Projections of KiwiSaver Balances to 2066

for Financial Services Council

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Contents

1. Introduction

This paper provides projections of the distribution of KiwiSaver balances at age 65, out to 2066.

While we have updated data on the KiwiSaver balances of existing members by age, sex and income, plus updated numbers on contribution rates by sex, income and type of portfolio, we do no capture the full diversity of investors in KiwiSaver. The data enables us to simulate 60 'types' of individual: sex (2) * income deciles (10) * portfolio types (3). While this provides a workable degree of heterogeneity in order to estimate distributions of KiwiSaver balances at age 65, it does imply a degree of truncation at the lower and upper ends of such distributions.

A full set of assumptions and caveats is presented in Section 3. A richer, less restrictive simulation model is possible but will require moving from the current spreadsheet based model to a microsimulation model. Before the advent of KiwiSaver such a model was used by the FSC's predecessor body (ISI) to model retirement savings policies.

2. Results

Figure 1 shows the projected distribution of KiwiSaver balances at age 65 at five year intervals from 2021 to 2066. While initially there are few people with balances over $200,000, this pattern changes markedly as savers begin to see the benefits of compounding rates of return over decades.

More detail is provided in Table 1 which shows mean and median balances at age 65 over time (2021-2066), and the number of people at age 65 who have balances in various bands. The total dollar values involved are large. For example:

- Over the 40 year period from 2021 to 2060, more than 1.2 million people will have balances over $100,000 at age 65.
- The total value of these balances is $468 billion.
- Around the middle of that period, say 2041, about 8800 people are projected to have accumulated between $100,000 and $250,000 by age 65. Another 17,900 will have balances between $250,000 and $500,000, and 5200 will have balances over $500,000.

Figure 1: Projection of KiwiSaver Balances at Age 65, 2021:2066

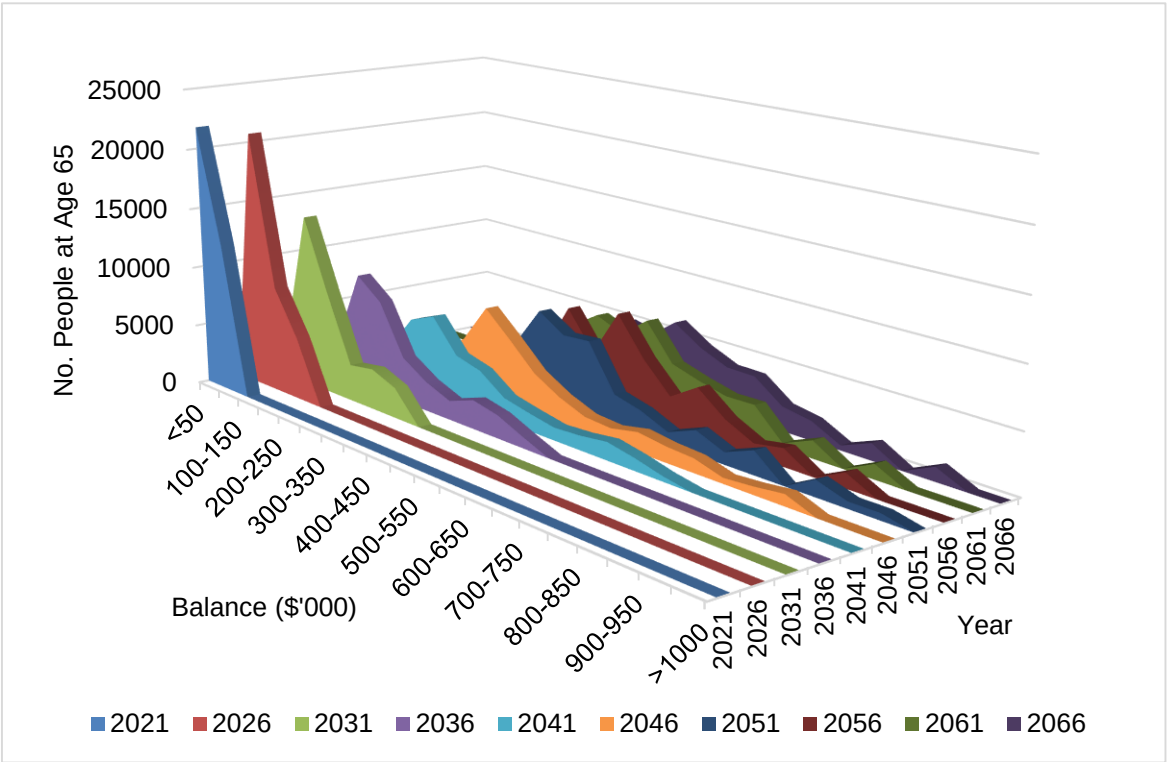

Table 1: Estimates of Mean and Median Balances at Age 65, and Number of People at Age 65 with Balances in Various Bands

				No. People with Balances in Range					
	No. at age 65	Mean Balance	Median Balance	Below $50,000	$50,000 $100,000	$100,000 $250,000	$250,000 $500,000	$500,000 $750,000	Above $750,000
2021	34121	47000	44000	21781	12340	0	0	0	0
2022	34523	54441	50657	11713	13766	2776	0	0	0
2023	34929	63059	58321	6298	15357	5551	0	0	0
2024	35341	73042	67145	3387	17132	8327	0	0	0
2025	35757	84606	77304	1821	19112	11103	0	0	0
2026	36179	98000	89000	979	21321	13878	0	0	0
2027	36144	109284	98529	783	15457	15721	1171	0	0
2028	36110	121868	109078	588	11206	17808	2341	0	0
2029	36075	135901	120757	392	8124	20172	3512	0	0
2030	36041	151550	133686	196	5890	22849	4683	0	0
2031	36006	169000	148000	0	4270	25883	5853	0	0
2032	35609	183636	160790	0	3416	24844	6764	183	0
2033	35216	199539	174685	0	2562	23846	7816	367	0
2034	34827	216820	189781	0	1708	22889	9031	550	0
2035	34443	235597	206182	0	854	21970	10436	733	0
2036	34063	256000	224000	0	0	21088	12059	916	0
2037	33607	272212	238108	0	0	17706	13045	1296	0
2038	33157	289451	253104	0	0	14867	14112	1832	0
2039	32713	307782	269044	0	0	12483	15266	2590	0
2040	32275	327274	285988	0	0	10481	16514	3662	0
2041	31843	348000	304000	0	0	8801	17864	5178	0
2042	32379	363042	318042	0	0	7001	18817	5432	414
2043	32924	378735	332732	0	0	5569	19821	5698	828
2044	33477	395105	348100	0	0	4430	20878	5977	1242
2045	34041	412184	364179	0	0	3524	21992	6269	1655
2046	34613	430000	381000	0	0	2803	23165	6576	2069
2047	35736	440295	391773	0	0	2314	23815	6922	2410
2048	36896	450837	402851	0	0	1911	24483	7286	2806
2049	38093	461631	414242	0	0	1578	25170	7668	3267
2050	39329	472683	425956	0	0	1302	25877	8071	3805
2051	40605	484000	438000	0	0	1075	26603	8496	4431
2052	41115	485194	444598	0	0	1083	26206	9482	4018
2053	41632	486391	451296	0	0	1090	25814	10583	3644
2054	42155	487591	458094	0	0	1098	25429	11812	3305
2055	42685	488794	464995	0	0	1105	25049	13184	2997
2056	43221	490000	472000	0	0	1113	24675	14715	2718
2057	42943	488592	470592	0	0	1102	24740	14379	2709
2058	42666	487188	469187	0	0	1092	24806	14050	2700
2059	42391	485788	467787	0	0	1081	24872	13729	2690
2060	42118	484392	466392	0	0	1071	24938	13415	2681
2061	41847	483000	465000	0	0	1061	25004	13109	2672
2062	41527	488283	469896	0	0	0	24216	13642	2729
2063	41210	493624	474843	0	0	0	23452	14198	2787
2064	40896	499023	479843	0	0	0	22713	14775	2846
2065	40584	504482	484895	0	0	0	21996	15377	2907
2066	40274	510000	490000	0	0	0	21303	16002	2969

3. Assumptions and Caveats

The following assumptions and caveats should be noted when looking at the results. The model has 60 'types' of individual: sex (2) * income deciles (10) * portfolio types (3). Existing members are also disaggregate by age.

1. As in previous FSC reports, projections are based on the Very Low Mortality (VLM) scenario. The projections have been updated to SNZ's latest forecasts, based on 2013 census data. New labour force projections are expected later in 2015, so previous projections remain.

2. The population of KiwiSavers is split into longitudinal income deciles – that is deciles that are based on income earned over time, not just in one year. Balances at age 65 are calculated as if an individual spends all of their earning years in a given longitudinal decile, although in reality this is unlikely.

3. The same age-income relationship applies to each income decile, but varies by sex.

4. Income decile relativities are the same for males and females, but male incomes are higher overall.

5. We model KiwiSaver balances from age 25, on the assumption that any significant contributions before this age will be offset by withdrawals for house purchase.

6. KiwiSaver participation rates are assumed to increase slowly and asymptotically, extrapolated from past trends.

7. KiwiSaver balances in 2015 for existing members were obtained from four providers. These balances are disaggregated by age, sex and income decile.

8. Contribution rates are a function of income decile and sex. Data suggests that any relationship between contribution rates and age is largely explained by income.

9. There is no relationship between choice of portfolio (Conservative, Balanced or Growth) and any personal characteristics: age, sex or income. We use the existing distribution of savers amongst the three types of portfolio.

10. There is no switching between portfolios.

11. People are either in KiwiSaver as at 2016, or the enter KiwiSaver at age 25 after 2016. Older new entrants after 2016 are not modelled.

12. Rates of return for each portfolio types are fixed over time.

13. Current KiwiSaver tax rates and tax bands apply throughout the projection period, implying that they are adjusted to compensate for fiscal drag.