HIGHLAND HOUSING MARKET PARTNERSHIP

**ANALYSIS OF THE SENSITIVITY OF THE HNDA TOOL RESULTS TO ASSUMPTIONS
ON FUTURE SOCIO-ECONOMIC CONDITIONS**

Introduction

The Housing Need and Demand Assessment (HNDA) Tool developed by the Scottish Government's Centre for Housing Market Analysis (CHMA) has been used to assess the total future housing requirement and the split between open market housing and housing that needs subsidy (affordable housing). Our HNDA relies mainly on one scenario but the tool contains a number of parameters that can be varied to look at the response to different socio-economic conditions. There are a large number of potential combinations of parameters so, to keep the analysis manageable, the approach used here has been to keep the basic set up constant – the HNDA scenario – and vary only one parameter at a time.

This results in 29 runs of the tool with the summarised below as the Highland total of the ten HMAs: in each case the results are the cumulative total for the 20 year planning period starting in 2015 and the housing requirement after taking account of ineffective stock is also given as this is the most relevant figure for development Plans. Both the totals for additional households and housing units include the allowance for existing need, removed over 10 years beginning in 2015.

Population and Household Growth Scenarios

The baseline for comparison is the HNDA scenario which deliberately sets out to be a high growth scenario that is consistent with Government planning and economic strategy and results in a generous supply of housing land. The logic behind this scenario is discussed at:

<center>Insert link</center>

The table below shows that the HNDA scenario results in 22,066 new households over the 20 year planning period with a range from 9,597 to 16,063 for the NRS scenarios. The core assumptions in the HNDA tool result in the household growth being allocated roughly equally between the open market and subsidised sectors although the proportion is not constant as the household growth includes a fixed figure of 2,144 in each scenario to take existing need into account.

	Run 1: HNDA Scenario - baseline for all other runs	Run 2	Run 3	Run 4
	Migration Scenario: HNDA Scenario	Migration Scenario: Principal	Migration Scenario: High Migration	Migration Scenario: Low
Total **future households**	19,922	10,500	13,918	7,452
Households (including existing need), at the end of the projection period who can afford:				
SOCIAL RENT	7,802	5,070	6,075	4,174
BELOW MARKET RENT	3,346	1,748	2,338	1,222
PRIVATE RENT	5,538	3,022	3,905	2,236
OWNER OCCUPATION	5,381	2,805	3,745	1,966
Total Additional Households	**22,066**	**12,645**	**16,063**	**9,597**
Total Additional Housing Units after Taking Account of Ineffective Stock	**24,087**	**13,803**	**17,533**	**10,476**

Existing Need

The exiting need of 2,144 estimated by the Council is around 10% of the total household growth of 22,066 and the 20 year total is therefore relatively insensitive to the need estimate, although it has more of an impact on the five year LHS figures. Using the affordability model to allocate existing need to tenure has a significant effect with need allocated:

      28% to social rent
      17% to below market rent
      26% to PRS
      28% to buyers

	Run 1: HNDA Scenario - baseline for all other runs	Run 5	Run 6	Run 7
	Existing Need: HC in house figures based on analysis of HHR no affordability model	Existing Need: HaTAP	Existing Need: HC in house figures based on analysis of HHR including overcrowding no affordability model	Existing Need: HC in house figures based on analysis of HHR affordability model applied
Total **future households**	19,922	19,922	19,922	19,922
Households (including existing need), at the end of the projection period who can afford:				
SOCIAL RENT	7,802	6,247	8,707	6,232
BELOW MARKET RENT	3,346	3,346	3,346	3,712
PRIVATE RENT	5,538	5,538	5,538	6,139
OWNER OCCUPATION	5,381	5,381	5,381	5,983
Total Additional Households	**22,066**	**20,512**	**22,972**	**22,066**
Total Additional Housing Units after Taking Account of Ineffective Stock	**24,087**	**22,390**	**25,075**	**24,087**

Income

The income scenario affects the allocation of household growth across all four tenures. The proportion of households that will require subsidised housing is relatively insensitive to income growth with the *reasonable growth* scenario reducing the reducing the subsidised sector from 11,148 to 9,365 (-16%) whereas the *slow decline scenario* has a greater impact increasing the subsidised sector from 11,148 to 15,925 (+43%) and a corresponding decrease in the private sector.

	Run 1: HNDA Scenario - baseline for all other runs	Run 8	Run 9	Run 10
	Income scenario: modest increases (core)	Income scenario: flat	Income Scenario: reasonable growth	Income Scenario: slow decline
Total **future households**	19,922	19,922	19,922	19,922
Households (including existing need), at the end of the projection period who can afford:				
SOCIAL RENT	7,802	10,798	6,345	12,272
BELOW MARKET RENT	3,346	3,814	3,020	3,653
PRIVATE RENT	5,538	3,819	6,416	3,122
OWNER OCCUPATION	5,381	3,635	6,285	3,019
Total Additional Households	**22,066**	**22,066**	**22,066**	**22,066**
Total Additional Housing Units after Taking Account of Ineffective Stock	**24,087**	**24,087**	**24,087**	**24,087**

Income Distribution

The allocation is less sensitive to income distribution than it is to the level of income, and the scenarios alter the distribution of between the subsidised and private sectors by less than 500: the impact is more on allocation within the subsidised sector than within the private sector.

	Run 1: HNDA Scenario - baseline for all other runs	Run 11	Run 12	Run 13
	Income Distribution: flat	Income Distribution: creeping inequality	Income Distribution: creeping equality	Income Distribution: higher end runs away
Total **future households**	19,922	19,922	19,922	19,922
Households (including existing need), at the end of the projection period who can afford:				
SOCIAL RENT	7,802	8,374	7,055	9,411
BELOW MARKET RENT	3,346	2,876	3,925	2,050
PRIVATE RENT	5,538	5,470	5,657	5,341
OWNER OCCUPATION	5,381	5,346	5,429	5,264
Total Additional Households	**22,066**	**22,066**	**22,066**	**22,066**
Total Additional Housing Units after Taking Account of Ineffective Stock	**24,087**	**24,087**	**24,087**	**24,087**

House Prices

The future house price scenario has no impact on the subsidised sector and the impact is to change the allocation between owner occupation and private rent. The biggest impacts are from *strong recovery*, which increases the private rented sector from 5,538 to 6,407 (16%), and *gradual decline* which decreases the private rented sector from 5,538 to 3,448 (-38%).

	Run 1: HNDA Scenario - baseline for all other runs House Price Scenario: OBR estimates (core)	Run 14 House Price Scenario: no real growth (inflation target)	Run 15 House Price Scenario: flat	Run 16 House Price Scenario: modest increases	Run 17 House Price Scenario: strong recovery	Run 18 House Price Scenario: gradual decline
Total **future households**	19,922	19,922	19,922	19,922	19,922	19,922
Households (including existing need), at the end of the projection period who can afford:						
SOCIAL RENT	7,802	7,802	7,802	7,802	7,802	7,802
BELOW MARKET RENT	3,346	3,346	3,346	3,346	3,346	3,346
PRIVATE RENT	5,538	4,783	4,099	5,689	6,407	3,448
OWNER OCCUPATION	5,381	6,136	6,820	5,230	4,512	7,470
Total Additional Households	**22,066**	**22,066**	**22,066**	**22,066**	**22,066**	**22,066**
Total Additional Housing Units after Taking Account of Ineffective Stock	**24,087**	**24,087**	**24,087**	**24,087**	**24,087**	**24,087**

Mortgage Availability and Conditions

Mortgage availability has no impact on the subsidised sector but does impact on the allocation between private renting and owner occupation. Increased mortgage availability with a multiplier of 5 (rather than 4) increases owner occupation from 5,381 to 6,334 (18%) while a tightening with a multiplier of 3.6 (roughly equal to the multiplier of 2.9 times household income used historically in Highland for responsible lending) results in a fall from 5,381 to 4,916 (-9%). Increasing the percentage of purchasers from 50% to 70% increases owner occupation from 5,381 to 7,533 (40%) while reducing the percentage of purchasers to 30% decreases owner occupation from 5,381 to 3,28 (-40%).

Note that we believe the evidence points to more than 50% of the private sector becoming owner occupiers. Between 2001 and 2011 (Census figures) private sector stock increased by 12,958 (from 66,435 to 80,393) but the private rented sector accounted for only 4,226 of this (33%), increasing from 7,567 to 11,793 (56%). The trend for the decade does not reflect fully the impact of the credit crunch in 2008 on mortgage availability, but does suggest a tendency for more than 50% to become owner occupiers, although we have no reliable information on the growth of the private rented sector on a year on year basis as private landlord licensing took a number of years to achieve reliable coverage.

	Run 1: HNDA Scenario - baseline for all other runs	Run 19	Run 20	Run 21	Run 22
	House purchase: 25%ile and income ratio = 4. 50% buyers.	House purchase: 25%ile and income ratio = 5. 50% buyers.	House purchase: 25%ile and income ratio = 3.6. 50% buyers.	High percent of purchasers: 70%. House purchase: 25%ile and income ratio = 4.	Low percent of purchasers: 30%. House purchase: 25%ile and income ratio = 4.
Total **future households**	19,922	19,922	19,922	19,922	19,922
Households (including existing need), at the end of the projection period who can afford:					
SOCIAL RENT	7,802	7,802	7,802	7,802	7,802
BELOW MARKET RENT	3,346	3,346	3,346	3,346	3,346
PRIVATE RENT	5,538	4,585	6,003	3,386	7,691
OWNER OCCUPATION	5,381	6,334	4,916	7,533	3,228
Total Additional Households	**22,066**	**22,066**	**22,066**	**22,066**	**22,066**
Total Additional Housing Units after Taking Account of Ineffective Stock	**24,087**	**24,087**	**24,087**	**24,087**	**24,087**

Mid Market Rent

Mid market rental parameters have no impact on owner occupation but change the allocation between the three rental tenures. Narrowing the width of the band from 10% to 6% results in the mid market sector falling from 3,346 to 2,210 (-34%) while widening the width of the band to 20% results in the mid market sector increasing from 3,346 to 6,249 (87%).

	Run 1: HNDA Scenario - baseline for all other runs	Run 23	Run 24
	Bands for mid market rent: lower = 35%, upper = 25%	Narrower band for mid market rent: lower = 33%, upper = 27%	Wider band for mid market rent: lower = 40%, upper = 20%
Total **future households**	19,922	19,922	19,922
Households (including existing need), at the end of the projection period who can afford:			
SOCIAL RENT	7,802	8,290	6,833
BELOW MARKET RENT	3,346	2,210	6,248
PRIVATE RENT	5,538	6,186	3,605
OWNER OCCUPATION	5,381	5,381	5,381
Total Additional Households	**22,066**	**22,066**	**22,066**
Total Additional Housing Units after Taking Account of Ineffective Stock	**24,087**	**24,087**	**24,087**

Private Sector Rent Levels

Private sector rent levels have no impact on owner occupation but change the allocation between the three rental tenures. Note that the *gradual decline* scenario gives an error in the final years of the projection so the results are not shown below. *Flat* rent growth results in the private rented sector increasing from 5,538 to 8,494 (53%), with social and below market rent decreasing by 2,150 and 806 respectively. *Strong recovery* in rent levels results in private rent falling from 5,538 to 3,885 (-31%), with social and below market increasing by 1,624 and 28 respectively.

	Run 1: HNDA Scenario - baseline for all other runs	Run 25	Run 26	Run 27	Run 28	Run 29
	Rent Growth: OBR estimates (core)	Rent Growth: no real growth (inflation target)	Rent Growth: flat	Rent Growth: modest increases	Rent Growth: strong recovery	Rent Growth: gradual decline
Total **future households**	19,922	19,922	19,922	19,922	19,922	19,922
Households (including existing need), at the end of the projection period who can afford:						
SOCIAL RENT	7,802	6,557	5,652	8,096	9,426	
BELOW MARKET RENT	3,346	3,104	2,540	3,330	3,374	
PRIVATE RENT	5,538	7,025	8,494	5,259	3,885	
OWNER OCCUPATION	5,381	5,381	5,381	5,381	5,381	
Total Additional Households	**22,066**	**22,066**	**22,066**	**22,066**	**22,066**	**0**
Total Additional Housing Units after Taking Account of Ineffective Stock	**24,087**	**24,087**	**24,087**	**24,087**	**24,087**	**0**

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