Geoff Bertram

A New Zealand Perspective on Thomas Piketty's Capital in the Twenty-first Century

Introduction: the basic theory

During much of the second half of the 20th century the disappearance of distributional questions from the mainstream economic literature created little disquiet, because the experience of the period seemed consistent with the notion that market economies could combine growth and reasonable equality, without needing anything more than the normatively-driven apparatus of the welfare state to redistribute income at the margin in favour of the less fortunate. But now political economy is back. Thomas Piketty (2014) has breathed new life into the proposition that capitalism shares with other economic systems an inherent tendency for wealth and power to become concentrated in the hands of a narrow elite, and for the resulting inequality to become entrenched through inheritance. That tendency is found historically in all sorts of non-capitalist economic systems, from the city states of the ancient Middle East (with their ruling castes of kings, warriors and priests) to the modern-day family

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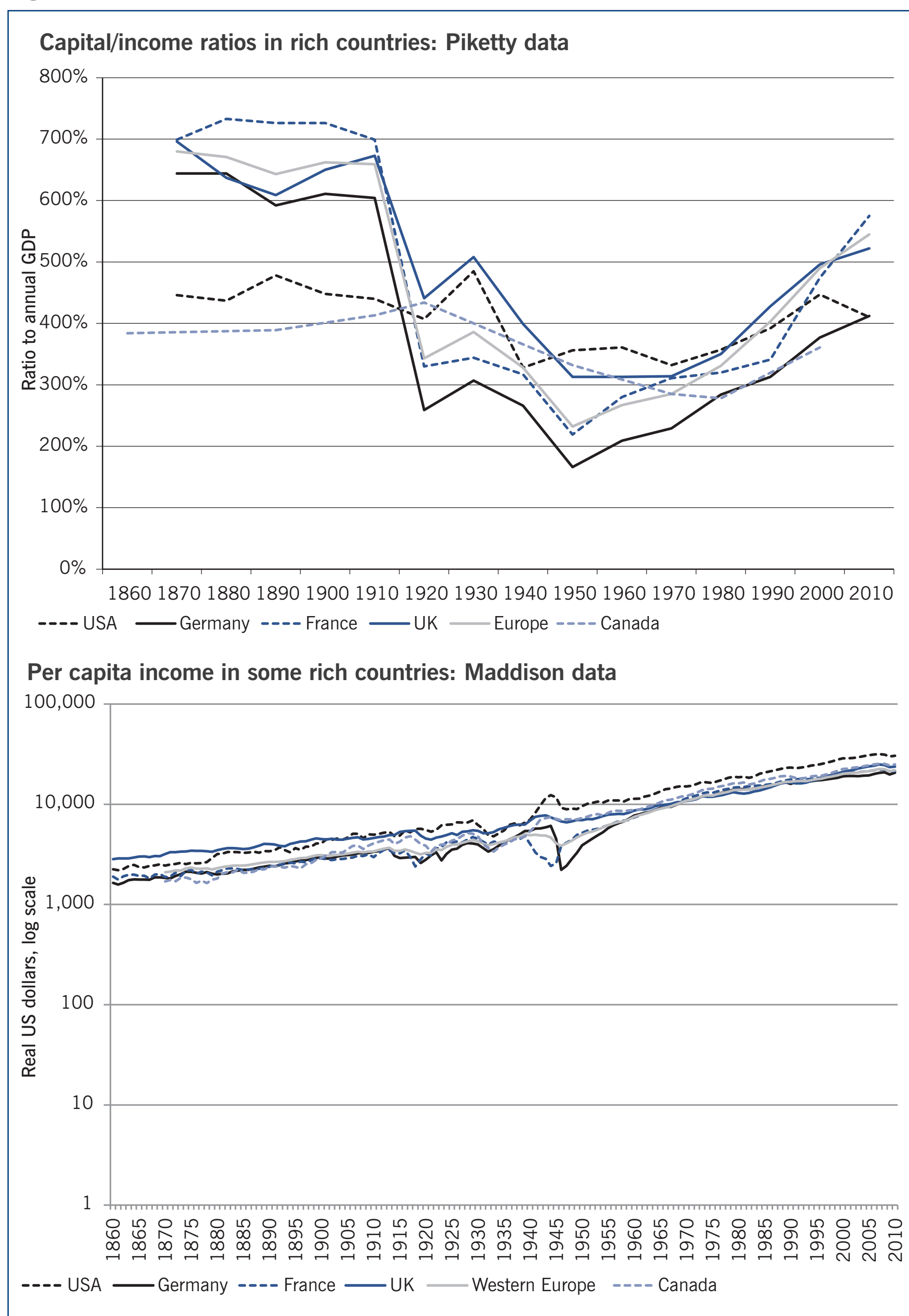
Figure 1



oligarchy of North Korea. The challenge for observers of capitalism over the past couple of centuries has been to determine whether capitalism as an economic system generates dynamic equalising forces to offset the age-old disequalising human pursuit of concentrated power and wealth.

Piketty's answer is no. If one takes away the redistributive apparatus of the welfare state, along with the other particular factors (wars, revolutions, the Great Depression, and sustained rapid growth) that made the 20th century an era of unprecedented equality, the equations that describe the underlying dynamics of capitalism, combined with some plausible propositions about ownership of wealth, predict the re-emergence and entrenchment of dynastic elites holding a commanding share of the economy's wealth, and collecting – as the return on that wealth – a substantial rental share of the national product. In the long run, Piketty argues, capitalism and equality can coexist only if the disequalising dynamics of wealth accumulation are checked by collective will.

Limiting inequality is therefore a central and permanent task for democratic government. Piketty's main policy conclusion is: 'If we are to regain control of capitalism, we must bet everything on democracy' (Picketty, 2014, p.573). So:

(1) Have 'we' lost control of capitalism?

(2) Is uncontrolled capitalism truly headed towards gross inequality and the oligarchy of a patrimonial rentier class?

These surely are questions to which mainstream neoclassical economics ought to have ready answers.

Piketty has made such an impact on the professional world of economists precisely because he has politely but firmly pointed out that the ready answers are not forthcoming. At the same time he has made such an impact on the general informed public because his work has appeared at a time when inequality and growth are central issues in the public mind, and the answers offered by mainstream economists are widely recognised to be unsatisfactory.

Neoclassical economics – the dominant school of economic thought throughout the 20th century – grew out of the great 19th-century debates over the justice of distributional outcomes under capitalism. The neoclassicals' marginal-productivity theory of income distribution asserted that in a competitive market system each of the aggregate inputs to production – labour, capital, land, entrepreneurship – would be paid in line with its direct productive contribution, satisfying the essential test of justice in distribution of the product. As one of the leading developers of the theory put it,

> [W]here natural laws have their way … free competition tends to give to labor what labor creates, to capitalists what capital creates, and to *entrepreneurs* what the coordinating function create … To each agent a distinguishable share in production, and to each a corresponding reward – such is the natural law of distribution …
>
> The welfare of the laboring classes depends on whether they get much or little; but their attitude toward other classes – and, therefore, the stability of the social state – depends chiefly on the question, whether the amount that they get, be it large or small, is what they

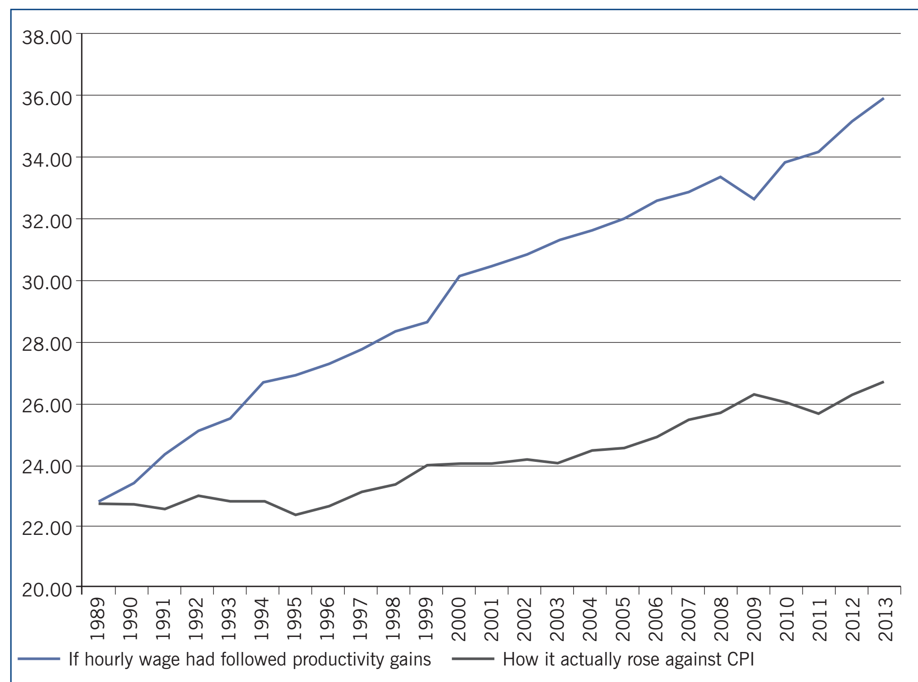
produce. If they create a small amount of wealth and get the whole of it, they may not seek to revolutionize society; but if it were to appear that they produce an ample amount and get only a part of it, *many of them would become revolutionists, and all would have the right to do so.* (Clark, 1899, paragraphs I.5-I.7, emphasis added).

For the neoclassical story to have credibility in explaining the share of the product going to 'capital', there would have to be a clear long-run relationship between capital accumulation and growth of the product. The historical statistics do not show this (see Figure 1). Equally, there would have to be a clear relationship between labour productivity and real wages; in practice that relationship has been missing, at least since the 1970s (for the New Zealand case, see Figure 2 and Rosenberg, 2015).

Piketty simply sets aside the neoclassical hypothesis that the primary income distribution flows from the production process. He replaces it with the proposition that 'capital' – defined to include all assets that yield a reliable stream of income, regardless of whether they are directly involved in productive activity or not – exercises a direct claim to appropriate a share of the product that is determined not by productive contribution but rather by the stock of accumulated wealth multiplied by the long-run rate of return on wealth of 4–5%. The wealth-owners' claim is simply rent, and it is taken not in return for active productive effort but as a property right, enforced by the laws and institutions of private property. Because this rent claim is prior to any other claims, the non-wealth-owning part of the population is left to share out what is left of the product after the rentiers' claim has been met; only at this second stage does the marginal-productivity theory have potential bite.

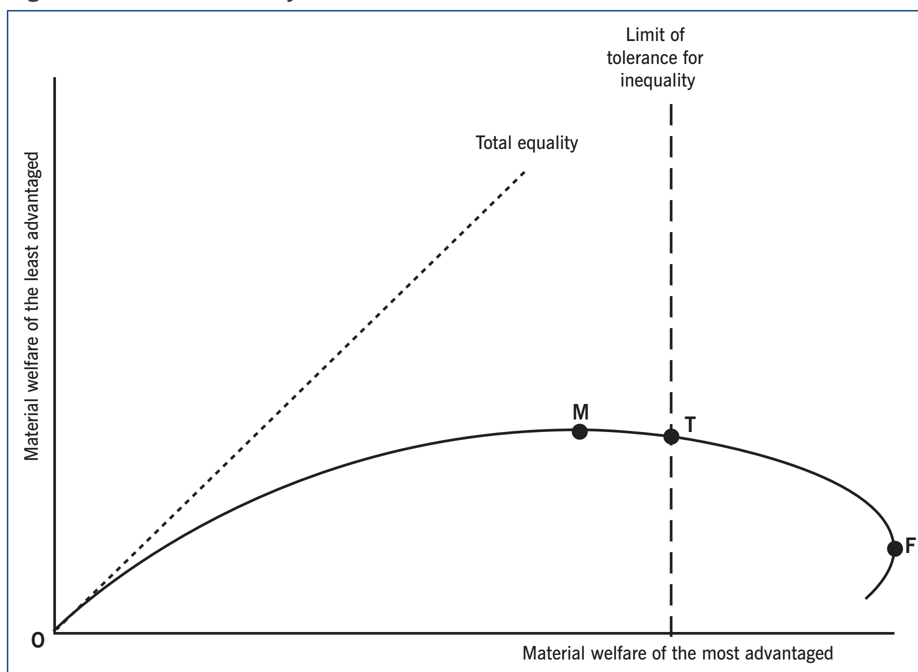
The owners of wealth comprise two groups: those who have worked to earn their fortunes, and those who have simply inherited their wealth (Warren Buffet's 'lucky sperm club'). As today's working entrepreneurs and chief executives age they become rentiers, and as their heirs take over their wealth, the right to collect rents continually drifts away from whatever original basis private fortunes may have had in productive endeavour.

Figure 2 Real average hourly wage compared to productivity gains 1989-2013
Average total hourly wage March 2014 dollars, measured sector



Source: http://union.org.nz/election2014/low-wage-economy

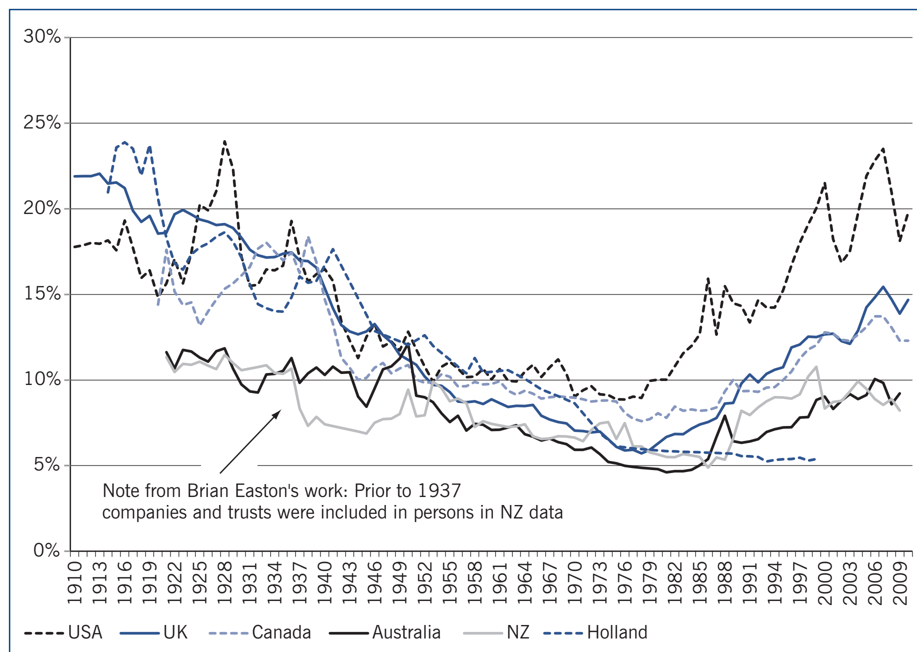
Figure 3: Rawls and Piketty combined



Of course, if all wealth ('capital') were collectively-owned and the rents equally shared, inequality would not follow from a rising rent share. But private property in wealth, combined with a tendency towards concentration of its ownership (which Piketty predicts on the basis of economies of scale and scope in the management of wealth portfolios) imply an increasing division of the population into haves and the have-nots, until an equilibrium is established in which the ratio of wealth to output is stable. The identification of this equilibrium has been Piketty's central new contribution to economic theory (Bertram, 2014).

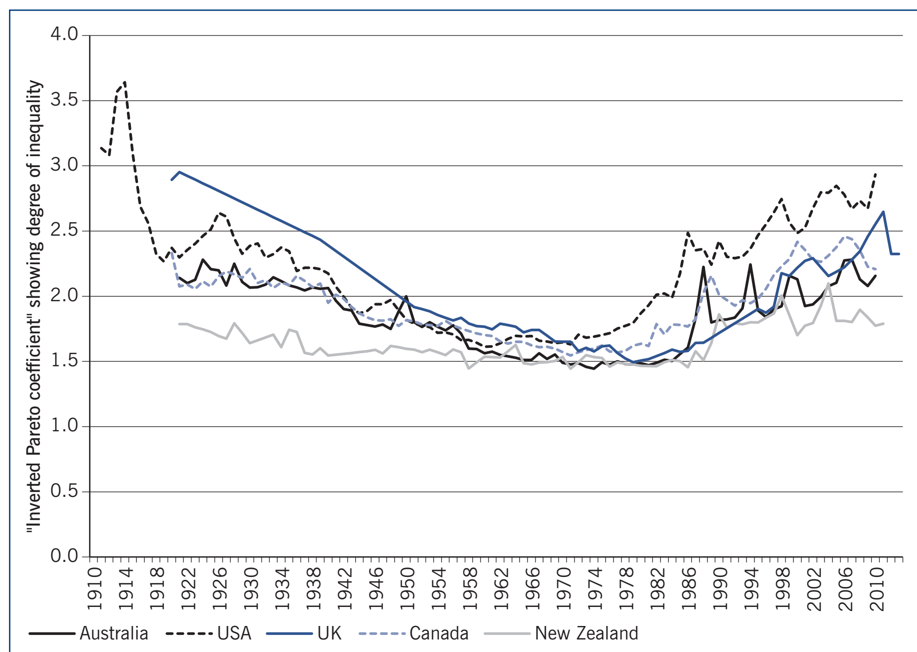
Suppose Piketty is right. Then the possible long-run outcomes can be mapped on John Rawls' prescient diagram

Figure 4: Income share of the top 1% in Anglo-Saxon countries and Holland



Source: data from http://topincomes.g-mond.parisschoolofeconomics.eu/#Database, accessed May 2014

Figure 5: Inequality in English-speaking countries 1910-2011



Source: data from http://topincomes.g-mond.parisschoolofeconomics.eu/#Database, accessed May 2014

(Rawls, 1971, Figures 6 and 8, pp.76-7; Rawls, 2001, Figure 1, p.62; see Figure 3).

The diagram relates the size of the total product to its distribution, showing that over a range of 'social cooperation' from O up to M the welfare of all can be expanded (economists call this a 'pareto gain'). Beyond M (Rawls' 'maximin', where the welfare of the poorest is maximised), the benefits of any further economic expansion go only to the rich. In addition, further welfare gains for the rich can be secured by redistributing income upwards at the expense of the poor. At the extreme point F lies the social order that Rawls characterises as 'feudalism', where the rich cannot be made better off however hard the poor are squeezed.

Piketty's theoretical model identifies an equilibrium for wealth accumulation and consequent income inequality that lies somewhere along the Rawls line – potentially (but not necessarily) between M and F. The big political issue Piketty identifies is whether this equilibrium inequality lies inside or outside the limit of democratic 'tolerance'. If the Piketty equilibrium is to the left of point T, then it is politically as well as economically sustainable. If it is to the right of T, then political unsustainability implies eventual 'euthanasia of the rentier' by some means – either a moderate programme of asset taxes along the lines Piketty proposes, or a more drastic, potentially revolutionary, rupture in the social fabric. The tolerance threshold itself, of course, is not necessarily fixed over time; the political aim of any oligarchy is to shift it right in the diagram, while pro-poor policy activism shifts it left.

The New Zealand dimension 1: incomes

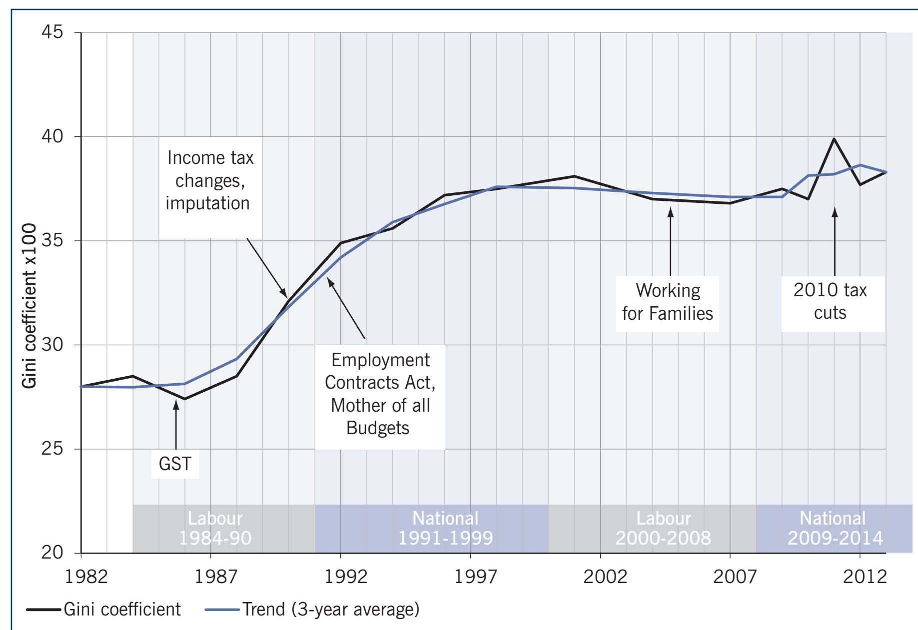
Piketty's work has been focused on the large developed economies, and the economic dynamics he identifies operate primarily in those economies, with global ramifications as the spillovers from large-country trends flow through global markets. For a small country on the capitalist periphery, the basic policy choice is whether to live with those spillovers, or to insulate the local economy and society from them. New Zealand has conspicuously opted to remain wide open to global forces, and it is therefore not really surprising that Piketty's historical data show distributional trends in this country to have been strongly driven from offshore. Figure 4 traces the income share of the top 1% in the five 'Anglo' economies, while Figure 5 shows the inverse Pareto coefficient (Piketty's preferred statistical measure of inequality) for the same group of countries. These charts show that New Zealand, along with Australia, has been swept along by the rising global tide of inequality since 1980.

Figures 4 and 5 need to be read in conjunction with the now-familiar graph of the New Zealand Gini coefficient since 1982, reproduced in Figure 6. The sharp upward step change in income inequality in New Zealand between 1987 and 1994, with strong concentration of income at the very top end of the distribution, is evident in all three charts. What Figures 4 and 5 make clear is that this was simply a case of follow-the-leaders, after a few years in the mid-1980s when New Zealand lagged behind the dramatic overseas

increases in inequality under Reagan and Thatcher in the United States and United Kingdom respectively.

Galling as it may be for New Zealanders who like to think we make our own history, it appears that Roger Douglas and Ruth Richardson were not so much big policy innovators as simply pawns in the new global order. Rather than initiating big economic changes, their key contribution as finance ministers was to facilitate rather than resist global spillovers. Their deregulation, privatisation, slashing of benefit levels, union-busting and destruction of collective bargaining simply sufficed to keep New Zealand in line with the rest of the Anglo realm. Countries that did not join the early drive to inequality – for example, the continental European countries and Japan – were ones whose policy elites resisted the neo-liberal policy tsunami (Atkinson and Piketty, 2007; Atkinson, Piketty and Saez, 2011). Lack of pushback against imported neo-liberal dogma was the central feature of New Zealand policy making in the late 1980s and early 1990s.

Figure 6: Gini coefficient for household disposable income after housing costs, under four administrations 1982-2012



Source: data 1982–2004 from Perry, 2014a, Table D9, p.9; 2007 on from Perry, 2014b, Table D.10, p.109

The New Zealand dimension 2: wealth

While public discussion of Piketty's work has focused mainly on the distribution of incomes, the long-run core of his model is the accumulation and concentration of rent-yielding wealth, which is what he calls 'capital'. Piketty charts the long-run evolution of his 'capital' relative to national income for the large developed economies, including Australia for 1970–2010, but not New Zealand (Piketty, 2014, part 2). To fill this gap I have constructed Table 1 combining Reserve Bank figures on private household wealth with data on the net worth of government from the Crown accounts, and the international investment position as measured in the national accounts, all measured in years of GDP (shown here as percentages of annual GDP). This procedure replicates in essence the methodology used for Australia by Piketty and Zucman (2014; data set at http://piketty.pse.ens.fr/files/capitalisback/Australia.xls, accessed 19 September 2014). Household and government net wealth are at June of each year,[1] while the GDP figures used as denominator are for March years, and the international investment position is at March of each year. These timing discrepancies imply only minor distortions in the overall figures. Government net worth was not reported prior to 1993 but was below 10% of GDP, which is negligibly small relative to private wealth, which was around 250% (two and a half years) of GDP in the mid-1990s.

Figure 7: New Zealand wealth data

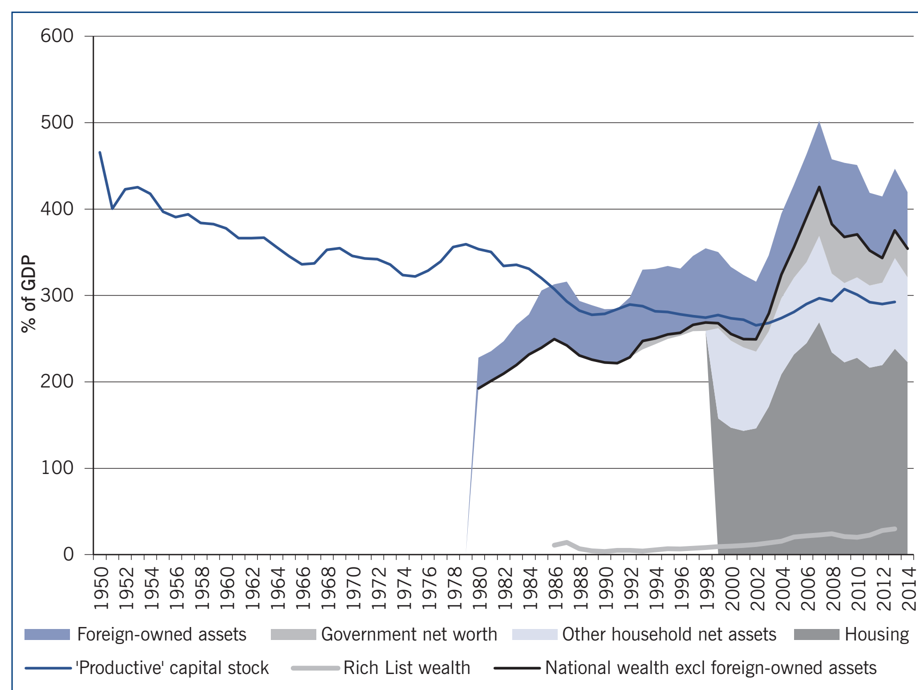


Table 1 and Figure 7 show the results. The productive capital stock as conventionally measured is shown also, to emphasise the distinction between Piketty's definition of 'capital' and the conventional measure used for national accounting purposes.

Figure 7 makes clear two key points in the application of Piketty's model to New Zealand:

- The housing stock is the largest component of total wealth, as is true of all the other countries studied by Piketty. It comprises 53% of total

Table 1: New Zealand wealth data

Percentage of GDP

Year	Household net wealth			Government net worth	Total net wealth	Net foreign holdings of New Zealand assets	Total net wealth excl. foreign holdings	*NBR* Rich List wealth	Orthodox capital stock
	Housing	Other	Total						
1980			193	na	193	36	157		354
1981			201	na	201	34	167		350
1982			210	na	210	38	172		334
1983			219	na	219	46	173		336
1984			232	na	232	47	185		331
1985			240	na	240	66	173		320
1986			250	na	250	63	186	11	307
1987			242	na	242	74	169	14	293
1988			231	na	231	63	167	7	282
1989			226	na	226	63	163	4	278
1990			222	na	222	62	161	4	279
1991			222	na	222	63	159	5	284
1992			229	na	229	69	159	5	290
1993			238	10	247	82	165	4	288
1994			244	7	250	81	170	6	282
1995			250	5	255	79	175	7	281
1996			253	4	257	74	183	7	278
1997			259	7	266	80	187	7	276
1998			259	10	269	86	183	8	274
1999	158	104	262	6	268	82	185	9	277
2000	147	101	248	8	255	78	178	10	274
2001	143	97	240	10	250	74	175	11	272
2002	146	89	235	14	249	67	183	12	266
2003	171	87	258	21	279	67	212	14	268
2004	209	88	297	28	324	70	254	16	274
2005	232	89	320	35	356	72	283	20	281
2006	245	94	339	52	390	73	317	22	290
2007	269	100	369	57	426	76	349	23	297
2008	234	91	325	57	382	75	307	24	294
2009	223	92	314	53	368	86	282	21	308
2010	228	93	321	50	371	80	290	20	301
2011	216	95	312	40	352	67	285	23	292
2012	219	95	315	29	343	71	272	28	290
2013	238	105	343	32	375	71	304	30	292
2014	223	98	321	33	354	65	289		

Sources: Household wealth and GDP from Reserve Bank of New Zealand Tables C18 and C21 at http://www.rbnz.govt.nz/statistics/. Government net worth assembled from annual Crown financial statements. Net foreign holdings 1980–88 from Colgate and Stroombergen, 1993, Table 1, pp.14-15; 1989–2000 from Infoshare IIP001AA, and 2001 on from IIP025AA. *National Business Review* Rich List assembled from the annual publications. Capital stock to 1985 from Philpott, 1995, Appendix Tables 1–3, and 1986–2013 from Infoshare SND186AA.

'capital' in New Zealand, compared with 64% in Australia, 57% in Britain, 61% in France, 56% in Germany, 42% in the US and 51% in Canada (data from http://piketty.pse.ens.fr/files/capital21c/en/xls/). Analyses of inequality in wealth distribution, and the consequent distribution of the rent share of the product, therefore need to focus particularly on ownership of the housing stock.

- There is a sharp upward step change visible in Figure 7 between 2002 and 2008. This came a decade later than the step change in income inequality seen in Figure 6; as one would expect, wealth inequality flowed from and followed on from the sharp increase in income inequality. The radical change in the distribution of after-tax income in the early 1990s raised the savings capacity of the top income groups while squeezing the lower income tiers out of saving – indeed, into negative saving in many cases (see Figure 9). Consequently, when the boom in wealth during the 2000s occurred, driven by rapid capital gains as well as by savings of high-income recipients, the benefits were very unequally distributed, entrenching the advantages of the wealthiest groups. One indicator of this is the NBR Rich List's wealth, which rose from less than 2% of total wealth in 1989 to 8% by 2013. (While not statistically robust, the Rich List does capture the very top end of the wealth distribution, and the evidence it offers of growing concentration is plausible.)

When the 1980–2014 New Zealand series for Piketty's beta (total 'capital' measured as a percentage of GDP) are arrayed alongside Piketty's capital-stock data for other countries we obtain Figure 8, which shows that in wealth accumulation as in income distribution, New Zealand has been closely tracking the trend in the other Anglo economies.

Saving and the distribution of wealth ownership

Having shown that there are very strong convergence forces at work pulling New

Zealand into line with the capitalist core countries in terms of the aggregate capital–income ratio and the distribution of income, a final note is in order regarding the local dynamics of wealth accumulation.

Data on saving and household borrowing confirm that household indebtedness has risen very sharply since the benefit cuts and wage-lowering labour market changes of the early 1990s. The Reserve Bank's figures on household balance sheets[2] show their financial liabilities steady at about one-third of GDP from 1978 until 1989, but then surging to 106% of GDP in 2007, on the eve of the global financial crisis. While some of this increase in borrowing was due to home owners cashing in on increased equity as house prices rose, a substantial part is likely to be due to distress borrowing by low-income households struggling to maintain their previous living standards.

Strongly suggestive of the way in which the sharp increase in income inequality in 1988–94 has affected the saving capacity of different groups, and hence their ability to accumulate wealth, are the results of a Statistics New Zealand decomposition of the savings data in the 2007 national accounts, shown in Figures 9 and 10. These show very large dis-saving by the bottom two quintiles of the income distribution, and negative aggregate savings for both wage and salary earners and transfer recipients. Positive savings were concentrated in the top income quintile, and among the groups receiving income from property income and self-employment, most notably the former. Since Piketty's total capital grows both by savings and by capital gains, the combined effect of concentrated savings and capital gains to those already holding assets is likely to have been in the direction of increasing concentration of private wealth.

Conclusion

Although the broad outlines of New Zealand's distributional trends have been imported (along with a neo-liberal policy stance) from the global economy, it is possible to identify the specific local mechanisms at work here that have reproduced the trends in global capitalism

Figure 8: Capital/income ratios in rich countries

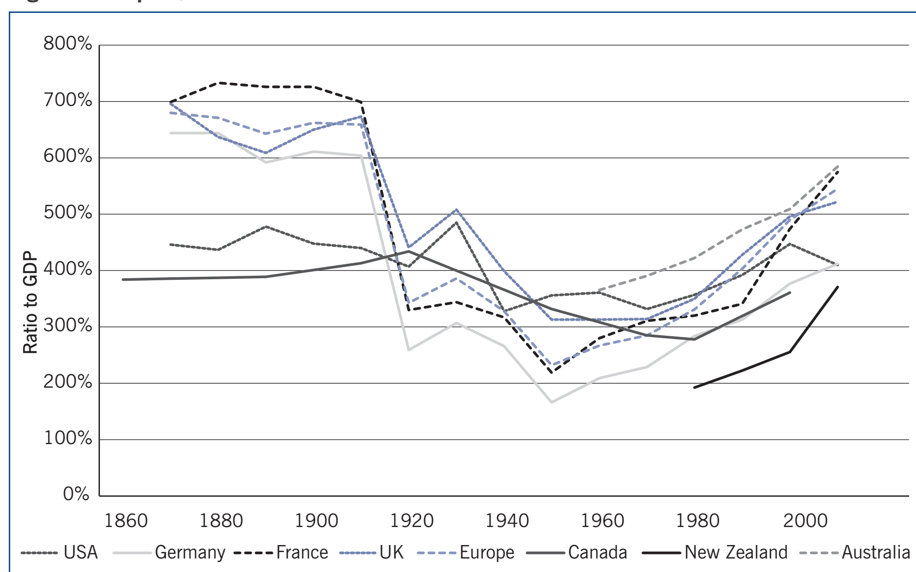
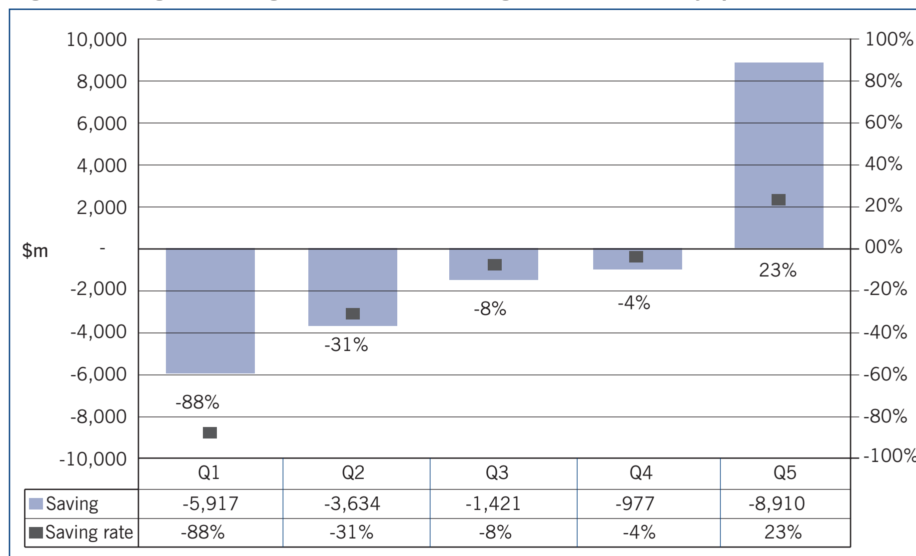


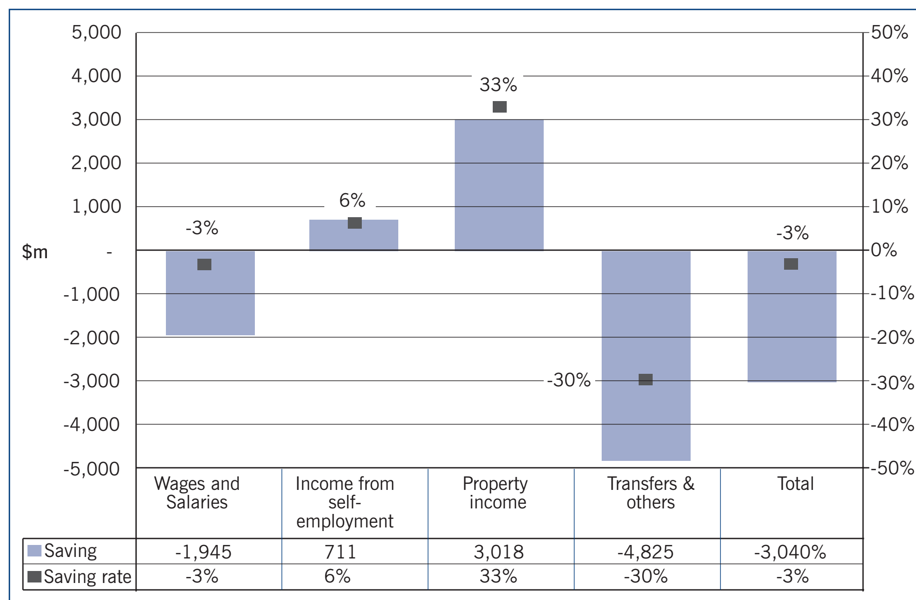
Figure 9: HH gross saving (LH scale) and saving rate (RH scale) by quintile



	Q1	Q2	Q3	Q4	Q5
Saving	-5,917	-3,634	-1,421	-977	-8,910
Saving rate	-88%	-31%	-8%	-4%	23%

Source: Cope 2013

Figure 10: Gross saving (LH scale) and saving rate (RH scale) by main income source



	Wages and Salaries	Income from self-employment	Property income	Transfers & others	Total
Saving	-1,945	711	3,018	-4,825	-3,040%
Saving rate	-3%	6%	33%	-30%	-3%

Source: Cope 2013

identified by Piketty. As an open economy on the global periphery, New Zealand may have less policy freedom than the core economies (where, Piketty acknowledges, even his mild asset-tax proposals look 'utopian' in the current climate of corporate freedom to face down national governments and accrue profits in tax havens). Times do change, however, as Piketty's account of the 20th-century golden age of growth and relative equality under the democratically-constrained 'mixed economy' makes clear. Capitalism and equality can coexist – just not in a policy climate of deregulated laissez-faire and low taxation. Economic growth and prosperity do not require gross inequality of income or wealth – rather, the opposite (Ostry, Berg and Tsangarides, 2014) – and wider local policy options should open up as the tide of global opinion swings against neo-liberalism.

It is not clear at this point, however, how great the tolerance of the New Zealand public for growing inequality will prove to be (see Morrison, 2015). The 2014 election results seem to indicate that the limits of democratic tolerance have not yet been approached. But if the disequalising dynamics predicted by Piketty continue to run their course overseas, the case for re-establishing a more autonomous policy realm in this country can be expected to strengthen.

1 Prior to 1998 the Reserve Bank of New Zealand household wealth series are at December of each year; for the purposes of Table 1 I have estimated the June figure as the mid-point of the preceding and following December numbers.
2 http://www.rbnz.govt.nz/statistics/tables/c18.

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