

Projections of Housing Demand in Australia, 2008-2038

Narrative Report

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Prepared for the National Housing Supply Council

BACKGROUND

This report provides a narrative description of results of the projection of future housing demand in the capital cities and balances of state for the eight States and Territories of Australia for the period, 2008-38. The baseline housing data for the projections is obtained from the 2006 Census of Population and Housing. The Estimated Resident Population data for 30 June 2008 form the baseline population data.

PROJECTION METHODOLOGY

The projections employ an innovative approach to projection of housing demand at the sub-national level. The methodology is detailed in McDonald, Kippen and Temple (2006). A short overview of the approach was provided in a previous report (McDonald and Temple 2008). This previous report also contains an analysis of changes in the household situation of Australians between the 1991, 1996, 2001 and 2006 Censuses of Australia. As there has been no further census, there are no new data available to update these trends. It is possible that the effects upon housing supply of the global financial crisis may have slowed the rate of formation of new households but this is not able to be investigated fully as yet.

HOUSING SUPPLY AND DEMAND

The projections provide the housing demand for occupied dwellings (by structure and tenure type) that would result from changing demographic and social trends (population size, births, deaths, international migration, internal migration, age structure changes and family and household formation and dissolution). These are all demand-side factors. The projections are not constrained by any supply-side factors such as availability of land, the number of vacant dwellings, construction of new dwellings and affordability. Our approach is to project housing demand on the basis of current and recent trends in demand inputs. These demand projections should then be assessed in supply terms, that is, the results from the projections of demand for housing can be compared with existing and planned supply of housing and assessments made of what corrections for demand-supply discrepancies need to be made. Where meeting demand would create supply difficulties, consideration would need to be given to how this demand is re-directed. Do the projected households maintain their dwelling preference but change their location or do they change their dwelling preference within the location. The fact that supply cannot meet housing preferences could also conceivably lead to the household not being formed at all.

THE 2008-2038 PROJECTIONS: ASSUMPTIONS

The projections cover three possible future scenarios that reflect different assumptions about future international migration. The three assumed levels of annual net overseas migration are labeled as Low (100,000), Medium (180,000) and High (250,000). The medium level, 180,000 per annum is the medium level assumed in the 2008 official projections of the Australian Bureau of Statistics and in the 2009 Intergenerational report from the department of the Treasury. It is also towards the middle of target policy ranges being considered by the Commonwealth Government. Assumptions are scaled to agree with the assumptions of the 2008 official ABS projections. The assumptions are set out in Table 1.

Table 1. Projection assumptions

Input	Assumption
Fertility	Age-specific fertility rates were assumed to be the same as those in the ABS Series B projections from the 2008 official projections of population.
Mortality	The mortality assumptions are also the same as the 2008 Series B projections of the ABS.
International Migration	Three assumptions are used that constitute the three scenarios: net migration equal to 100,000, 180,000 and 250,000 per annum.
Internal Migration	Assumed levels are taken from the 2008 ABS official projections of population.
Dwelling Type	The 2006 Census distributions of dwelling type by region, type of household and age of the reference person were assumed to remain constant throughout the projection period.
Tenure Type	The 2006 Census distributions of tenure type by region, dwelling type, type of household and age of the reference person were assumed to remain constant across the projection period.

The resulting levels of annual net migration for regions are shown in Table 2 for 2008 and 2023 (the mid year of the projections). Note, South East Queensland includes the statistical divisions of Brisbane, Gold Coast, Sunshine Coast and West Moreton and Toowoomba Regional Council (Cambooya Shire - Pt A, Crow's Nest Shire - Pt A, Jondaryan Shire - Pt A, Rosalie Shire - Pt A, and Toowoomba City). As the only varying parameter across the projections, the levels of annual net migration are the central cause of variation in the results of the scenarios.

Queensland gains from migration more than any other State or Territory. In 2008, the Medium assumption shows net migration to Queensland as 58,520 compared with 44,700 for Victoria, 33,480 for New South Wales and 29,920 for Western Australia. Among the capital cities, the highest net migration in 2008 is for Melbourne at 35,116 followed by 23,299 for Perth, 22,532 for Brisbane and 17,694 for Sydney. However, net migration to Southeast Queensland not including Brisbane is 24,993 in 2008, higher than the migration to Brisbane. Thus, considering Southeast Queensland as a whole, the level of migration is by far the highest of any of the regions in the table at 47,525. In New South Wales, net migration to areas outside of Sydney (15,786) is only a little lower than the net migration to Sydney (17,694). In Queensland, migration to areas outside of Brisbane is

much greater than migration to Brisbane. In contrast, in the other two major states, Victoria and Western Australia, net migration is heavily concentrated on the capital city.

The picture changes sharply when the other two scenarios are examined. With the Low international migration scenario (100,000 per annum), Sydney would experience an annual net loss of population through migration of around 6,000 people while net migration for the balance of New South Wales would fall only marginally. This indicates that Sydney's growth from migration is entirely determined by international migration while the growth from migration for the rest of the state is determined by internal migration (very largely from Sydney). This story is largely repeated across other states; lower international migration has a large impact on net migration for the capital cities but only a marginal impact on net migration for the balances of each state. A moderate exception is Queensland where direct overseas migration occurs to the regions of Southeast Queensland outside of Brisbane so a fall in net overseas migration would affect this region more than other areas in Australia outside the capitals.

The low migration story is repeated in reverse for the High international migration scenario. Under this scenario also, the areas outside of the capitals have much the same levels of annual net migration as under the Medium scenario but the net migration to the capital cities is much larger. Sydney's net annual migration more than doubles under the High assumption compared with the Medium assumption.

It must be emphasised that these scenarios do not consider the possible impacts on population movements of housing supply factors. If housing supply in some region is constrained or if prices rise relative to other regions, this may affect the net migration flows. It is generally considered that internal out-migration from Sydney is influenced by housing supply factors. Therefore, for example, the population boom in Southeast Queensland could slow relative to these scenarios if housing prices rise more than in other regions and/or housing supply is constrained.

PROJECTION RESULTS

Total households

Table 3 shows the ratio of the total number households in 2023 compared with the number in 2008 and 2038 compared with 2023 for each region across the three scenarios.

Because the different assumptions about international migration do not have much impact on the growth on annual net migration for the balances of each state, the growth rates of households do not vary much across the scenarios in the balances of each state. For example, from 2008 to 2023, in the balance of New South Wales, the growth rates across the scenarios from Low to High range from 23% to 24% and in the balance of Victoria from 21% to 23%. The exception is the balance of Queensland outside Brisbane, especially in Southeast Queensland outside Brisbane where direct overseas migration does make a difference to growth rates under the different scenarios. In the balance of Queensland, the range of growth rates from 2008 to 2023 from Low to High is from 38% to 46%.

**Table 2. Annual net migration by region
(international and internal combined)**

Region	Scenario	ANM 2008	ANM 2023
NSWCC	Low	-6170	-3786
	Medium	17694	20385
	High	38576	41535
NSWB	Low	14770	15286
	Medium	15786	16315
	High	16674	17215
VICCC	Low	15064	14064
	Medium	35116	34116
	High	52661	51661
VICB	Low	8436	6436
	Medium	9584	7584
	High	10589	8589
QLDCC	Low	13540	14799
	Medium	22532	23839
	High	30400	31749
QLDB	Low	29860	31701
	Medium	35988	37861
	High	41350	43251
SACC	Low	1383	1643
	Medium	6649	6397
	High	11257	10557
SAB	Low	1817	1857
	Medium	2311	2303
	High	2743	2693
WACC	Low	12944	13034
	Medium	23299	23461
	High	32360	32585
WAB	Low	5456	3966
	Medium	6621	5139
	High	7640	6165
TASCC	Low	908	466
	Medium	1234	839
	High	1520	1165
TASB	Low	292	-166
	Medium	526	101
	High	730	335
NT	Low	1200	100
	Medium	1760	580
	High	2250	1000
ACT	Low	500	600
	Medium	900	1080
	High	1250	1500
SEQ	Low	35246	37764
	Medium	47525	50108
	High	58270	60909

In contrast, in the four largest cities, the range of growth rates for households is strongly influenced by the three migration assumptions. From the Low assumption to the High assumption, the growth rates from 2008 to 2023 of total households in the four largest capitals range from 14% to 31% for Sydney, from 21% to 37% for Melbourne, from 28% to 43% for Brisbane and from 29% to 48% for Perth. Growth rates in the smaller cities (Adelaide, Hobart, and Canberra) are much lower and less affected by variation in the migration assumptions.

In the second 15-year period, the growth rates for households are lower than in the first 15-year period. This is a result of the lower population growth rates in the second period due to the higher number of deaths and the assumption of a constant level of annual net migration as distinct from a constant rate.

Household types

The different migration assumptions have their main effects upon the growth of total households. There is little differential effect of the three migration assumptions upon the growth of the different types of households. Thus, the relative growth of different types of households can be examined by looking at one scenario. Using the Medium scenario, Table 4 shows the relative increase in the number of households of each type for the two periods, 2008-23 and 2023-38.

Reflecting the ageing of the population, households consisting of couples without children or lone persons grow much more rapidly than families with children in all regions in the period 2008-23. In the second period, however, the growth of households consisting of couples without children slows comparatively to levels that are similar to the growth of households of families with children. While dropping off somewhat, the growth of households of lone persons continues in the second period to be much higher than the growth for other household types. Reflecting more extreme ageing after 2023, the numbers of persons in non-private dwellings increases strongly in all regions in the second period with growth rates approaching 50% in 15 years in many regions.

Table 3: Relative changes in the total numbers of households

Region	Scenario	Growth in total households	
		2008 to 2023	2023 to 2038
NSWCC	Low	1.14	1.11
	Medium	1.23	1.19
	High	1.31	1.25
NSWB	Low	1.23	1.13
	Medium	1.23	1.13
	High	1.24	1.14
VICCC	Low	1.21	1.18
	Medium	1.30	1.24
	High	1.37	1.29
VICB	Low	1.21	1.12
	Medium	1.22	1.13
	High	1.23	1.14
QLDCC	Low	1.28	1.24
	Medium	1.36	1.29
	High	1.43	1.33
QLDB	Low	1.38	1.26
	Medium	1.43	1.29
	High	1.46	1.31
SACC	Low	1.12	1.09
	Medium	1.19	1.14
	High	1.25	1.19
SAB	Low	1.20	1.12
	Medium	1.22	1.13
	High	1.23	1.14
WACC	Low	1.29	1.22
	Medium	1.39	1.29
	High	1.48	1.34
WAB	Low	1.33	1.19
	Medium	1.37	1.21
	High	1.40	1.23
TASCC	Low	1.17	1.12
	Medium	1.20	1.15
	High	1.23	1.17
TASB	Low	1.14	1.05
	Medium	1.16	1.06
	High	1.17	1.07
NT	Low	1.30	1.20
	Medium	1.34	1.23
	High	1.37	1.25
ACT	Low	1.22	1.14
	Medium	1.24	1.16
	High	1.26	1.18
SEQ	Low	1.36	1.28
	Medium	1.43	1.32
	High	1.49	1.35

Table 4. Relative increase in numbers of households by type, Medium scenario

Region	Period	Relative increase over the period						Persons in NPDS
		2 parent families	1 parent families	Couples without children	Lone person	Group households	Total households	
NSWCC	2008-23	1.16	1.13	1.26	1.35	1.20	1.23	1.30
	2023-38	1.13	1.16	1.17	1.31	1.15	1.19	1.39
NSWB	2008-23	1.04	1.03	1.25	1.51	1.20	1.23	1.37
	2023-38	1.02	1.05	1.04	1.34	1.07	1.13	1.34
VICCC	2008-23	1.15	1.27	1.27	1.53	1.29	1.30	1.42
	2023-38	1.13	1.26	1.16	1.40	1.24	1.24	1.44
VICB	2008-23	1.01	1.07	1.24	1.49	1.15	1.22	1.35
	2023-38	1.01	1.10	1.02	1.33	1.05	1.13	1.41
QLDCC	2008-23	1.28	1.30	1.39	1.50	1.26	1.36	1.39
	2023-38	1.21	1.29	1.26	1.41	1.26	1.29	1.49
QLDB	2008-23	1.28	1.23	1.49	1.65	1.27	1.43	1.43
	2023-38	1.19	1.21	1.24	1.47	1.19	1.29	1.50
SACC	2008-23	1.08	1.08	1.20	1.34	1.12	1.19	1.30
	2023-38	1.07	1.12	1.08	1.26	1.09	1.14	1.38
SAB	2008-23	0.98	1.05	1.22	1.50	1.18	1.22	1.51
	2023-38	1.02	1.08	1.01	1.33	1.08	1.13	1.47
WACC	2008-23	1.26	1.30	1.41	1.58	1.26	1.39	1.54
	2023-38	1.17	1.28	1.24	1.44	1.28	1.29	1.55
WAB	2008-23	1.11	1.14	1.43	1.70	1.20	1.37	1.39
	2023-38	1.05	1.11	1.14	1.45	1.14	1.21	1.42
TASCC	2008-23	1.04	1.07	1.25	1.41	1.06	1.20	1.09
	2023-38	1.04	1.10	1.09	1.29	1.07	1.15	1.32
TASB	2008-23	0.93	0.98	1.19	1.43	1.12	1.16	1.45
	2023-38	0.93	1.01	0.96	1.26	1.00	1.06	1.48
NT	2008-23	1.16	1.20	1.35	1.66	1.32	1.34	1.25
	2023-38	1.13	1.29	1.17	1.36	1.16	1.23	1.24
ACT	2008-23	1.13	1.12	1.25	1.46	1.12	1.24	1.16
	2023-38	1.05	1.17	1.13	1.31	1.12	1.16	1.36
SEQ	2008-23	1.34	1.34	1.46	1.57	1.29	1.43	1.45
	2023-38	1.24	1.30	1.29	1.44	1.27	1.32	1.53

Total demand for additional dwellings

Table 5 shows that the demand for additional dwellings is strongly contingent upon the assumed level of net international migration. For the 2008-23 period, the additional immigrants increase the demand for dwellings in Australia as a whole from 1.90 million in the Low scenario to 2.40 million in the Medium scenario and then to 2.84 million in the High scenario. Thus the additional 80,000 net migrants in the Medium scenario compared to the Low scenario (1.2 million additional immigrants over 15 years) increases the demand for dwellings in Australia as a whole by 506,000 in the period 2008-23.

Table 5: Increment in the demand for all dwellings

Region	Scenario	Total additional dwellings	
		2008 to 2023	2023 to 2038
NSWCC	Low	229029	216492
	Medium	378896	389630
	High	509974	541053
NSWB	Low	235985	166051
	Medium	242859	173479
	High	248874	179979
VICCC	Low	317096	317101
	Medium	442943	460293
	High	553020	585542
VICB	Low	120217	84388
	Medium	127906	92726
	High	134633	100021
QLDCC	Low	206886	221647
	Medium	262963	286137
	High	312014	342555
QLDB	Low	359967	340134
	Medium	399902	385010
	High	434839	424274
SACC	Low	59235	47981
	Medium	91752	82805
	High	120196	113266
SAB	Low	35692	24785
	Medium	38701	27982
	High	41333	30779
WACC	Low	182476	179472
	Medium	248819	253936
	High	306842	319076
WAB	Low	75009	57207
	Medium	82586	65730
	High	89214	73188
TASCC	Low	14998	12107
	Medium	17560	15034
	High	19801	17594
TASB	Low	17251	6506
	Medium	19076	8480
	High	20672	10208
NT	Low	23073	20029
	Medium	25985	23532
	High	28532	26597
ACT	Low	29343	23750
	Medium	32422	27319
	High	35116	30442
SEQ	Low	413668	432690
	Medium	491743	521029
	High	560041	598317
Australia	Low	1896141	1742874
	Medium	2402275	2319508

Under the Medium scenario, the additional demand for dwellings in Australia is in the order of 160,000 per annum in the period 2008-23 and 155,000 per annum in the period, 2023-38. There may have been an assumption that the increasing number of deaths in the second period, 2023-2038, would free up existing dwellings thus reducing demand for additional dwellings, but these results suggest that the reduction will be quite small.

Of the additional dwelling demand projected for the 2008-23 period, 20.5% is in Southeast Queensland, 18.4% is in Melbourne, 15.8% is in Sydney and 10.4% is in Perth. Thus, two-thirds of additional demand for all of Australia is projected to be in these four major cities. The balance of NSW accounts for another 10.1% of additional demand in this period.

Demand by dwelling type

Table 6 shows the ratio of dwellings required in 2023 to the number of dwellings in 2008 according to dwelling type. It also shows the same ratio for the second period. The numbers shown relate to the Medium scenario. The purpose of this table is to show whether the demand for any type of housing increases more than for other types. The conclusions do not change if other scenarios are used.

Given the ageing of the population, we might expect an increased demand for semi-detached housing and flats relative to separate houses and, overall, that is the conclusion to be drawn from Table 6 especially in relation to flats. In most regions, the expected relative increase in demand for flats is higher than for separate houses. The higher relative increase in demand for flats is particularly evident in Western Australia and in the balance of South Australia. However, there are some exceptions to this rule. In Sydney, the relative increase in demand is the same for all types of dwellings.

Demand by tenure category

Table 7 shows the ratio of dwellings required in 2023 to the number of dwellings in 2008 according to tenure type. It also shows the same ratio for the second period. The numbers shown relate to the Medium scenario. The purpose of this table is to show whether the demand for any type of tenure increases more than for other types. The conclusions do not change if other scenarios are used.

The main conclusion to be drawn from the table is that relative increases in demand for public rental accommodation increase in many places much more than for the other tenure types. Additional relative demand for public housing is particularly noticeable in Victoria, in Brisbane, in South Australia, Western Australia, the Northern Territory and the ACT. This derives from the fact that the age by household type categories that now tend to occupy public housing in these places are set to increase relative to other age and household type categories. In contrast, the demand for private rental dwellings falls strongly in relative terms in the same areas in which the demand for public housing rises

but also in other regions such as New South Wales and Southeast Queensland. In Queensland Balance and Western Australia Balance, there is a notable relative increase in demand for owner/purchaser tenure.

Table 6. Relative increase in numbers of dwellings by type, Medium scenario

Region	Period	Total Dwellings	Separate houses	Semi-detached	Flats
NSWCC	2008-23	1.23	1.23	1.23	1.23
	2023-38	1.19	1.19	1.20	1.19
NSWB	2008-23	1.23	1.22	1.28	1.28
	2023-38	1.13	1.13	1.14	1.15
VICCC	2008-23	1.30	1.29	1.31	1.34
	2023-38	1.24	1.23	1.25	1.27
VICB	2008-23	1.22	1.21	1.27	1.31
	2023-38	1.13	1.13	1.15	1.18
QLDCC	2008-23	1.36	1.36	1.37	1.37
	2023-38	1.29	1.28	1.31	1.33
QLDB	2008-23	1.43	1.42	1.45	1.43
	2023-38	1.29	1.28	1.29	1.30
SACC	2008-23	1.19	1.18	1.22	1.22
	2023-38	1.14	1.14	1.16	1.16
SAB	2008-23	1.22	1.21	1.28	1.37
	2023-38	1.13	1.12	1.16	1.21
WACC	2008-23	1.39	1.38	1.44	1.46
	2023-38	1.29	1.27	1.34	1.38
WAB	2008-23	1.37	1.35	1.46	1.51
	2023-38	1.21	1.20	1.28	1.32
TASCC	2008-23	1.20	1.20	1.22	1.22
	2023-38	1.15	1.14	1.17	1.17
TASB	2008-23	1.16	1.15	1.26	1.25
	2023-38	1.06	1.06	1.12	1.12
NT	2008-23	1.34	1.32	1.37	1.35
	2023-38	1.23	1.23	1.24	1.22
ACT	2008-23	1.24	1.24	1.23	1.23
	2023-38	1.16	1.16	1.18	1.18
SEQ	2008-23	1.43	1.42	1.44	1.43
	2023-38	1.32	1.31	1.33	1.35

Table 7. Relative increase in numbers of dwellings by tenure, Medium scenario

Region	Period	Total Dwellings	Owner Purchaser	Public Renter	Private Renter
NSWCC	2008-23	1.23	1.24	1.22	1.19
	2023-38	1.19	1.20	1.21	1.16
NSWB	2008-23	1.23	1.25	1.24	1.16
	2023-38	1.13	1.15	1.17	1.07
VICCC	2008-23	1.30	1.30	1.37	1.28
	2023-38	1.24	1.24	1.32	1.23
VICB	2008-23	1.22	1.23	1.27	1.16
	2023-38	1.13	1.14	1.19	1.08
QLDCC	2008-23	1.36	1.38	1.40	1.31
	2023-38	1.29	1.29	1.34	1.28
QLDB	2008-23	1.43	1.46	1.45	1.34
	2023-38	1.29	1.31	1.35	1.23
SACC	2008-23	1.19	1.20	1.24	1.14
	2023-38	1.14	1.15	1.20	1.11
SAB	2008-23	1.22	1.22	1.30	1.16
	2023-38	1.13	1.13	1.20	1.08
WACC	2008-23	1.39	1.40	1.53	1.34
	2023-38	1.29	1.28	1.41	1.28
WAB	2008-23	1.37	1.41	1.42	1.24
	2023-38	1.21	1.24	1.29	1.13
TASCC	2008-23	1.20	1.23	1.21	1.12
	2023-38	1.15	1.15	1.18	1.11
TASB	2008-23	1.16	1.17	1.18	1.10
	2023-38	1.06	1.07	1.10	1.02
NT	2008-23	1.34	1.37	1.50	1.26
	2023-38	1.23	1.23	1.35	1.20
ACT	2008-23	1.24	1.27	1.27	1.15
	2023-38	1.16	1.17	1.21	1.13
SEQ	2008-23	1.43	1.45	1.47	1.36
	2023-38	1.32	1.32	1.37	1.29

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