



Te Puni Kōkiri  
MINISTRY OF MĀORI DEVELOPMENT

# TE AHO TĀHUHU

the Progressive Home Ownership Webinar Series

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Financial Modelling

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**TE AHO TĀHUHU**

the Progressive Home Ownership Webinar Series



TE MATAPIHI  
TE HOKIANGA MŌI TE AHO KAIHUA



Te Tūāpapa Kura Kāinga  
Ministry of Housing and Urban Development

## OUTLINE

- Context: Te Ara Mauwhare: Pathways to Home Ownership Trials
- Two pronged approach to financial modelling:

*“balancing the need for the houses to be affordable to the target whānau cohort with the need for the development of the houses to be financially viable for the rōpū”*

- ❑ Whānau – safeguards and modelling their outcomes
  - ❑ Kaitono – modelling for financial viability
- Key Takeaways



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## TE ARA MAUWHARE: PATHWAYS TO HOMEOWNERSHIP

- Six trials underway is delivering up to 70 new homes for whānau to purchase under rent-to-own and shared ownership models.
  
- **Rent to Own**
  - ❑ **He Korowai Trust** in Kaitaia - 8 homes
  - ❑ **Te Tihi o Ruahine Whānau Ora Alliance** in Papaioea - 10 homes
  - ❑ **Chatham Islands Housing Partnership Trust** on Wharekauri - 5 homes
  
- **Shared Ownership**
  - ❑ **Port Nicholson Block Settlement Trust** in Wainuiomata - 15 homes
  - ❑ **Te Taiwhenua o Heretaunga** in Flaxmere - 10 to 15 homes
  - ❑ **Ka Uruora Housing Trust** in Taranaki - 20 homes



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## MODELLING FOR, AND SAFEGUARDING, WHĀNAU

### ➤ **Financial capability – Sorted Kāinga Ora (mandatory)**

- Recognises a duty to ensure that whānau were not put at risk from participating in what could be a complex financial arrangement
- Recognises that whānau need time and navigation support to prepare for PHO

### ➤ **Caps and safety nets**

- Keep it simple – overseas examples emphasise that the more complexity, the more risk of whānau disadvantage – but with readily understandable and transparent legal agreements
- Lock in basic protections (eg deposits returnable, guarantees, house prices at purchase, equity shares and limiting liabilities etc)
- Modelling the ‘what if’ questions (eg what happens if house values fall, if the household has to exit etc?)

Year 1		Per week	Annual											
Household Payment		\$ 460	\$ 23,320											
To Ropu for operating costs (Rent)		\$ 318	\$ 16,531											
To Ropu as loan payment 'on behalf'		\$ 68	\$ 3,562											
Whānau savings		\$ 90	\$ 4,680											
		\$ 476	\$ 24,773											
Variation		\$ 16	\$ 853											
<b>Whānau Rent to Buy Impact</b>				<b>Annual forecast</b>										
	After Year	0	1	2	3	4	5	6	7	8	9	10		
		(Outset)												
Household Weekly payment		460	460	460	460	460	460	469.20	478.40	487.60	496.80	506.00		
Household Annual payment			23,920	24,398	24,886	25,384	25,892	26,410	26,938	27,477	28,026	28,587		
House value - cost based plus rgrowth	363,400	370,668	378,081	385,643	393,356	401,223	409,247	417,432	425,781	434,297	442,983	451,828		
House value straight line cost	363,400	363,400	363,400	363,400	363,400	363,400	363,400	363,400	363,400	363,400	363,400	363,400		
Loan principal apportioned to Household	170,000	166,438	162,698	158,771	154,648	150,318	145,772	140,999	135,987	130,724	125,199	119,400		
Household equity as loan principal repayment	0	3,562	3,740	3,927	4,123	4,330	4,546	4,773	5,012	5,263	5,526	5,800		
Household equity as savings accumulation	0	4,680	4,774	4,869	4,966	5,066	5,167	5,270	5,376	5,483	5,593	5,704		
Total Household Equity Build	0	8,242	8,514	8,796	9,090	9,395	9,713	10,044	10,388	10,746	11,119	11,504		
Accumulating Household equity		8,242	16,756	25,552	34,641	44,037	53,750	63,794	74,181	84,927	96,046	107,550		
<b>Rent to Buy Option 1</b>														
<b>Straight line 'buy' at cost price</b>														
Ropu equity \$	363,400	355,158	346,644	337,848	328,759	319,363	309,650	299,606	289,219	278,473	267,354	255,862		
Household Equity \$	0	8,242	16,756	25,552	34,641	44,037	53,750	63,794	74,181	84,927	96,046	107,550		
Ropu equity %	100%	97.73%	95.39%	92.97%	90.47%	87.88%	85.21%	82.45%	79.59%	76.63%	73.57%	70.41%		
Household equity %	0%	2.27%	4.61%	7.03%	9.53%	12.12%	14.79%	17.55%	20.41%	23.37%	26.43%	29.59%		
<b>Rent to Buy Option 2</b>														
<b>Buy at cost, principal payments to ropu, capital increases to household</b>														
Ropu equity \$	363,400	358,720	353,946	349,077	344,111	339,045	333,878	328,608	323,232	317,748	312,155	306,454		
Household Equity \$	0	11,948	24,135	36,566	49,245	62,178	75,369	88,825	102,549	116,548	130,827	145,386		
Ropu equity %	100.00%	96.78%	93.62%	90.52%	87.48%	84.50%	81.58%	78.72%	75.92%	73.16%	70.47%	67.84%		
Household equity %	0.00%	3.22%	6.38%	9.48%	12.52%	15.50%	18.42%	21.28%	24.08%	26.84%	29.53%	32.16%		
<b>Rent to Buy Option 3</b>														
<b>Buy at cost, principal payments &amp; 75% of capital increases to household</b>														
Ropu equity \$	363,400	356,975	350,315	343,409	336,248	328,819	321,112	313,114	304,814	296,197	287,250	277,971		
Household Equity \$	0	13,693	27,767	42,234	57,108	72,404	88,135	104,318	120,967	138,100	155,733	173,866		
Ropu equity %	100.00%	96.31%	92.66%	89.05%	85.48%	81.95%	78.46%	75.01%	71.59%	68.20%	64.84%	61.53%		
Household equity %	0.00%	3.69%	7.34%	10.95%	14.52%	18.05%	21.54%	24.99%	28.41%	31.80%	35.16%	38.47%		
<b>Rent to Buy Option 4</b>														
<b>Buy at cost, 100% of principal payments &amp; capital increases to household</b>														
Ropu equity \$	363,400	355,158	346,644	337,848	328,759	319,363	309,650	299,606	289,219	278,473	267,354	255,862		
Household Equity \$	0	15,510	31,437	47,795	64,597	81,860	99,597	117,826	136,562	155,824	175,629	195,986		
Ropu equity %	100%	95.82%	91.69%	87.61%	83.58%	79.60%	75.66%	71.77%	67.93%	64.12%	60.35%	56.64%		
Household equity %	0%	4.18%	8.31%	12.39%	16.42%	20.40%	24.34%	28.23%	32.07%	35.88%	39.65%	43.36%		



# MODELLING THE FINANCES

## ➤ Project cashflow (standard construction project)

- ❑ If you are building houses, you need capital from the outset – you are likely to need to drawdown on PHO (be clear on the proposed drawdowns) or bank finance. What about land acquisition costs?
- ❑ Need to cashflow out construction to completion – revenue will only occur on ‘sale’, or ‘tenanting’ (in the case of rent to own). If bank finance, the interest will capitalise into the cost of the house
- ❑ Need strict cost control – if the aim is to sell houses in the \$500-\$600k range, construction costs will be challenging

	ProjectTD to 31 Jan 2020	February	March	April	May	June	July
<b>Income</b>							
TPK	\$ 450,000.00	\$ 530,000.00		\$ 280,000.00		\$ 240,000.00	
Capital Investor 1							
Capital Investor 2							
Other capital			\$ 1,000,000.00			\$ 300,000.00	
Bank					\$ -		
Philanthropy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Whanau rent							
					\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -
<b>Total Income</b>	\$ 450,000.00	\$ 530,000.00	\$ 1,000,000.00	\$ 280,000.00	\$ -	\$ 540,000.00	\$ -
<b>Support Costs</b>							
Project management	\$ -	\$ 8,333.33	\$ 8,333.33	\$ 8,333.33	\$ 8,333.33	\$ 8,333.33	\$ 8,333.33
Other - internal costs	\$ 129,058.00	\$ 7,692.31	\$ 7,692.31	\$ 7,692.31	\$ 7,692.31	\$ 7,692.31	\$ 7,692.31
Other							
<b>Total support costs</b>	\$ 129,058.00	\$ 16,025.64	\$ 16,025.64	\$ 16,025.64	\$ 16,025.64	\$ 16,025.64	\$ 16,025.64
<b>Gross profit</b>	\$ 320,942.00	\$ 513,974.36	\$ 983,974.36	\$ 263,974.36	\$ 16,025.64	\$ 523,974.36	\$ 16,025.64
<b>Build costs</b>							
Land	\$ 280,000.00		\$ 363,000.00				
Subdivision costs incl titles		\$ 13,800.00					
Civil works		\$ 33,484.17	\$ 33,484.17			\$ 25,300.00	\$ 25,300.00
Consents etc		\$ 6,635.50					
Build 1: 3 bed				\$ 61,750.00	\$ 61,750.00	\$ 61,750.00	\$ 61,750.00
Build 2: 3 bed				\$ 61,750.00	\$ 61,750.00	\$ 61,750.00	\$ 61,750.00
Build 3: 3 bed				\$ 61,750.00	\$ 61,750.00	\$ 61,750.00	\$ 61,750.00
Build 4: 4 bed				\$ 69,500.00	\$ 69,500.00	\$ 69,500.00	\$ 69,500.00
Build 5: 5 bed				\$ 70,750.00	\$ 70,750.00	\$ 70,750.00	\$ 70,750.00
Build 6							
Build 7							
Build 8							
Build 9							
Build 10							
Contingency				\$ 51,000.00	\$ 26,000.00	\$ 63,000.00	
<b>Total build costs</b>	\$ 280,000.00	\$ 53,919.67	\$ 396,484.17	\$ 409,984.17	\$ 351,500.00	\$ 413,800.00	\$ 350,800.00
<b>Gross profit 2</b>	\$ 40,942.00	\$ 460,054.69	\$ 587,490.19	\$ -146,009.81	\$ 367,525.64	\$ 110,174.36	\$ -366,825.64
<b>Other costs</b>							

# MODELLING THE FINANCES

## ➤ Post transaction cashflow

- ❑ Shared ownership is reasonably easy – just ensuring holding costs are covered and the modelled ‘buy-back’ revenue is sufficient to meet the obligatory repayment of the PHO debt (TAM was a grant so the modelling is based on reinvestment)
- ❑ Rent to own is more complex – requires a standard PVAT Operating cashflow model, linked with debt servicing and principal repayment at structured periods. Also provisioning for any buyback or repayment terms to the whānau!

### Whare Kainga Papakainga Forecast Profit and Loss

Year	1	2	3	4	5	6	7	8	9	10
Operating income (less cont for arrears/vac)	237,796	240,576	245,387	250,295	255,301	260,407	265,615	270,928	276,346	281,873
Management fee (retained for internal costs)	(18,945)	(19,324)	(19,710)	(20,104)	(20,506)	(20,916)	(21,335)	(21,761)	(22,197)	(22,641)
External Operating Costs	(49,500)	(50,490)	(51,500)	(52,530)	(53,580)	(54,652)	(55,745)	(56,860)	(57,997)	(59,157)
Financing cost (Interest)	(85,000)	(83,219)	(81,349)	(79,386)	(77,324)	(75,159)	(72,886)	(70,499)	(67,993)	(65,362)
<b>Net profit/(loss) before tax</b>	<b>84,351</b>	<b>87,543</b>	<b>92,829</b>	<b>98,276</b>	<b>103,891</b>	<b>109,680</b>	<b>115,649</b>	<b>121,807</b>	<b>128,159</b>	<b>134,713</b>
Taxation	-	-	-	-	-	-	-	-	-	-
<b>Net profit after tax</b>	<b>84,351</b>	<b>87,543</b>	<b>92,829</b>	<b>98,276</b>	<b>103,891</b>	<b>109,680</b>	<b>115,649</b>	<b>121,807</b>	<b>128,159</b>	<b>134,713</b>
Capital expenditure reserve (4% of gross income)	(7,413)	(7,561)	(7,713)	(7,867)	(8,024)	(8,185)	(8,348)	(8,515)	(8,686)	(8,859)
Loan principal repayments	(35,619)	(37,400)	(39,270)	(41,234)	(43,295)	(45,460)	(47,733)	(50,120)	(52,626)	(55,257)
<b>Net cashflow</b>	<b>41,319</b>	<b>42,582</b>	<b>45,846</b>	<b>49,175</b>	<b>52,571</b>	<b>56,035</b>	<b>59,568</b>	<b>63,172</b>	<b>66,847</b>	<b>70,597</b>
<b>Credit reserve funding</b>	<b>48,732</b>	<b>50,143</b>	<b>53,558</b>	<b>57,042</b>	<b>60,595</b>	<b>64,220</b>	<b>67,916</b>	<b>71,687</b>	<b>75,533</b>	<b>79,456</b>
<b>Accumulated capital reserve towards houses</b>	<b>48,732</b>	<b>98,875</b>	<b>152,434</b>	<b>209,476</b>	<b>270,071</b>	<b>334,291</b>	<b>402,207</b>	<b>473,894</b>	<b>549,427</b>	<b>628,883</b>
<b>Whānau savings in trust or for Kiwisaver</b>	<b>46,800</b>	<b>47,736</b>	<b>48,691</b>	<b>49,665</b>	<b>50,658</b>	<b>51,671</b>	<b>52,704</b>	<b>53,758</b>	<b>54,834</b>	<b>55,930</b>
<b>Accumulated Whānau savings in trust (no r)</b>	<b>46,800</b>	<b>94,536</b>	<b>143,227</b>	<b>192,891</b>	<b>243,549</b>	<b>295,220</b>	<b>347,924</b>	<b>401,683</b>	<b>456,517</b>	<b>512,447</b>

Totipot Data Schedule

## KEY TAKEAWAYS

- ✓ Model the impact on whānau – ask the ‘what if’ questions [**Whānau first**]
- ✓ Need to cashflow the construction period – how will the houses be paid for before you ‘transact’ them to the household
- ✓ Need to cashflow the long term viability for the kaitono – there has to be some sharing of equity





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# CONTACTS

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