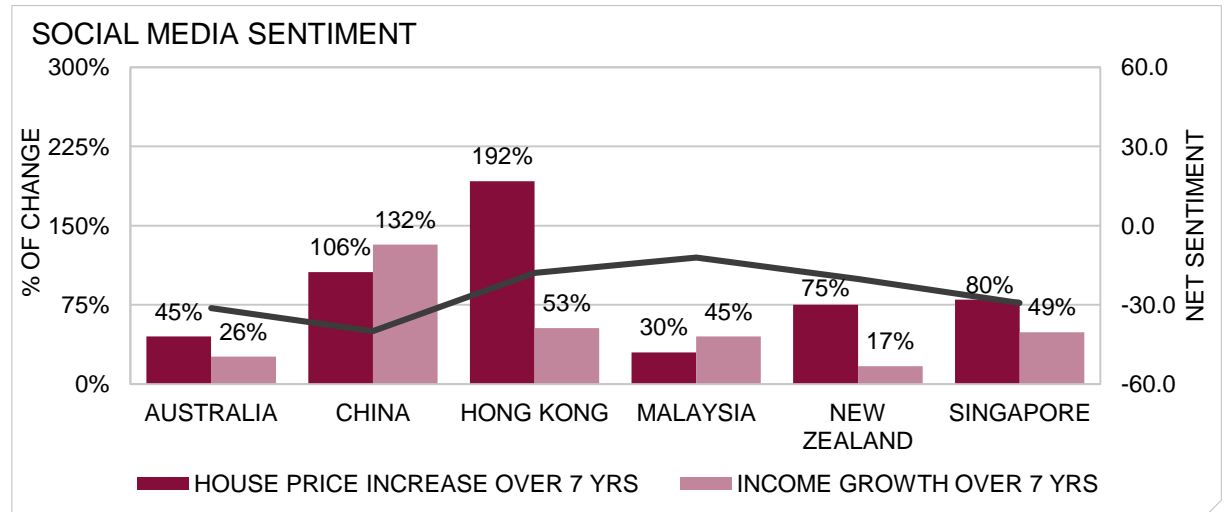


CHART 12



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CONTENT ANALYSIS

Analysis of news media



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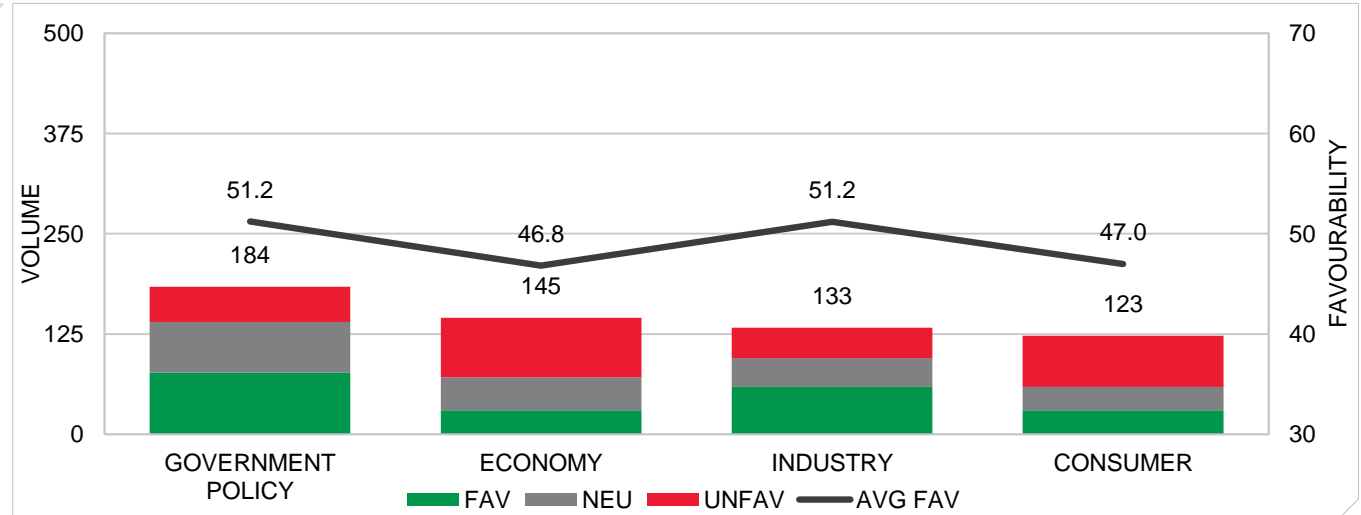


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CHART 13

This chart shows the story focus of each news media report.

Story focus relates to the main focus of the report, and each report can have only one story focus. The chart also shows a breakdown of favourable, neutral and unfavourable reports, and the average favourability of the coverage that focused on each main theme.



- > Overall, news media coverage about housing affordability focused primarily on government policy; this was particularly notable in China. Widespread news media coverage reported on two Chinese Government housing policies that were introduced during the report period. Government policy-focused coverage was also dominant in Singapore and Malaysia.
- > Government policies to address housing affordability in China were reported as being controversial, especially the restriction policy on third- and fourth-tier cities. Commentators that were cited in news media coverage said

that although the policy was supposed to reduce house prices, these prices were instead soaring.

- > Conversely, news media coverage about Malaysian Government policies reported that legislation to address housing affordability was valuable. For instance, the Malaysian Government scheme Pr1Ma was described as bolstering the construction of mid- to low-range dwellings, addressing a need for this type of property.
- > Economy-focused news stories reported on the

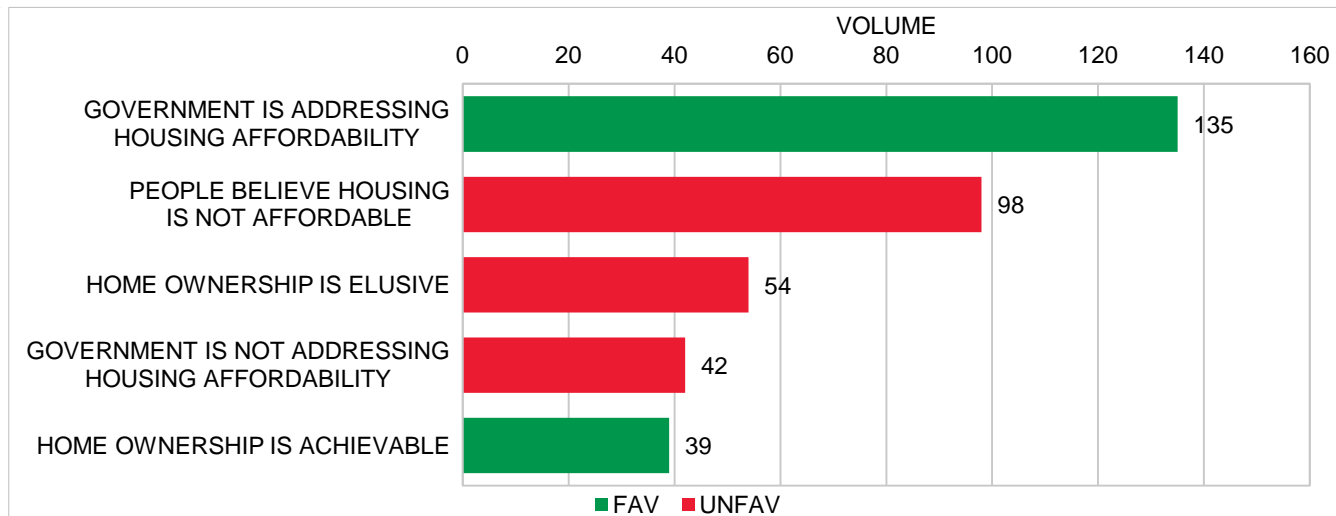
housing market primarily from a local perspective, with discussion of topics like interest rates, borrowing trends and real estate investment. News about the global economy and its impact on local housing affordability was not extensive.

- > Consumer-focused coverage reported on attitudes towards the housing market; while this reporting varied from country to country, common concerns for consumers in most countries were the income-to-mortgage ratio, the availability of affordable housing, and the difficulty of breaking into the real estate market.



CHART 14

This chart shows the leading tracked messages by volume that appeared in the analysed housing affordability coverage. Messages can be implied in reporting or conveyed explicitly, and can be either favourable or unfavourable.



- > Government sources, especially in Malaysia, were successful at conveying that they were addressing housing affordability through policies and legislation. The leading message overall was that government is addressing housing affordability, which was particularly prominent in China and Malaysia.
- > Even though government policies to address housing affordability were criticised in China, government sources still communicated that the policies would benefit consumers. In

Malaysia, news media reported that government policies to address housing affordability would be beneficial for many citizens.

- > However, the message that people believe housing is not affordable was also prominent. This was conveyed primarily by consumers and real estate analysts.
- > During the report period, a number of surveys were released in Australia and Hong Kong that found that housing affordability was low,

and that predicted a grim future for house prices. The income-to-house price ratio was discussed across all countries, with concerns about individuals' abilities to manage mortgages. Coverage noted that the findings from the surveys in Hong Kong and Australia supported these concerns.



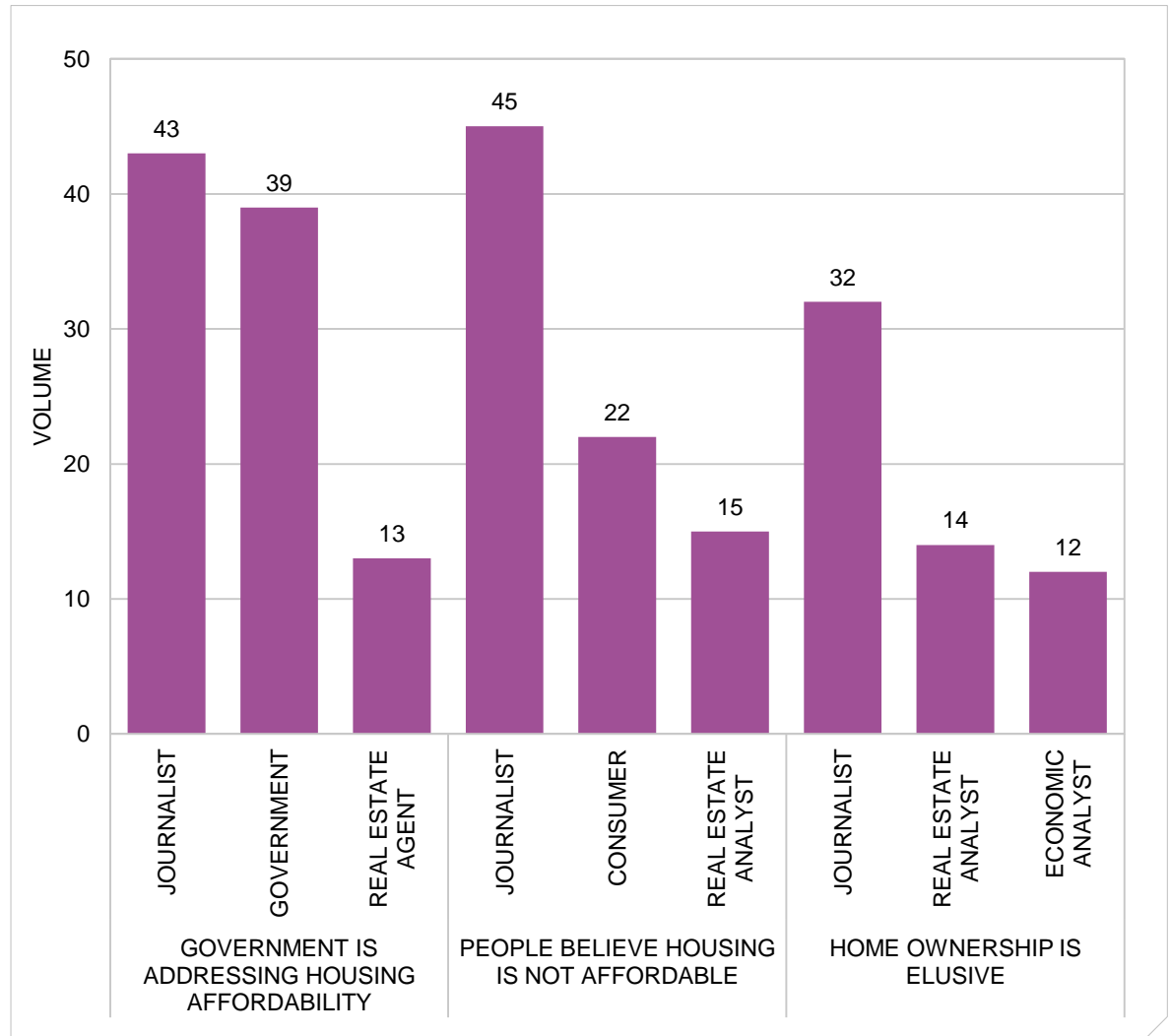
CHART 15

While government sources spoke favourably about their schemes to address affordability, analysts offered a negative view of the possibility of home ownership, and consumers generally indicated that they believed that housing is not affordable.

Unsurprisingly, when the most frequent message – *government is addressing housing affordability* – was attributed to a source, this source was a government spokesperson; otherwise, it tended to appear in coverage without an attribution.

Meanwhile, the real estate and economic analysts that were quoted in news media reporting were unfavourable, and primarily conveyed the message that *home ownership is elusive*.

Consumers seemed to be influenced by these industry experts, with the most common message communicated by consumers *being housing is not affordable*.



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FOCUSES ON PERCEPTION, OPINION AND BEHAVIOUR OF
THE PUBLIC FROM THE SOCIAL MEDIA

Analysis of social media



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Voice growth & channel growth



The voice growth chart shows the number of unique voices that joined the digital conversation per day. This provides an indication of how many people were talking about housing affordability in the analysis period. The channel growth chart shows the number of new channels to which the conversation about housing affordability spread over the period.

CHART 16

There was an increase in new voices on 5 August, when a large volume of new contributors in China joined the online discussion of housing affordability.

The second highest peak occurred on 13 August, when new voices in China, Singapore and Hong Kong contributed to the discussion.

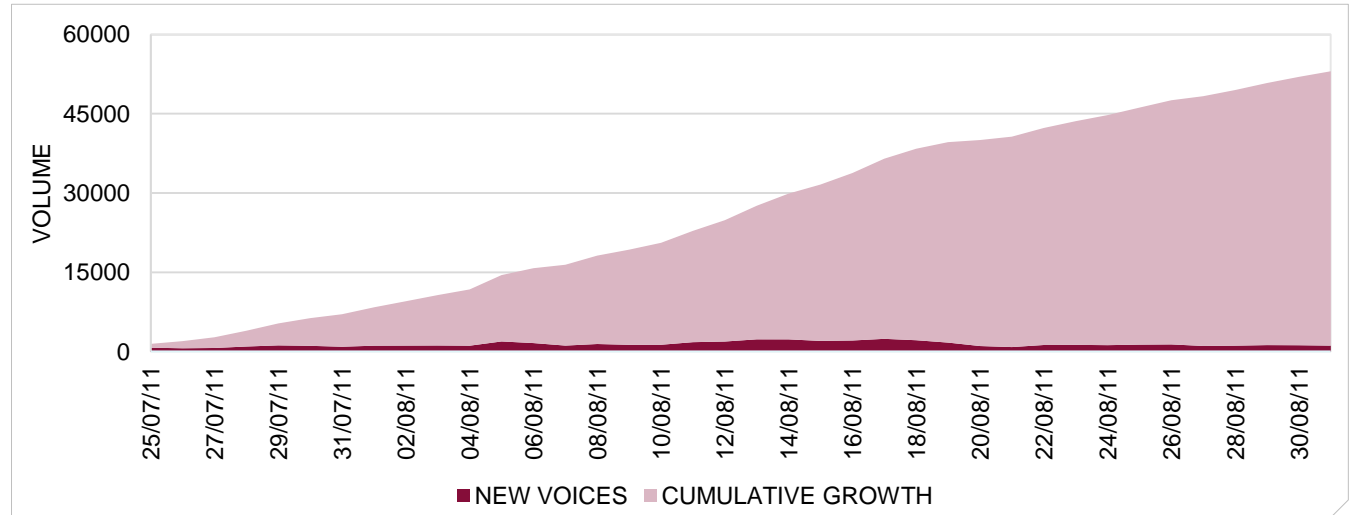
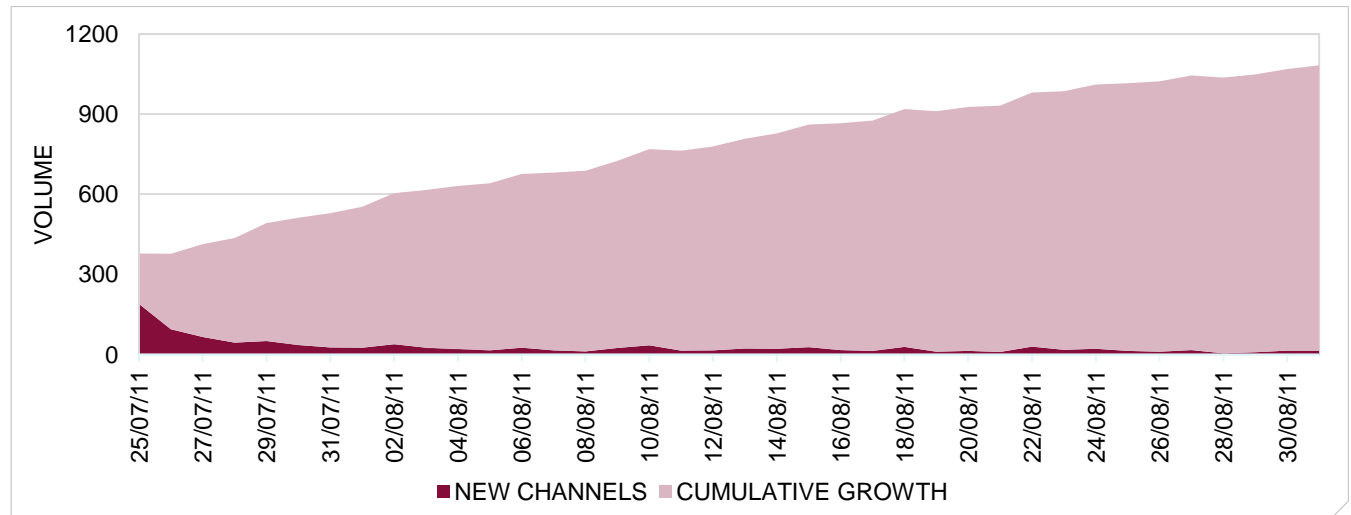


CHART 17

As would be expected, across the six countries analysed, new channel growth peaked on 25 July, the first day of the monitoring period.

The cumulative growth gradually decreased, indicating that there were less new channels on which housing affordability was discussed as the period progressed.



Story line: 25 July – 31 August 2011



25 JULY 2011 – SINGAPORE

An article dated 25 July was reposted and discussed about the Housing Board stopping its practice of disclosing the median cash-over-valuation figure for resale flats and Minister Khaw's comments on how the rising resale flat prices will be eased.

5 AUGUST 2011 – CHINA

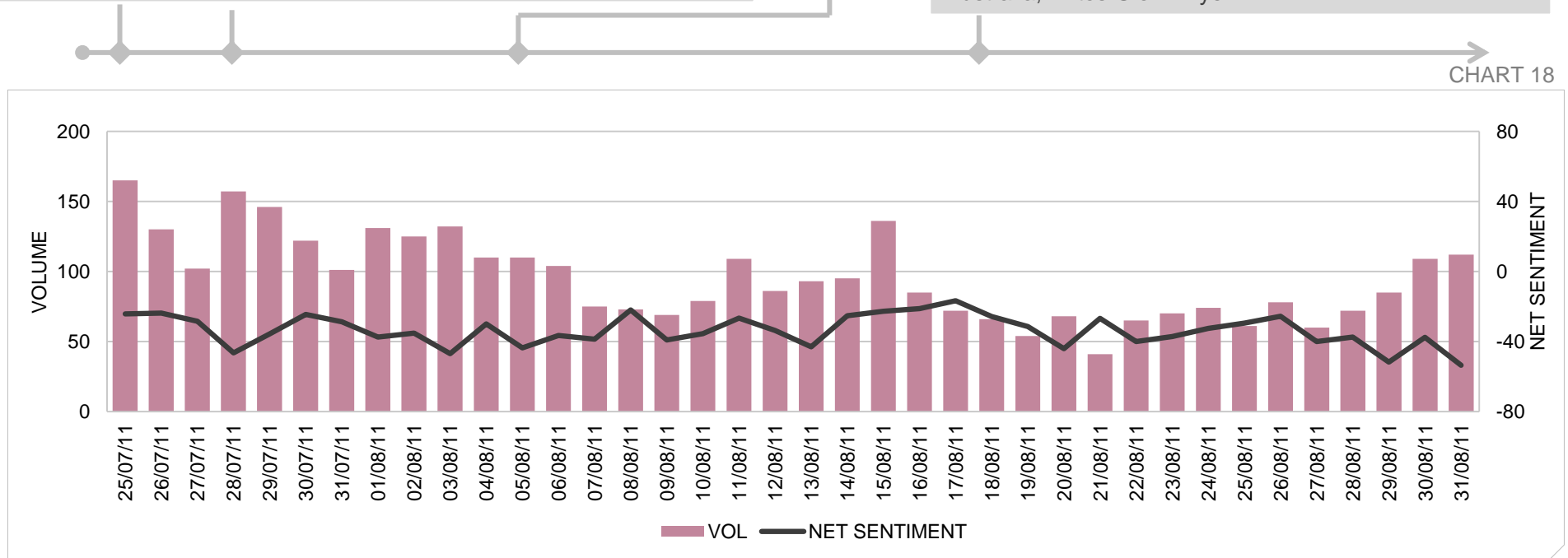
Since the introduction of the government's new housing policy in April, house prices still going strong along the way. The Central Government has put in so much effort, but how come the property market has not respond to it?

28 JULY 2011 – AUSTRALIA

The online public showed interest in various news articles regarding the generally unaffordable housing in Australia, high price of property investment and cost of living in Sydney and Perth's housing being one of the least affordable in the country with a median housing price of A\$3.3 million, 50 times the average household income in Perth.

18 AUGUST 2011 – AUSTRALIA

"Despite the continuing strength of China, despite the relative solidity seen in our current June 30 reporting season, the outlook for financial markets has worsened and there is undoubtedly more bad news ahead of Australia, writes Glenn Dyer".



Top influencers



The chart shows the most influential people that contributed the most responded to posts on the topic of housing affordability in the report period.

Australia



“ 27 APRIL 2011 10:35
Sad to say that this is considered ‘best practice’.

USER	CHANNEL	INFLUENCE	FOLLOWERS	SENTIMENT	URL
Richard_Gunner	Twitter	56	2,124	Positive	twitter.com/#!/Richard_Gunner

New Zealand



“ 1 AUGUST 2011 23:02
@BRONNINATOR That’s no different to any investment, plus if you earn under \$100k you can withdraw it to buy your first home.

USER	CHANNEL	INFLUENCE	FOLLOWERS	SENTIMENT	URL
carebears7s	Twitter	50	567	Neutral	http://twitter.com/#!/carebears7s

China



“ 30 AUGUST 2011 9:23
Recent study found that the flow of funds and property speculators had fled as early as last November.
(最近在研究资金流向时发现，楼市大炒家早在去年11月份就已出逃)

USER	CHANNEL	INFLUENCE	FOLLOWERS	SENTIMENT	URL
Niu Dao (牛刀)	QQ Microblog	100	5,940,189	Neutral	http://t.qq.com/niudao

Top influencers



The chart shows the most influential people that contributed the most responded to posts on the topic of housing affordability across the six markets.

Hong Kong



“ 29 JULY 2011 01:28

We all know how the house prices will go up and down. I totally agree with you. I support everyone to rent rather than to buy.

上升空間有幾多下跌空間有幾多大家心中有數好友你都心...我完全同意你的觀點.支持大家租樓

USER	CHANNEL	INFLUENCE	SENTIMENT	URL
DCC001	UWANT.COM – Real Estate Discussion	50	Negative	http://finance.discuss.com.hk/viewthread.php?tid=14872262

Malaysia



“ 13 AUGUST 2011

A concern on Penang's reinvention in the economic sphere. If it continues then it will draw more people to work in the said state.

USER	CHANNEL	INFLUENCE	FOLLOWERS	SENTIMENT	URL
David Tan	The Star -Business	100	-	Neutral	http://biz.thestar.com.my/news/story.asp?file=/2011/8/13/business/9285090&sec=business

Singapore



“ ‘AngryMan’ feels that despite showing “early promises”, nothing “concrete” is being done by new Minister for National Development Khaw Boon Wan to address the problem of unaffordable housing . S/he feels that Minister Khaw is saying that he cannot do anything but wait for more HDB flats to be build, hence not bringing additional value to solving the problem.

USER	CHANNEL	INFLUENCE	FOLLOWERS	SENTIMENT	URL
AngryMan	Channelnewsasia Forum – Market Talk	100	-	Negative	-

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ANALYSIS OF NEWS MEDIA COVERAGE AND SOCIAL MEDIA POSTS FROM AUSTRALIA, CHINA, HONG KONG, MALAYSIA, NEW ZEALAND AND SINGAPORE

Market Analysis



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LEADING DISCUSSIONS

- > A number of housing affordability studies were reported in news media during the period, including a survey by the University of Canberra titled *The Great Australian Dream – Just a Dream?*
- > In particular, news media coverage reported prominently on the report's predictions that housing will remain unaffordable for the next 10 years, as well as the report's suggestion that Australia has one of the least affordable housing markets in the world, second only to Hong Kong.
- > Online responses to this coverage were widespread, particularly on Twitter, where numerous conversations discussed house prices in years gone by and speculated on future prices. The online public appeared to doubt that the house price to income ratio would improve in the coming years, with these pessimistic views aligning with the findings from the University of Canberra study.

CHART 19

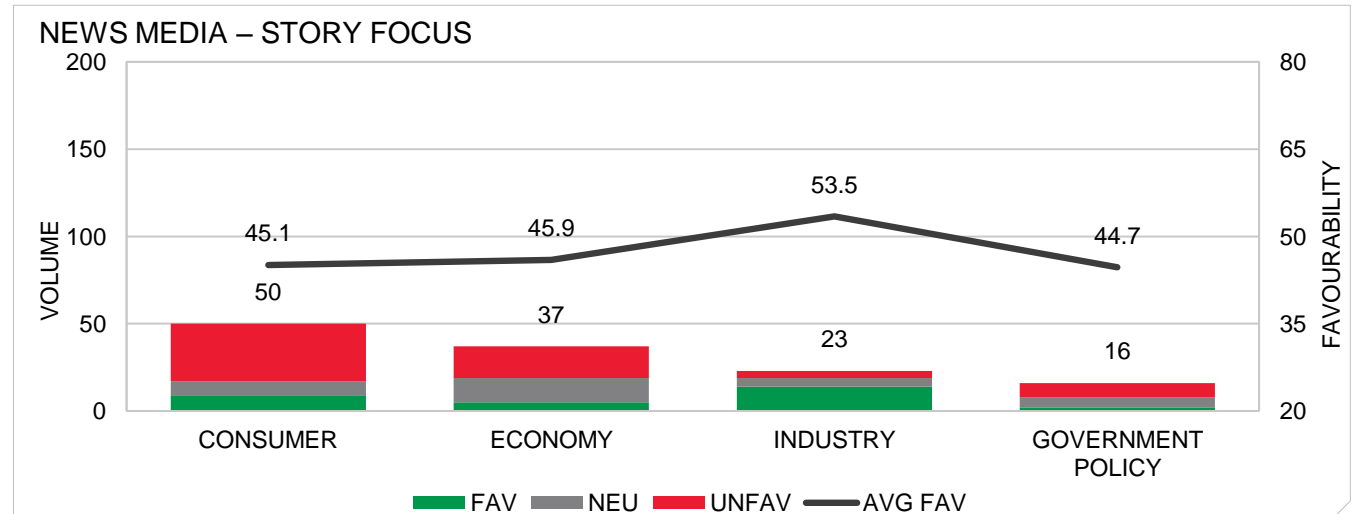
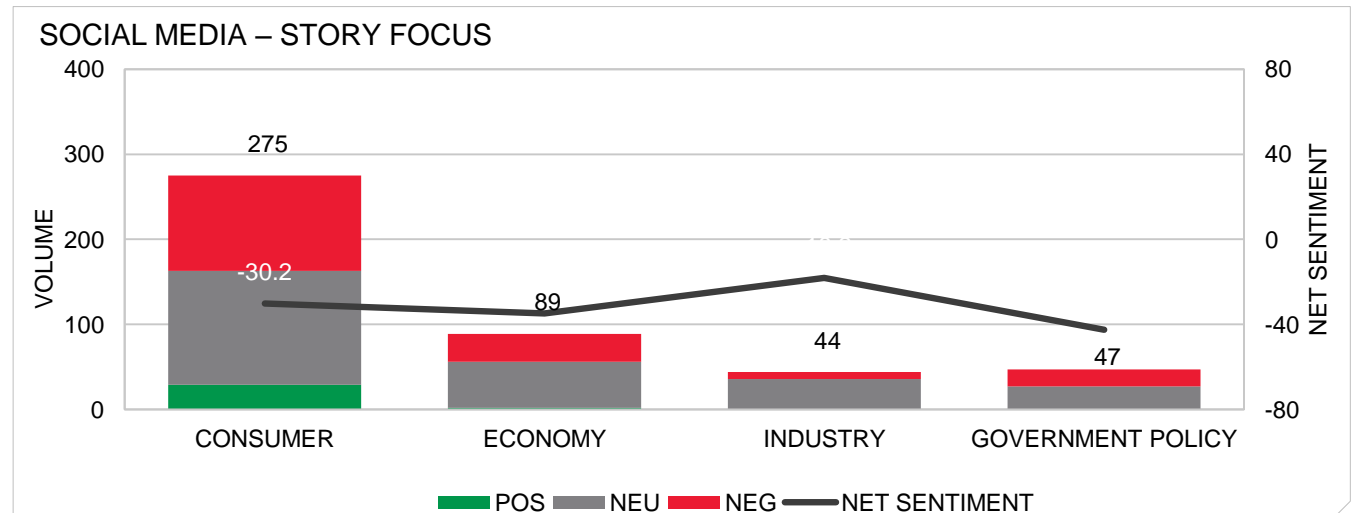


CHART 20



OTHER LEADING DISCUSSIONS

- > Various columns or online posts by industry sources, business leaders and property channels tended to promote the affordability of housing. For instance, a number of property analysts reported that while affordable housing was still available in some suburbs, doom-and-gloom stories were affecting consumer confidence.
- > News media frequently discussed a less-is-more approach to housing construction on the part of developers, with a shift away from the so-called McMansion, but there was little online discussion about this issue.
- > Criticisms of the government's First Home Owner Grant appeared prominently both in news and social media, with suggestions that the scheme only served to inflate property prices in the long term.
- > Interestingly, discussions about whether there was sufficient public housing in Australia were more frequent in social media than in news media. Several online comments suggested that government housing projects were the means by which politicians' earned the support of voters.

CONCLUSIONS

- > Most social media conversations about housing affordability in Australia were driven by blog or online news articles. This included:
 - > Retweets of news articles on Twitter;
 - > Links to blog or news articles that were posted by the online public in forum sites;
 - > A significant volume of comments that were posted by the online public in response to news and blog articles.

- > This suggests a flow-on effect from news media to social media channels in Australia. In particular, there was a direct link between social media conversations and reporting on the release of the University of Canberra's survey of housing affordability.

CHART 21

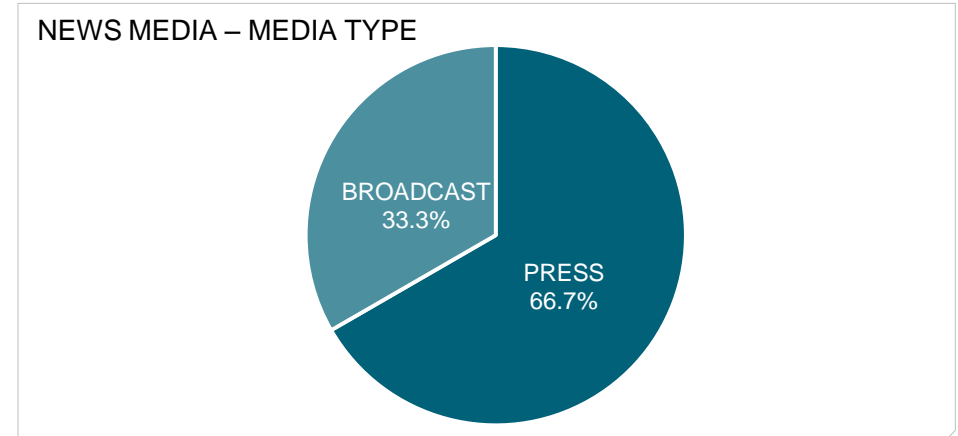
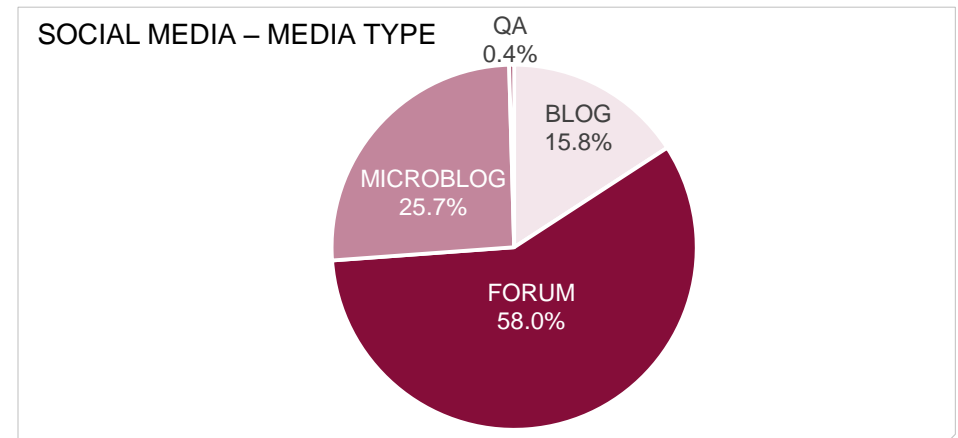


CHART 22



LEADING DISCUSSIONS

- > News media coverage of housing affordability most prominently focused on the government's housing policies and regulations, while online media discussions largely focused on house prices in the context of economic and consumer issues.
- > In news media, reporting frequently discussed the government's recently implemented restriction of purchase policy for second and third tier cities. The policy aimed to reduce house prices by controlling the number of houses or properties owned by individuals, especially foreign investors. However, the policy was considered to be controversial because house prices were still on the rise despite its implementation. Some commentators additionally suggested that house prices had even spiked as a result of this policy, and that home buyers and investors had been left uncertain about the real estate market.

CHART 23

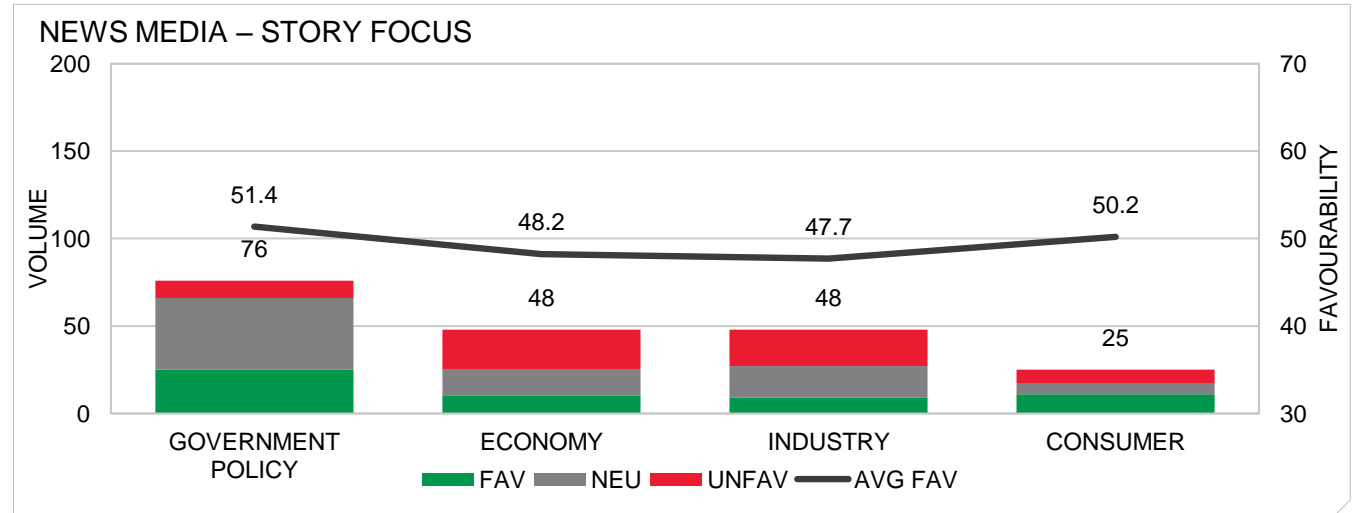
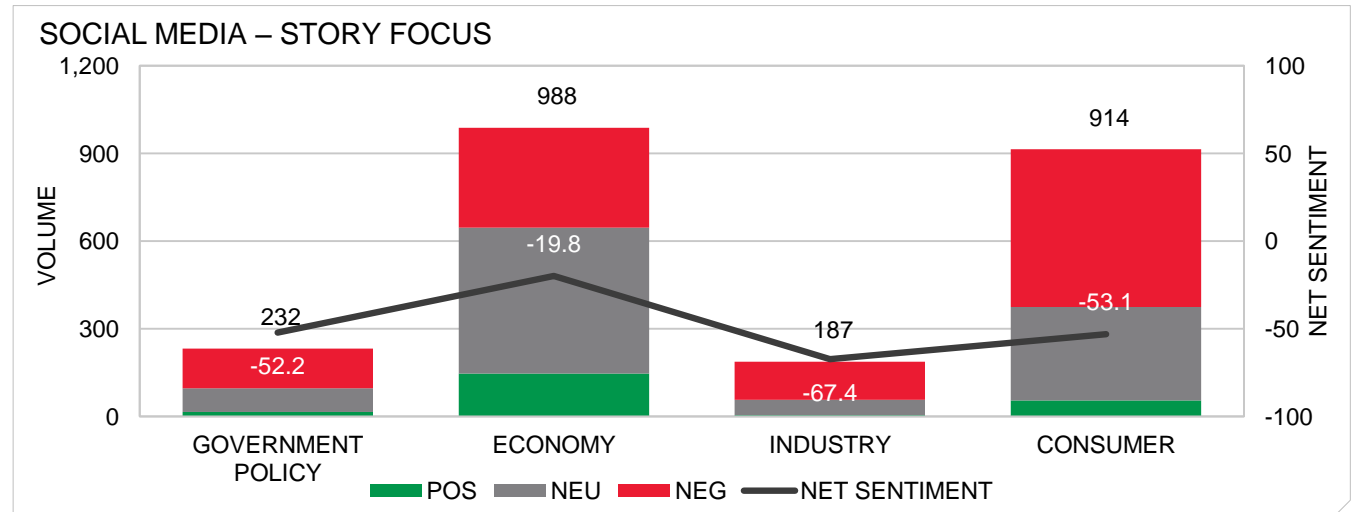


CHART 24



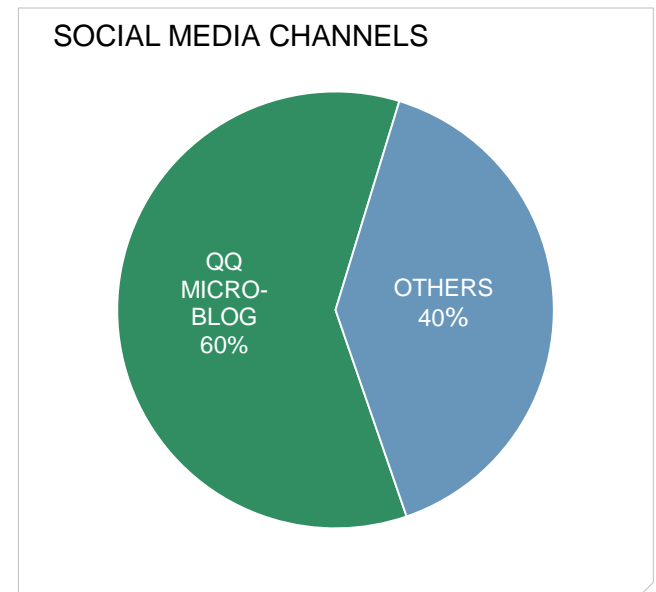
- > A large proportion of the online public also stated that regulating the real estate market will not help to control house prices, citing the restriction of purchase policy as a regulation that had not been successful at cooling down the property industry at the present time. The online public suggested that the policy was ineffective, with some also indicating that it is only the government and real estate developers that benefit from the regulation of the market. However, although a number of commentators criticised the restriction policy, some more positive coverage cited government sources who discussed the benefits of the policy for local consumers.
- > While the restriction policy was criticised in social media, more positive discussions related to the government's plan to spend 1.4 trillion Yuan to construct welfare housing, with a target of building 10 million affordable homes. Online posts noted that this policy had been welcomed by low-income families, as it would assist them to purchase their own homes.
- > China's most popular microblog site, QQ Microblog, was the leading social media

channel for analysed discussions of housing affordability. Of the total posts that appeared on this site, 67% were negative in tone, as people expressed their frustration with skyrocketing house prices in major cities, as well as in the second or third tier cities.

CONCLUSIONS

- > The overall tone of analysed news media coverage and the sentiment of online discussion were aligned. Across both the online posts and the news media reporting, the public perception was that house prices are very unaffordable.
- > Similarly, discussions in both news and social media suggested that the government's attempts to address housing affordability were instead having the opposite effect and contributing to price spikes.

CHART 25



LEADING DISCUSSIONS

- > Housing affordability has been a long-standing social issue in Hong Kong, and the analysed coverage of the topic largely reflected this impression. The tone of news media coverage and online social media sentiment were aligned, with the public's attitude towards this issue being unfavourable.
- > Both news and social media reporting most frequently focused on consumer issues, noting that while property owners in Hong Kong enjoy relatively low interest rates, they still find it difficult to pay off their mortgages, with a high mortgage to income ratio in the country.
- > News media frequently reported on the Chinese University of Hong Kong's (CUHK) release of a Quality of Life Survey during the report period. This coverage discussed findings from the survey that revealed that the affordability of mortgages had dropped to a new low compared to previous years, despite improvements in quality of life and the economy.

CHART 26

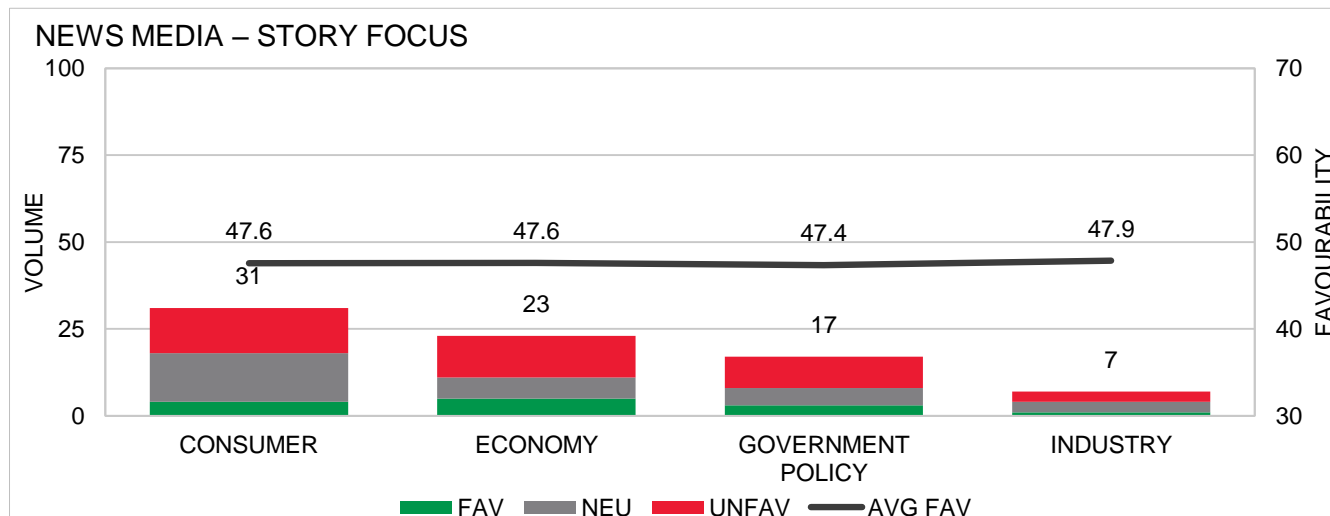
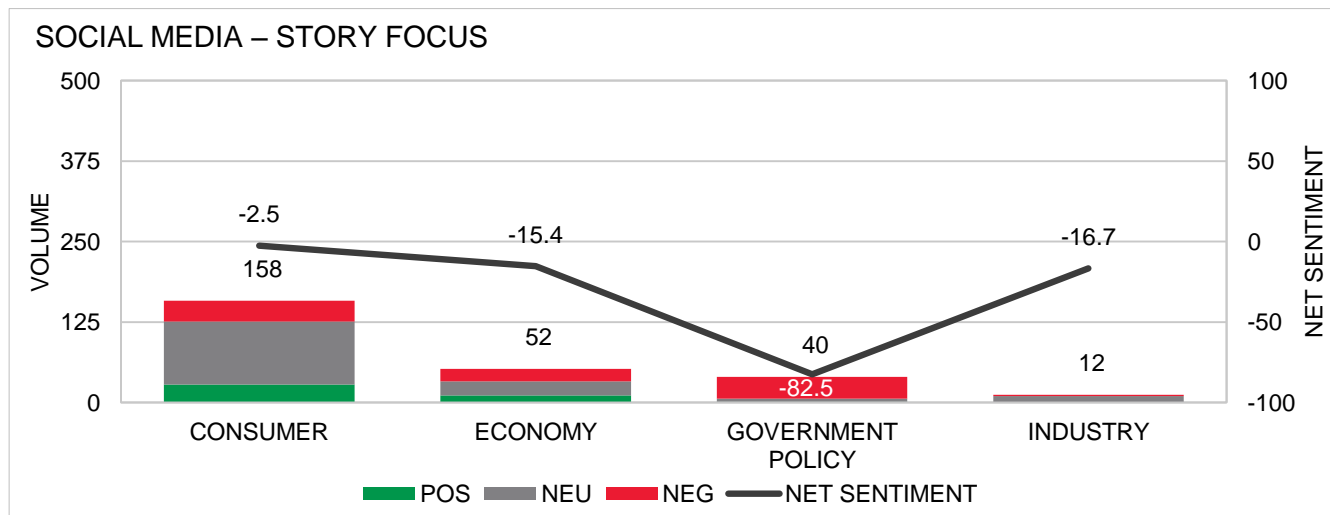


CHART 27



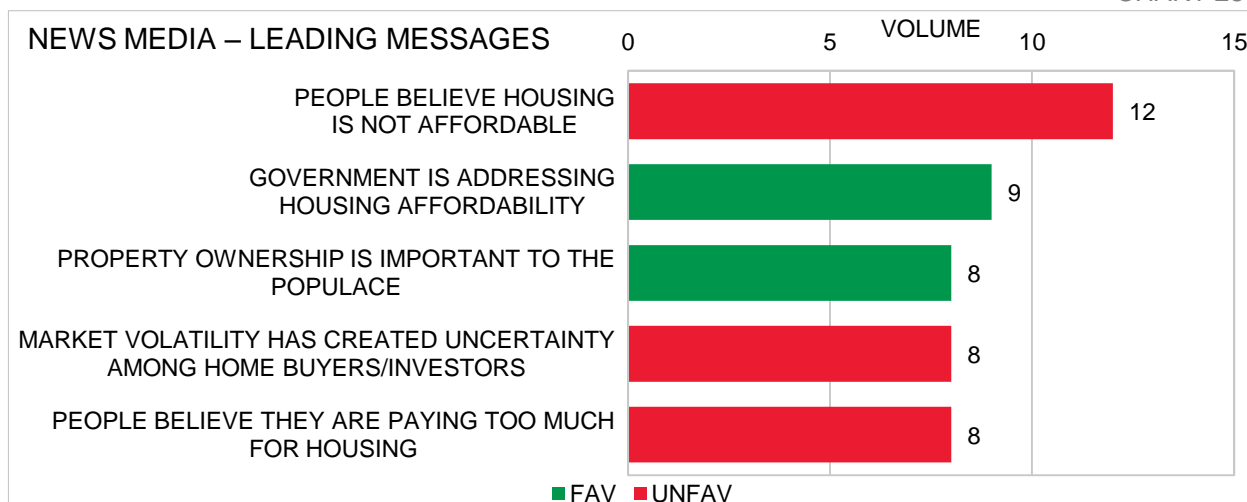
- > Reflecting the largely unfavourable tone of analysed news media reporting, the most prominent message in this coverage was that *people believe that housing is not affordable*.
- > The message that *government is addressing housing affordability* was also frequently conveyed, as a result of regular discussion of the Hong Kong Government's reintroduction of the Home Ownership Scheme and first home buyer subsidies . However, the analysed news media reporting that focused on government policy was most frequently unfavourable, and this was the least favourably discussed topic of news media coverage.
- > The online public sentiment in relation to the government's steps to provide affordable housing was also highly unfavourable, with criticisms that this response has been too slow. Some online comments additionally suggested that the government was putting the needs of property developers and investors ahead of those of the public.
- > A small proportion of the online public expressed very negative views towards foreign investment in Hong Kong real estate, with some specifically blaming investors from

mainland China for causing an influx of capital into the country's property market and pushing up prices. A low number of online posts from forum sites additionally suggested that that it is preferable to continue renting than to buy in the current market.

- > Interestingly, however, only 28% of the sources that were cited in analysed news media coverage made unfavourable comment, and the overwhelming majority of spokesperson comment was neutral. The sources of neutral comments were largely government spokespeople, mortgage experts and real estate analysts.

- > Overall, the view of housing affordability in Hong Kong was relatively pessimistic, and the public was generally uncertain about the future of the property market.

CHART 28



LEADING DISCUSSIONS

- > News media coverage of housing affordability focused primarily on government policy; this reporting was frequent and was largely favourable. However, government policies were much less frequently discussed in the online posts, and social media conversations about these policies were generally negative in tone.
- > News media coverage reported frequently and favourably on the efforts of the Malaysian Government to address housing affordability, including the establishment of a housing scheme that offers up to 100% financing to first home buyers under the age of 35. In addition, news media reporting discussed the Malaysian Government scheme called Pr1Ma, which subsidises the development of affordable housing, for mid- to low-range dwellings. As a result of these favourable discussions, the leading message conveyed in news media reporting was that the favourable government is addressing housing affordability.

CHART 29

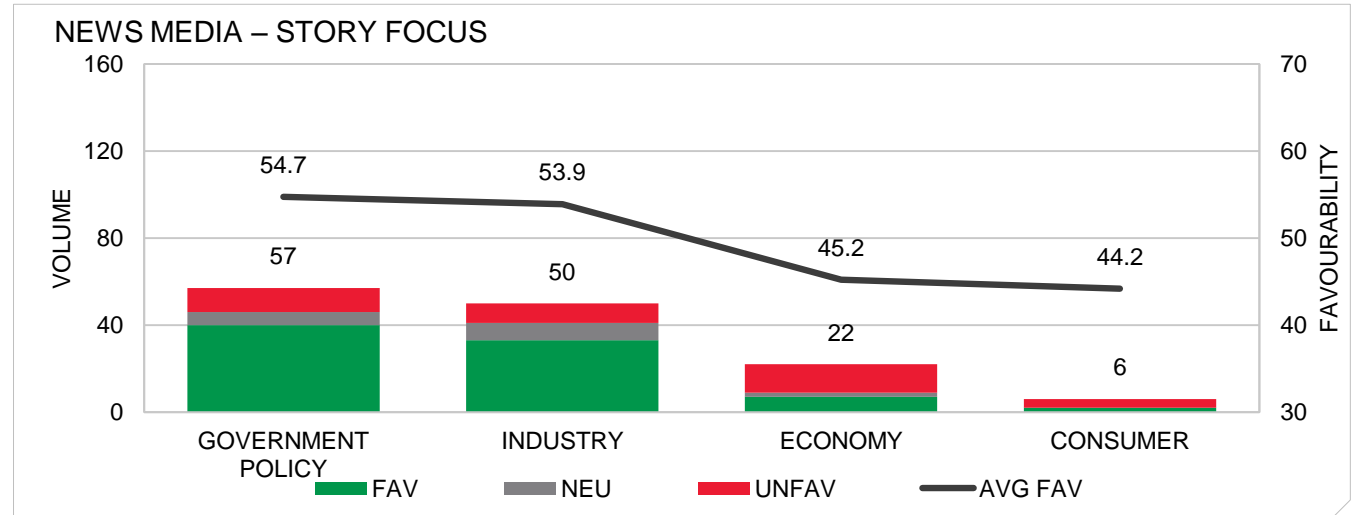
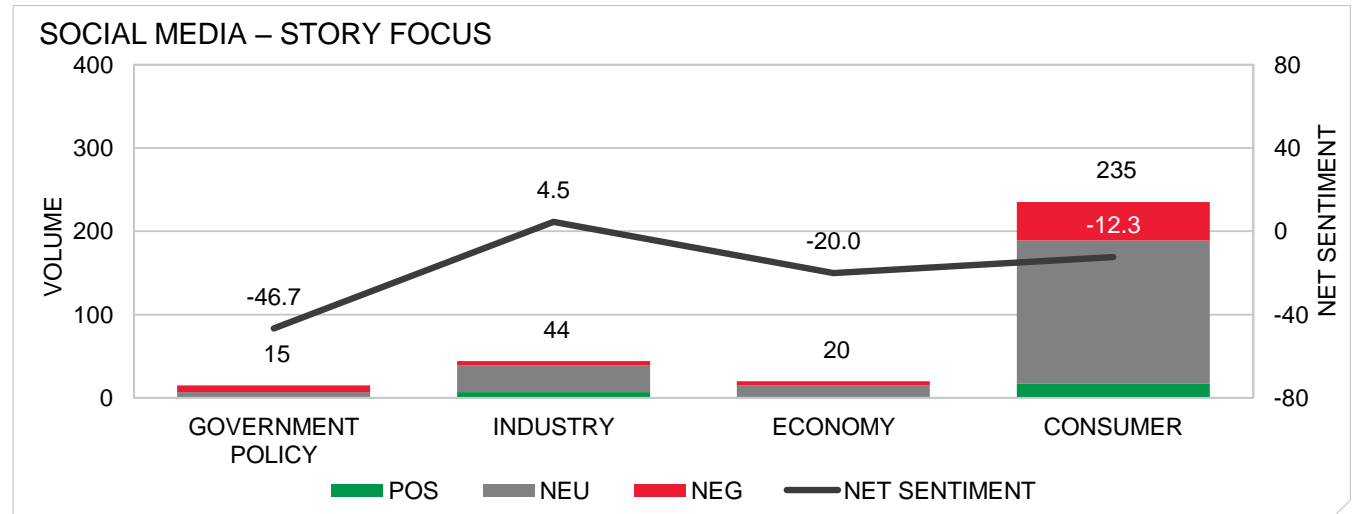


CHART 30



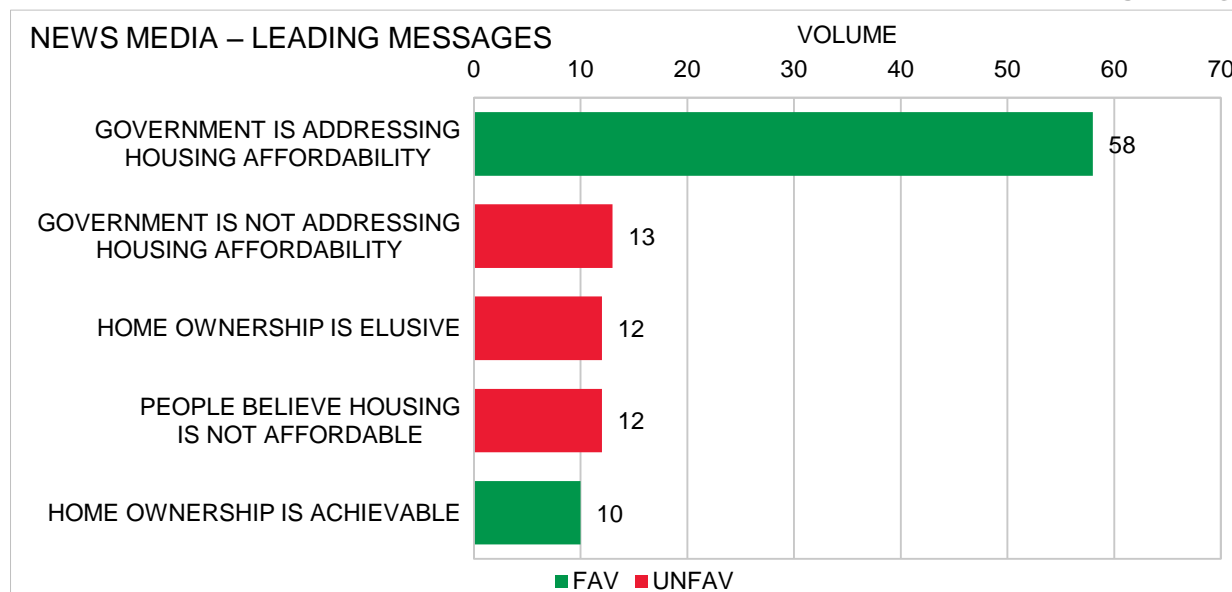
- > Online posts that focused on the government's housing policies were the least reported and the most negative. A number of online forums contributed negative reviews of the government's housing projects, such as Pr1Ma, land use and urban development.
- > Not surprisingly, the online public instead tended to focus most prominently on consumer issues in relation to housing affordability. A large proportion of the online posts raised concerns about higher house prices and mortgages, and the increased expenses associated with owning a house. The online discussions claimed that house prices in some areas of Kuala Lumpur had risen by 60%, but also noted that property sales in some locations had continued to grow strongly despite the high prices. People discussed the alternative of buying property on the outskirts of major metropolitan areas, suggesting that this may be a new trend among the real estate industry for major metropolitan areas of Malaysia. Many online posts suggested that the next generation will have to start saving at younger age in order to afford their own properties.

> The news media coverage that focused on the real estate industry was generally favourable, with numerous reports about affordable developments, including favourable reports on developers and their construction of affordable housing. Some of this coverage also discussed government initiatives for the property development industry. While this reporting was largely favourable, a small volume of news media reports also discussed the opinions of property analysts, who suggested that their surveys were finding that consumers were feeling less optimistic about purchasing property.

CONCLUSIONS

- > The differences between news and social media in terms of the favourability and prominence of the discussion of housing affordability may reflect that the general public were less opinionated about government policies than the news media expected them to be. Despite news media suggestions that the public would favourably view the government's efforts to address housing affordability in Malaysia, this was not supported by the analysed social media coverage.

CHART 31



LEADING DISCUSSIONS

- > The majority of analysed news coverage discussed housing affordability in New Zealand in the context of the earthquake-affected areas of Christchurch; for the most part, this reporting was unfavourable.
- > News stories reported that the earthquake had further impacted on housing affordability in New Zealand, making the dream of home ownership even more elusive as house prices soar while incomes stagnate.
- > A number of social media posts also discussed the recovery processes after the Christchurch earthquakes, but the sentiment of these online discussions was neutral overall.
- > The majority of the social media discussions focused on consumer issues, with the online public seeking advice on forum sites about property purchasing and home loans.
- > Some online posts also mentioned in passing financial stress due to inflated house prices, with these posts mostly being contributed by first home buyers.

CHART 32

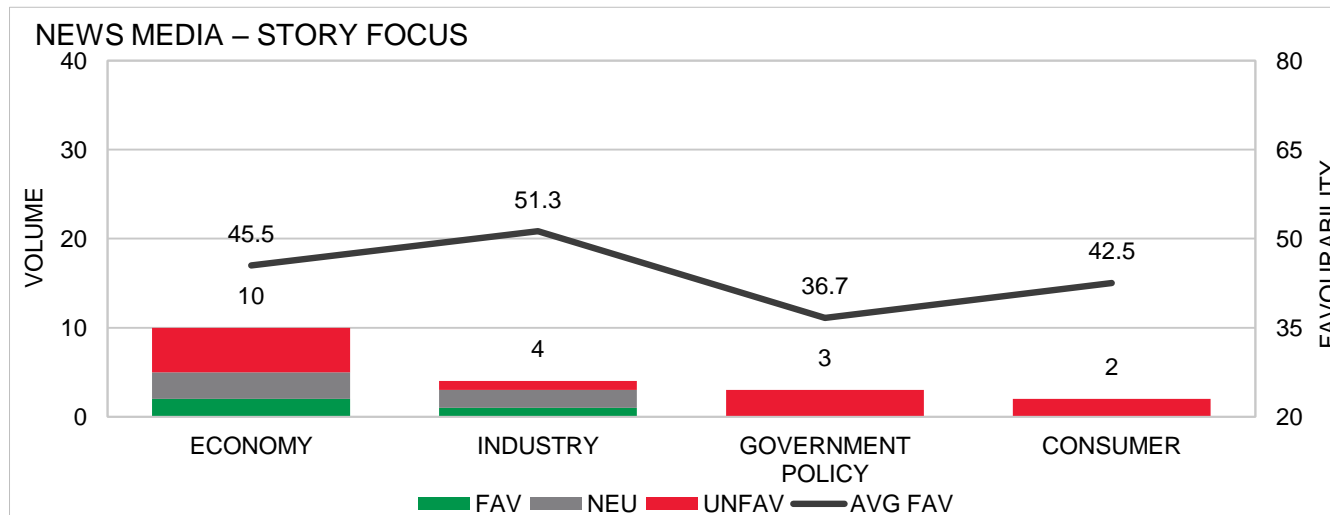
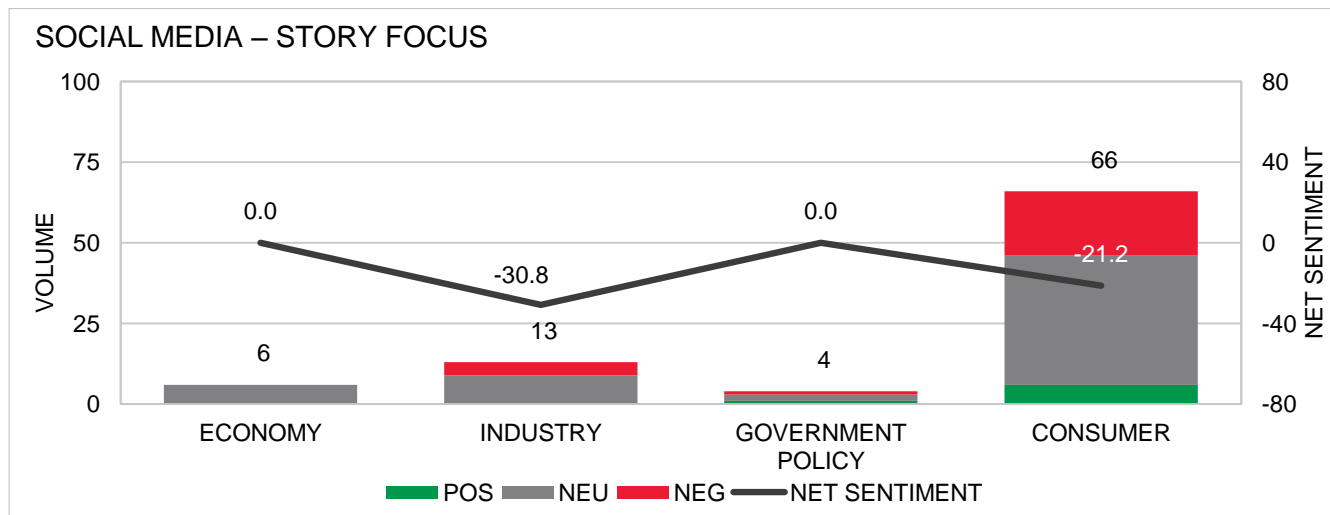


CHART 33





OTHER LEADING DISCUSSIONS

- > News media reports on the New Zealand Government's public housing policy were the least favourable, with substantial criticism attributing the inflated cost of housing to the effects of certain government policies. However, this sort of criticism appeared in only a very few online posts.

CONCLUSIONS

- > The volumes of both news content and social media conversations about housing affordability were low in the report period, and these discussions varied across the different media types. However, the critical role of the New Zealand Government in aiding the recovery of earthquake victims was discussed across both news and social media.
- > News media tended to report on housing affordability at a macro level, particularly framing stories from an economic perspective, and mentioning government policies and their impact on the recovery of the victims of the earthquake.
- > Social media conversations, as would be expected on the other hand, were written from a micro perspective, with most consumers expressing concerns about their individual experiences with things like high rental prices, the quality of houses available, and the behaviour of landlords.
- > Discussion in both news and social media was negative about the role of developers in determining the affordability or unaffordability of housing in New Zealand.

LEADING DISCUSSIONS

- > The majority of the analysed news media articles and online posts discussed the latest government policies and their impacts on consumers, although the focuses of these policy discussions were different across the news media and online public.
- > Social media conversations about government housing policies mainly related to concerns about rising house prices, the consequences of existing and new housing policies and how these policies should be amended, and complaints that the ruling government had created the current housing problem. The majority of the online public expressed the belief that housing in Singapore is unaffordable.

CHART 34

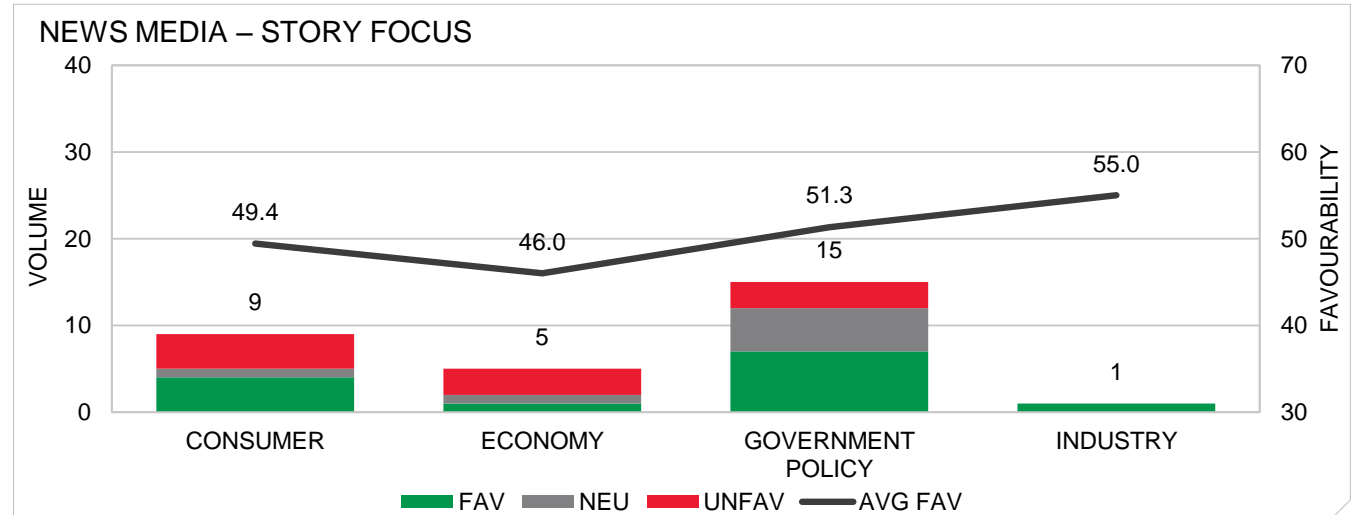
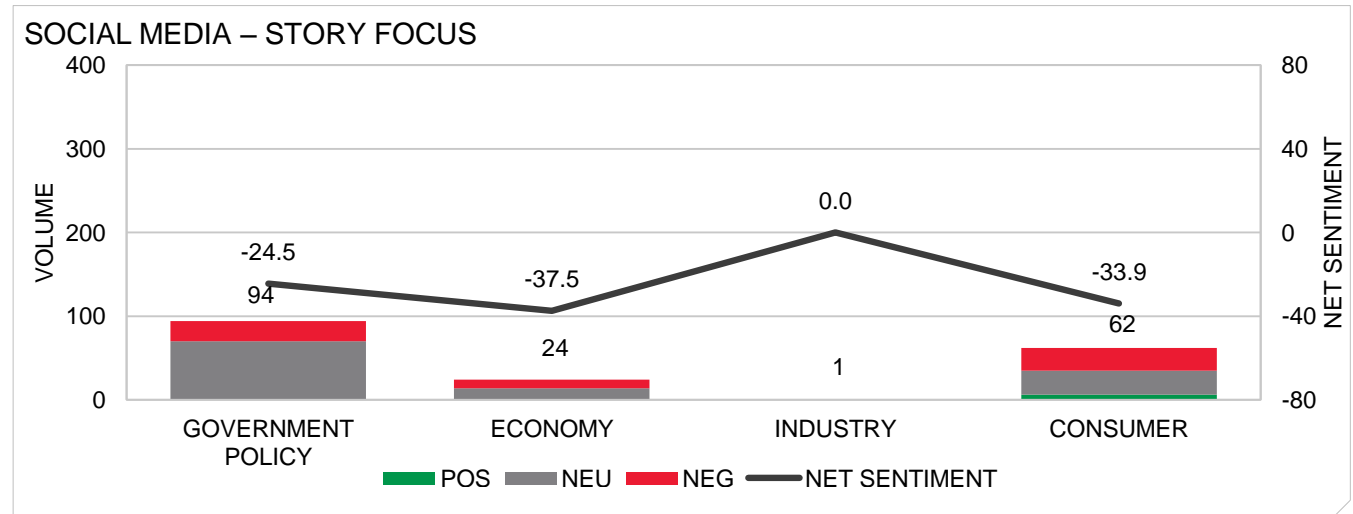


CHART 35



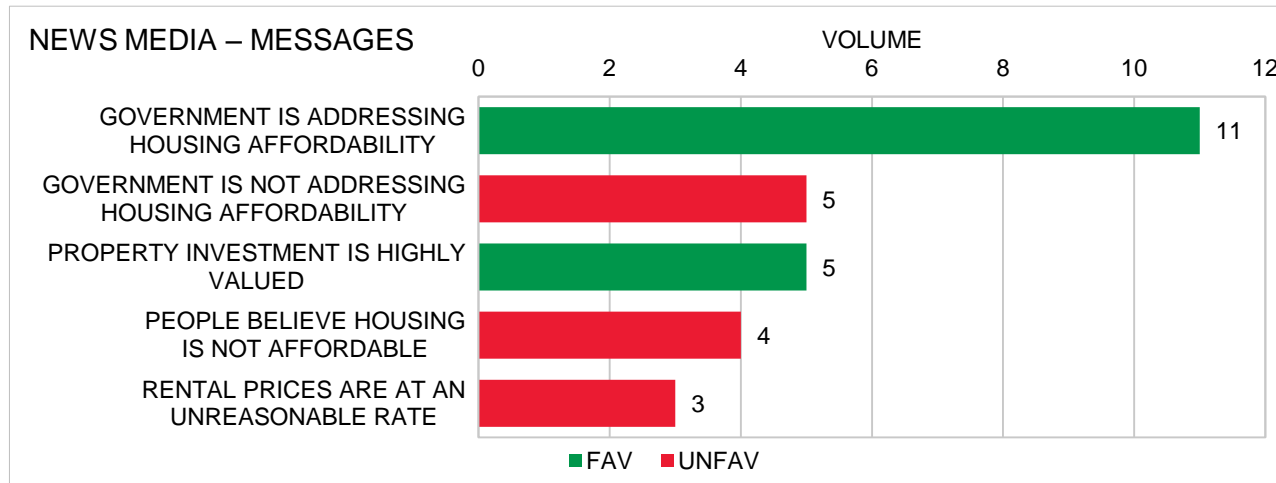


- > News media coverage reported on government policy in the context of landed property and foreign investment. This included debate in articles and letters-to-the-editor about whether it was appropriate to lift restrictions on foreign ownership of landed property. Demonstrating the contested nature of this debate, the contrasting messages government is not addressing housing affordability and government is addressing housing affordability were both prominent in news media reporting (although the negative version of the message appeared less often).
- > A number of news articles were reposted in various forums, with these mostly negatively discussing the actions of the National Development Minister Khaw to tackle the

> housing situation in Singapore. Press articles mentioned that the Housing Board will stop its practice of disclosing the median cash-over-valuation (COV) figure for resale flats, as the Minister found the information “misleading” and “irrelevant”. However, much of the online public stated that they did not believe that stopping disclosure of the COV will solve the problem. Most people believed that real estate agents will continue to speculate, and that foreign investment in the housing market of Singapore will also continue. A significant proportion of the public thought that unaffordable housing was due to the large numbers of foreigners in Singapore, with these contributors suggesting that this increased the demand for housing.

- > In light of the recent elections in May, discussions about housing policies were not merely socio-political in nature, but also partisan. The online public’s resentment towards the ruling government People’s Action Party and its housing policies were interwoven with existing societal issues that also arose during the elections. These included government policies that allow an influx of foreign investment, which creates a higher demand than the existing housing supply, and pushes up house prices as a result.
- > Online discussions commonly related to how the existing and new housing policies impacted on consumers’ abilities to purchase houses or their eligibility for grants. Some additional online posts provided suggestions as to how new policies or changes in the policies should be implemented, which suggested their negative sentiment towards the government’s implementation of housing policies.

CHART 36



CONCLUSIONS

- > Despite a number of news articles that were reposted in various online forums, there was strong evidence that the debate about lifting restrictions to foreign ownership on landed property is originating in social media channels. The public opinions towards the government’s policy on housing were fairly strong, as were the debates about these policies in the news media.

INFORM



INFLUENCE



INSIGHT

APPENDIX

Methodology and glossary of terms



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Average favourability, net sentiment explained



This Media Analysis report uses both the CARMA® media content analysis methodology and Brandtology's proprietary Digital Conversation Management System (DCMS) system to compare and contrast news and social media conversation.

The CARMA favourability rating and Brandtology's sentiment score are comparable rating scales to assess articles/conversations prominence and tonality.

The comparison of the two methodologies is interpreted in a Likert 3-point scale (Favourable/Neutral/Unfavourable versus Positive/Neutral/Negative) as shown in this table.

		RATING	SCALE	COLOUR USED
News Media	Average Favourability Rating 0 to 100 scale where 50 is neutral	Highly favourable	76 to 100	Favourable
		Moderately favourable	56 to 75	
		Slightly favourable	51 to 55	
		Neutral/balanced	50	Neutral
		Slightly unfavourable	45 to 49	Unfavourable
		Moderately unfavourable	30 to 44	
		Highly unfavourable	0 to 30	
Social Media	Sentiment Scale -100 to +100 scale where 0 is neutral	Very Positive	+ 51 to +100	Positive
		Positive	+1 to +50	
		Neutral	0	Neutral
		Negative	- 1 to -50	Negative
		Very Negative	-51 to -100	

Best Practice Media Analysis

The media analysis methodology used by iSentia has a systematic approach to turn media content into meaningful data. This approach analyses media content both quantitatively and qualitatively.

iSentia uses the CARMA® media content analysis methodology, which is internationally recognised as one of the leading commercial systems available. CARMA® (Computer Aided Research and Media Analysis) uses advanced technology to quantify media content, and human intelligence to provide qualitative insight and analysis.

iSentia uses the CARMA® methodology to qualitatively analyse media coverage by taking into account multiple variables. These include the:

- › Placement of media reports (front page or lead item in broadcast media and websites);
- › Positioning of organisation discussion (headline, prominent mentions, passing mentions);
- › Image (photos, illustrations, charts, cartoons, or the image content of video);
- › Topics discussed in the media and their relative importance to the client organisation;
- › Messages, both favourable and unfavourable, communicated in media reports;
- › Sources quoted (both organisation representatives and other individuals who make relevant comments in the media); and
- › Tone of content (extreme language, adjectives and adverbs, metaphors or similes and other figures of speech).

An aggregate score is calculated based on these multiple variables and presented on a 0–100 scale where 50 is neutral. This is an overall rating of the favourability of each media report towards the client organisation (and, if relevant, other organisations or competitors). This aggregate score is called the CARMA® Favourability Rating.

The average favourability is the aggregated rating of the media coverage analysed. This can identify the potential impact of media reporting, and can be used to identify trends and establish benchmarks for future data.

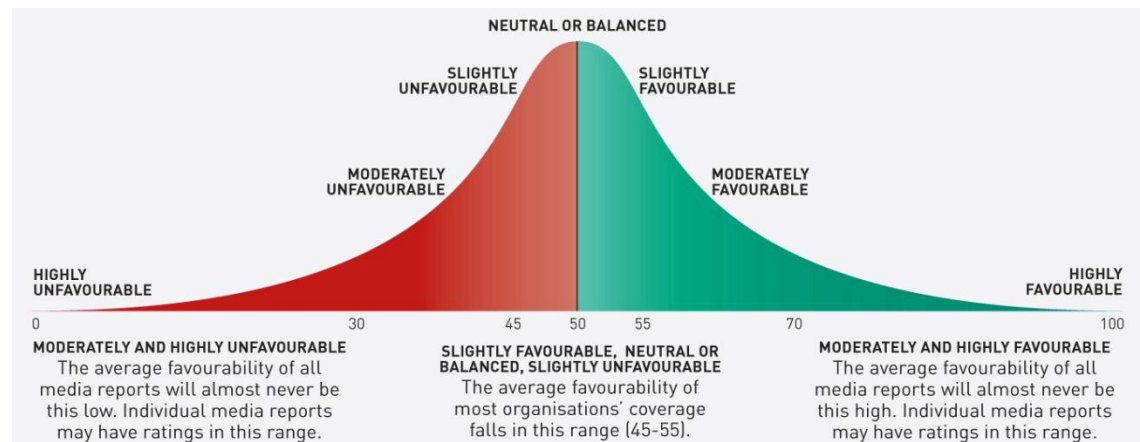
The criteria for analysis (such as topics and specific key messages) are set up uniquely for each individual client by a team of media analysis experts. These experts bring their

industry knowledge to identify key issues and attitudes that appear in the media, answer clients' key questions, and, where relevant, provide recommendations for further action.

The consistency of analysis is ensured in three key ways:

- › Most of the variables analysed are objective criteria (such as media name, positioning, sources' names);
- › The somewhat more subjective topics and messages are identified by either exact phrasing or acceptable alternatives, provided to researchers before analysis begins; and
- › iSentia uses multiple researchers on projects to minimise individual subjectivity.

Average Favourability Explained





Brandtology social media analysis is based on keywords and channels that have been identified by a Social Media Consultant (SMCs). SMCs work closely with clients to determine what needs to be monitored, how best to do this and how to ensure the deliverables and reports meet the clients' objectives.

Using these keywords and channels, relevant data – such as author, content, date of content and influence of author – is extracted from forums, blogs, news, reviews, Q&As, microblogs, public pages on social networking sites and video sites (comments only) from the internet.

The extracted data is processed by multilingual natural language processors to identify sentiments along a five-point scale (very negative, negative, neutral, positive, and very positive).

Processed data is stored in databases and accessible via our Digital Conversation Management System (DCMS). Analysis based on proprietary algorithms is performed on the data to derive statistics, trends, indexes and charts.

A priority rating is also calculated based on a combination of the site and author influence.

Social Media Analysts (SMAs) access the data via our in-house ticketing system to ensure the relevancy and accuracy of the data, as well as to train the system to process data more efficiently on behalf of the clients.

Once SMAs have checked the posts for relevancy and sentiment, Social Media Research Analysts (SMRAs) check for trends and gather insights that would be relevant to the client, and produce a report.

Social Media Metrics Explained

Engagement Index	Quantifies the content creation and response level of a particular subject. This takes into account the number of conversations started, as well as the number of relevant comments and responses to the subject.
Influence Index	Reflects the level of influence of a group of online contributors discussing a certain subject. Influencers are broken down into bands of Very High, High, Moderate, Low and Very Low Influence. Online contributors who are active content posters or garner more responses to their content will command a higher individual influence score. High Influencers have a higher weightage in determining the Influencer Index score. The higher the total Influence Index score, the more influential the group of online contributors discussing the subject are considered to be.
Net Sentiment	Measures the ratio of positive to negative posts. A sentiment index value greater than 1 indicates a higher proportion of positive posts.
Reach	Measures the width and depth of the subject's reach across individual channels and unique voices, respectively.

Glossary of Terms

Category	This refers to the highest level referencing a logical grouping. A category may contain one or more subjects.
Channel	A source being monitored for posts. Examples are forums, reviews, blogs, etc.
Influence Score	The influence score weights the importance of the author/commenter within his/her channel. The score is within the range of 0 to 100.
Keyword	A keyword is used as a search term in the matching process to tag posts to the associated subject.
Mentions	Number of mentions or posts online.
Online Public	Online public refers to a person or persons discussing, writing, or posting on social media platforms like blogs, forum sites, Q&A sites, review sites or microblogs.
Sentiment Scale	Very Negative, Negative, Neutral, Positive and Very Positive.
Voice	An author creating the post or a commenter that made a comment.
Voice Growth	The Voice Growth chart shows the number of unique voices per day that have grown during the time period. This provides an indication of a "viral" growth type of view to show how many more people are mentioning the subject.



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