

PARIS SCHOOL OF ECONOMICS

ANALYSIS AND POLICY IN ECONOMICS

MASTER'S THESIS

**WEALTH DISTRIBUTION IN AUSTRALIA:
EVIDENCE FROM INCOME CAPITALIZATION**

LINO GALIANA

SUPERVISOR:
Thomas PIKETTY

REFEREE:
Facundo ALVAREDO

JEL CLASSIFICATION: D31, E21, C14, D91

KEYWORDS: wealth distribution; household finance; inequality; income capitalization;
life-cycle theory; non-parametric estimation

August 22, 2016



ABSTRACT

Australian wealth shares have known large fluctuations due to asset pricing volatility on Australian financial and housing markets. This paper intends to analyze those fluctuations through the relatively innovative approach that consists in drawing individual income data from aggregated fiscal data and in applying the income capitalization method to derive household wealth. First of all, we show that after an initial drop of top wealth shares up to 1996, the upward housing price dynamic triggered off a sharp increase in top wealth shares in 2003-2004 and a second one in 2006-2007. At the acme, the 1% wealthiest individuals owned 20% of the total wealth. Secondly, we argue that this period of housing price growth has been marked by the penetration of home-owners in top-wealth groups, which initially included mostly owners of financial assets. Nonetheless, home-owners are no longer present in top-wealth groups above P99. Then, we intend to show that financial instruments, especially stocks, and business assets constitute between 70 and 90% of the wealth of the people belonging to the top 0.01%. Finally, using the household survey HILDA, we show through non-parametric techniques that the behavior of Australian households is consistent with the life-cycle theory.

ACKNOWLEDGEMENTS

I would like to thank Thomas Piketty, my supervisor, for his trust and his precious insights. I also thank Facundo Alvaredo for his availability and the time he devoted to help me improve my work.

I am grateful to Raphaële Adjerad for her cautious look at my first draft. I am also grateful to Clara Martinez-Toledano, Jonathan Goupille and Juliette Fournier for helping all along my work. I am thankful to Roger Wilkins for being so available when needed and for providing me his replication files. I am also grateful to Pamela Katic for sharing her main data with me. I would also like to thank those who took time to answer my questions regarding technical details, especially Julia Rymasz (ATO), Grace Kim (ABS) and the Australian Prudential Regulation Authority (APRA).

I am also grateful to Daniel Waldenström for the advices he gave me regarding the income capitalization method. Finally, I would like to thank Yannis Cabossioras for the numerous discussions about our respective works that helped me to improve my paper.

This paper uses unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Project was initiated and is funded by the Australian Government Department of Social Services (DSS) (formerly FaHCSIA), and is managed by the Melbourne Institute of Applied Economic and Social Research (Melbourne Institute). The findings and views reported in this paper, however, are those of the author and should not be attributed to either DSS or the Melbourne Institute.

Contents

1	Introduction	2
2	The measurement of wealth inequality	4
2.1	Wealth inequality in the literature	4
2.2	Top income and wealth literature in Australia	5
2.3	Data used	6
2.3.1	Household wealth in the national accounts	6
2.3.2	Methodology to infer from tabulated fiscal data individual income	7
3	The income capitalization method	9
3.1	The capitalization of observable capital income	9
3.2	How the imputation of non-observable wealth is conducted	9
3.3	Caveat	10
3.4	Rates of return across distribution: evidence from HILDA	11
4	Stylized facts on household wealth and income distribution	13
4.1	Household Wealth	13
4.1.1	Wealth in National Accounts	13
4.1.2	Rates of return	13
4.2	Capital income	15
5	Wealth distribution	17
5.1	Top wealth shares	17
5.2	Composition of wealth	19
5.3	Wealth composition compared to other data	21
6	Wealth over the life cycle	23
A	Figures	26
A.1	Rate of return and other macrodata	26
A.1.1	Rates of return: Australia compared to other countries	30
A.2	Rate of returns by income and wealth decile	33
A.3	Top income series	36
A.4	Top wealth shares	43
A.5	Wealth composition of top wealth groups	51
A.6	Wealth and age: Nadaraya-Watson estimator	54
B	Tables	64

C Data appendix	94
C.1 National Account Data	94
C.1.1 Capital income and wealth in national accounts	94
C.1.2 Excluding non-profit institutions from household sector	96
C.2 Comparison between our synthetic sample and the ATO Sample files . . .	100
C.3 Data used to match National Accounts and Taxation data	102
C.4 Comparison of our results with the Mean Split Histogram technique . . .	104
C.5 Taxation data used, more details	105

List of Figures

4.1	Australian household wealth (scaled by national income)	14
4.2	Rates of return computed from national accounts	15
5.1	Top 1% wealth share	18
5.2	Composition of the wealth of the top 1% wealth holders	19
6.1	Net wealth along the life cycle (Nadaraya-Watson estimator)	24
A.1	Assets and liabilities	26
A.2	Wealth to income ratio (β)	27
A.3	Housing price growth and consumption growth	27
A.4	Net rent	28
A.5	Rate of return: superannuation wealth	28
A.6	Housing price growth	29
A.7	Return housing	30
A.8	Return pensions and life insurance	30
A.9	Return on deposits and other fixed income claims	31
A.10	Return on business wealth	31
A.11	Return on stocks	32
A.12	Return by income and wealth decile: HILDA, Wave 2	33
A.13	Return by income and wealth decile: HILDA, Wave 6	34
A.14	Return by income and wealth decile: HILDA, Wave 10	35
A.15	Capital income composition: top 10% income earners	36
A.16	Capital income composition: top 5% income earners	36
A.17	Capital income composition: top 1% income earners	37
A.18	Top 0.5% income earners	37
A.19	Top 0.1% income earners	38
A.20	Top 0.05% income earners	38
A.21	Top 0.01% income earners	39
A.22	Top capital income shares, top 10 and 5%	40
A.23	Top capital income shares, top 5 and 1%	40
A.24	Top capital income shares, top 1 and 0.5%	41
A.25	Top capital income shares, top 0.5 and 0.1%	41
A.26	Top capital income shares, top 0.1 and 0.05%	42
A.27	Top capital income shares, top 0.05 and 0.01%	42
A.28	Top 10% Wealth share	43
A.29	Top 5% Wealth share	43
A.30	Top 0.5% Wealth share	44
A.31	Top 0.1% Wealth share	44
A.32	Top 0.05% Wealth share	45
A.33	Top 0.01% Wealth share	45

A.34 Top 1% Wealth share, long run perspective	46
A.35 Top 0.5% Wealth share, long run perspective	46
A.36 Top 0.1% Wealth share, long run perspective	47
A.37 Top 10% wealth share: Australia vs US	48
A.38 Top 5% wealth share: Australia vs US	48
A.39 Top 1% wealth share: Australia vs US	49
A.40 Top 0.5% wealth share: Australia vs US	49
A.41 Top 0.1% wealth share: Australia vs US	50
A.42 Top 0.01% wealth share: Australia vs US	50
A.43 Composition of the net wealth of the wealthiest 10%	51
A.44 Composition of the net wealth of the wealthiest 5%	51
A.45 Composition of the net wealth of the wealthiest 0.5%	52
A.46 Composition of the net wealth of the wealthiest 0.1%	52
A.47 Composition of the net wealth of the wealthiest 0.05%	53
A.48 Composition of the net wealth of the wealthiest 0.01%	53
A.49 Net wealth over the life cycle	54
A.50 Assets and liabilities along life: HILDA, Wave 2	55
A.51 Assets and liabilities along life: HILDA, Wave 6	56
A.52 Assets and liabilities along life: HILDA, Wave 10	57
A.53 Superannuation and bank accounts along life: HILDA, Wave 2	58
A.54 Superannuation and bank accounts along life: HILDA, Wave 6	59
A.55 Superannuation and bank accounts along life: HILDA, Wave 10	60
A.56 Equity holdings and housing along life: HILDA Wave 2	61
A.57 Equity holdings and housing along life: HILDA Wave 6	62
A.58 Equity holdings and housing along life: HILDA Wave 10	63
C.1 Return business assets	97
C.2 Return housing	98
C.3 Return stocks	98
C.4 Return deposits	99
C.5 Return superannuation	99
C.6 Top income shares	105

List of Tables

B.1	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE, 3 DIFFERENT SOURCES (2009)	65
B.2	AVERAGE WEALTH BY WEALTH GROUP: CAPITALIZED INCOME VS HILDA	66
B.3	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (1994) .	67
B.4	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (1995) .	68
B.5	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (1996) .	69
B.6	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (1997) .	70
B.7	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (1998) .	71
B.8	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (1999) .	72
B.9	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2000) .	73
B.10	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2001) .	74
B.11	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2002) .	75
B.12	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2003) .	76
B.13	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2004) .	77
B.14	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2005) .	78
B.15	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2006) .	79
B.16	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2007) .	80
B.17	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2008) .	81
B.18	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2009) .	82
B.19	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2010) .	83
B.20	ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2011) .	84
B.21	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (1994) . .	85
B.22	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (1995) . .	85
B.23	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (1996) . .	86
B.24	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (1997) . .	86
B.25	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (1998) . .	87
B.26	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (1999) . .	87
B.27	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2000) . .	88
B.28	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2001) . .	88
B.29	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2002) . .	89
B.30	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2003) . .	89
B.31	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2004) . .	90
B.32	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2005) . .	90
B.33	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2006) . .	91
B.34	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2007) . .	91
B.35	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2008) . .	92
B.36	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2010) . .	92
B.37	ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2011) . .	93
C.1	CAPITAL INCOME IN NATIONAL ACCOUNTS	95
C.2	WEALTH IN HOUSEHOLD BALANCE SHEET	96

C.3	SAMPLE FILES AND SYNTHETIC SAMPLE: YEAR 2003-2004	101
C.4	TOTAL INCOME	102
C.5	BUSINESS INCOME	103
C.6	SUPERANNUATION	103
C.7	FIXED INCOME CLAIMS	103
C.8	STOCKS	103
C.9	HOUSING	104
C.10	TABULATED DATA	106
C.11	TABULATED DATA: 2012-2013	107
C.12	TABULATED DATA: 2011-2012	108
C.13	TABULATED DATA: 2010-2011	109
C.14	TABULATED DATA: 2009-2010	110
C.15	TABULATED DATA: 2008-2009	111
C.16	TABULATED DATA: 2007-2008	112
C.17	TABULATED DATA: 2006-2007	113
C.18	TABULATED DATA: 2005-2006	114
C.19	TABULATED DATA: 2004-2005	115
C.20	TABULATED DATA: 2003-2004	116
C.21	TABULATED DATA: 2002-2003	117
C.22	TABULATED DATA: 2001-2002	118
C.23	TABULATED DATA: 2000-2001	119
C.24	TABULATED DATA: 1999-2000	120
C.25	TABULATED DATA: 1998-1999	121
C.26	TABULATED DATA: 1997-1998	122
C.27	TABULATED DATA: 1996-1997	123
C.28	TABULATED DATA: 1995-1996	124
C.29	TABULATED DATA: 1994-1995	125

1. Introduction

One of the fundamental intuitions of the permanent income hypothesis (Friedman, 1957) is that wealth accumulation should not be seen as a mere residual process but rather as a conscious choice. To that extent, wealth could be accumulated for a variety of reasons, to smooth consumption over time or for dynastic purposes for instance. That intuition had already been presented by Hicks (1975) and could even be tracked back to the distinction made by Fisher (1930) between money income (current income) and real income (permanent income). As these authors argued, studying wealth and savings at the household level is of particular interest since it allows us to identify several crucial parameters that drive the agents' behavior (preference for the present, risk aversion...). Wealth is thus central in many dynamics models, especially those in which researchers adopt a life cycle approach (Ando and Modigliani, 1963).

The abundant literature on wealth distribution in the last years demonstrates the increased interest in trying to grasp the recent surge of inequalities. Wealth distribution has come to be of paramount importance for macroeconomists who used to focus solely on the aggregate level of wealth rather than how it was distributed. Such areas as monetary policy or banking regulations are more and more concerned with wealth distribution. An illustration of this would be that of macroeconomic models which question the efficiency of monetary policy intervention on financial markets as it might be curtailed by the fact that too "happy few" – those whose wealth is partly made of financial assets - benefit from it.

Rising interest regarding wealth distribution was accompanied by an increase in the documentation on the subject. To that extent, Piketty (2014) emphasized numerous stylized facts which can serve as a basis for our research. As he argues, since the 1980s many countries have experienced an increase in wealth inequality. This rising trend followed several decades of reduction in wealth inequality. Researchers assert that there are numerous reasons for this sudden increase. For instance, one could point to the increased return of education at the top of the income distribution that led to skyrocketing wages for highly educated people. Furthermore, many other factors, such as the change in the composition of the income of top earners or the increased role of capital gains that affected the return of financial assets have contributed to this rise.

Although, global trends such as the above-mentioned rise in inequalities have to be noted, it is of paramount importance to underline that wealth can be held in many forms and each component has its particular price that follows its own dynamic. Therefore, studying wealth at the aggregate level may be misleading and could hide many composition effects. Saez and Zucman (2016) studied US tax data, household survey and inheritance data, which led them to break wealth holdings in five components (housing, business assets, pension funds, equities and bonds). This decomposition allowed them to study how the aggregate dynamic (exposed in the US series of Piketty and Zucman, 2014) could be explained by the evolution of wealth at the individual level. They were also able to study how households changed their portfolio composition and their savings behavior over time, a behavior that can only be partially captured using national accounts data.

Documenting wealth inequality is a challenge since it requires high-quality data, which is sometimes hard to come around in some areas. However, the income capitalization method, exposed in Saez and Zucman (2016), is convenient for countries where income tax and national accounts data are available. Indeed, this method allows us to infer wealth distribution from capital income, measured in taxation data. Australia is particularly interesting to study with this capitalization method as it is a country where the “wealth to income ratio” has recently soared (Piketty and Zucman, 2014),.

Crossing evidence from Australian taxation data and from household survey data enables us to study how aggregate wealth, as measured in national accounts, is distributed among individuals. We can infer from the income capitalization method that Australian wealth inequalities have followed a U-shaped dynamic since 1994. From 1998 to 2000, the top 1% wealth holders saw their share of total wealth decrease from 15% to less than 10%. Nevertheless, in the aftermath of the housing and financial booms of the 2000s, Australia experienced an increase in wealth inequalities. In addition, capital owners benefited from important capital gains due to an increase in asset prices. Housing price growth was a key driver of this trend regarding the top of the wealth distribution, especially for the groups right below the top 1%. As regards the top 1% wealth group, financial asset holdings became overall the dominant source of wealth. Our series suggest that wealth inequalities have been higher than suggested by Katic and Leigh (2015). Furthermore, we also intend to show that the composition of the wealthiest groups has been volatile in times of fluctuations of asset prices. Additionally, we analyze how, when housing prices grow, land- and home-owners tend to be more present at the top of the wealth distribution.

The paper is structured as follows. Section 2 presents the challenges that need to be tackled when studying wealth distribution. In this section, the literature dedicated to Australian income and wealth dynamics is also broached. The data available to study wealth inequalities will be presented in Section 2.3. The income capitalization method we used to estimate wealth distribution is presented in Section 3. Section 4 presents some evidence on household wealth at the aggregate level. That section contains a specific analysis of several stylized facts on capital income composition derived from tax data. Section 5 details our results on wealth distribution directly derived from the income capitalization method. Finally, in Section 6 pieces of evidence derived from non-parametric techniques, which are linked to the life-cycle theory, will be analyzed. Most figures are reported on Appendix A. Technical details on the data selected and the assumption made to match data are presented in Appendix C.

2. The measurement of wealth inequality

2.1 Wealth inequality in the literature

Household wealth inequality became, in the recent years, one of the most prolific field of research. This topic is at the crossroads of several fields of economics (including literature regarding inequalities, DSGE heterogeneous agent models or even portfolio choice theory). Campbell (2006) suggested we might call *Household Finance* the wide range of study that focus on the distribution of national wealth between households and tries to understand how household choose their portfolio of assets.

Apart from Piketty (2014), the most discussed empirical contribution to this ongoing literature is that of Saez and Zucman (2016). This work has, legitimately, been widely discussed as it revived the income capitalization method and produced long run wealth inequality series that extended our knowledge of US household wealth. With the increase in quality and time-span of wealth data, there has been a shift of the inequality literature from the study of top incomes to that of top wealth. Furthermore, the interest around wealth inequality has not been limited to this field. To explain the Great Recession, macroeconomists have renewed the heterogeneous agent approach suggested by Tobin (1982) in a DSGE framework. The recent contributions of Guerrieri and Iacoviello (2015) and Favilukis, Ludvigson, and Van Nieuwerburgh (2015) demonstrate how housing price growth and a low interest rate environment have been instrumental in the dramatic rise of the debt to income ratio.

Though the methodology followed by the two field of research (inequality literature, DSGE framework) is quite different, they question the relevance of studying wealth at the aggregate level. Indeed, at the micro level, wealth takes various forms that are unequally distributed - housing, deposits, stocks... - and such distortions affect some macroeconomic variables¹.

Despite the lack of reliable long run data on wealth for many countries, an ongoing literature has tried to document the recent trends in wealth inequality/ The literature counts up to five known methods to estimate wealth distribution. The first method is known as the estate multiplier method, used for instance by Kopczuk and Saez (2004). It allows to infer the distribution of wealth of the livings using inheritance data, i.e. wealth data transmitted after death to new generations. As documented by Saez and Zucman (2016), this method fails to capture the dynamic of wealth at the top of the distribution in the recent period. A second method, which has been useful to study wealthiest individuals, consists in the analysis of wealth ranking produced by some institutions². It has enabled researchers to analyze the assets of the wealthiest individuals in some countries. The third method, which is commonly used since it produces a good identification of the middle and upper class wealth is the household survey based approach. This method

¹These two fields of research also use the same data, mostly the Survey of Consumer Finance (SCF), whose oversampling of wealthiest individual allow to draw a detailed picture of US household wealth at the micro level.

²See Piketty (2014) for a discussion of the interest and limits of such data.

may involve several sampling issues and hinder possible inferences. This is due to the fact that sampled top wealth groups include too few individuals.

The fourth method, which will be developed in section 3, consists in capitalizing flows observable in the income taxation data to infer the wealth that generated these income flows. It allows for a better identification of top income and wealth groups than surveys that are generally limited by the size of the sample. However, tax data have the drawback of varying with arbitrary legal changes. Those changes may affect the tax base and thus challenge the consistency of the measure across time³. Finally, the fifth method relies on the use of wealth taxation data. If the tax base is broad enough to provide a representative picture of national wealth and tax avoidance is not too large, this method can produce reliable data on wealth⁴. A drawback of using tax data, also present in the income capitalization method, is that tax base can be arbitrary. Moreover, tax base may not be comparable with other countries which could apply different valuation scheme or tax base definition.

In the following sections, we will adopt the third and fourth approach, *i.e.* we will use the income capitalization and the survey based methods. Since the income capitalization method requires to cross fiscal and national account data, we chose to focus on Australia where official statistics, both fiscal and national accounts, are of excellent quality. We also use the household survey HILDA that allows to get a good picture of both capital income and wealth for the recent years. Section 2.2 and Appendix C present in full details the data we used and the assumptions we adopted to match data coming from different sources.

2.2 Top income and wealth literature in Australia

With the help of tabulated fiscal data, income distribution has been well documented for Australia. Atkinson and Leigh (2007) and Burkhauser, Hahn, and Wilkins (2015) have produced long run series of income distribution using tabulated tax data. Accounting for change in dividend tax legislation, Burkhauser, Hahn, and Wilkins (2015) showed that the recent period saw a rise in income inequality mostly driven by top 0.5 and 0.1%. Below these top income groups, inequality growth has been limited. The unit of analysis of top income literature is the individual since Australia has an individual based taxation system. Although the ideal unit of analysis for studying wealth is the household, we follow the tax unit level and will thus adopt the individual as unit of reference.

Existing literature on Australian household wealth is mostly based on survey data. The most important contribution has been made by Katic and Leigh (2015). Crossing evidence from survey and inheritance data, they argue that, after an initial drop of the wealthiest share in total wealth after 1915, a reversed trend occurred after the 1970s⁵. They suggest that the increase in wealth inequality is mostly imputable to the top of the wealth distribution. The results however suggest that wealth is more equally distributed in Australia than in the US or in the UK.

³For instance, Burkhauser, Hahn, and Wilkins (2015) show the sensitivity of the top income shares derived by Atkinson and Leigh (2007) to the change of dividend taxation legislation in Australia. As they point out, most of the changes in the top income shares measured by Atkinson and Leigh (2007) are imputable to this change of legislation.

⁴See Lundberg and Waldenström (2016) for a comparison of the wealth distribution provided by the income capitalization method and the wealth tax approach.

⁵Studies focused on the recent period have exploited the wealth module in the HILDA survey to draw summary statistics of the wealth distribution (Finlay, 2012). This study is of particular interest since it reviews the discrepancy in the definition and measurement of wealth between the ABS, the RBA and HILDA.

2.3 Data used

2.3.1 Household wealth in the national accounts

Measuring wealth distribution requires ampler datasets than studies dedicated to top incomes. The dataset provided by the Australian Bureau of Statistics (ABS), the Australian Taxation Office (ATO) and the Reserve Bank of Australia (RBA) allow us to have a good picture of household wealth and income. HILDA, the household survey we use, is provided by the Melbourne Institute. The 12th wave of HILDA, allows us to have annual income series from 2000 to 2011 and three wealth series (wave 2, 6 and 10, corresponding to years 2001, 2005 and 2009)⁶. For taxation data, we use the tabulated data provided by the ATO. They provide us detailed information on the taxable income and its composition, especially on capital income, for a series of different income brackets.

The ATO also proposes sample files, i.e. microdata based on individual returns, that represent 1 or 2% sample of the taxable population. However, for confidentiality purposes, the ATO imposes three treatment that alter the quality of the data, especially the last one: zero mean perturbation technique, bottom and top-coding. For this reason, despite the large number of items presented in these data, the use of sample files is problematic, especially when we are interested in top capital income earnings that are likely to be top-coded. We favored the use of the non-parametric Pareto curve approach (see 2.3.2). In the Appendix C.2, we compare the ATO sample with our synthetic population. We thus evaluate the quality of the fit by comparing population moments and taxable income distribution⁷.

Australian financial year starts on 1 July and ends on 30 June. We follow the time convention adopted by Burkhauser, Hahn, and Wilkins (2015) by denoting financial year N-N+1 "year N". Tabulated data give information on early filers, i.e. people that filled their tax return up to the year N+2⁸.

National accounts data are mostly sourced from the household income accounts (ABS 5204.0, T36) and wealth accounts (ABS 5204.0, T41). Some items have been extracted from the Survey of Income and Housing (SIH), a household survey conducted by the ABS, or from financial data proposed by the RBA⁹. Appendix C gives details on the items selected in each statistical publication. Our period of study starts in 1994 and ends in 2013. Control population is measured using beginning of the year population statistics (ABS 3105.0.65.001). We followed Burkhauser, Hahn, and Wilkins (2015) by considering control population as the whole population aged 15 or more¹⁰. The residual between the total population on tax data and control population is referred as non-taxable population¹¹.

⁶Except for main residence and mortgage for which the collection rate is annual, wealth is collected every four years.

⁷For a discussion of the quality of sample files, see also Burkhauser, Hahn, and Wilkins (2016)

⁸Since lodging a return is not compulsory in Australia for people below the first taxation threshold, there is a significant number of Australians that do not lodge any return and thus do not appear on our statistics. The ATO proposes some information on late filers, i.e. people that lodged their returns between N+2 and N+3. However, this information is too aggregated to be used here.

⁹Non-profit institutions are included in the household sector. ABS provides satellite accounts (ABS 5256.0) that allow us, with use of the SIH, to gauge the importance of non-profit institutions on the computation of rate of returns. As shown in Appendix C, excluding NPIs from household sector has very limited effect on the rate of returns obtained. We thus decided to use the original national accounts data since the influence of NPIs is very limited.

¹⁰People below 15 earning income will appear on tax data. However, this exceptional situation should be insignificant and not affect our computations.

¹¹This term is, in some sense, abusive since it is possible that the late filers population includes individuals that are taxable. To be consistent across time, we did not include individuals that filled a return but where not taxable in our tax population since this population is not systematically presented as a separate population in tax data.

2.3.2 Methodology to infer from tabulated fiscal data individual income

The income capitalization method (see section 3) requires individual data. To draw from tabulated data a population distribution, the Generalized Pareto Curve technique, a non-parametric estimation method, proposed by Fournier (2015) is convenient. This technique is based on the principles of the Pareto interpolation within each bracket of income $[\theta_1, \theta_2],]\theta_2, \theta_3], \dots,]\theta_n, \dots, \infty[$. The only required information is the number of taxable individuals belonging to this bracket and the total taxable income of this bracket. Starting from this limited information, the Pareto curve approach allows us to non-parametrically estimate the whole taxable population¹².

Using the taxable income brackets provided by the ATO, this technique allowed us to estimate the whole distribution of taxable income. By construction, the total taxable income in tax data is equal to the total taxable income of our estimated population. The components of income and other interesting items have been recovered assuming that all members of an income bracket have the same income composition and differ by their level of income. More precisely, let's denote y_i the taxable income of an individual belonging to tax bracket $[t_n, t_{n+1}[$ ($t_n \in [0, \infty[, t_{n+1} \in]0, \infty[$). Let's denote $Y^{t_n, t_{n+1}}$ the total taxable income of the bracket, i.e. $Y^{t_n, t_{n+1}} := \sum_{i=t_n}^{t_{n+1}} y_i di$. Let's denote the item we are interested in $X^{t_n, t_{n+1}}$ at the bracket level. The individual variable is defined as

$$x_i = y_i \frac{X^{t_n, t_{n+1}}}{Y^{t_n, t_{n+1}}}$$

One can think the univariate distribution of the components of income recovered, e.g. rents or gross interest, obtained as representing a synthetic distribution, not the actual one. This synthetic distribution tend to smooth the within income bracket dispersion. Once the income distribution of the taxable population have been estimated, we derived the income of the non-filers as the difference between the value in national accounts data and the total in the taxable population, taking care of excluding from national account the income that is not taxable¹³. Since we lack data allowing us to know the income distribution of non-taxable individuals, we assume the residual between national account and tax data total is uniformly distributed¹⁴.

The control we used for total income in national account is presented in Table C.4. This control has been used by Burkhauser, Hahn, and Wilkins (2015) but is here augmented with superannuation income and net rents on tenant occupied housing¹⁵. All the components of this income control only present the realized part of the income flow in national account item to be consistent with tax data. Realized capital gains have been excluded from our income definition since they are a separate item on national accounts¹⁶. The controls we used for property income are presented in Tables C.5-C.9.

Traditionally, Australian income distribution have been derived using the mean split histogram (MSH) technique (Atkinson and Leigh, 2007; Burkhauser, Hahn, and Wilkins,

¹²Details on the Pareto distribution can be found in Fournier (2015) or in the appendix of Piketty (2001).

¹³See section 3 for a discussion of these items.

¹⁴This can be problematic for the computation of summary statistics for the bottom of the distribution since, for some years, a large part of working population is not taxable. As a consequence, we generally restrict our attention on the middle and upper part of the distribution. See Appendix C.2.

¹⁵The income concept we adopted for rent is a net of depreciation and mortgage payment. The item used in the income control excludes owner-occupied net rent since it does not appear on taxation statistics. Since superannuation income in Household Sector accounts includes latent interest earnings from superannuation wealth, this item should be considered with caution. We considered the item that is closest to what has been effectively received by households using the SIH.

¹⁶Capital gains are subject to a specific tax but are part of the assessable income Australians return. We thus excluded capital gains from the taxable income definition we adopted to be consistent with tax data.

2015). We favored the Pareto interpolation approach presented above to derive the whole population distribution in order to study top income and wealth shares. However, as robustness check, we compare the top income shares obtained after Pareto interpolation with top income shares derived using MSH (Burkhauser, Hahn, and Wilkins, 2015)¹⁷.

¹⁷The discrepancy between Burkhauser, Hahn, and Wilkins (2015) and our results using the MSH is imputable to the slightly different total income control we used. See table C.4.

3. The income capitalization method

3.1 The capitalization of observable capital income

Assume we have identified J categories of wealth in Household Balance Sheet in national accounts ($j = 1, \dots, J$) that produce income observable on taxation data. Let's denote Y_t^j the income item in national accounts and y_{it}^j the related item in taxation data for individual i . Assume all individuals have the same return within each class of assets, i.e. returns are orthogonal to wealth ($r^J(w) = r^J$ with w for wealth), an hypothesis we discuss at section 3.3. Once wealth in Household Balance Sheet have been associated with Income Accounts, we can compute annual rates of return using the following accounting identity,

$$r_t^j = \frac{Y_t^j}{W_t^j}$$

This rate of return is applied to taxation data to infer the value of the observable wealth at the individual level. Using the capital income declared on tax returns, we can infer wealth using the, reversed identity, at the individual level,

$$W_{it}^j = \frac{y_{it}^j}{r_t^j}$$

where the assumption of equal return across individuals intervenes. The discrepancy of the total across individuals n is imputed to non-taxable individuals. As Saez and Zucman (2016), we have decomposed wealth and capital income in five broad categories: housing and business assets representing the non financial part of wealth and deposits, stocks and superannuation¹ for the financial wealth. Tables C.1 and C.2 present the information extracted from the ABS data to compute the rates of return used for capitalization. The series derived are presented in section 4.

3.2 How the imputation of non-observable wealth is conducted

A special attention must be given to the wealth which is registered in national accounts but does not generate taxable income flows. This wealth is imputed at the individual level using survey data. For Australia, the income flows unobservable in tax statistics

¹In Australia, the defined contribution system is called superannuation system. Australian workers (or their employers) contribute to a financial vehicle during their active life that invest their funds on financial markets. Dividend and capital gains are retained by the pension fund along the active life, subject to an annual specific 15% flat tax, and paid upon retirement.

are main residence, mortgage on main residence, non-mortgage debt² and accumulated pension wealth for non-retired people.

We use HILDA to impute those levels of wealth and we follow the methodology proposed by Garbinti, Goupille, and Piketty (2015). To be consistent with the tax unit, the household wealth is individualized assuming equal splitting between spouses. Population is divided in nine income groups for both capital and labor incomes using the following percentiles: 0 to 24, 25 to 49, 50 to 59, 60 to 69, 70 to 79, 80 to 89, 90 to 94, 95 to 98, and 99 to 100³. Each income group (at most 81 groups) is associated, in the survey, to a share of the total wealth we want to impute from tax data. Finally, we apply these shares to the total population sorted out using the same income groups. This methodology allows us to recover the distribution of owner-occupied housing, pension funds, and non-mortgage debt. By construction, it yields the distribution of the unobservable wealth in tax data and thus allows us to recover the entire Household Balance Sheet total once combined with the income capitalization method.

3.3 Caveat

Applying the income capitalization method requires to cross sources. Though the intuition behind this method is quite straightforward, one can face some difficulties in its application. Since income capitalization requires to cross tax data, national accounts data and household survey, definitions discrepancies between the sources can constitute an hurdle since capital income and wealth are sometimes hard to evaluate. In particular, the price used to evaluate wealth can have dramatic effects on the value of wealth measured. For instance, as long as Tobin's q is not equal to one, the same wealth measured using book value or market value will be evaluated differently (Hayashi, 1982). In our case, HILDA uses book value to measure business assets while ABS uses market value (Finlay, 2012) leading to a discrepancy between the total wealth evaluated by the two sources.

The volatility of market prices creates another methodology problem. Within a year, some prices may experience large fluctuations, in particular those of financial assets. Evaluating wealth at market price implies to choose, within a year, the price that characterizes the asset's value. With unstable prices, this may lead to biased results. Measuring wealth at mid-year value or at the average value in a given time frame can lead to very different estimations. We followed the ABS time convention and measured wealth at its mid-year value⁴.

The intuition behind the income capitalization method is that capital income observed at the tax unit level is an information which can be used to infer the wealth held by the tax unit. Returns are allowed to differ between the different wealth components. However, for a given wealth component j , returns are uncorrelated to individual wealth w , i.e. $r(w) = r$. This strong assumption means that wealthier people are not able to get higher

²People can register their student loans (HECS and SLS debt) on tax data. We favored the use of HILDA to estimate the distribution of these items

³Garbinti, Goupille, and Piketty (2015) also divide population in cohorts when imputing from survey to tax data. Since the units in our tax data are not real individuals but are inferred from tabulated data, we do not have personal characteristics such as age and thus we cannot use those control variables. They also use different income groups (0 to 24, 25 to 50, 50 to 74, 75 to 89, 90 to 94, 95 to 99 and 99 to 100). However, to avoid giving too much weight to the bottom of the distribution whose imputation might be problematic, we preferred to add some income groups to better reproduce the sample distribution. To introduce the heterogeneity necessary to create income groups, we have randomly perturbed the labor and capital income of the individuals we had created by uniform imputation at this stage.

⁴In other words, to be consistent with yearly data provided by the ABS, when using quarterly data, we defined the quarter of June as representing the value we want for yearly data.

returns than poorer individuals if they have the same arbitrage between wealth components. A direct implication of this hypothesis is that there is no economies of scale or diversification gain that allow wealthy individuals to get higher return for given wealth composition⁵. For some wealth categories this might be true. For instance, this is true for deposits where there is no entry cost and no asset heterogeneity. This is also true for superannuation where a diversification strategy is implemented by the pension funds. Those pension funds aggregate returns for numerous people that may have very different wealth. However, for stocks directly held by individuals or for housing, diversification gains are more likely to occur. Theoretically, as Saez and Zucman (2016) argue, this assumption on individual returns can be derived from a perfect financial market model where return equalization is the consequence of the no-arbitrage condition⁶. However, there is an additional implication to that assumption. In any asset pricing model, if there are no economies of scale that allow wealthier individuals to benefit from portfolio diversification and thus get higher return for the same risk, rich and poor individuals will have the same portfolio. With return orthogonal to wealth, the arbitrage will be on the share of wealth held in risky/risk-free asset and will only depend on risk aversion. Since, in practice, wealthiest individuals tend to own a more important share of their wealth in risky assets (stocks) rather than in bank accounts, an implication of the equal return hypothesis made here is that risk aversion is not constant across population⁷.

3.4 Rates of return across distribution: evidence from HILDA

Figures A.12-A.14 show the mean return by income and wealth decile computed from HILDA⁸. The assumption of equal returns between wealth (or income) groups seems globally respected for housing. At the extreme upper part of the distribution, return seems to be a little bit higher than below P90. However, the difference is minor and remains inconclusive to attest for increasing rates of return.

For dividends or interest, the rates of return seem to be higher at the top. In that case, the income capitalization method might overestimate the wealth of top earners since the capitalization factor applied would be lower than the actual one. The increasing interest yield at the top of the distribution might reflect that middle and top wealth holders do not possess the same portfolio of interest-bearing assets. For the low and middle wealth brackets, the interest earnings could be derived from bank accounts deposits (a liquid source of wealth that brings low interest payments). For the top wealth holders, interests could come from assets that bring higher returns due to a risk or a liquidity premium. Since the interest-bearing assets aggregate financial instruments with different maturities, liquidity, risk, etc. it is likely that Figures A.12-A.14 capture portfolio composition effect. As regards stocks, the increasing return on Figures A.12-A.14 might be due to gains from diversification rather than to portfolio composition effects. The erratic business return we capture might be caused by the limited number of individuals holding

⁵However, the income capitalization method allows wealthier people to get higher returns if they invest a more important share of wealth in forms that give higher returns, for instance equities, rather than in low returns components, e.g. bank accounts deposits.

⁶Cochrane, 2009.

⁷This non-constant risk aversion does not affect our analysis here but one need to be cautious when estimating an econometric model on income capitalized data where the underlying theoretical model uses a CRRA utility function, e.g. a standard allocation portfolio model

⁸The rates of return on Figures A.12-A.14 are computed at the individual level, assuming equal splitting between spouses. We excluded unrealistic values (above 100% or below -100% rates of return) that might reflect collections problems. To reduce the remaining noise, we also excluded values that were three standard deviations above or below the mean.

business assets. This would explain the volatility of business returns, which would thus be noise.

If increasing average returns capture portfolio composition effects and are not the symptom of gains from diversification, reducing the number of assets within a category should permit applying the income capitalization without bias. In our case, isolating bonds from bank accounts should allow for a better measure of the fixed income claims held by Australian households. However, if returns are increasing with wealth or if the volatility of a given class of assets is not constant across the distribution, the income capitalization method might produce biased estimates. This problem is binding for equities for which wealthiest people might benefit from diversification by experiencing both higher mean returns and lower earnings variance. However, even under the no-arbitrage condition that ensures constant average return, it is possible that returns are more volatile at the top of the distribution where the exposition to aggregate risk is more important. Either due to variable idiosyncratic risk or to aggregate risk, applying the income capitalization method might then produce biased estimates because we would imperfectly estimate the diversity of wealth levels producing the same income flow.

4. Stylized facts on household wealth and income distribution

4.1 Household Wealth

4.1.1 Wealth in National Accounts

Figure 4.1 shows how wealth, scaled by national income, has evolved since 1989. The latter constitutes the first year where the ABS data follow the SNA08 standards. Figure A.1 presents the same data but rescaled: assets (resp. liabilities) are scaled using total assets (resp. liabilities). Since 1989, housing has represented around 60% of the portfolio of assets owned by Australian households. Through our period of study, Australian households have experienced few portfolio reallocations. The most important reallocation of assets has been due to pension wealth but this shift has been quite limited. The dynamics of net wealth have been mostly driven by the housing sector (A.2). The strong rise in housing prices during the early 2000s increased the wealth to income ratio. However, mortgages curbed that effect¹. Figure A.3 illustrates that housing booms are generally associated with large consumption increase². The consequence has been a near zero net saving rate. Overall net lending capacity has even been negative on the same period. This interaction between housing prices and household borrowings (for a theoretical model, see Kiyotaki and Moore, 1997) led to a sharp increase in interest payments on mortgages. Indeed, as housing prices rose, acquiring a property required an ever more important mortgage. Thus, this led to higher interest payments (supposing the interest rate constant). This resulted in a drop of net rents observable on figure A.4. Indeed, assuming gross rents constant, increased interest payments decrease the level of net rents. As a result, net rent (both tenant-occupied and owner-occupied) crossed the negative territory in 2004, that is to say income flows from renting newly-acquired houses (excluding capital gains) became lower than the interest payments and expenses owning a house induces.

4.1.2 Rates of return

The rate of return imputed to taxation data are presented on Figure 4.2. These rates of returns exclude all unobservable components in tax data. The nominal return on deposits and other fixed income claims was quite high at the beginning of the period. However, the slowdown of inflation contributed to lowering it (A.5). Superannuation return followed a similar path. This is due to the fact that a significant part of the superannuation wealth was invested in bonds, a consequence of the investing strategy of the pension

¹Totals can slightly differ from Piketty and Zucman (2014) since some wealth definitions are different. For instance, we did not exclude ownership transfer cost from wealth as they do.

²This figure is inspired from Guerrieri and Iacoviello (2015). It captures a correlation between housing price and consumption growth a correlation often found by many general equilibrium model. In order to establish a causal effect, one needs to introduce housing wealth effect.

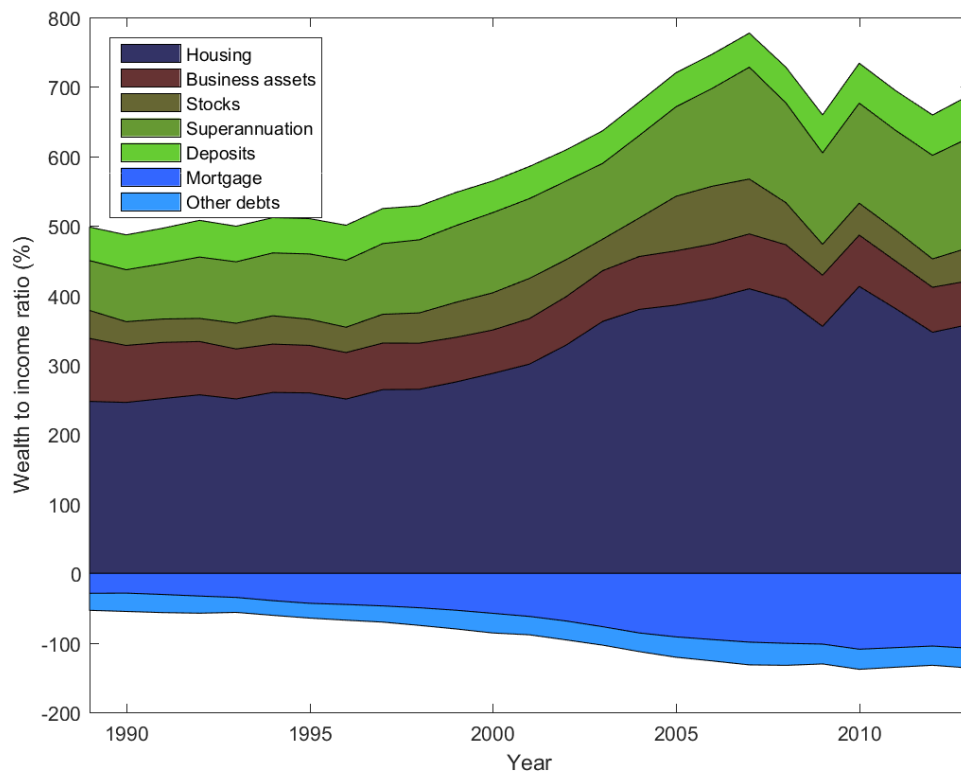


FIGURE 4.1: Australian household wealth (scaled by national income)

funds. However, the return on stocks and housing was lower. This is a direct consequence of the fact that those rates exclude capital gains, which usually increase the effective rate of return of those assets. The negative rate of return on housing was a direct consequence of the sharp increase in payments on housing debt since 2004³.

With the help of Figure A.7-A.11, we can compare the returns earned by Australian wealth holders with those of French (Garbinti, Goupille, and Piketty, 2015) and American holders (Saez and Zucman, 2016). rates of return for France include real capital gains while returns for the US and ours do not. The volatility of French returns is imputable to the inclusion of capital gains in the income derived from wealth holding. Returns are generally more stable in the US than in Australia.

For fixed income claims, Australian households generally get a higher nominal return (A.9). Because the gap with France and the U.S. has been roughly stable since the start of the Great Moderation in France and in the U.S., we interpret this gap as an inflation premium (see also A.5). Australian home-owners have experienced negative rates of return, a situation that never happened in the US. Though the two countries experienced a housing bubble in the 2000s, the housing rate of return reacted differently, suggesting a different adjustment mechanism in reaction to rising housing prices. The skyrocketing French housing return is a direct consequence of the housing price growth; if we had included holding gains in our returns, we would have had a similar situation in Australia. While Australia and France have experienced a similar decreasing pension return trend, American households have faced a rather stable and even slightly increasing return for

³The above-mentioned rate of return is not the rate of return on housing which includes capital gains. With a dramatic increase in housing prices during the 2000s, the latter is far higher than the former and is likely to be significantly positive.

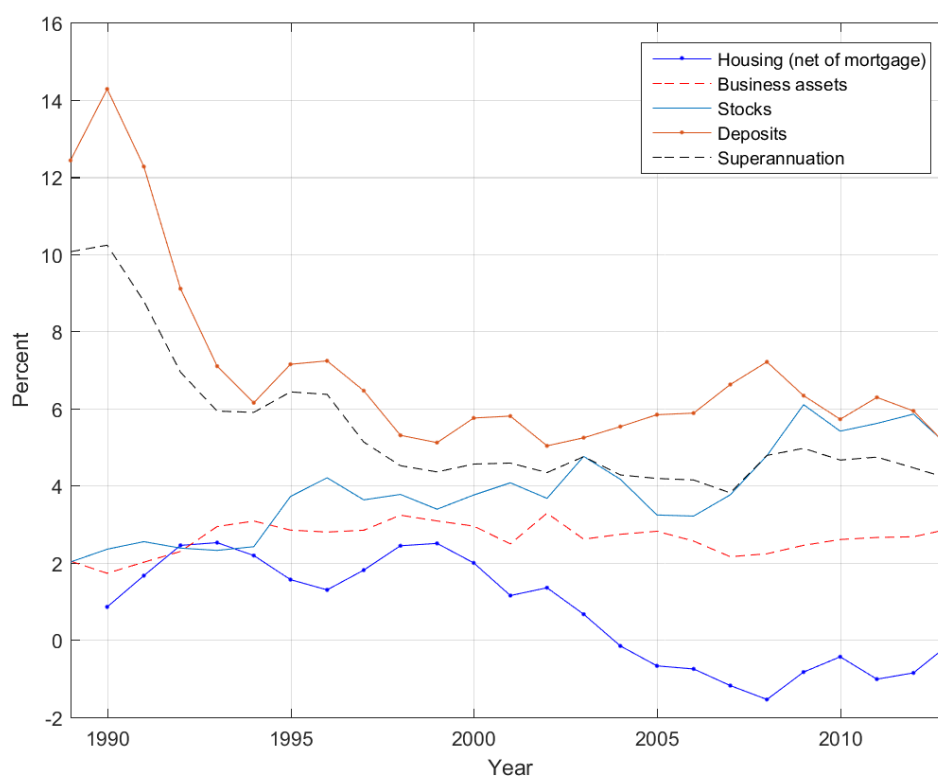


FIGURE 4.2: Rates of return computed from national accounts

their pension wealth. Since, for legislative and liquidity reasons, pension funds and life insurance organisms invest an important share of their funds in bonds, the decrease of pensions return may be a consequence of domestic desinflation⁴. The slightly increasing U.S. pension return might be the sign of an increased international portfolio diversification of pension funds that allowed American households to get increasing returns despite low short term interest rates environment. Equities return have been higher in Australia than in the US if we do not consider capital gains. Thus, Australian firms tend to pay more dividends than U.S. firms. This might be a consequence of a different sectoral composition of the stocks index. The Australian securities exchange index, ASX 200, is mostly composed of mineral companies. These companies, since they are in an advanced stage of their life-cycle, tend to distribute more dividends than US tech-companies, that will rather propose to their shareholders capital gains. This might explain why Australian stocks return is higher than Australian return if we only consider dividends. This gap between Australian and American shares might not have existed if we had included capital gains in our returns.

4.2 Capital income

Before turning to top wealth series, a short study of the income earned by the top-income brackets can provide interesting insights. We show in Appendix C.4 that the top income groups we derived using the Pareto curve approach are close to those obtained using the

⁴To see how the portfolio of asset of Australian pension funds is composed, see the data provided by the Australian Prudential Regulation Administration (APRA).

methodology applied by Burkhauser, Hahn, and Wilkins (2015). This means our series are consistent with existing literature on top income earners.

Figures A.15-A.21 illustrate how the capital income of top income groups is composed. As expected, the higher the income bracket, the more important capital income becomes⁵. While capital income represented, at most, 15% of the income of the top 10% income earners, capital income systematically represented more than 25% of the income of top 0.05%. Including capital gains in our income measure would reinforce this aspect. The contribution of interest earnings and profits from business assets in the income of top earners seems to be roughly similar across different income groups. Since net housing income have been negative for most of our period, it is not surprising that it represents a negligible source of income of top earners. The share of dividend earnings in total income is more significant. Dividend earnings, in themselves, account for more than 20% of the income of the top 0.01% income earners while they are a secondary source of income for top 10% earners (around 4%, at most 10% during the financial boom of the 2000s).

Defining income groups by taxable capital income yields Figure A.22-A.27 in which capital income is defined as the sum of the capital income observable in tax data. Overall, the trend of top capital income shares has been increasing. This suggests an increased concentration of capital income in favor of top capital holders. Top 1% capital earners, alone, own around 15% of total capital earnings, which is more than do people who belong to inferior groups (P95-P99). Comparing with the top income shares proposed in the Appendix C.4, we find the expected stylized fact that capital income is more unequally distributed than total income. Because capital income can be volatile, the top capital shares are generally more unstable than top income shares where the relative stability of labor earnings smoothes the dynamic.

⁵For this figure, we only considered positive income sources. That explains why net rental income share is almost zero: since many people experienced negative net rents along our period, when computing their capital income, rental income has been set to zero.

5. Wealth distribution

5.1 Top wealth shares

Figures 5.1 and Figures A.28-A.33 show how the wealthiest shares derived from the income capitalization method evolved across time. The top shares derived from the survey HILDA (at the household and individualized levels) and the series presented by Katic and Leigh (2015) are reported on the graphs for comparison purposes¹. With regard to other data, our series are a little bit low, an unusual fact for income capitalized data that generally produce a higher level of inequality than survey or inheritance tax data. If we look at the trend, our series generally fluctuate, from one year to the other, around the series derived by Katic and Leigh (2015) (the top 0.1% share are however almost systematically below the Katic and Leigh (2015) share). We shall thus be cautious in the interpretation of the series we derived since these low wealth shares might reflect a problem in the imputation of wealth non-observed in tax data².

We find that after a slight decrease in top wealth shares during the 1990s, the housing and financial booms of the 2000s reversed that trend. We also find the globally decreasing trend after 2006 that can be foresight with HILDA. Housing price and household mortgage borrowings drove the dynamic of wealth inequality. Housing price growth had a positive effect on the value of assets owned by the wealthiest individuals. As, at the same time, the liabilities of the rest of the distribution skyrocketed, thereby lowering their net wealth, top-wealth shares experienced several hikes. While owning around 35% of total wealth in the early 2000, our series suggest that the top 10% went back to less than 30% in recent years. On the same time, top 5% share oscillated between 30 and 20%. People belonging to the top 1% benefited from the housing boom of the early 2000s. Their share on total wealth culminated to 20% in 2003 before going back to lower levels. The upper part of the distribution has also experienced a peak when housing prices violently rose (2003, 2006) but the backward adjustment has been smoother suggesting that these wealth groups were less dependent of housing price. It is interesting to note that top 0.05% and 0.01% wealth shares have followed the inverse path of other wealth shares. When other income groups benefited from the housing price growth (e.g. around 2003) and their wealth shares skyrocketed, the shares of top 0.05% and 0.01% did not follow this pattern. This might be because individuals belonging to these wealth groups own a limited share of their wealth in housing assets (see below) thus they might not experience large latent holding gains during this period. Since, at the same time, the aggregate wealth benefited from the housing boom, their share on total wealth decreased a little bit.

¹For a longer time frame, see Figure A.34-A.36.

²We tried, without success, to change the percentiles used in the imputation of wealth from HILDA to tax data. We finally kept nine labor and capital income groups (i.e. at most 81 groups) rather than the seven used by Garbinti, Goupille, and Piketty (2015) (i.e. at most 49 groups). Because our uniform imputation of non-filers income was problematic at this stage (too many identical individuals), we reintroduced at this stage heterogeneity by randomly perturbing the capital and labor income of individuals that had been created by uniform imputation. Then we grouped individuals by labor and capital income and created the income groups. It improved the fit but did not solve entirely the problem.

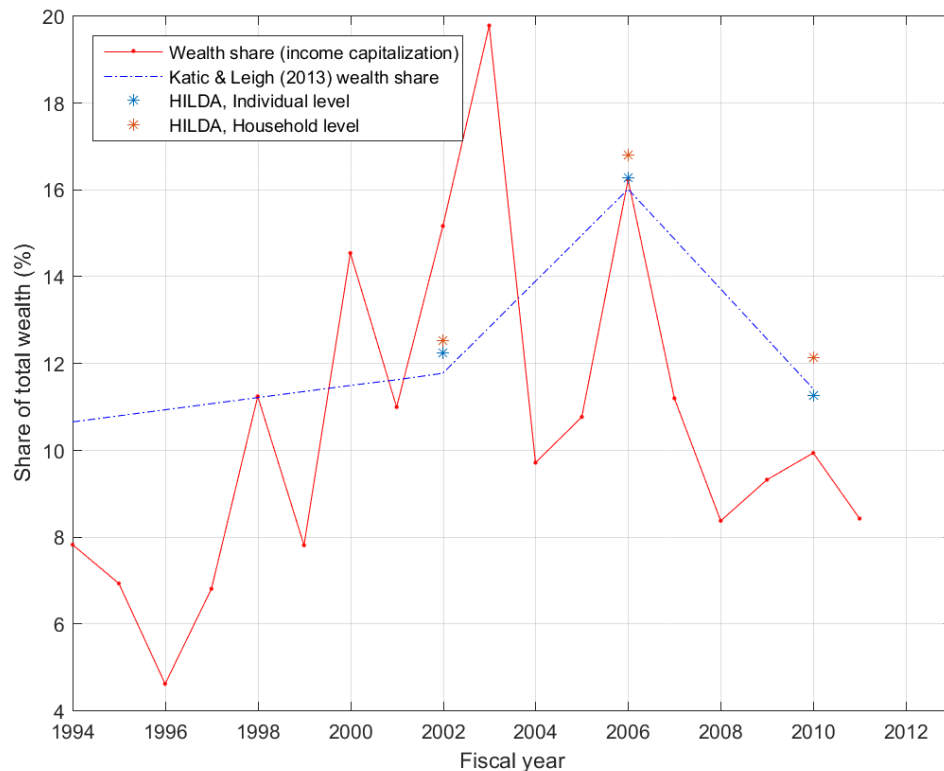


FIGURE 5.1: Top 1% wealth share

On the contrary, when the relative price of financial asset was going up, their shares on total wealth was substantially jumping.

Regarding the top wealth shares provided by the HILDA database, the choice of the unit of observation seems to have a small effect on the level of wealth inequality obtained. Assuming wealth is equally splitted between spouses slightly reduces the wealth inequality. One can see that wealth shares have sometimes been erratic in the interval between two wealth surveys. As a consequence, the linearity of the trend in the shares derived by Katic and Leigh (2015) sometimes hides those erratic effects. To that extent, the wealth series provided by the income capitalized method, despite their imperfections, do try to capture how the cyclicity of the asset prices affects the capital stock of top wealth earners.

As documented by Katic and Leigh (2015) and shown on Figure A.37-A.37, Australian wealth is more equally distributed than that of the US. While top 10% wealth share in the US has increased from 70% to 80%, top 10% share in Australia has reached a maximum of 40%, at a time of huge housing price growth. Whatever the level we are looking on, Australian wealth is far more equally splitted than American household wealth. In terms of dynamic, while the slightly increasing trend for the US is blatant, the trend is hard to grasp for Australia. Even if our series are lower than expected, this suggest Australian household wealth has not followed the same dynamic than that of the U.S. despite a common housing price boom and low household saving rate.

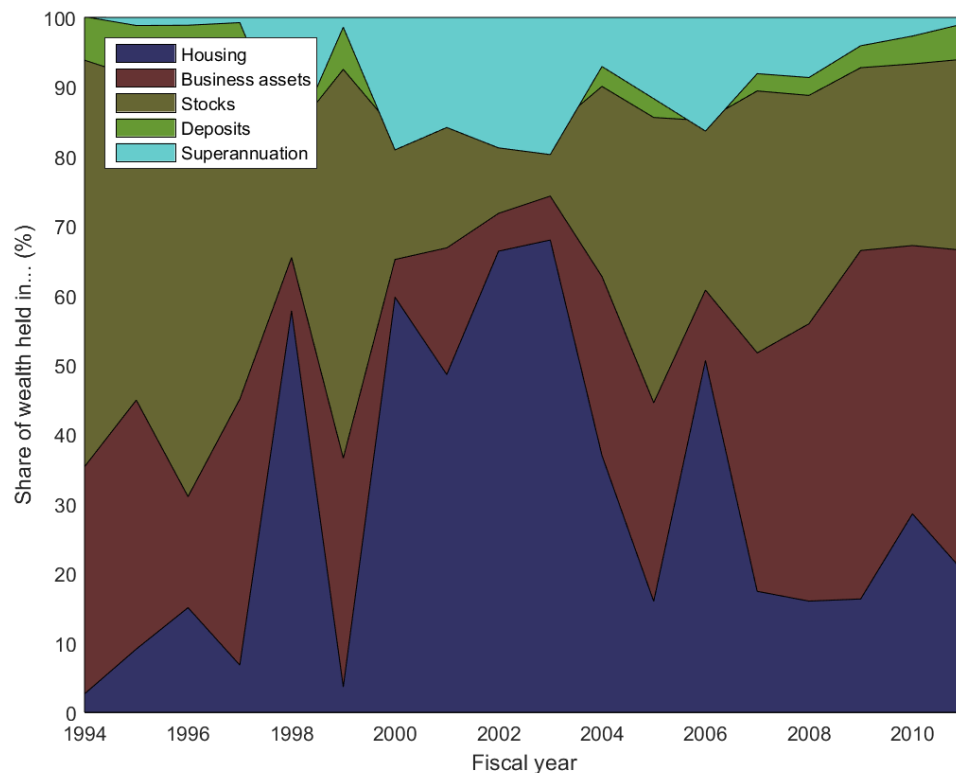


FIGURE 5.2: Composition of the wealth of the top 1% wealth holders

5.2 Composition of wealth

Figures 5.2 and A.43-A.48 decompose the wealth of the top wealth groups. First, we see that while housing represent the main asset of the top 10% wealth holders (A.43), its role becomes more and more limited at the top of the wealth distribution. Since below P99, business assets also represent an important share of wealth, non-financial wealth account for more than 50% of the wealth of people belonging to top 10% or top 5%. However, home and business owners progressively disappear when we go further. Owners of financial assets become predominant above P99. Their portfolios of financial assets are also different from those of people below P99. Below this threshold, pension wealth represents around 10% of net wealth owned but becomes an insignificant source of wealth when looking above P99. On the contrary, direct equity holdings become the prominent source of wealth. Across our period of study, shares have represented between 50% and 80% of the wealth of the top 0.01% wealth owners. This is 90% of the wealth of the top 0.01% that takes the form of equity or business assets. Even in periods of skyrocketing housing price, the composition of this wealth group has been rather stable apart from a continuous substitution from shares holding to physical firms holdings since 2007.

Figures 5.2 and A.43-A.48 bring other interesting insights regarding the composition of top wealth groups. While globally P90-99 group is constituted by home or land owners, we see that, as in the US (Saez and Zucman, 2016), the extreme of the distribution is constituted by owners of financial assets. However, we can see from the volatility of the share of housing in total wealth, that the composition of top wealth groups can fluctuate with asset prices. The changes in the composition of wealth we can see in Figures 5.2 and A.43-A.48 could either reflect portfolio reallocations or change in the individual

composition of top wealth groups. The former implies smoother change than the second in times of large asset price fluctuations since many wealth sources are not easily liquidated (while financial assets can easily be sold, adjustment on physical assets is less easy). On the contrary, with large asset price fluctuations, the composition of top wealth groups can evolve quickly. In years of housing boom (see figure A.6) house-owners saw the market value of their wealth soar. This might have led some home-owners to penetrate the top wealth groups, thereby resulting in composition effects around the year 2003 (see, for instance, Figure A.47). On the contrary, when housing price growth diminished, the home-owners came back to their original wealth groups (below P99) and so did owners of financial assets. Thus, despite the homogeneity of wealth groups composition in the long run (below P99 home owners, above financial owners), asset pricing cycles can have significant effects on cross-sectional measures of top wealth groups composition.

Tables B.3-B.20 show in more details how are composed the asset and debt portfolios across the distribution³. The composition of the portfolio of the bottom 90% of the distribution has been stable. Housing represents the most important asset owned by individuals, while mortgages account for the main type of debt contracted by individuals. While owner-occupied mortgage represented, in the late 1990s the main debt of the bottom 90% of the wealth distribution, we observe a substitution in favor of tenant-occupied debt that become more and more predominant in the household debt portfolio. The stylized fact we observed at the aggregate level - the sharp increase of housing prices and mortgage value - might have been reflected at the individual level by a slight change in the investment behavior of household in favor of housing leveraging for investment purposes.

If we look carefully at the quintiles that compose the bottom 90% (tables B.21-B.37), we can see that the lowest quintiles (Q1 and Q2) own a limited share of their wealth in investment property up to 2003. For the years prior to 2003, this means that the middle and upper parts of the bottom 90% are responsible for the progressive substitution in the composition of wealth of the bottom 90%. However, from 2003 to 2006, one can see that the composition of the lowest quintiles, ranked by net worth, have been substantially different. While prior to 2003, the lowest quintiles were composed by home-owners whose capital stock was more or less reduced to their main residence, from 2003 to 2006, we observe that the lowest quintiles held a more important share of their portfolio in tenant-occupied housing (both asset and loans). This probably reflects the increase in the leveraging strategy of households leverage we have identified. It also reflects the observable household gearing ratio (RBA E2)⁴ that temporarily lowered the net wealth of some agents (when they borrow, period where their liabilities surge) before they were able to reintegrate top wealth groups once the investment they made produced latent holding gains. To support this claim, one can note that the cycles known by the gearing ratio are generally reflected in the liabilities of the lowest quintile groups. This suggests that some people might have borrowed significantly in some years, resulting in the reallocation of those individuals to the lowest quintiles. Then, those people went back to the middle or upper parts of the distribution once the rise in housing prices increased their wealth.

The financial portfolio of the bottom 90% of the distribution is mostly composed by pension wealth. Direct holding of equity are generally limited. Even in the top 10 or 5%, stock holdings are generally limited (tables B.21-B.37). Some home-owners or large pension wealth holders are able to penetrate in these top-wealth groups. However, once they

³Tables B.21-B.37 adopt a decomposition of total population by quintile to allow comparison with ABS data (ABS 6554.0). To be consistent with ABS data, business loans are deduced from business assets rather than being considered as a component of household liabilities in these tables.

⁴For the equivalent skyrocketing dynamic of the gearing ratio in the US, see Justiniano, Primiceri, and Tambalotti (2015)

have entered in the top 1% financial assets, in particular stocks, become the predominant source of wealth (except for some exceptional years where housing price skyrocketed). Representing less than 8% for the wealth groups below P99, stocks holdings generally amount to more than 15% of total assets for the top 1%. For the top 0.01% holders, housing is a secondary source of wealth. Business assets constitute the main assets in the non-financial portfolio. Stock holdings represent by far the main asset owned by people above P99.9. Though we are not able to isolate bond holdings from bank accounts (and other liquid low interest-bearing wealth), it is likely that the deposits wealth held by top wealth individuals is mostly constituted by the bonds. However, if the returns are positively correlated with wealth as suggested by Figures A.12-A.14, it is possible that we overestimate the equity and bonds held by the wealthiest individuals⁵. Though tenant-occupied housing represents a limited share of the wealthiest individuals' portfolios, it represents, by far, the main debt component. This is a scale effect: wealthiest agents have limited debts since the need to leverage in order to buy assets is limited. The little amount of debt they own is then housing investment debt whose term structure might be very different from mortgages contracted by the poorest people (short term maturity...).

5.3 Wealth composition compared to other data

Finally, we can compare our results with other sources measuring Australian household wealth distribution. Table B.1 shows how the wealth of the different net worth quintile is composed using ABS data devoted to wealth distribution (ABS 6554.0)⁶, HILDA wealth module (wave 10) and our sample. Valuables are included in the ABS wealth concept but are not in other sources. Overall, housing represents around 60% of the household asset on all studies. However, housing is distributed differently following the studies: HILDA and our sample suggest that housing is the main asset owned by people belonging to Q1 while ABS data suggest that it becomes a prominent source of wealth only for Q2. The different wealth definition in the ABS data might be partially responsible for this discrepancy.

Stocks are more equally owned in our synthetic population than in HILDA or ABS data. While on the three sources people belonging to Q5 own around 10% of their wealth in shares, our synthetic sample tend to give too much equities to people belonging to the bottom of the distribution (people belonging to Q1 would hold 4% of their wealth in equities following Table B.1). This is probably because the uniform imputation we conducted to ensure consistency with national accounts is too egalitarian for assets that should be very concentrated. The pattern followed by the interest bearing wealth is similar on the three samples: the portfolio is less and less allocated to deposit wealth when going to the top of the distribution. The trend followed by the superannuation wealth is also close on the three studies. The first quintile tend however to own a more important share of their wealth in superannuation in HILDA than in our sample (29% against 17%).

In the three samples, mortgages represent more than 85% of household liabilities. Individuals belonging to Q1 tend to own too much mortgage in our sample suggesting that individuals belonging to this low wealth quintiles might be more indebted in our synthetic sample than they should be. At the global level, we find a realistic share of student loans in total debt. However, the distribution of student loans differ in our population and in ABS and HILDA data. While our low wealth groups tend to have limited student debt (0.54% of their liability), probably because they are derived from low income

⁵For further research, it would be interesting to see how allowing for non-constant rate of returns might affect the estimates provided by the income capitalization method

⁶This study uses the household as level of analysis while our sample and HILDA present individualized data.

earners that have not studied for long, ABS data suggest that poorer people are those that have large student loans. HILDA survey suggest a similar student loans distribution.

Table B.2 shows some summary statistics aimed to compare the HILDA sample to our sample. The reasons for the discrepancies between the totals in HILDA and in the Household balance sheet are documented in Finlay (2012). The national accounts totals are, by construction, the totals provided by the income capitalized method.

Except for deposits, the income capitalized method leads to similar population means as those measured in HILDA. The discrepancy for business assets might be due to a different valuation method between HILDA (book value) and national accounts (market value)⁷. As regards deposits, the discrepancy remains significant. First of all, this gap can be traced back to the difference between the totals in the two sources. Nonetheless, it is not sufficient to explain such a discrepancy between the two distributions. The deposit wealth includes bank accounts wealth (and other interest-bearing assets such as bonds⁸) and non-mortgage loans. As debts were imputed from the data, it is reasonable to think non-mortgage loans and debts should have similar distributions. However, bank accounts are derived from tax returns and from national accounts data. An important share of the wealth registered in the national account is not present in tax data and is thus uniformly imputed to non-filers⁹.

The income capitalized approach allocates too much wealth to individuals below P50. This is another drawback of the uniform income imputation method for non-filers. Since those who did not filled a return are likely to be the poorest (if they were rich, they would have large capital income and thus would have to fill a return), the uniform imputation fails to replicate wealth concentration observable on survey data. Wealth statistics, which are provided by the income capitalization method, become reliable only for the middle and the top of the distribution. At those levels, tax datasets allow for a better understanding of the capital income than they do at the bottom of the distribution characterized by a lot of uncertainty.

⁷Finlay, 2012.

⁸The way interest-bearing bonds are treated might cause different results between the two sources. In HILDA, bonds are registered as financial assets and are included in the stock category. In taxation data, income derived from bonds are considered as gross interests and are thus considered as being part of the deposit category. However, since direct bond holdings stock might be very limited with respect to bank accounts wealth, this should be a minor problem.

⁹In theory, any bank account interest earned should be declared. However, it might be possible that some small amounts are undeclared. As a result, those small amounts aggregated together might affect the taxation statistics. The large discrepancy also comes from the fact that many individuals, who did not fill a return or did it too late, escape our statistics. If the variance of the interest earnings of non-filers is important, our uniform imputation will necessarily fail to capture non-filers bank accounts wealth

6. Wealth over the life cycle

The preceding repeated cross sectional measures allowed us to draw a clear-cut picture of the evolution of household wealth. However, it failed to provide insights on an important aspect of wealth accumulation: the dynamics of that accumulation over a lifetime at the individual level. An interesting aspect of the life cycle approach (Ando and Modigliani, 1963) is that it tackles how wealth is influenced by age, a variable that cannot be identified in our repeated cross sections. Pudney (1993) and Fernández-Villaverde and Krueger (2007) proposed to use non-parametric techniques to measure how wealth evolves with age. They propose to use Nadaraya-Watson (1964) estimator to measure the conditional distribution of income (or wealth) to age $\mu(a) = f(y|a)$ where y is the outcome variable, f the conditional distribution function and a is age. Since nonparametric techniques propose minimal assumptions and allow for very flexible functional forms, they might be the best-suited techniques to confront the life cycle theory with our data. Indeed, those techniques avoid misidentification resulting from wrong parametric assumptions¹.

The Nadaraya-Watson (1964) estimator, given a bandwidth h , a kernel K and a distance $d(\cdot)$ is defined as

$$\hat{\mu}(x)_h = \frac{\sum_{i=0}^N K\left(\frac{d(x, x_i)}{h}\right) y_i}{K\left(\frac{d(x, x_i)}{h}\right)}$$

As any non-parametric technique, the flexibility of the estimation comes at the cost of large confidence intervals. Since there are no general rules for the selection of bins and bandwidth, we have adopted the Silverman (1986) rule of thumb bandwidth

$$h = \left(\frac{4s^5}{3n}\right)^{1/5}$$

where n represents the number of observation for the year used. We used an Epanechnikov kernel

$$K(u) = \frac{3}{4}(1 - u^2)\mathbf{1}_{\{|u| \leq 1\}} \quad (6.1)$$

With the help of wealth modules in HILDA² to estimate the interaction between age and wealth (fiscal years 2001, 2005 and 2009). Confidence intervals are bootstrapped using 10,000 iterations. Given the large confidence intervals obtained at certain iterations

¹For cross-sectional income or wealth distribution, data suggest a Pareto shape. However, for the distribution of wealth conditional on age, there is no obvious distribution. Imposing a distribution might then easily lead to misidentification

²Once again, to derive individual wealth from household wealth, we assumed for each household, an equal share of wealth among individuals aged from 20 to 90 years old.

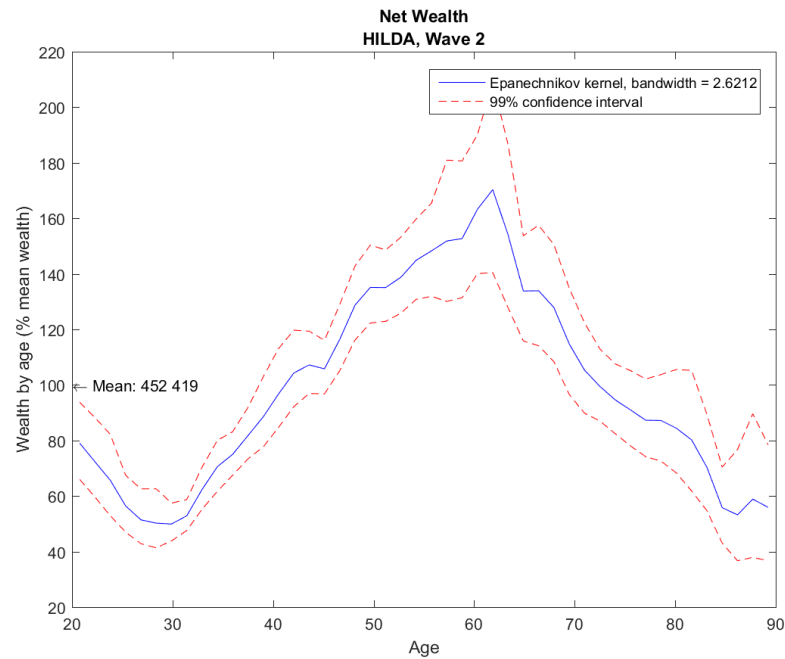


FIGURE 6.1: Net wealth along the life cycle (Nadaraya-Watson estimator)

the dynamic followed by the estimates is more interesting than the absolute numbers yielded by the estimator.³

The broad picture provided by our estimates follows the predictions of the life cycle theory. Indeed, overall wealth seems to follow a hump-shaped pattern over the lifetime of individual agents. Moreover, also consistent with the life cycle theory, people tend to borrow young and accumulate assets later (A.50, A.51, A.52). Furthermore, superannuation follows the expected pattern: it increases up to the age of retirement and then goes down (A.53, A.54, A.55, upper panel). To that extent, direct holdings of stocks follow a close dynamic (A.56, A.57, A.58, upper panel) which suggests equity holdings might have the same consumption- smoothing purpose as superannuation wealth⁴. The dynamic of asset accumulation over time is mostly driven by housing wealth accumulation (A.56, A.57, A.58, bottom panel). The persistence of an important housing wealth at the end of the individual's lifetime suggests that they might be used for bequests. Bank account holdings seem to follow the same bequest purpose (A.53, A.54, A.55, bottom panel) at the end of the individual's lifetime. Indeed, deposit holdings are not completely spent by retired individuals but rather saved perhaps with a view to bequeath that wealth to their descendants. This suggests that bank accounts are not held solely for transaction purposes.

³As regards some wealth components, the estimation can be erratic and yield large confidence intervals since, for some wealth components, the restricted sample of individuals owning those components is limited. Nonetheless, a survey oversampling the wealthiest individuals should allow for smoother results.

⁴An alternative interpretation of the decrease of equity holdings with age is that we might capture generation effect. It is possible that nowadays retired individuals have not experienced the change in white collars earnings composition (stocks-options) as much as the younger generation. Supporting this claim is the move, from Wave 2 to Wave 3, in the climax of equity holding that roughly corresponds to the time between the two waves.

Conclusion

Over the course of this study, we analyzed the U-shaped form of Australian wealth inequalities. Based on aggregated taxation data, we infer an income distribution at the individual level for the whole population. Then, we use this inference to compute wealth at the individual level with the help of the income capitalization method, taking into account wealth that does not generate income flows. In order to derive wealth from income data, we used the HILDA dataset as well as national accounts data. As a result, we analyze for each wealth group the various wealth components and the idiosyncratic dynamics of the value of those components. Although, the samples of individuals change each year, this method allows us to follow wealth groups over time. Hence, this provides us with the opportunity to conduct a thorough time series analysis of wealth concentration in Australia from 1994 to 2012. These time series enabled us to grasp the evolution of the different wealth brackets and how these dynamics affected the overall trend during the period.

One of the main results of our study is that two specific components of wealth, housing and financial assets have had substantial effects on the composition at the top of the wealth distribution. Indeed, not only did housing and financial assets affect levels of wealth, but they significantly triggered important shift in group composition. As a mere example, in the middle of the years 2000s, skyrocketing housing prices positively affected the wealth of the home-owners, thereby perhaps pushing individuals from one wealth bracket to the other. As a consequence, and in response to that price hike, this might have triggered property acquisition to increase as well.

Finally, with a view to combining the life cycle theory with our analysis, we used non-parametric techniques to estimate the influence of variables such as age on wealth accumulation. In compliance with this theory, individual agents do conform to the assumed behavior, namely they borrow young and accumulate wealth later in life. However, contrary to one of the main assumptions of the life cycle analysis, that is, the non-bequest assumption, individual agents do tend to keep nonzero- bank account deposits at the end of their lives.

The wealth series obtained suggest a degree of wealth concentration superior to that found by Katic and Leigh (2015). Nonetheless, wealth concentration in Australia is still far from that of the U.S. (Saez and Zucman, 2016).

For future research, it would be interesting to extend our period prior to 1994. Moreover, it would be of great value to compute synthetic saving rate (saving rates per percentile). This could allow for a better understanding of the link between asset prices and wealth accumulation.

A. Figures

A.1 Rate of return and other macrodata

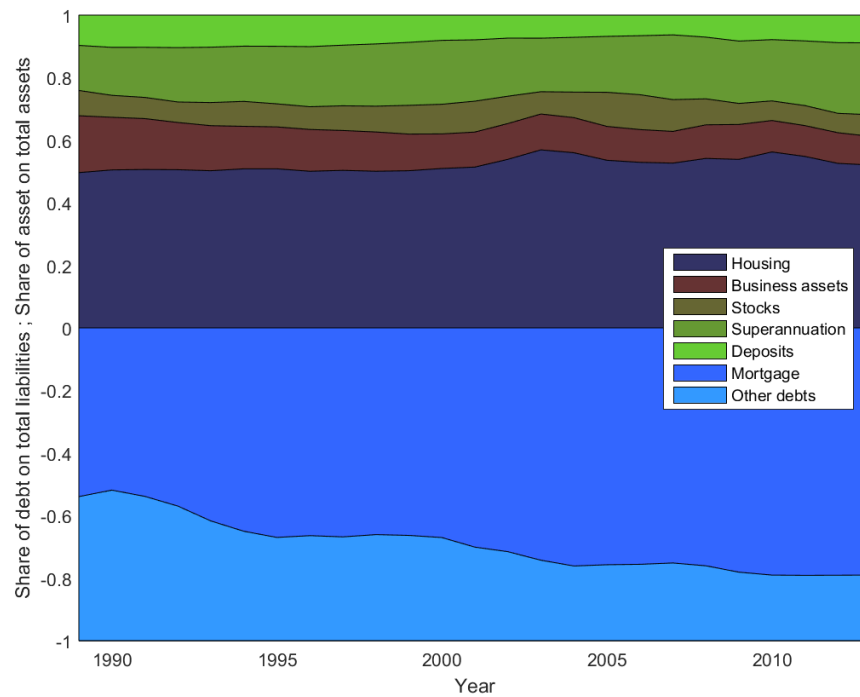


FIGURE A.1: Assets and liabilities

Note: Housing, business assets, equities and superannuation are scaled by the total asset in Household Balance Sheet. Mortgage and other debts (HECS, consumer credit, business debt...) are scaled by total liabilities.

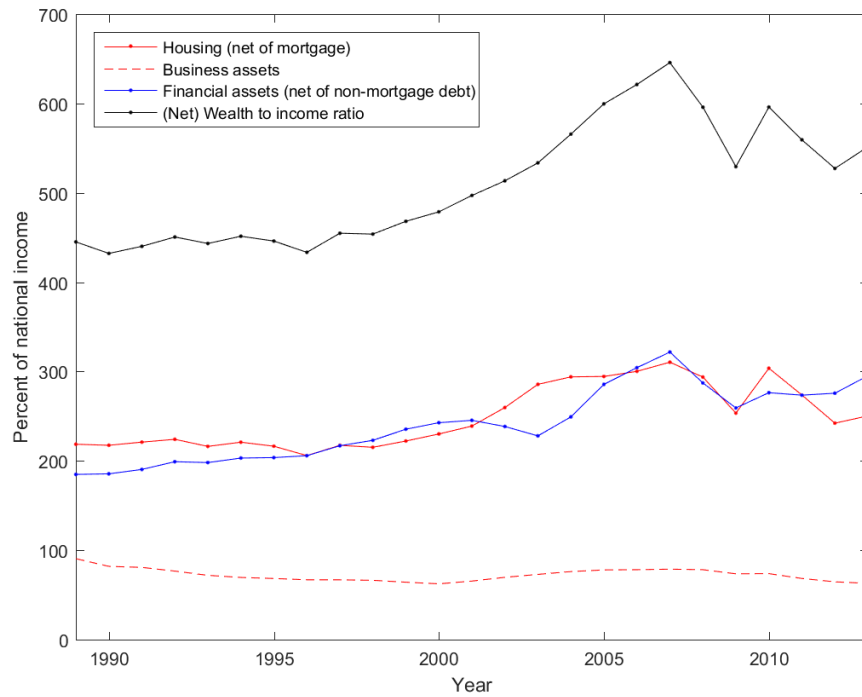


FIGURE A.2: Wealth to income ratio (β)

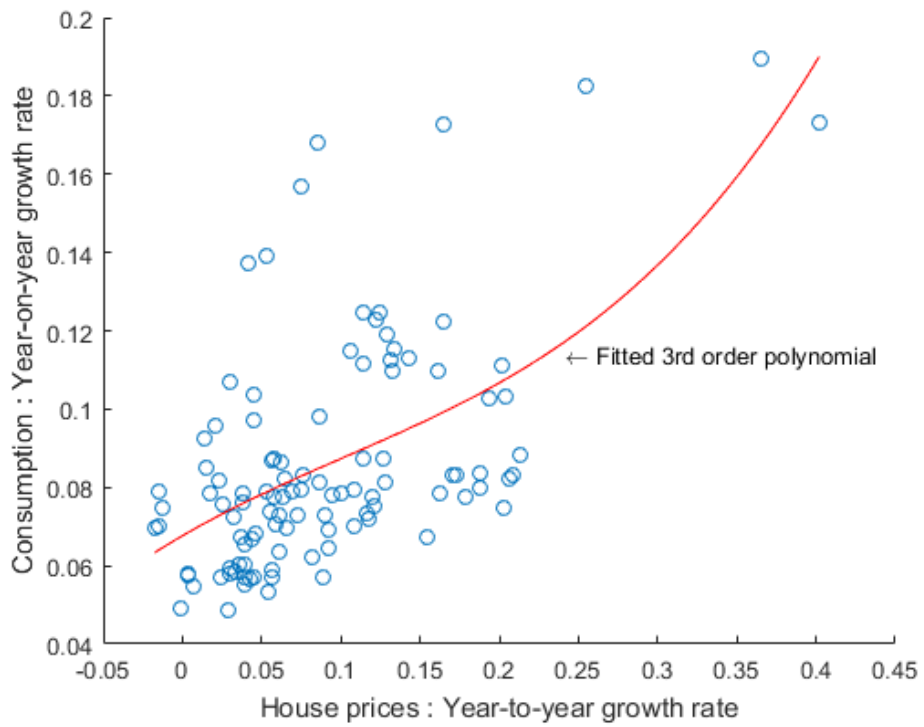


FIGURE A.3: Housing price growth and consumption growth

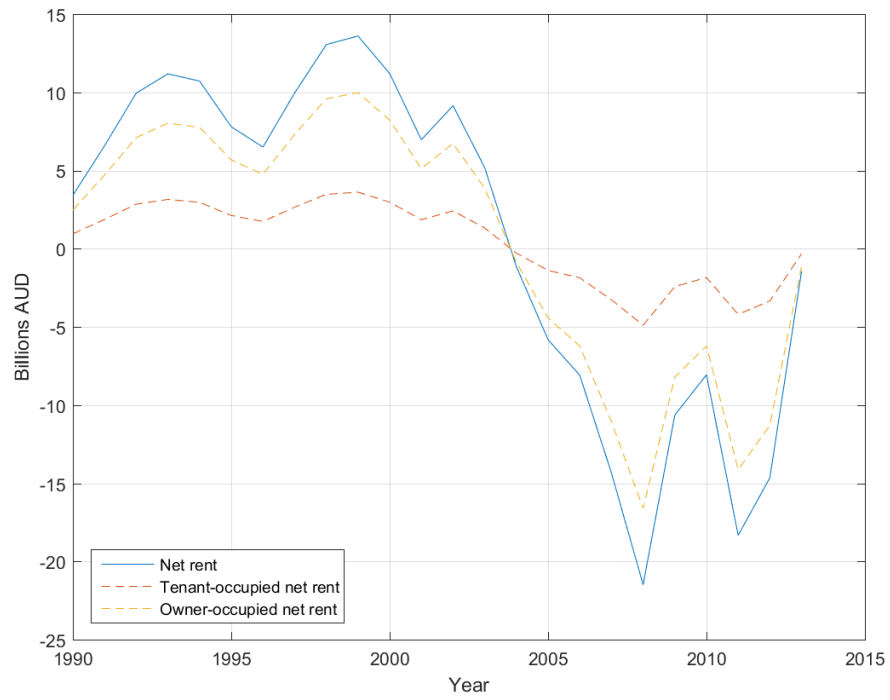


FIGURE A.4: Net rent

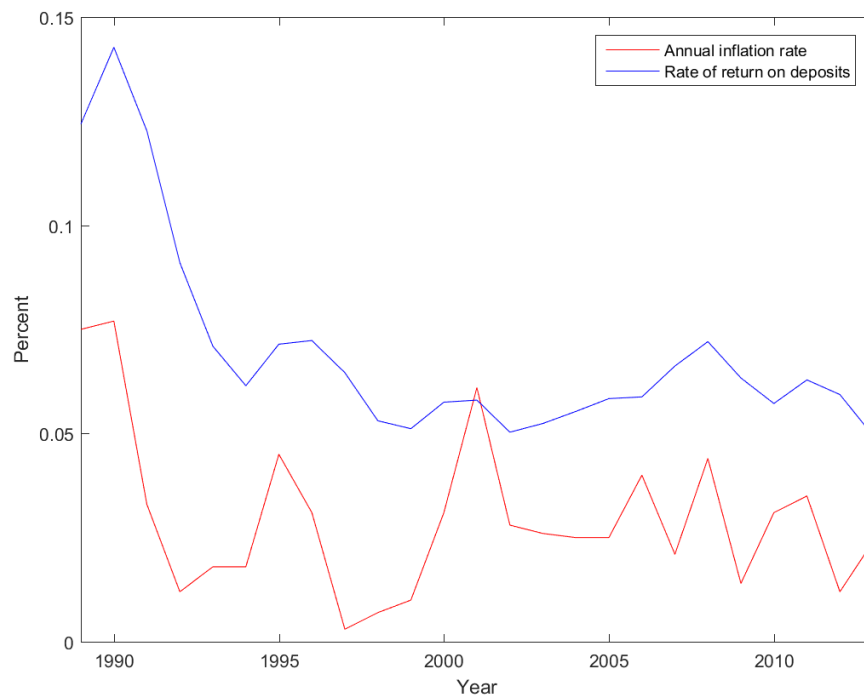


FIGURE A.5: Rate of return: superannuation wealth

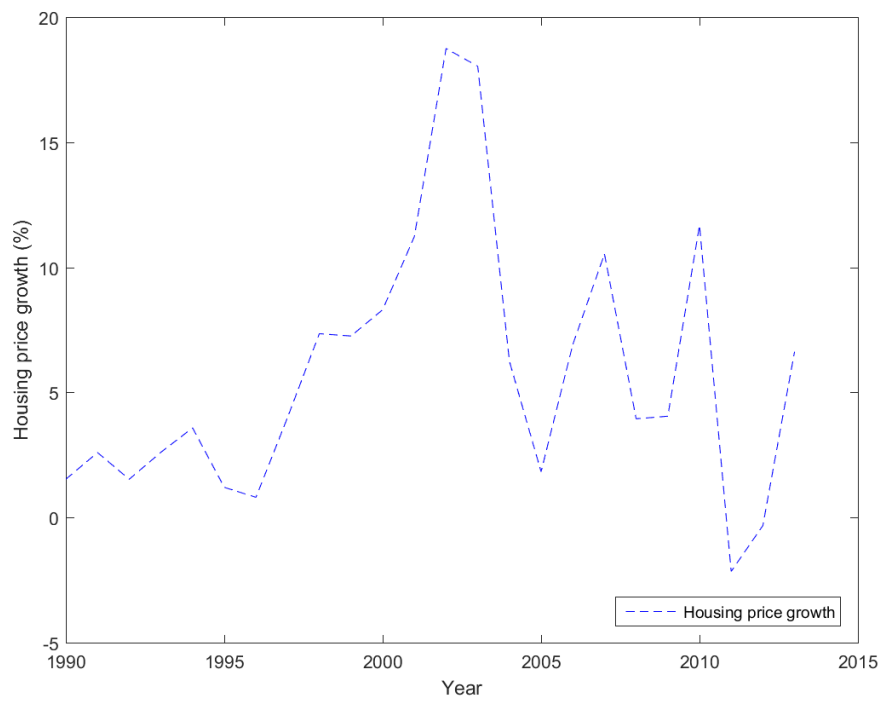


FIGURE A.6: Housing price growth

A.1.1 Rates of return: Australia compared to other countries

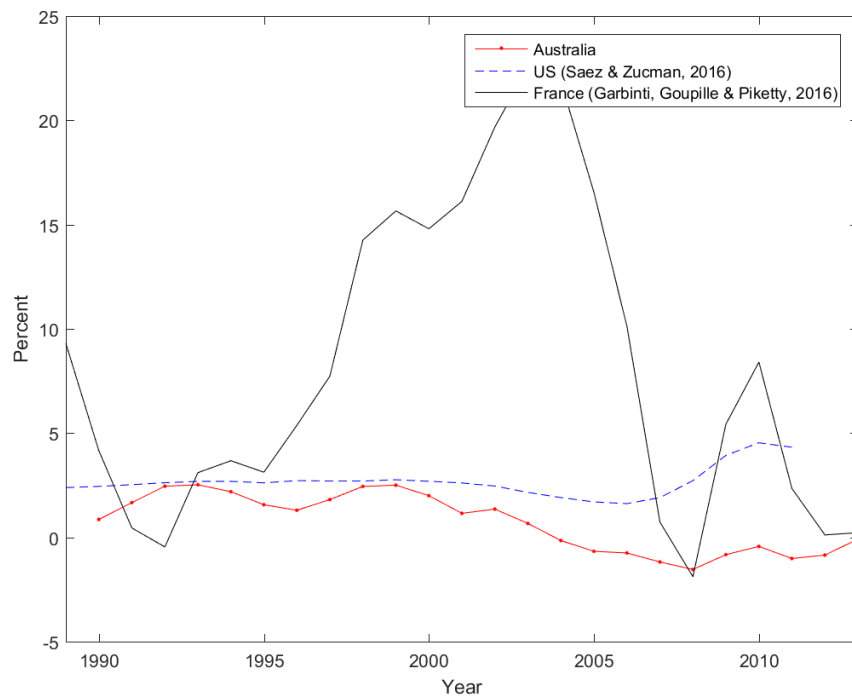


FIGURE A.7: Return housing

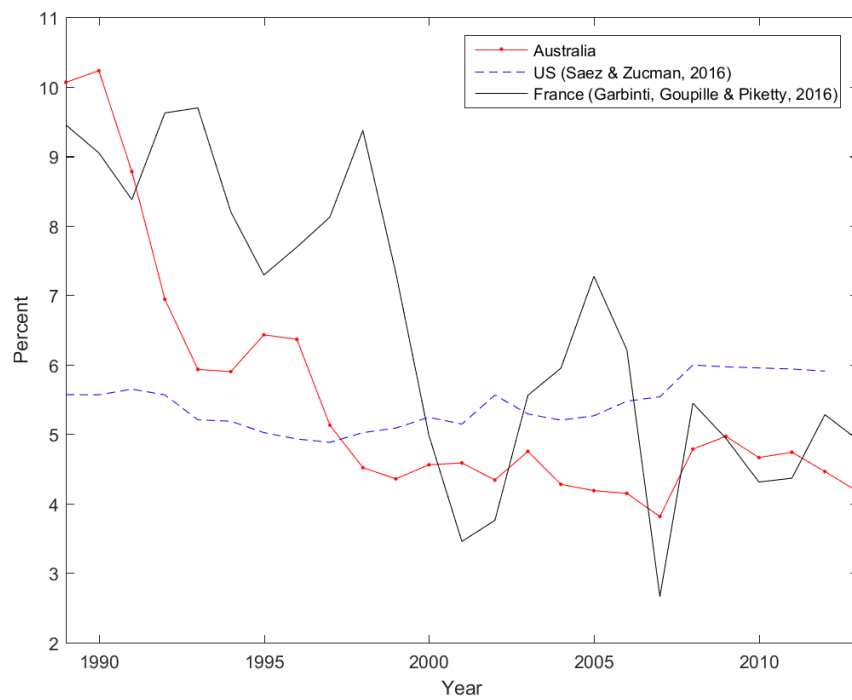


FIGURE A.8: Return pensions and life insurance

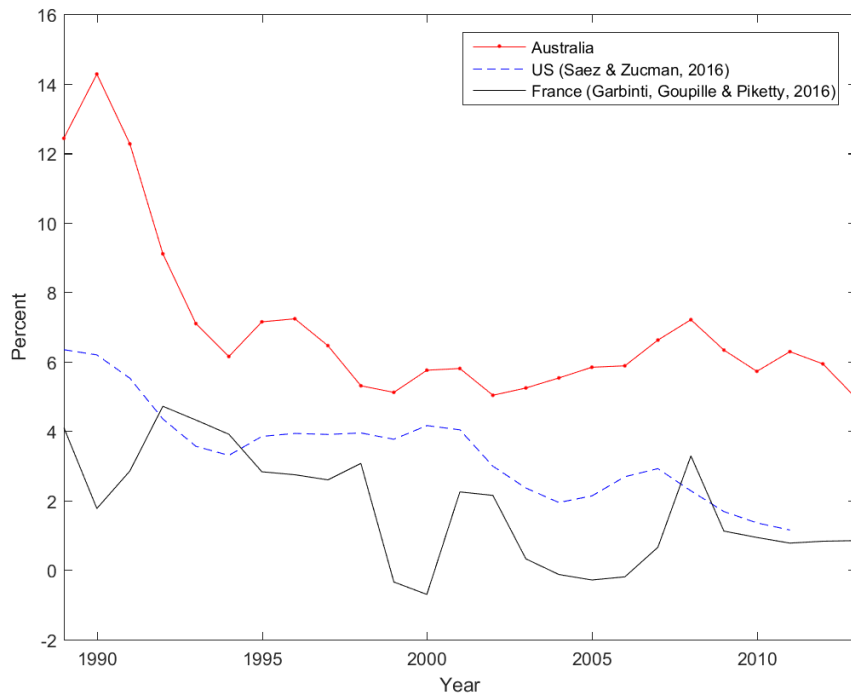


FIGURE A.9: Return on deposits and other fixed income claims

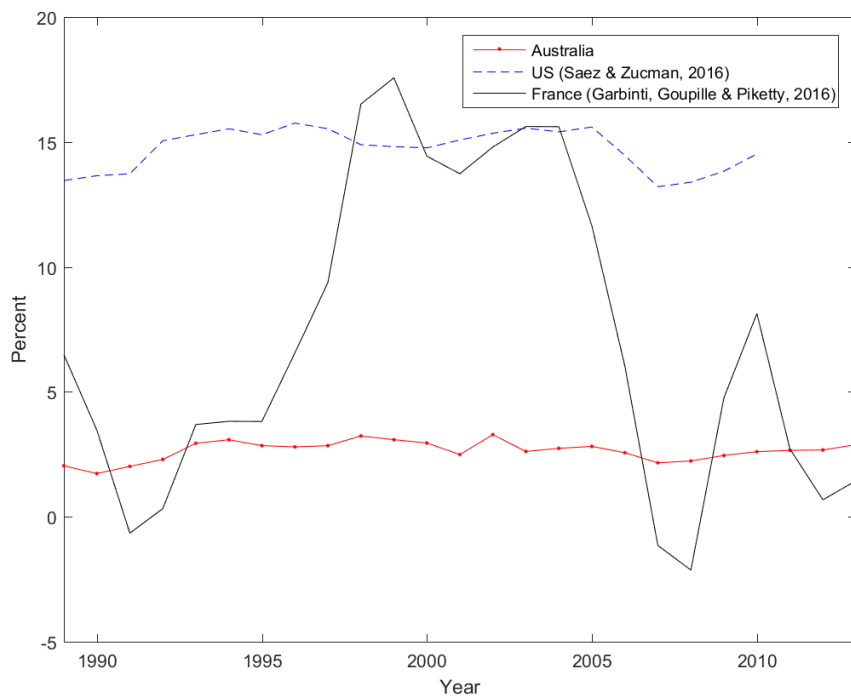


FIGURE A.10: Return on business wealth

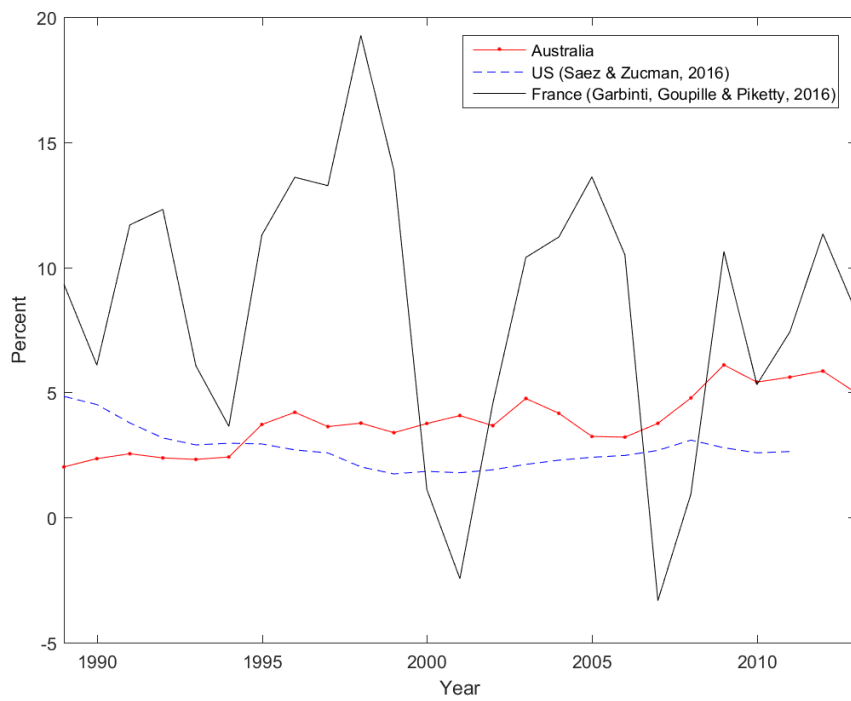
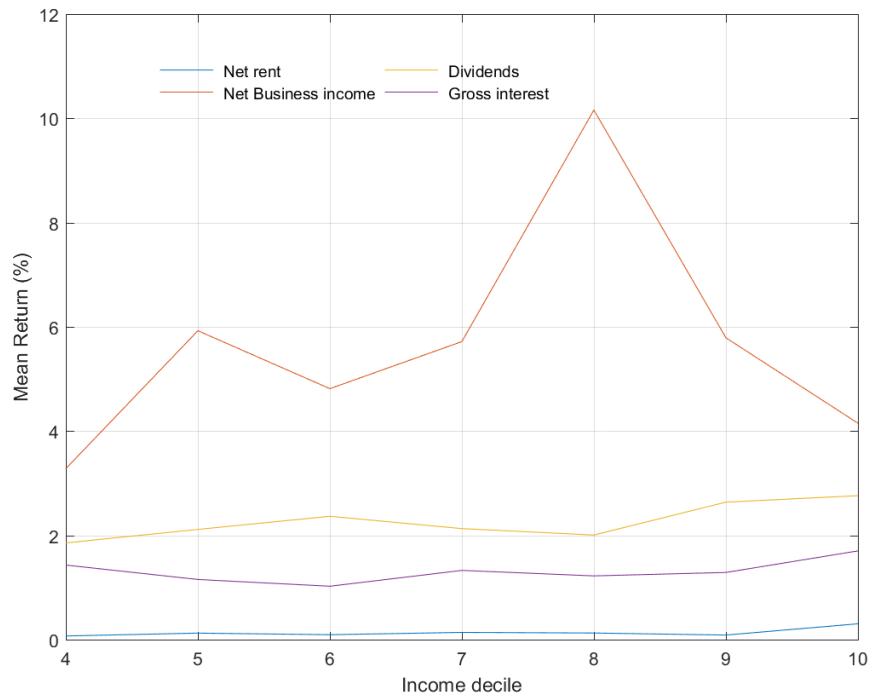


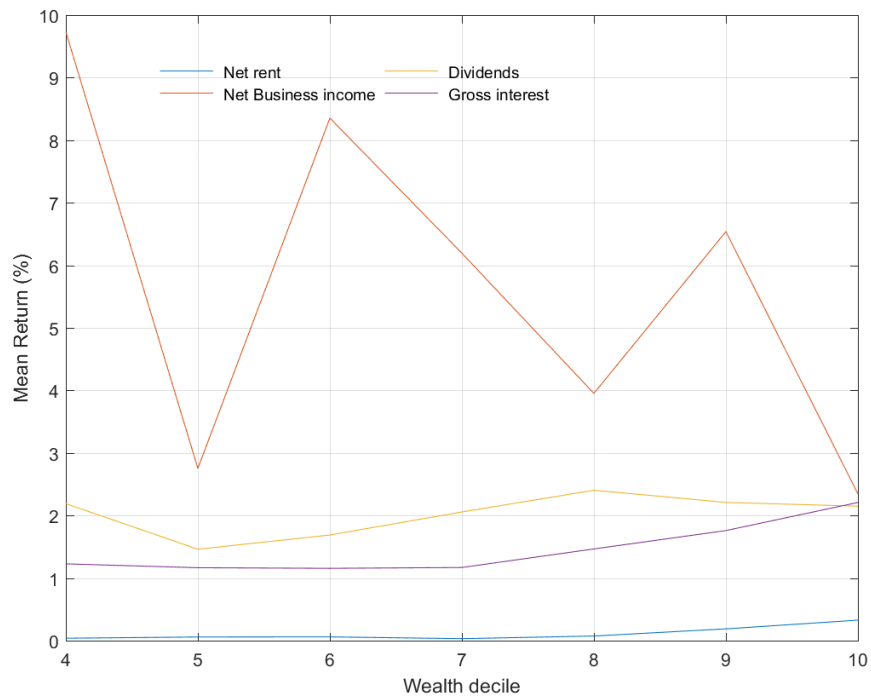
FIGURE A.11: Return on stocks

A.2 Rate of returns by income and wealth decile

FIGURE A.12: Return by income and wealth decile: HILDA, Wave 2

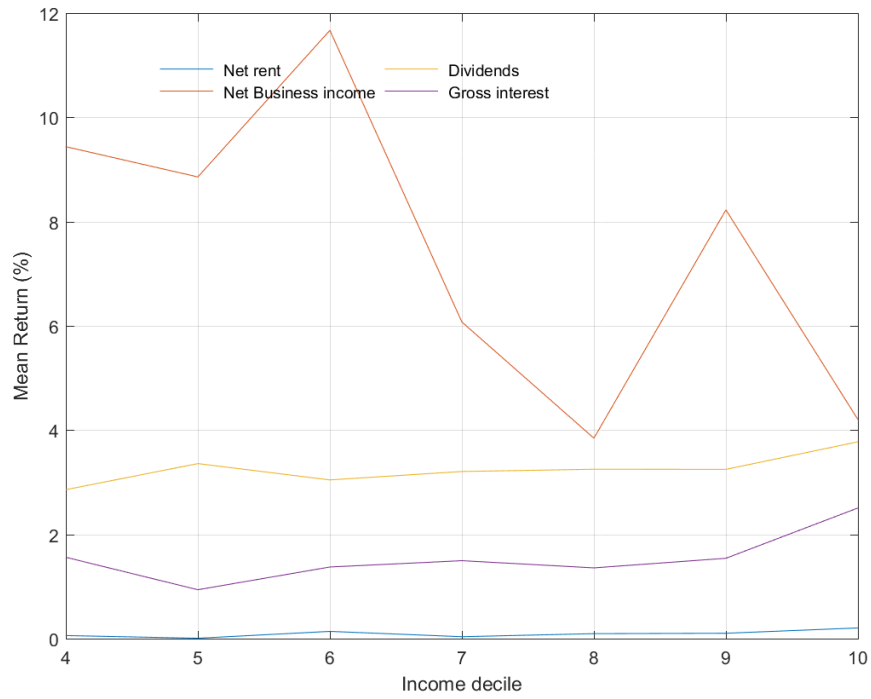


(A) Return by income decile

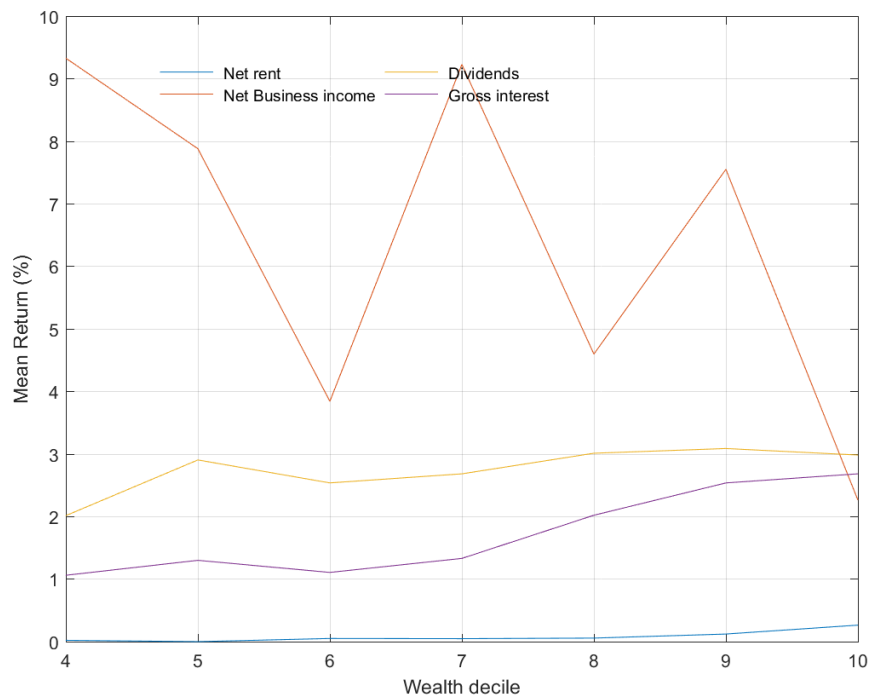


(B) Return by wealth decile

FIGURE A.13: Return by income and wealth decile: HILDA, Wave 6

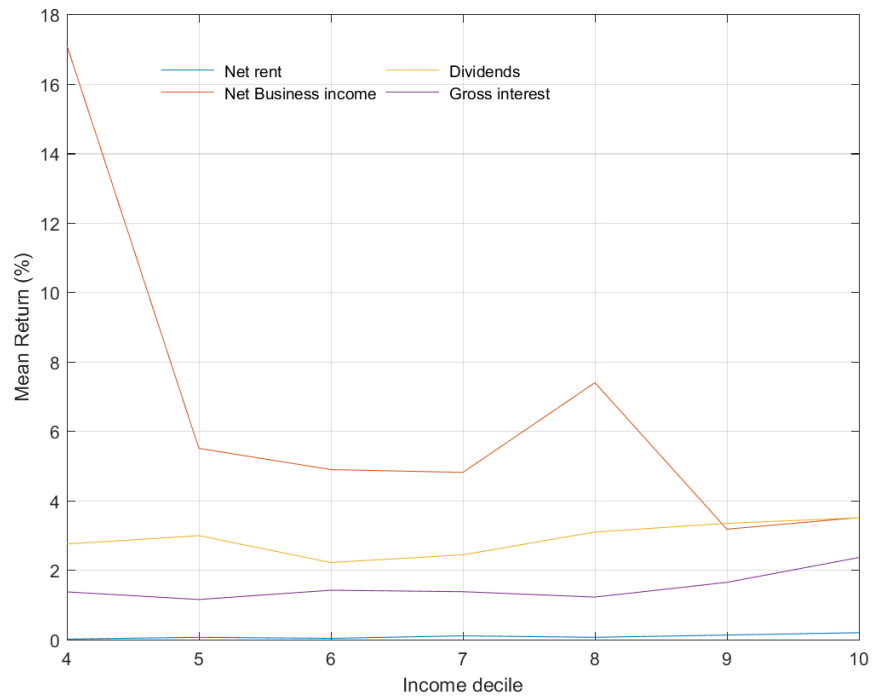


(A) Return by income decile

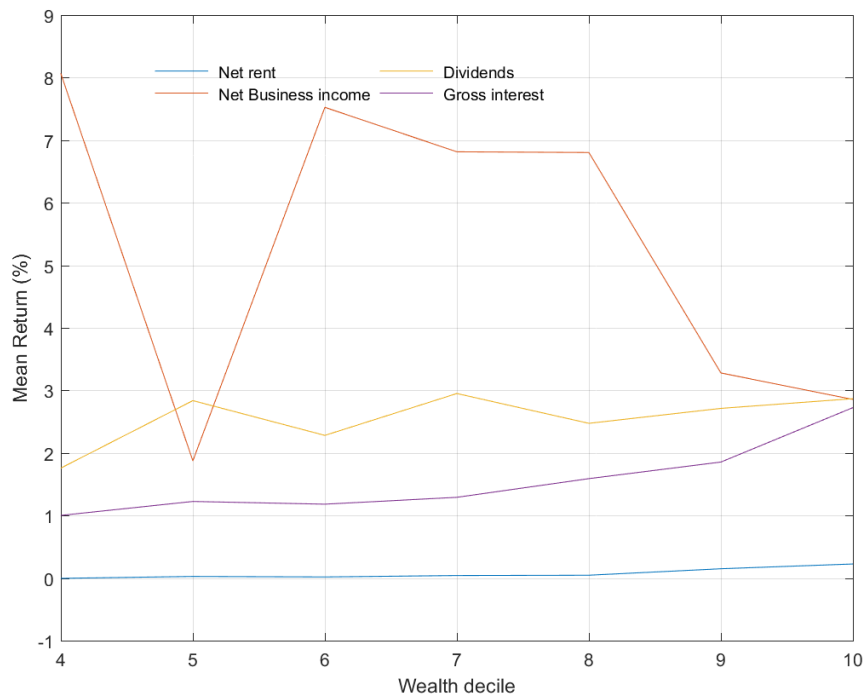


(B) Return by wealth decile

FIGURE A.14: Return by income and wealth decile: HILDA, Wave 10



(A) Return by income decile



(B) Return by wealth decile

A.3 Top income series

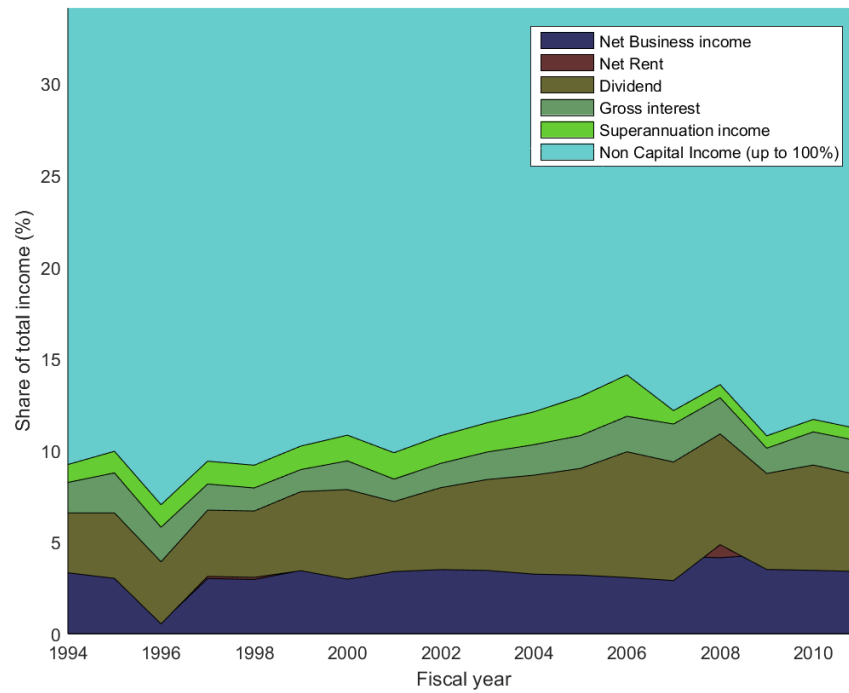


FIGURE A.15: Capital income composition: top 10% income earners

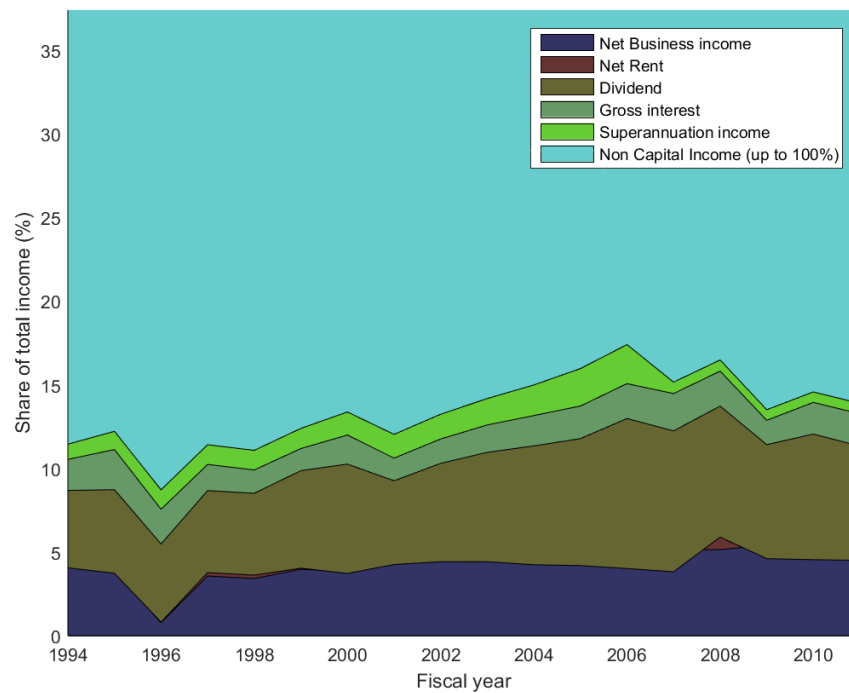


FIGURE A.16: Capital income composition: top 5% income earners

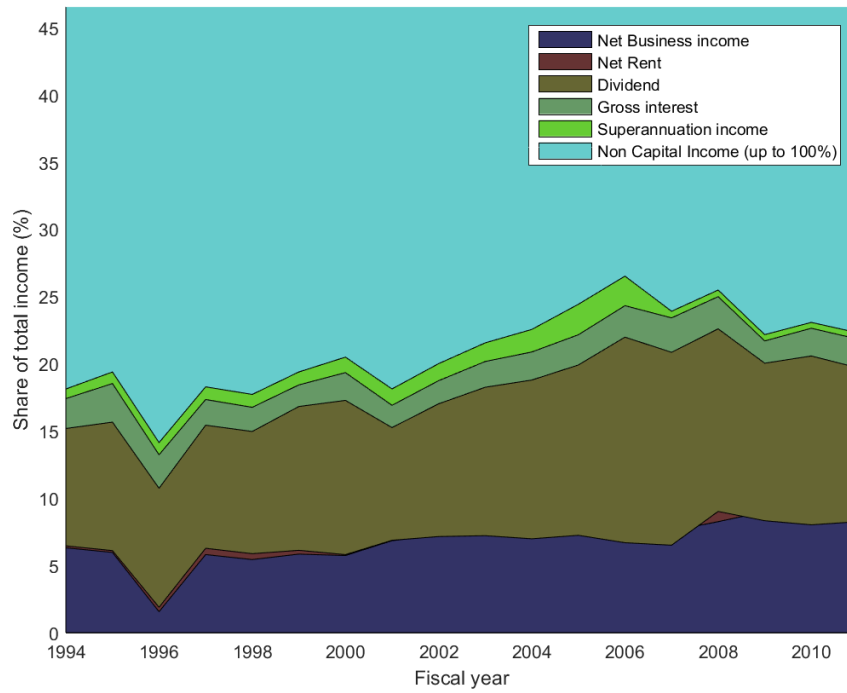


FIGURE A.17: Capital income composition: top 1% income earners

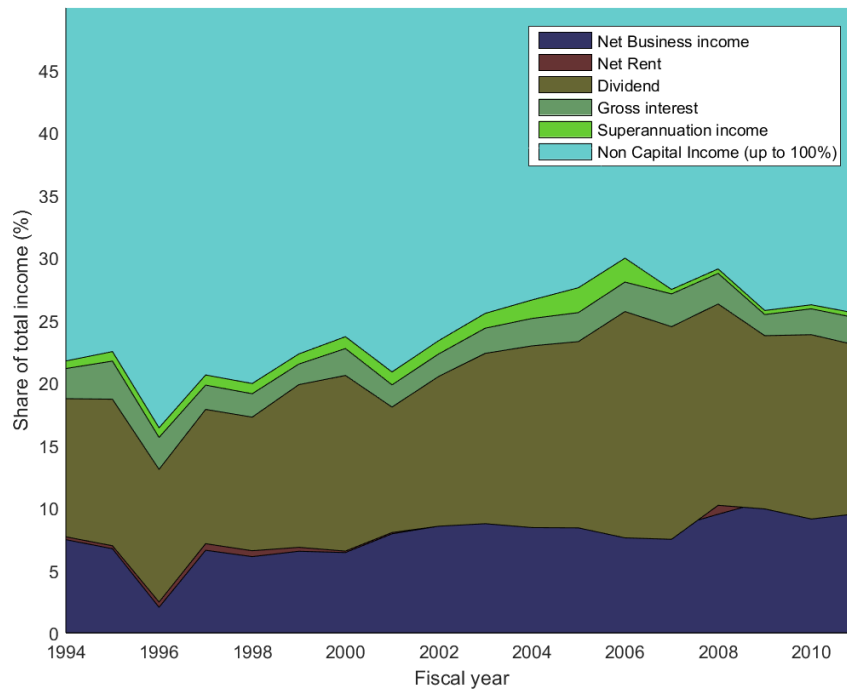


FIGURE A.18: Top 0.5% income earners

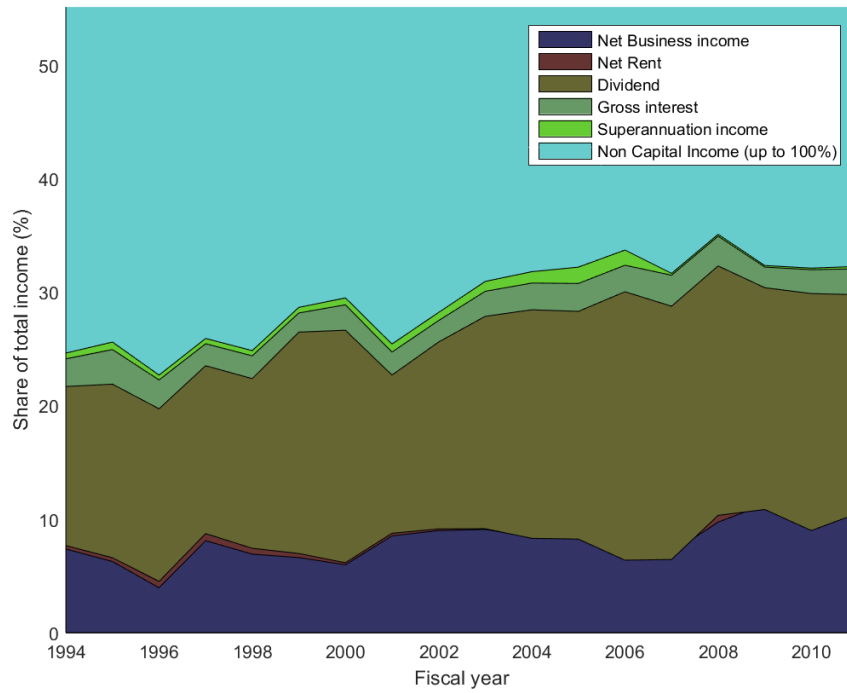


FIGURE A.19: Top 0.1% income earners

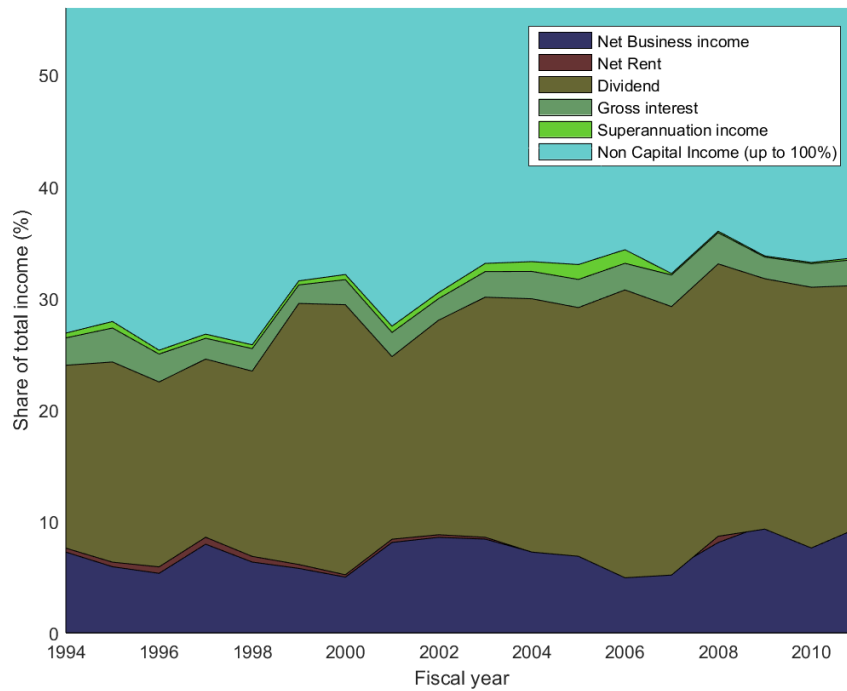


FIGURE A.20: Top 0.05% income earners

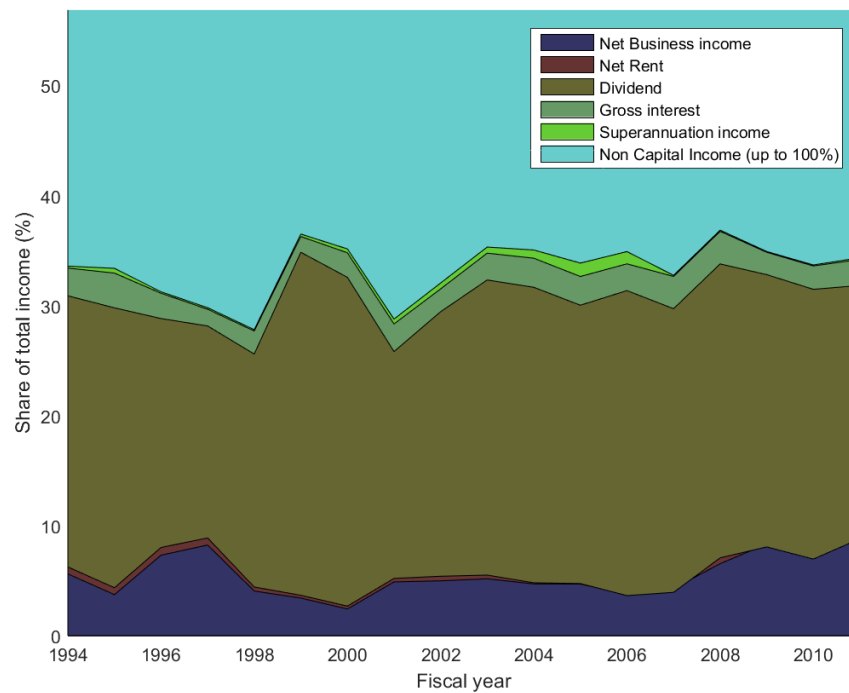


FIGURE A.21: Top 0.01% income earners

Note: Income groups are defined by taxable income. When negative, the components of capital income have been set to zero, explaining the low level of rental income in top earners income (many individuals faced negative rental income). The y-scale changes from one graph to the other.

Top capital income shares

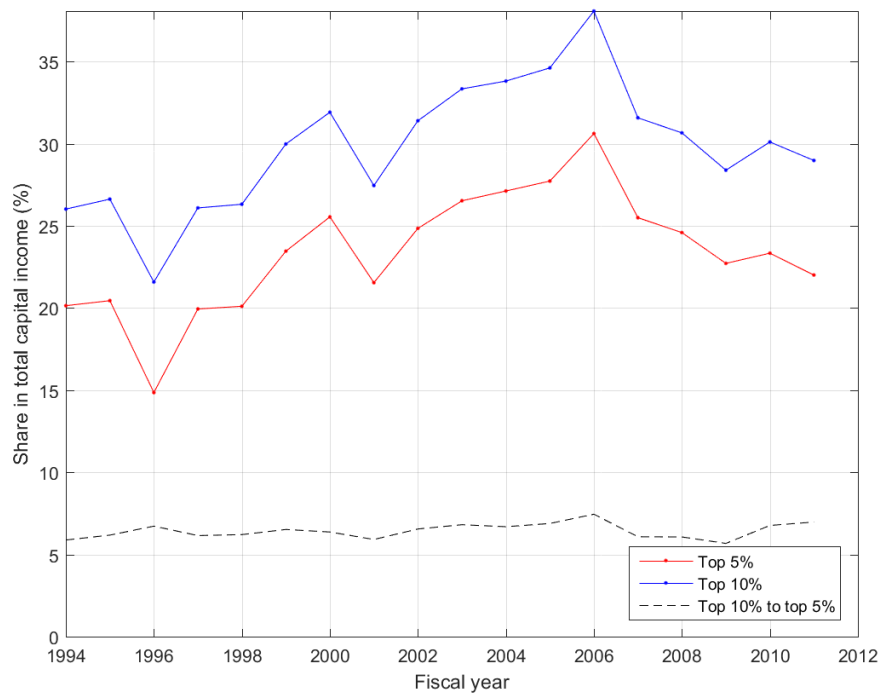


FIGURE A.22: Top capital income shares, top 10 and 5%

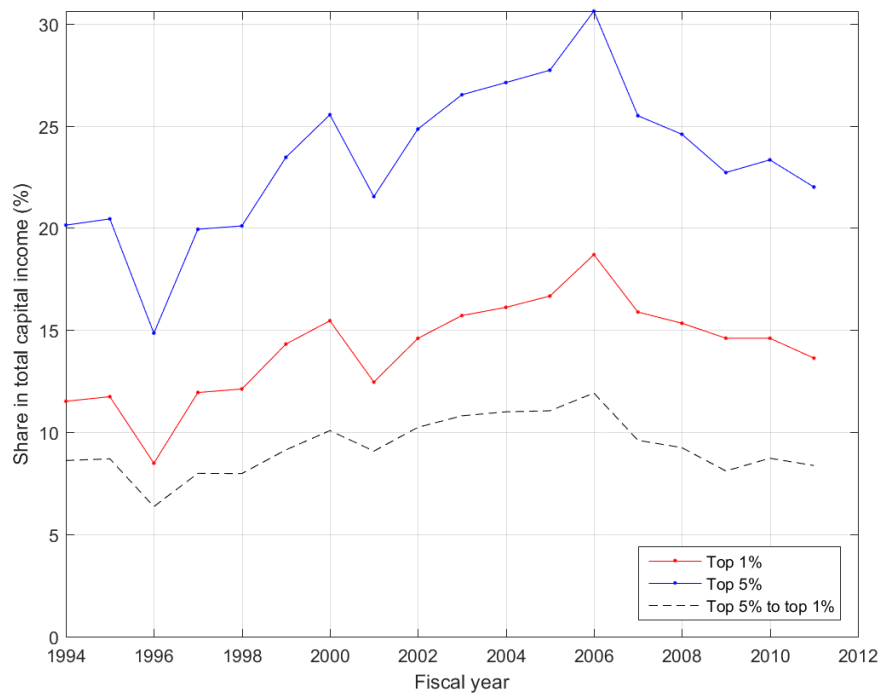


FIGURE A.23: Top capital income shares, top 5 and 1%

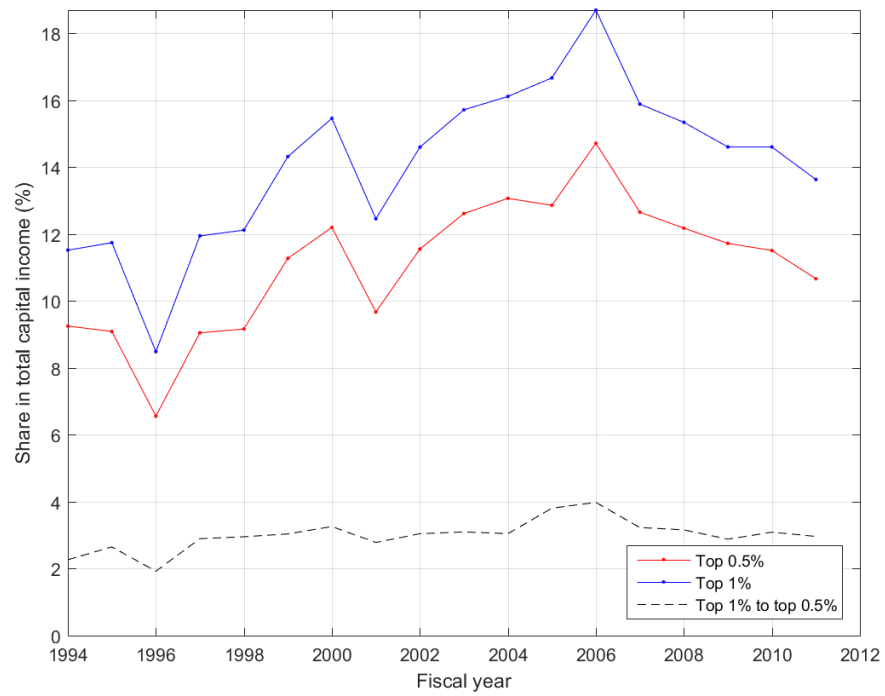


FIGURE A.24: Top capital income shares, top 1 and 0.5%

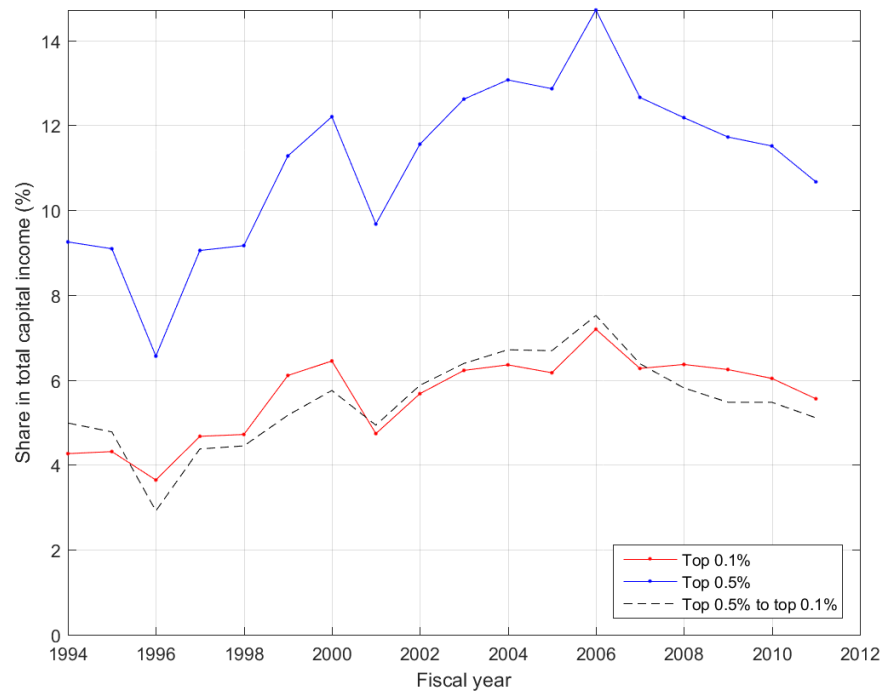


FIGURE A.25: Top capital income shares, top 0.5 and 0.1%

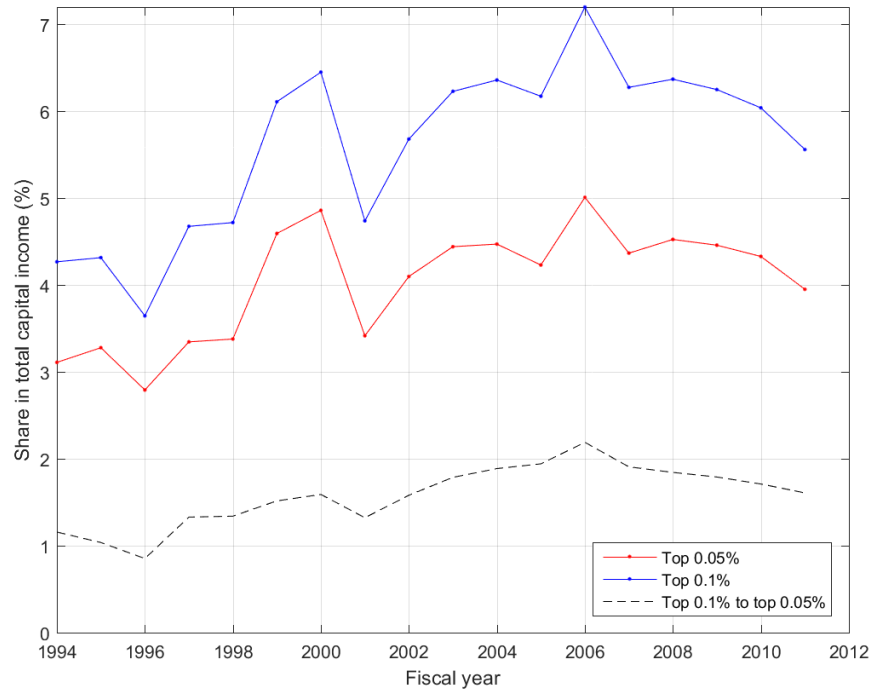


FIGURE A.26: Top capital income shares, top 0.1 and 0.05%

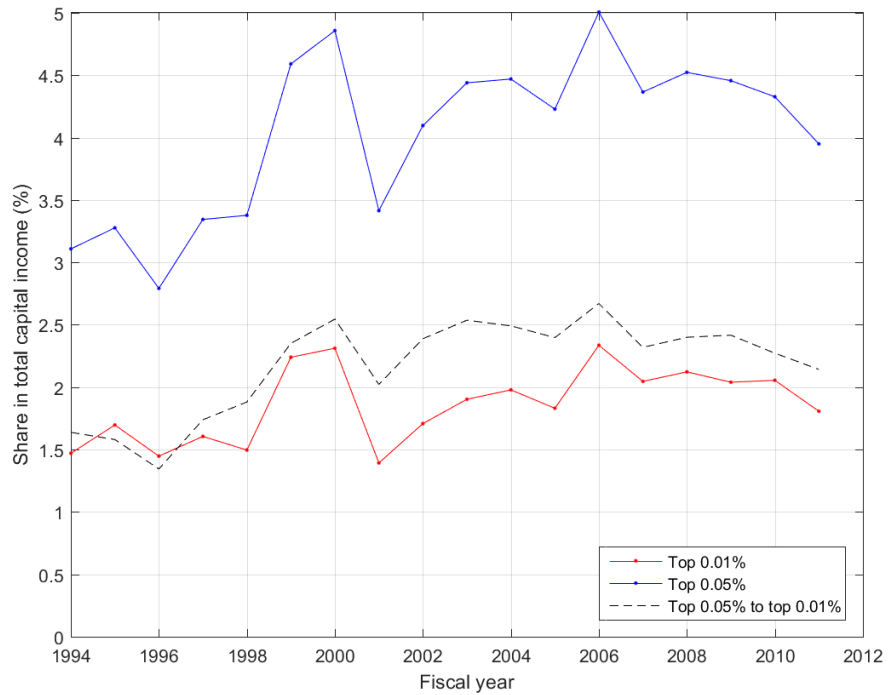


FIGURE A.27: Top capital income shares, top 0.05 and 0.01%

A.4 Top wealth shares



FIGURE A.28: Top 10% Wealth share



FIGURE A.29: Top 5% Wealth share

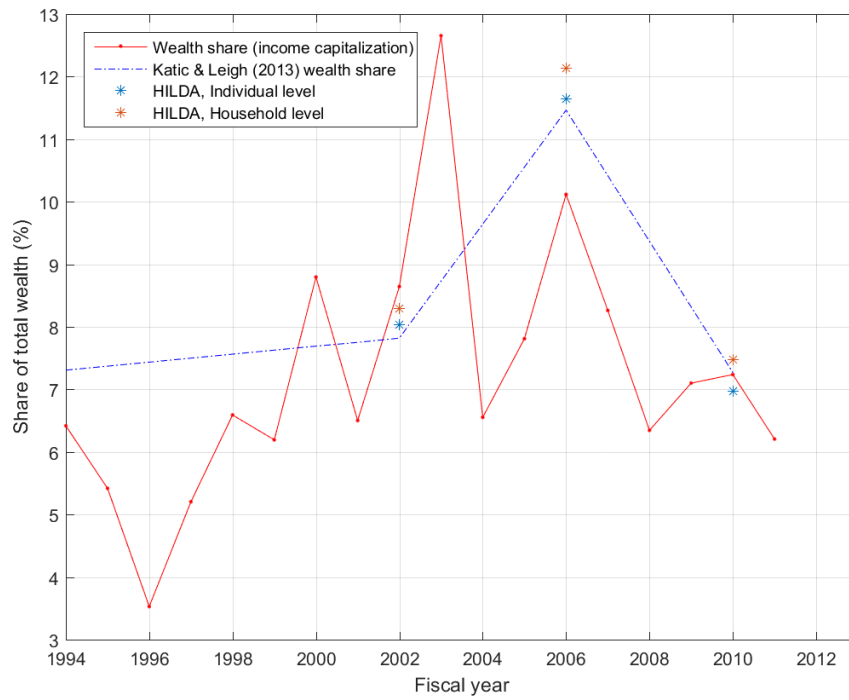


FIGURE A.30: Top 0.5% Wealth share

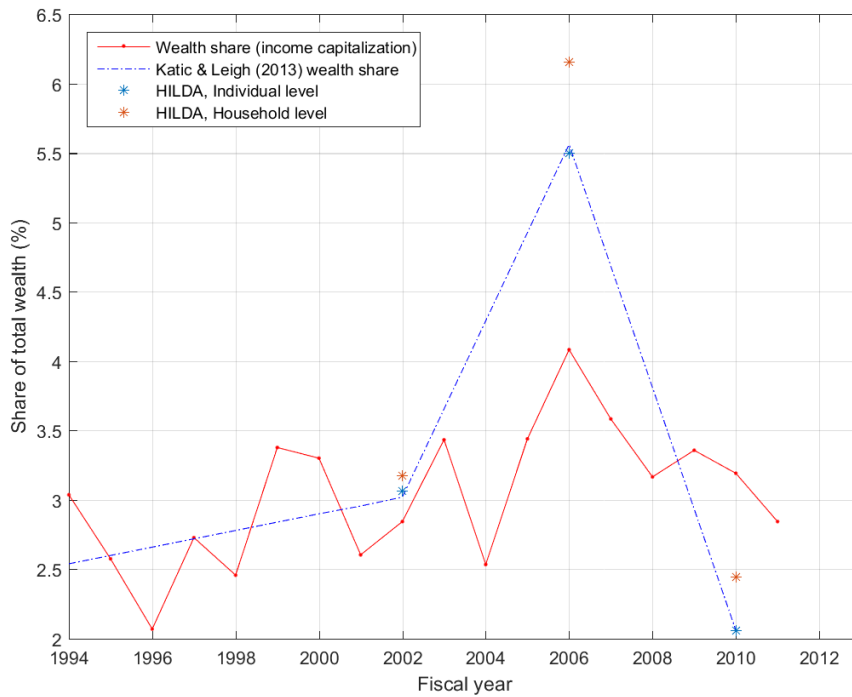


FIGURE A.31: Top 0.1% Wealth share

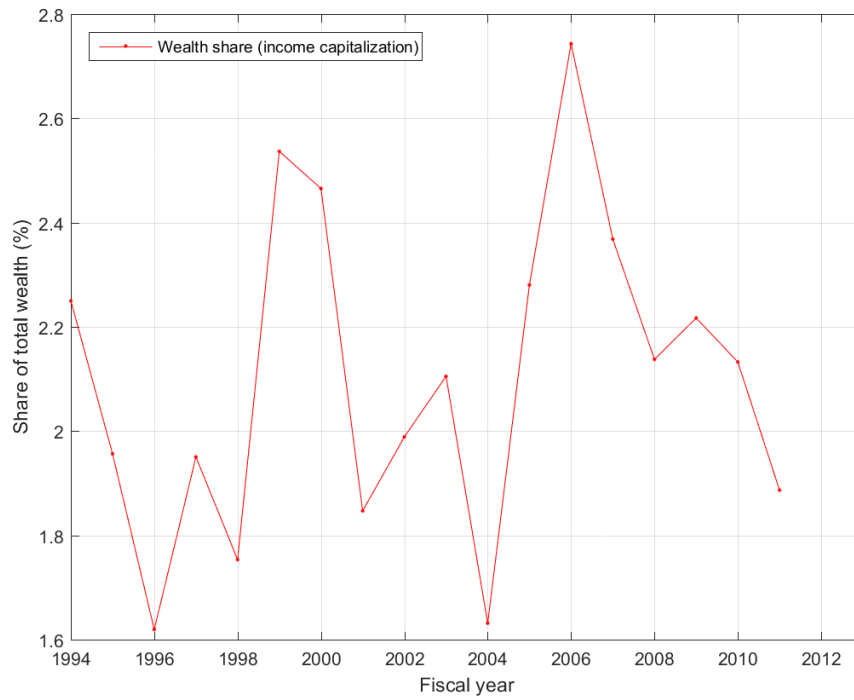


FIGURE A.32: Top 0.05% Wealth share

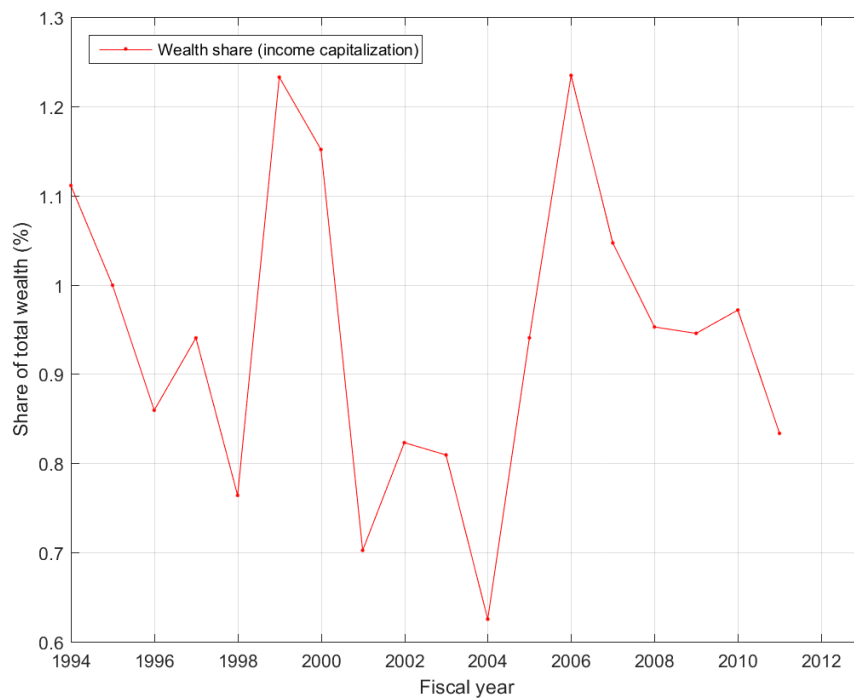


FIGURE A.33: Top 0.01% Wealth share

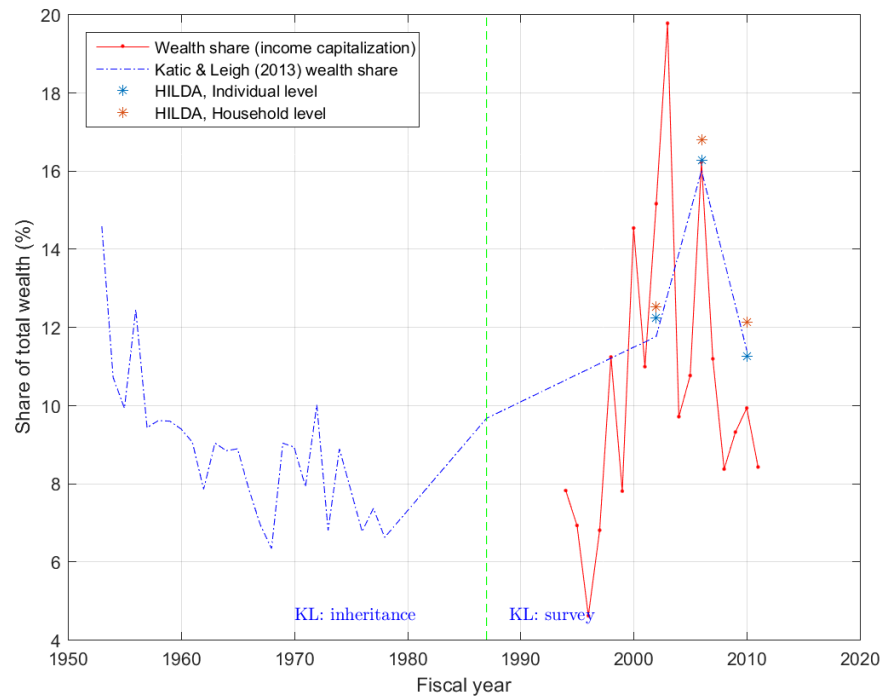


FIGURE A.34: Top 1% Wealth share, long run perspective

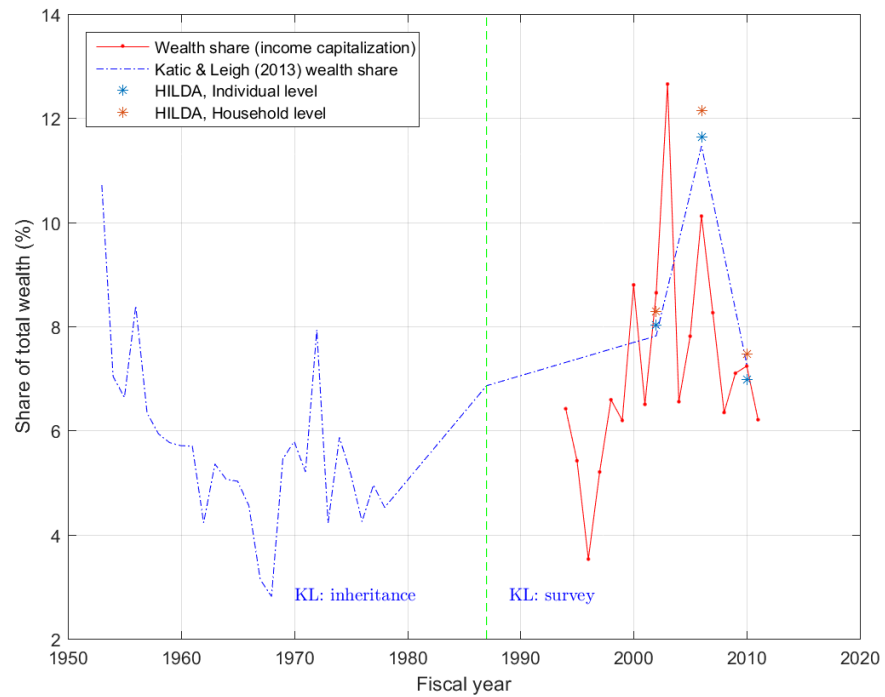


FIGURE A.35: Top 0.5% Wealth share, long run perspective

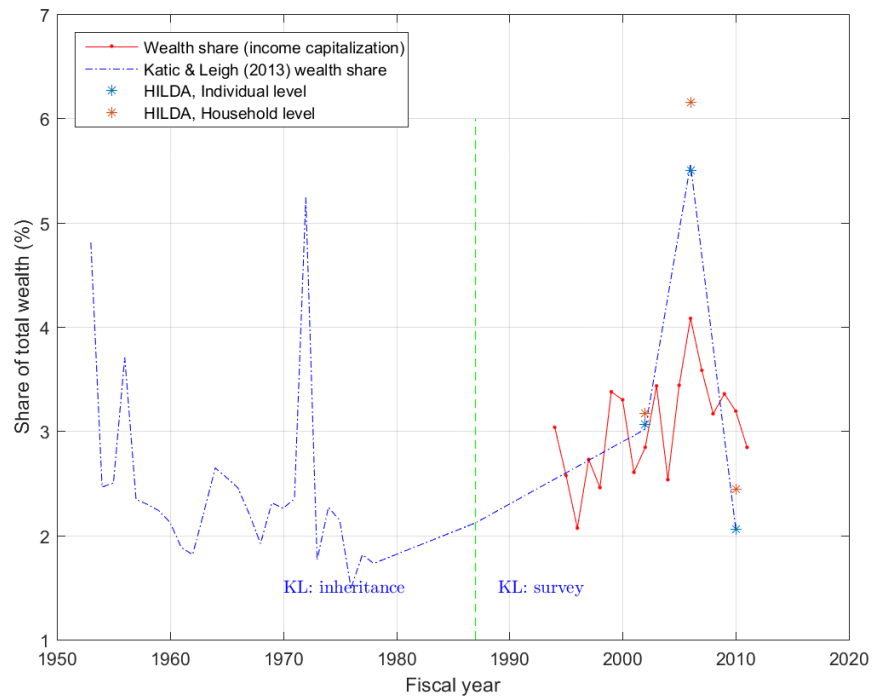


FIGURE A.36: Top 0.1% Wealth share, long run perspective

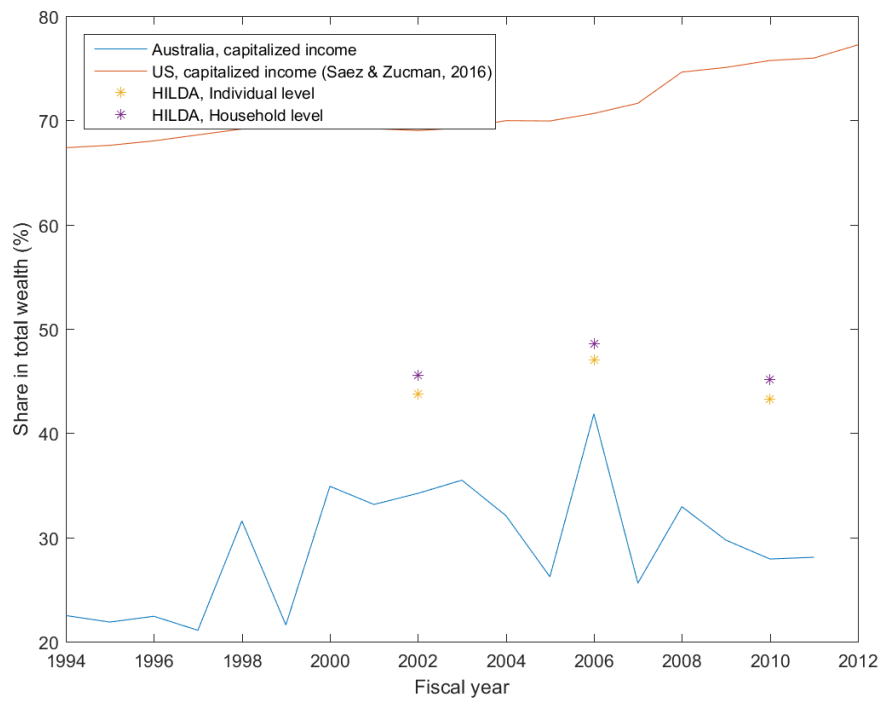


FIGURE A.37: Top 10% wealth share: Australia vs US

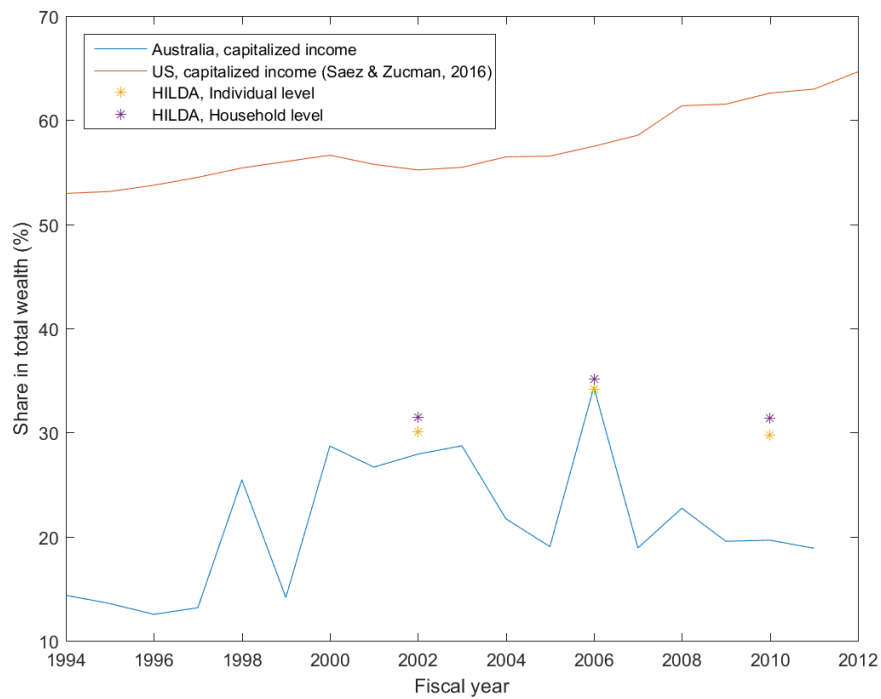


FIGURE A.38: Top 5% wealth share: Australia vs US

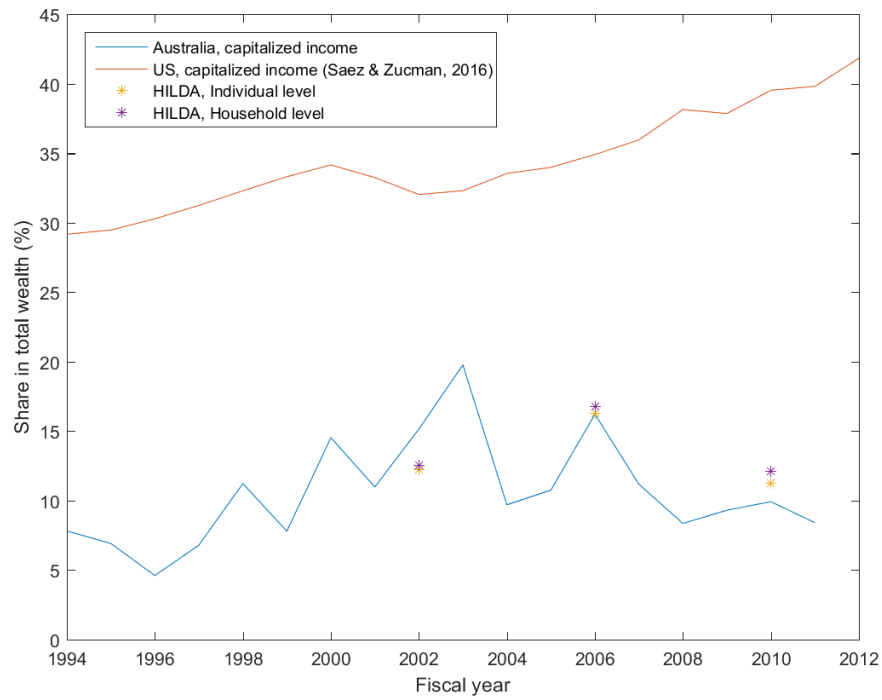


FIGURE A.39: Top 1% wealth share: Australia vs US

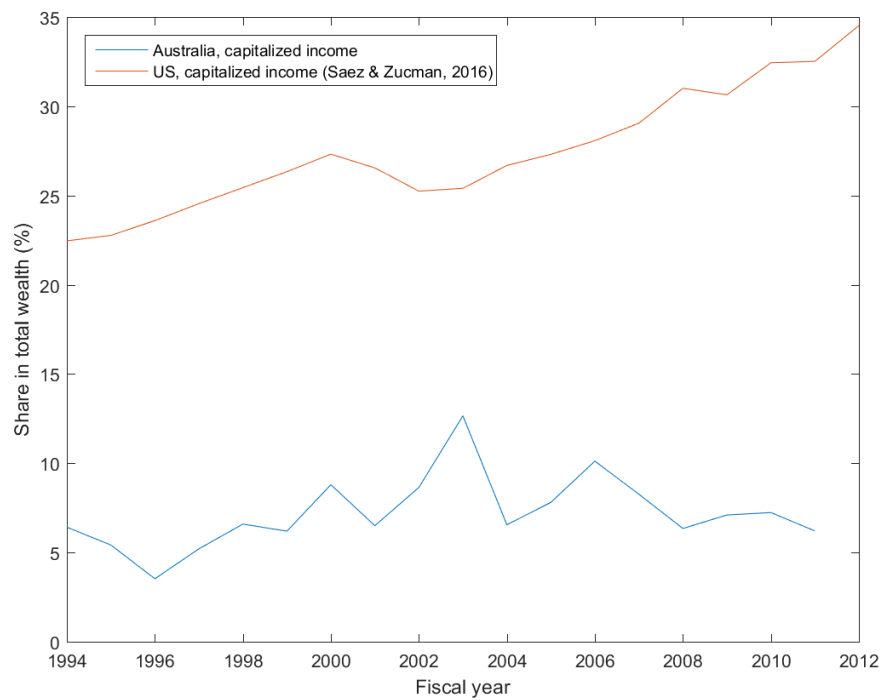


FIGURE A.40: Top 0.5% wealth share: Australia vs US

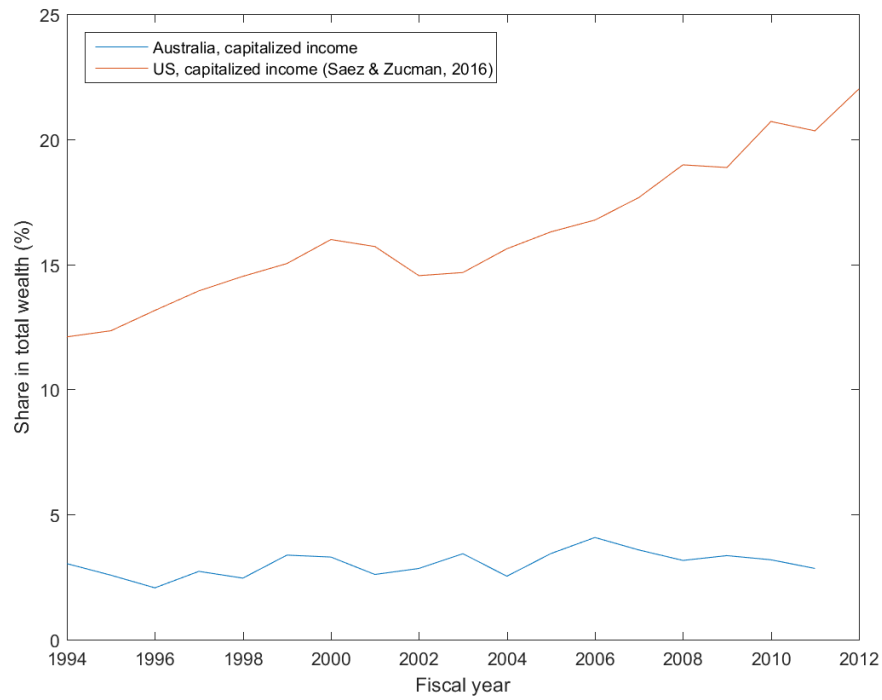


FIGURE A.41: Top 0.1% wealth share: Australia vs US

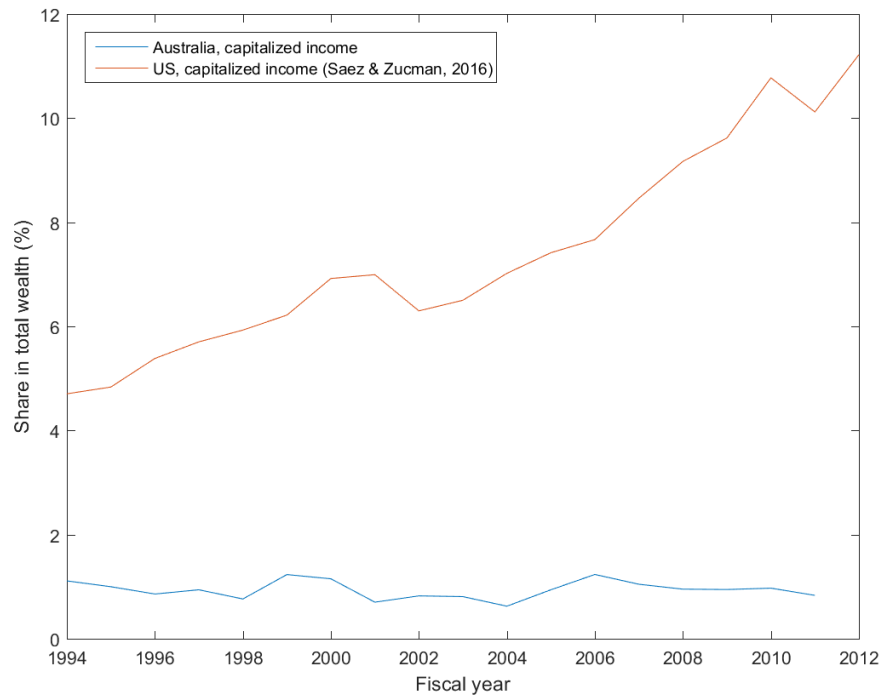


FIGURE A.42: Top 0.01% wealth share: Australia vs US

A.5 Wealth composition of top wealth groups

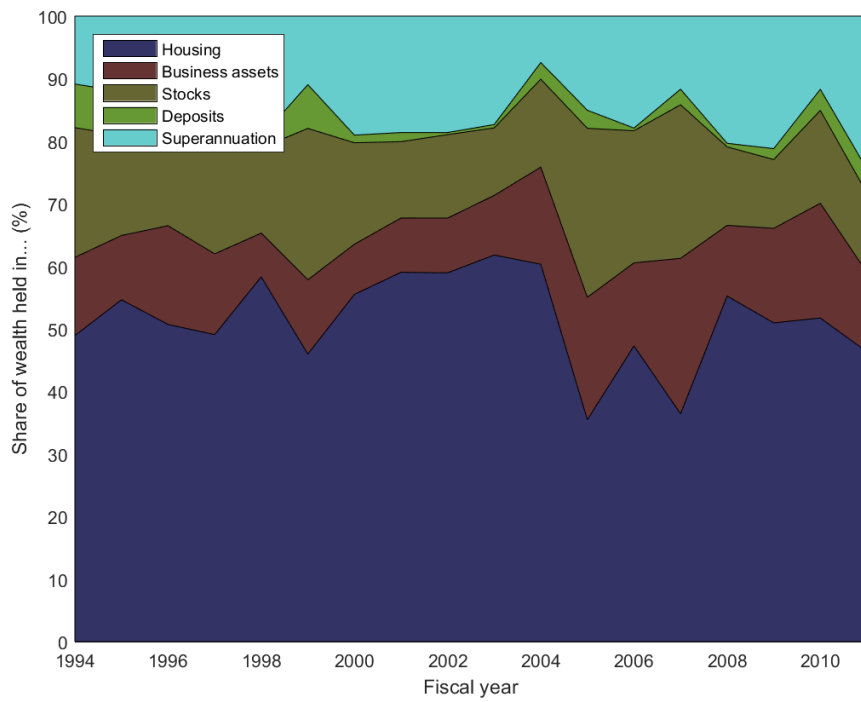


FIGURE A.43: Composition of the net wealth of the wealthiest 10%

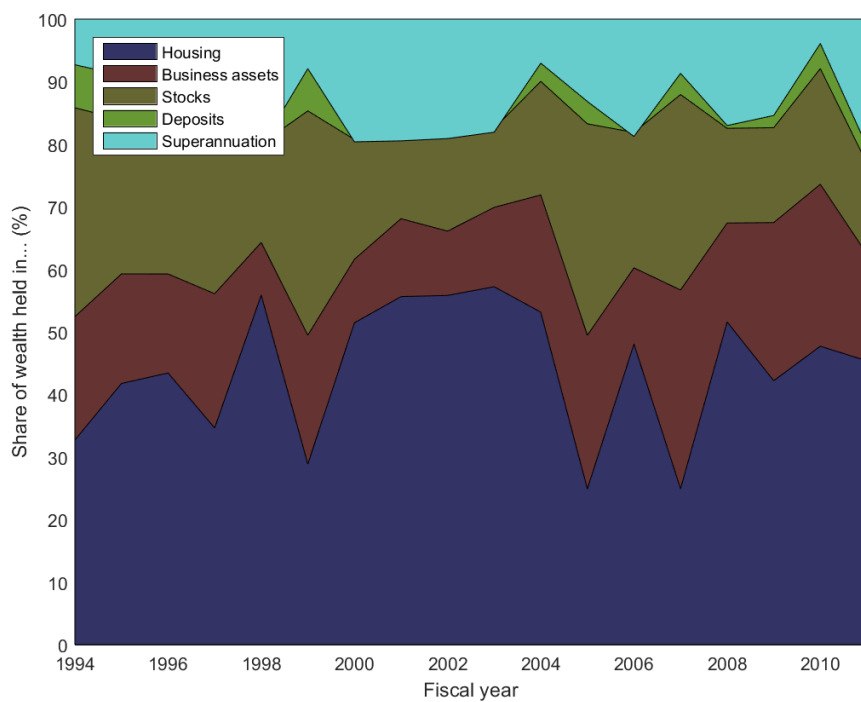


FIGURE A.44: Composition of the net wealth of the wealthiest 5%

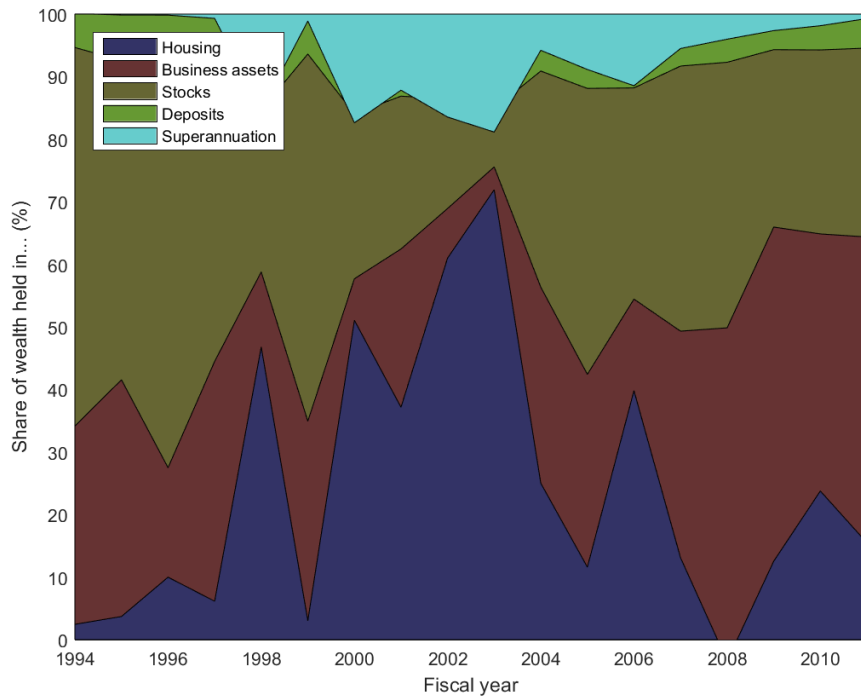


FIGURE A.45: Composition of the net wealth of the wealthiest 0.5%

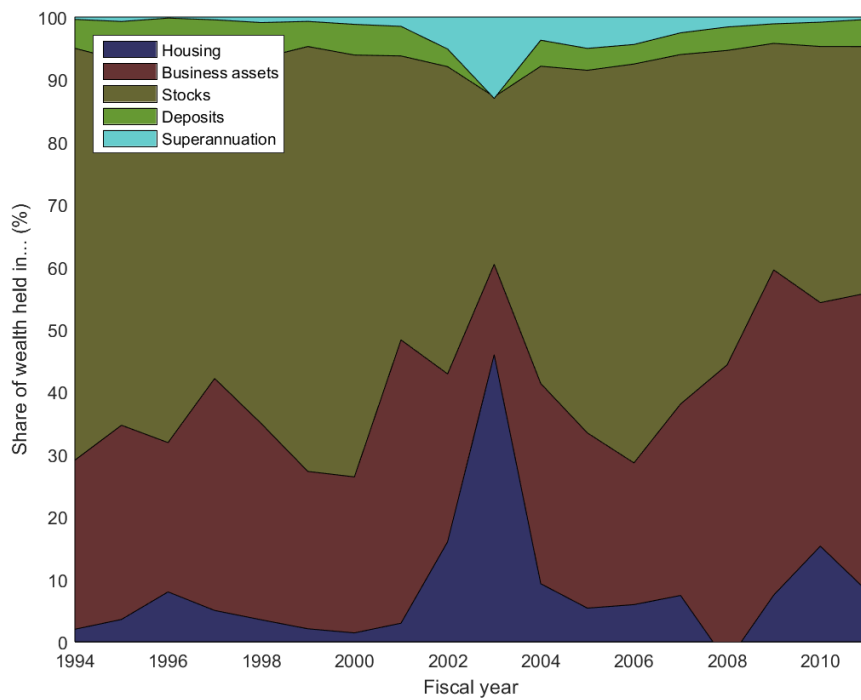


FIGURE A.46: Composition of the net wealth of the wealthiest 0.1%

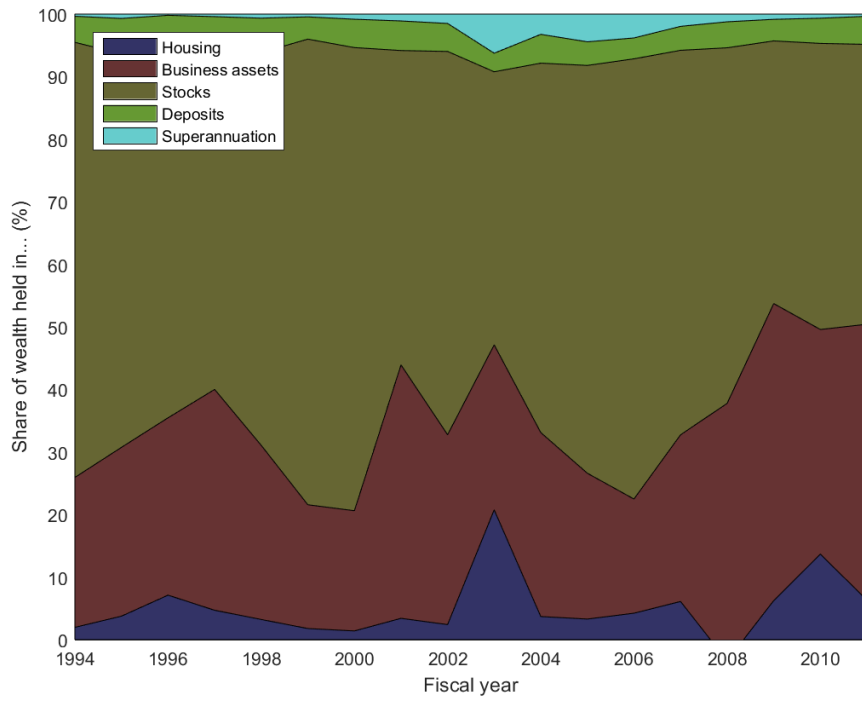


FIGURE A.47: Composition of the net wealth of the wealthiest 0.05%

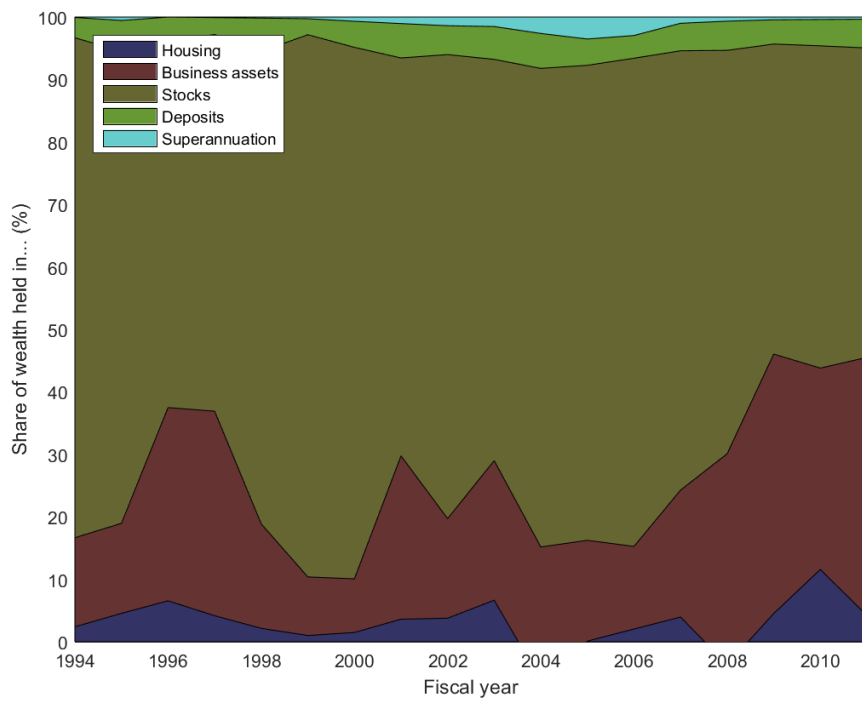


FIGURE A.48: Composition of the net wealth of the wealthiest 0.01%

A.6 Wealth and age: Nadaraya-Watson estimator

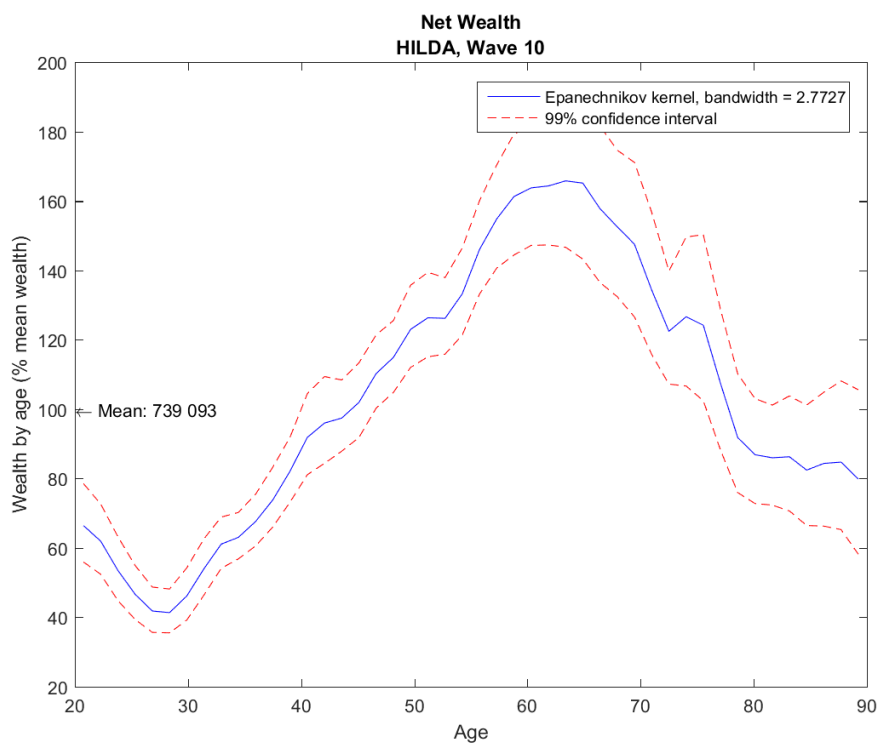
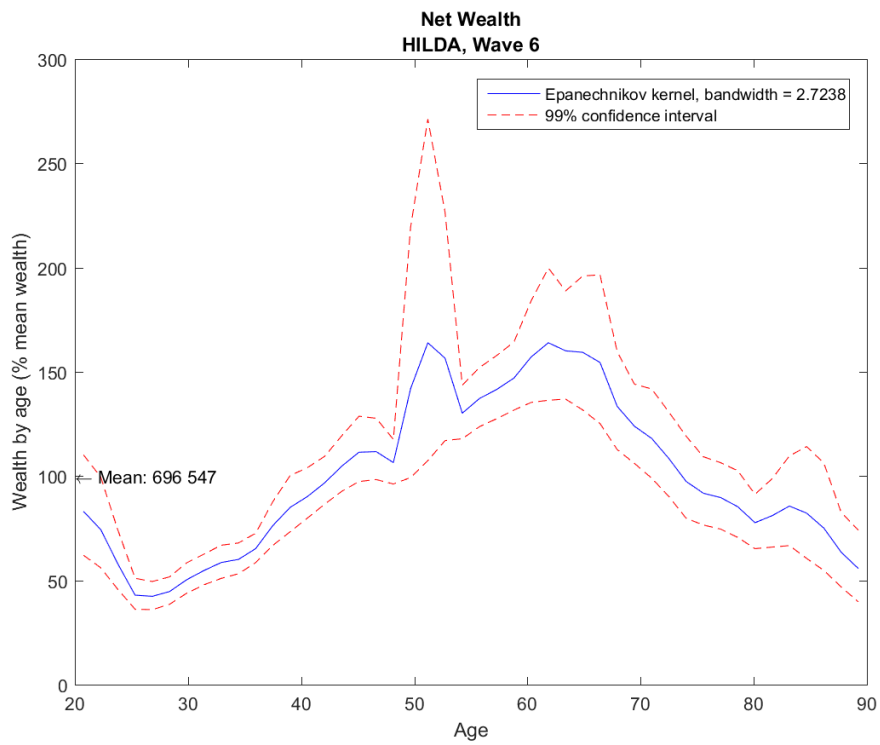


FIGURE A.49: Net wealth over the life cycle

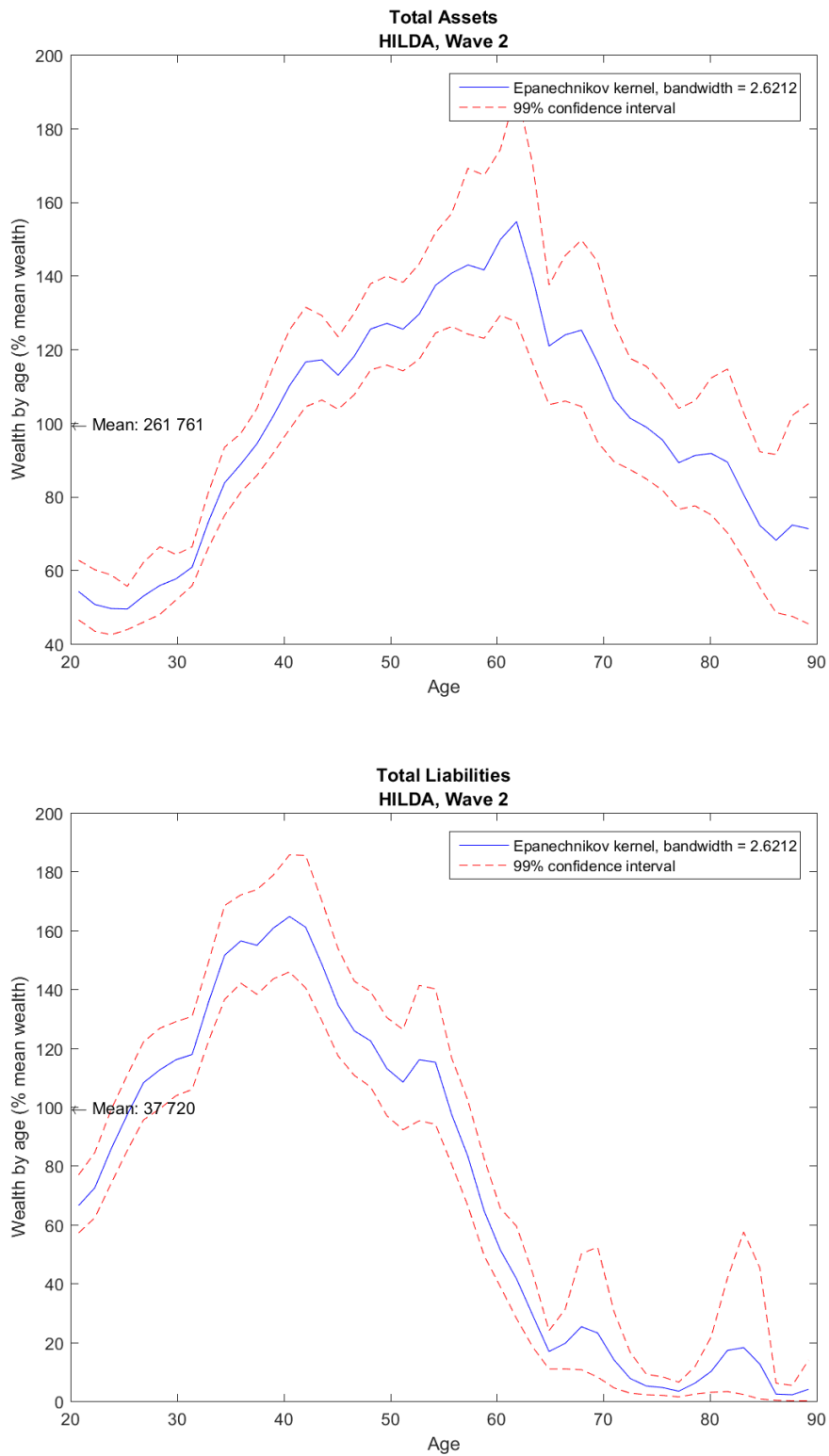


FIGURE A.50: Assets and liabilities along life: HILDA, Wave 2

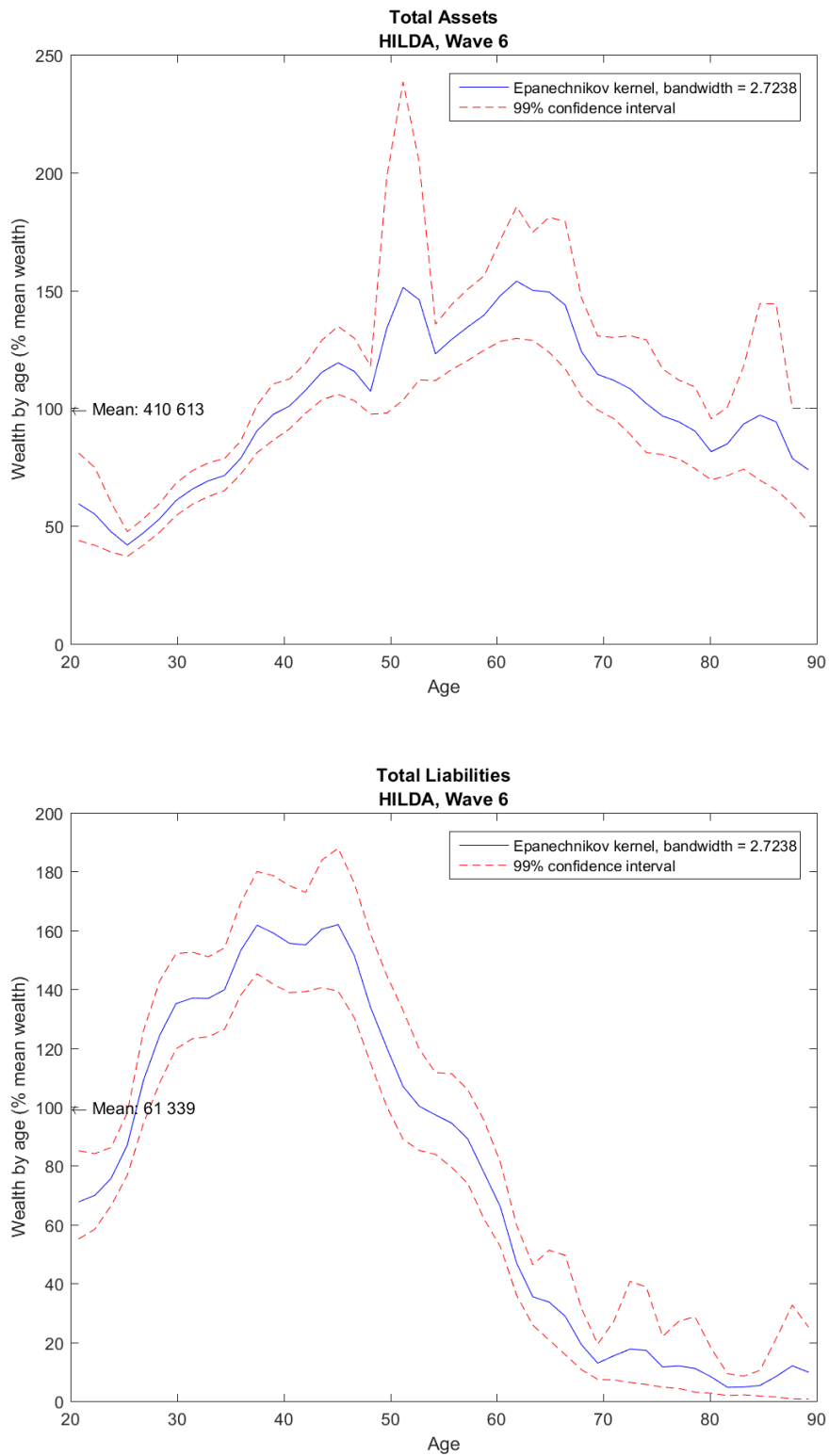


FIGURE A.51: Assets and liabilities along life: HILDA, Wave 6

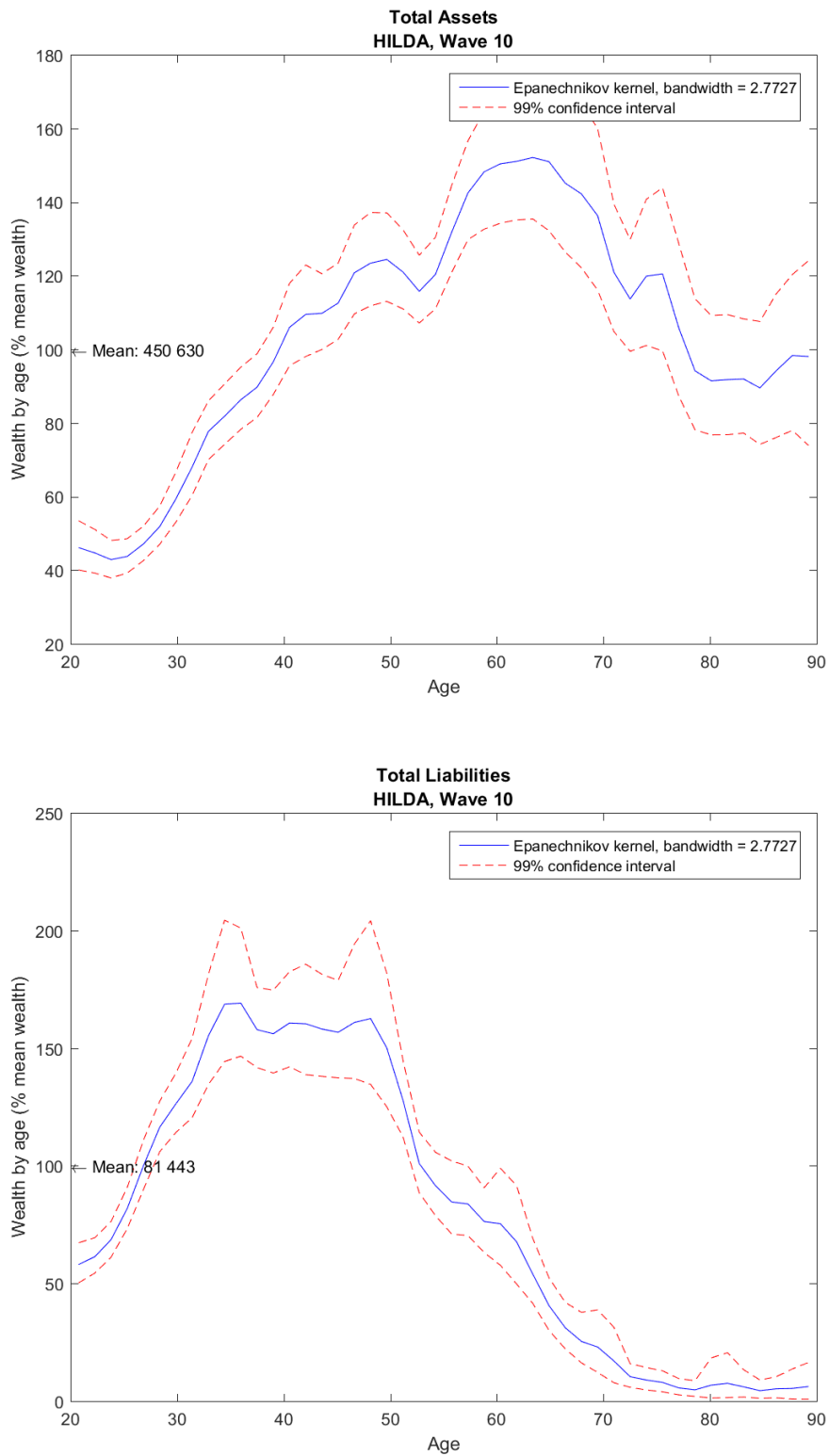


FIGURE A.52: Assets and liabilities along life: HILDA, Wave 10

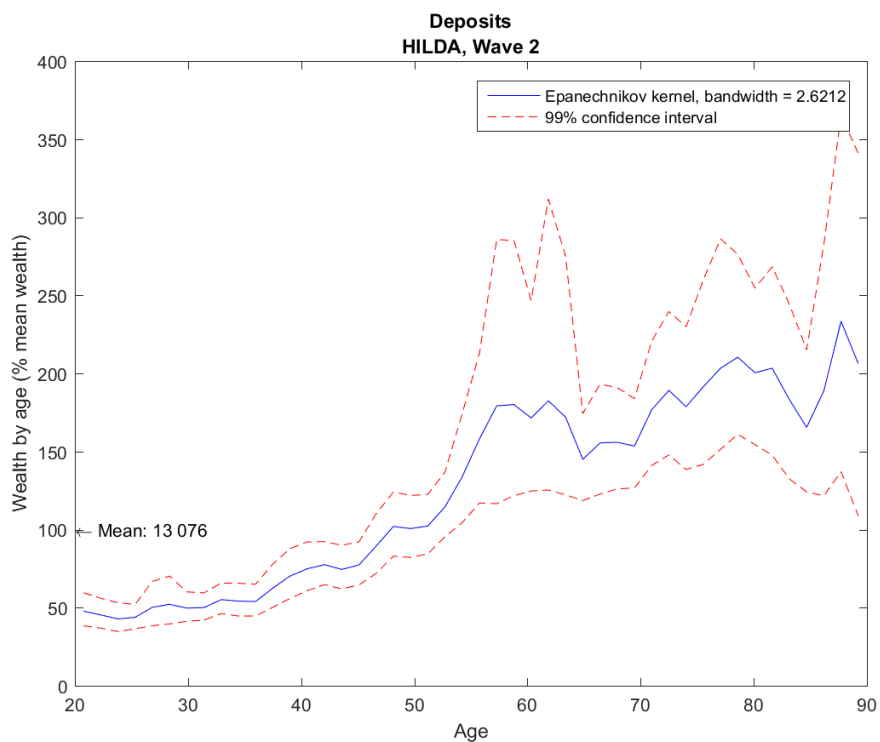
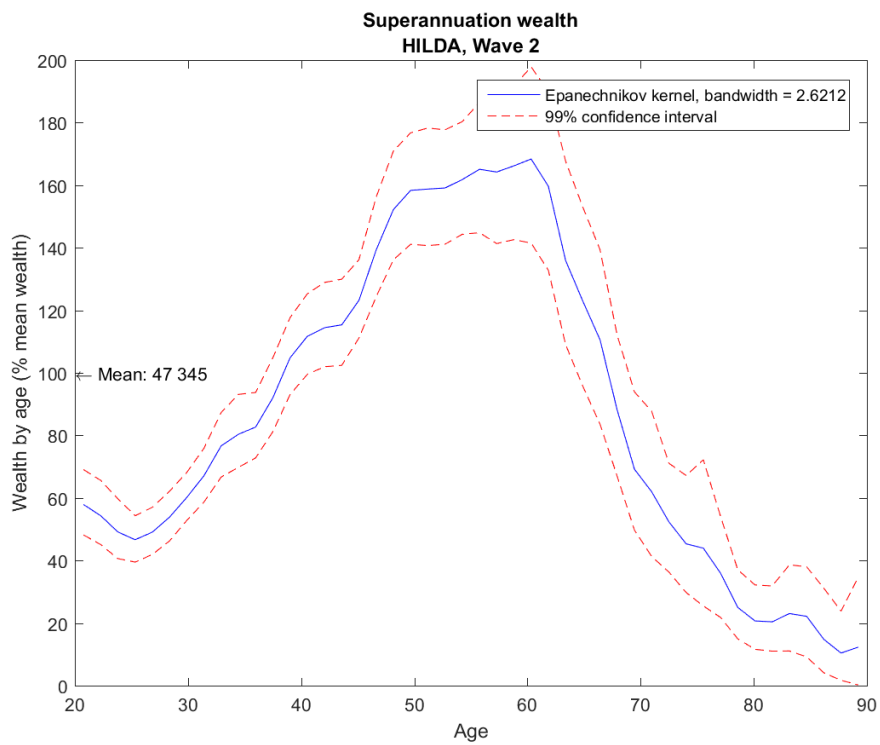


FIGURE A.53: Superannuation and bank accounts along life: HILDA, Wave 2

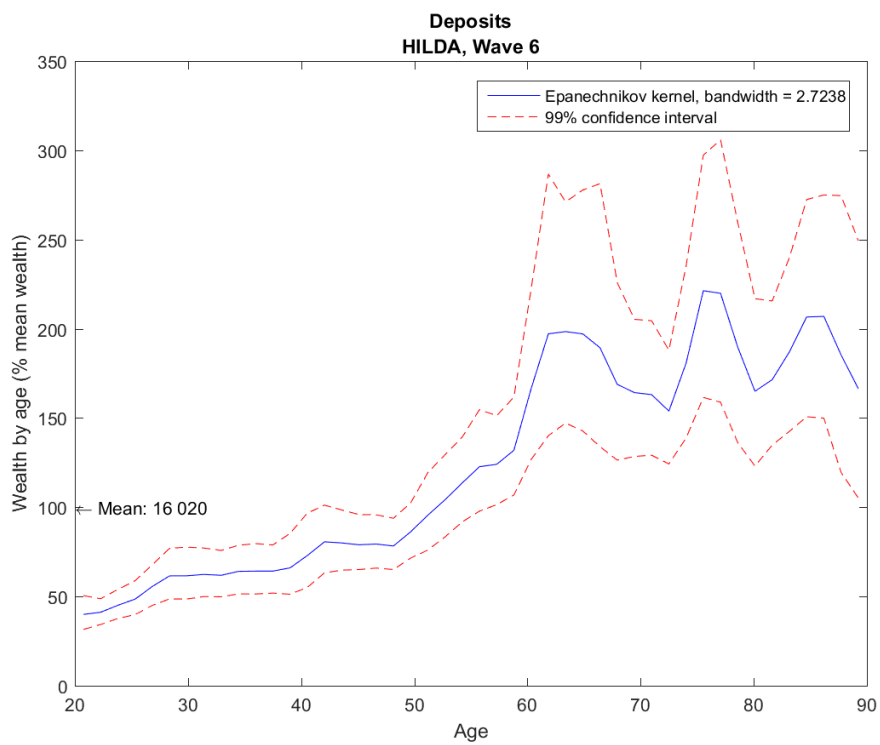
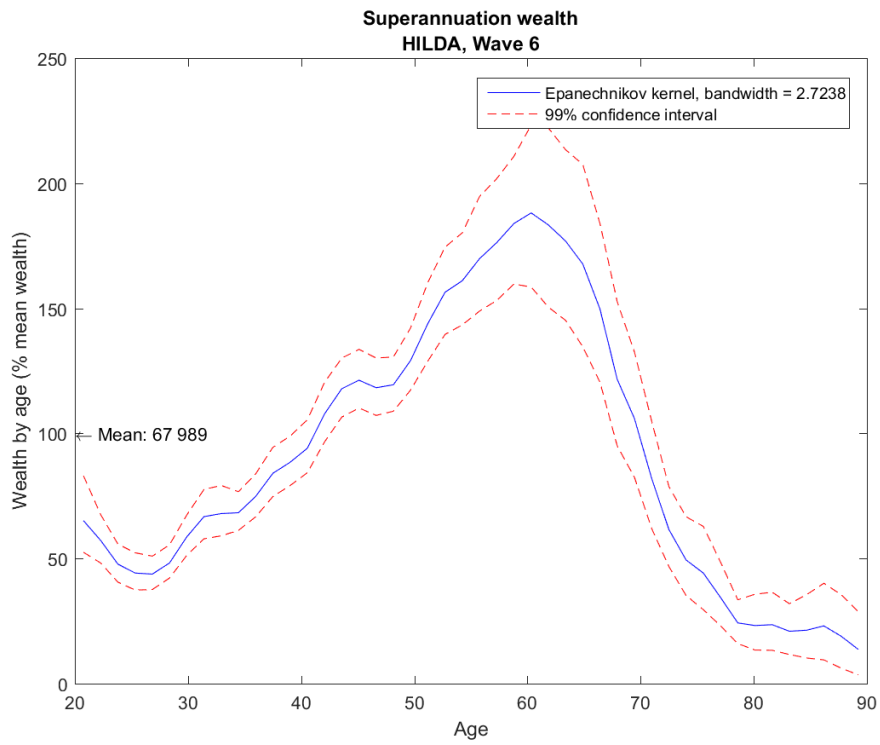


FIGURE A.54: Superannuation and bank accounts along life: HILDA, Wave 6

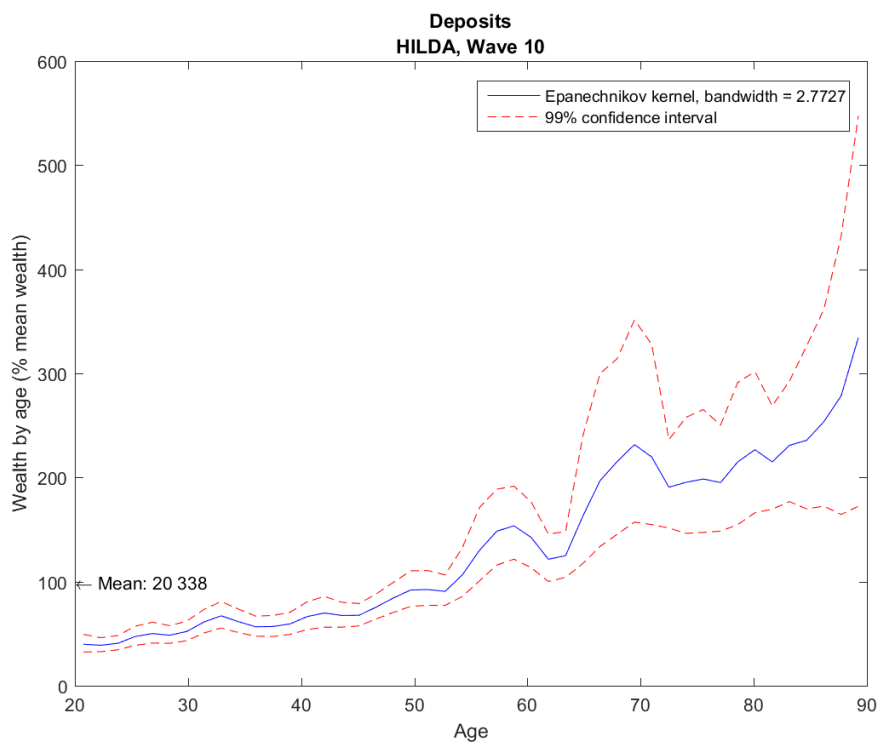
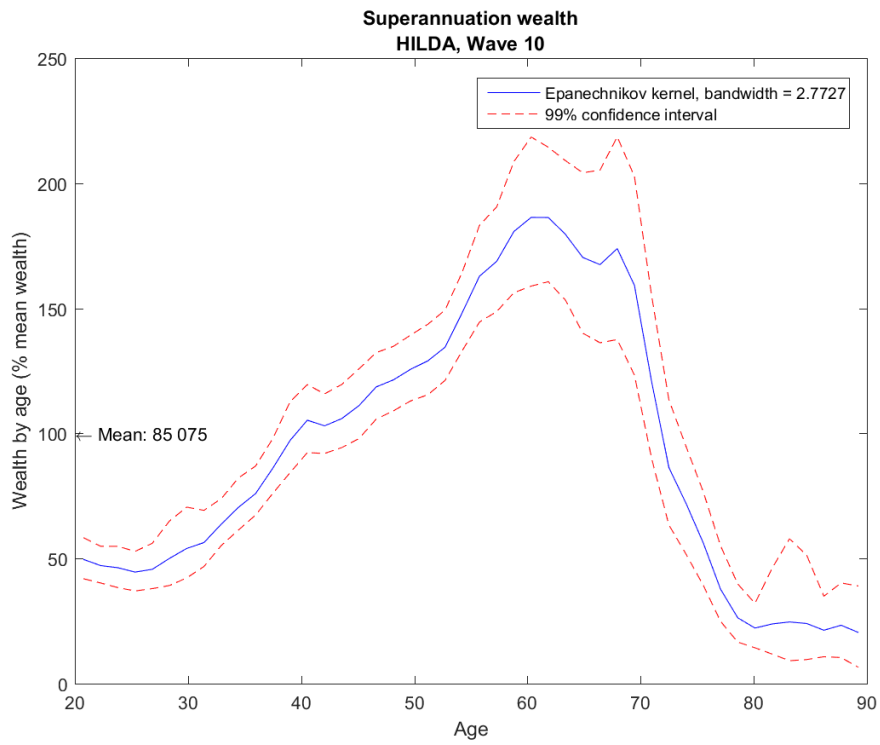
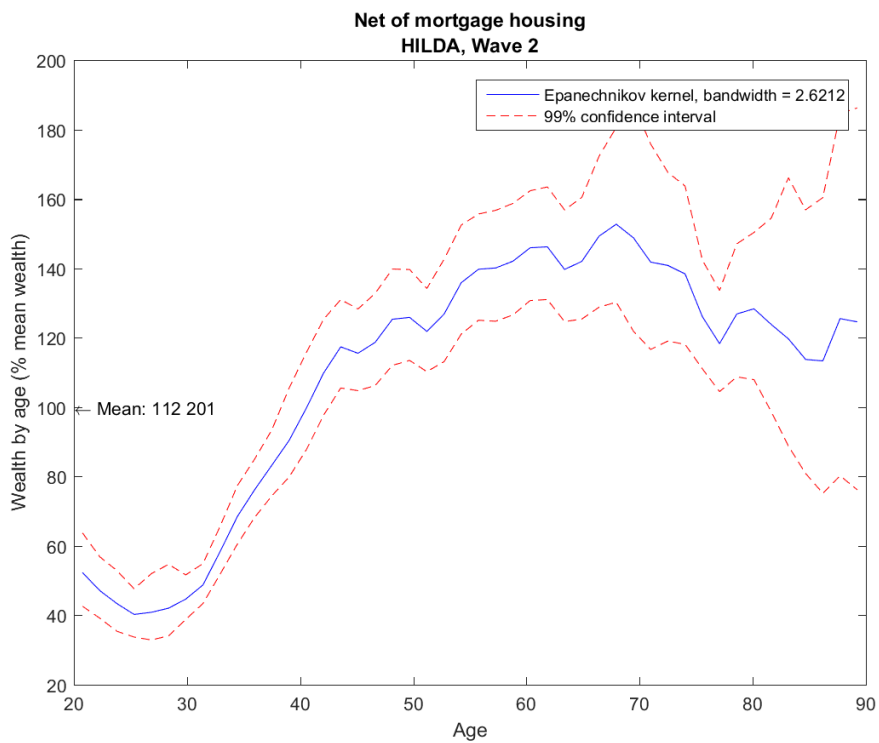
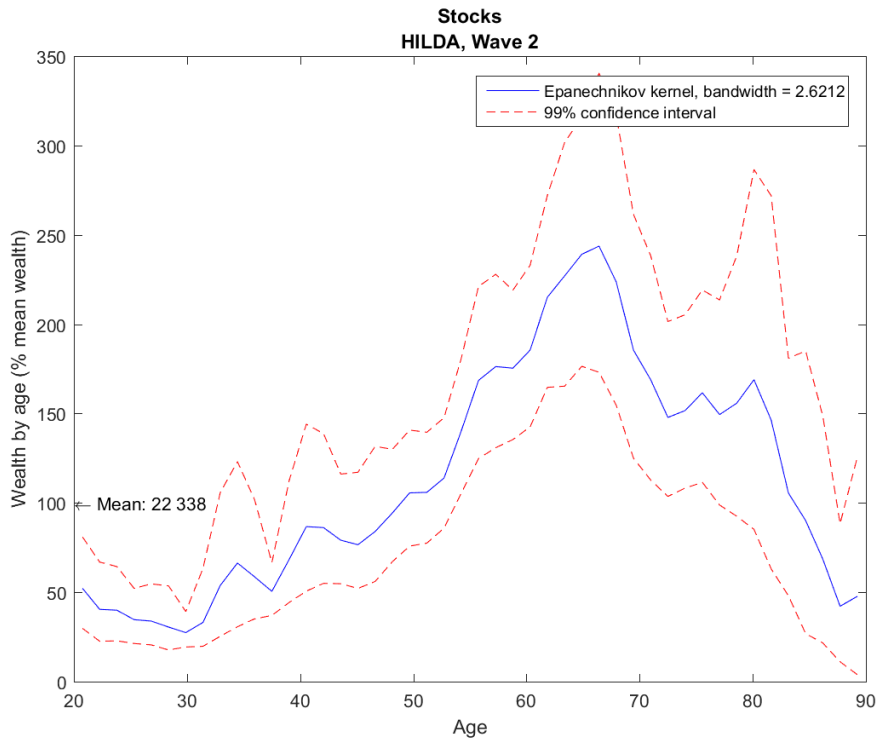
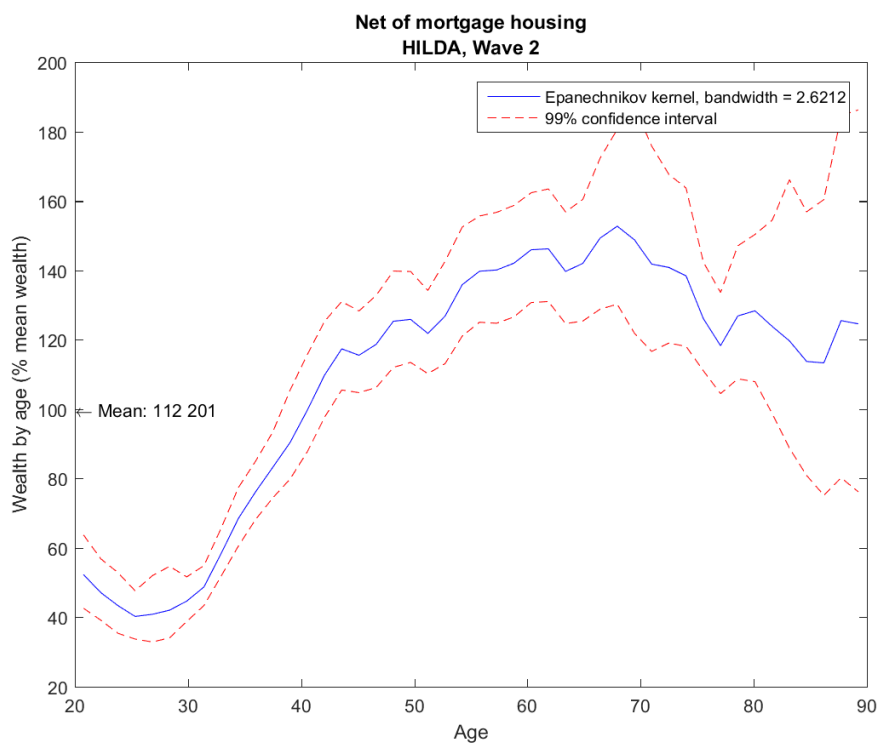
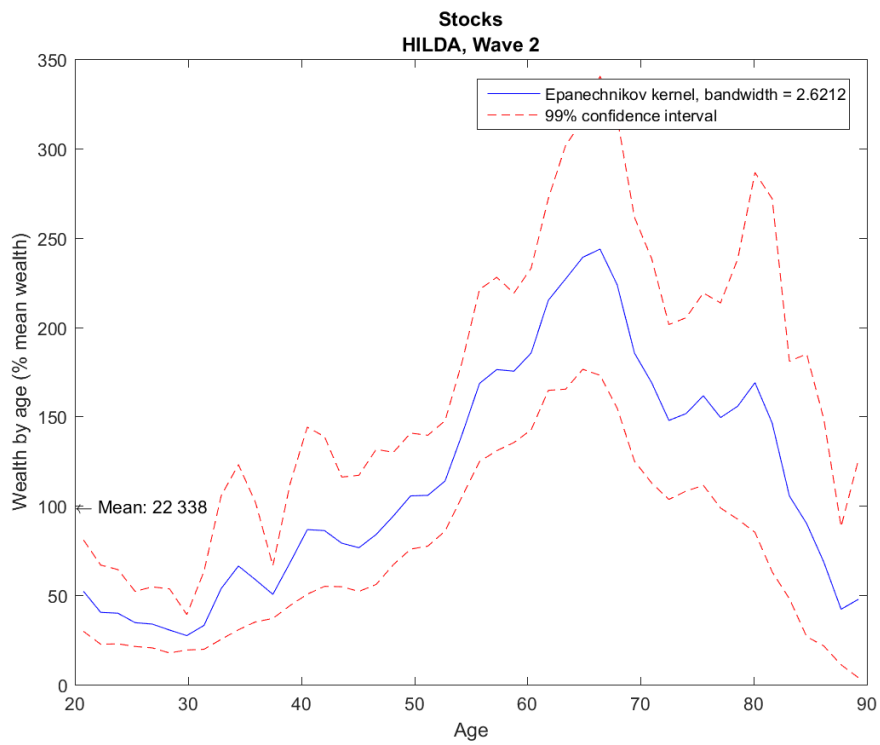


FIGURE A.55: Superannuation and bank accounts along life: HILDA, Wave 10



(A) Housing wealth over life cycle (Wave 2)

FIGURE A.56: Equity holdings and housing along life: HILDA Wave 2



(A) Housing wealth over life cycle (Wave 6)

FIGURE A.57: Equity holdings and housing along life: HILDA Wave 6

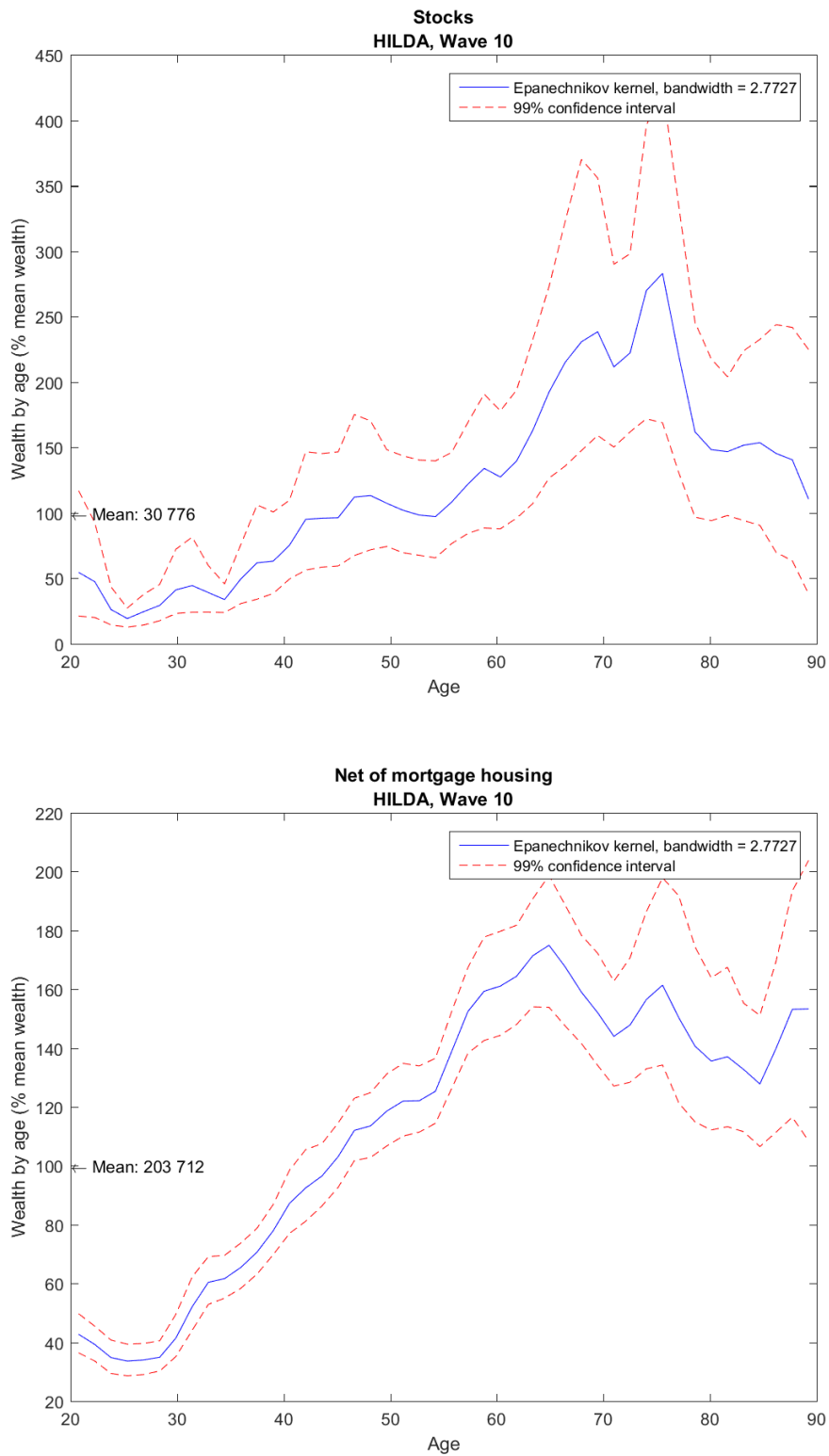


FIGURE A.58: Equity holdings and housing along life: HILDA Wave 10

B. Tables

TABLE B.1: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUIN-
TILE, 3 DIFFERENT SOURCES (2009)

WEALTH		Q1	Q2	Q3	Q4	Q5	ALL
CAPITALIZED INCOME (2009-2010)							
ASSETS							
Non Financial assets	%	66,49	64,72	67,07	69,06	65,83	66,53
Housing	%	71,81	54,17	52,43	54,33	52,60	57,21
<i>Tenant occupied dwelling</i>	%	14,79	21,70	17,54	24,82	11,57	16,62
<i>Owner occupied dwelling</i>	%	57,02	32,46	34,89	29,51	41,03	40,59
Business assets (net of liabilities)	%	-5,31	10,55	14,65	14,73	13,23	9,32
Financial assets	%	33,51	35,28	32,93	30,94	34,17	33,47
Stocks	%	4,38	4,42	4,39	5,79	9,57	6,45
Deposits	%	11,26	8,96	7,76	7,60	5,76	7,94
Superannuation	%	17,88	21,90	20,78	17,55	18,84	19,08
<i>Total Assets</i>	%	100	100	100	100	100	100
LIABILITIES							
Mortgage	%	96,54	87,01	80,22	79,28	65,49	88,06
Tenant occupied dwelling	%	37,88	79,53	76,82	77,92	64,24	53,55
Owner occupied dwelling	%	58,66	7,48	3,39	1,36	1,25	34,51
Student loans	%	0,54	1,92	2,66	2,06	4,25	1,54
Other loans	%	2,91	11,07	17,13	18,65	30,26	10,40
<i>Total Liabilities</i>	%	100	100	100	100	100	100
ABS 65540.001 (2009-2010)							
Non Financial assets	%	73,9	82,8	85,5	81,1	72,9	76,9
Housing	%	26,8	62,1	70,2	67,7	55,0	59,8
<i>Tenant occupied dwelling</i>	%	9,9	8,9	8,9	10,5	21,2	16,3
<i>Owner occupied dwelling</i>	%	16,9	53,2	61,3	57,2	33,8	43,5
Valuables	%	46,6	19,9	14,2	11,8	5,8	9,7
Business assets (net of liabilities)	%	0,5	0,8	1,1	1,6	12,1	7,4
Financial assets	%	26,1	17,3	14,4	18,9	27,2	23,0
Stocks	%	1,1	1,1	1,1	2,1	7,9	5,2
Deposits	%	8,3	4,6	3,6	4,1	3,9	4,0
Superannuation	%	16,7	11,6	9,7	12,7	15,4	13,8
<i>Total Assets</i>	%	100	100	100	100	100	100
Mortgage	%	64,5	91,5	92,4	90,9	82,1	87,6
Tenant occupied dwelling	%	24,6	14,2	21,8	32,3	48,6	30,6
Owner occupied dwelling	%	39,9	77,3	70,6	58,6	33,6	57,0
Student loans	%	13,1	1,7	1,1	1,1	1	1,7
Credit card	%	7,5	2,2	2	1,8	1,9	2,2
Other loans	%	14,9	4,6	4,6	6,3	15,0	8,5
<i>Total Liabilities</i>	%	100	100	100	100	100	100
HILDA WAVE 10 (2009-2010)							
Non Financial assets	%	60,18	73,87	76,91	72,28	65,00	68,75
Housing	%	62,16	72,66	75,39	70,24	56,13	63,14
<i>Tenant occupied dwelling</i>	%	16,88	11,09	11,09	13,00	18,88	15,93
<i>Owner occupied dwelling</i>	%	45,29	61,57	64,30	57,24	37,25	47,21
Business assets (net of liabilities)	%	-1,98	1,21	1,53	2,04	8,87	5,61
Financial assets	%	39,82	26,13	23,09	27,72	35,00	31,25
Stocks	%	2,11	1,53	1,63	3,44	10,02	6,67
Deposits	%	8,67	5,38	4,92	5,19	4,55	4,88
Superannuation	%	29,04	19,22	16,54	19,09	20,43	19,70
<i>Total Assets</i>	%	100	100	100	100	100	100
Mortgage	%	68,18	87,03	88,39	88,52	87,50	85,64
Tenant occupied dwelling	%	24,27	13,55	18,05	24,92	37,71	24,77
Owner occupied dwelling	%	43,91	73,48	70,34	63,61	49,79	60,87
Student loans	%	6,69	2,04	1,58	1,39	0,63	1,93
Credit card	%	3,07	1,55	1,40	1,04	0,53	1,30
Other loans	%	22,06	9,38	8,64	9,05	11,34	11,13
<i>Total Liabilities</i>	%	100	100	100	100	100	100

TABLE B.2: AVERAGE WEALTH BY WEALTH GROUP: CAPITALIZED INCOME VS HILDA

Wealth	Bottom 50	Top 50_10	Top 10_5	Top 5_1	Top 1	All	Total (\$b)
CAPITALIZED INCOME: 2002							
Non Financial Assets	95 871	139 367	178 982	411 400	2 067 638	149 812	2 631
Housing	74 149	123 200	171 111	305 428	1 836 082	125 530	2 204
<i>Tenant occupied</i>	15 110	49 786	45 231	58 944	44 085	32 529	571
<i>Owner occupied</i>	59 040	73 414	125 880	246 484	1 791 997	93 001	1 633
Business assets	21 722	16 167	7 870	105 971	231 556	24 282	426
Financial Assets	50 760	64 525	67 279	251 073	894 570	73 564	1 292
Stocks	9 847	13 606	7 986	108 907	339 980	18 531	325
Deposits	11 350	17 790	22 282	30 918	47 233	15 615	274
Superannuation	29 562	33 129	37 012	111 247	507 358	39 419	692
Mortgages	35 409	35 684	7 030	58 113	42 671	35 082	616
<i>Tenant occupied</i>	13 766	32 517	4 775	53 696	10 564	22 382	393
<i>Owner occupied</i>	21 643	3 167	2 255	4 416	32 107	12 700	223
Other debts	4 516	7 547	14 030	33 515	216 867	9 493	167
Student loans	334	726	1 921	2 275	15 649	801	14
Consumer loans	2 375	3 643	8 610	16 802	116 752	4 918	86
Business loans	1 807	3 177	3 498	14 438	84 466	3 774	66
<i>Assets</i>	146 631	203 892	246 261	662 472	2 962 208	223 376	3 923
<i>Liabilities</i>	39 925	43 231	21 060	91 627	259 538	44 574	783
Net Worth	106 706	160 661	225 201	570 845	2 702 670	178 802	3 140
HILDA: WAVE 2							
Non Financial Assets	45 026	179 994	368 820	575 533	1 684 631	152 866	2 141
Housing	44 005	170 603	327 196	454 024	941 503	134 209	1 880
<i>Tenant occupied</i>	4 350	26 777	73 868	133 003	405 884	25 969	364
<i>Owner occupied</i>	39 655	143 826	253 328	321 021	535 619	108 239	1 516
Business assets	1 021	9 390	41 625	121 509	743 127	18 657	261
Financial Assets	18 245	87 595	220 589	380 931	856 312	79 015	1 107
Stocks	1 981	15 450	68 597	141 915	434 926	20 638	289
Deposits	4 037	15 242	27 496	54 915	120 073	12 892	181
Superannuation	12 226	56 903	124 496	184 101	301 313	45 486	637
Mortgages	20 601	30 820	36 109	34 404	83 298	26 645	373
Tenant occupied	2 652	8 262	12 486	14 127	50 163	6 323	89
Owner occupied	17 949	22 558	23 623	20 277	33 136	20 322	285
Other debts	5 269	4 207	7 203	8 980	17 211	5 209	73
Student loans	950	530	484	260	377	725	10
Consumer loans	665	467	275	379	945	558	8
Business loans	3 653	3 211	6 443	8 341	15 889	3 926	55
<i>Assets</i>	63 271	267 589	589 409	956 464	2 540 943	231 881	3 248
<i>Liabilities</i>	25 870	35 027	43 311	43 383	100 509	31 854	446
Net Worth	37 401	232 561	546 098	913 081	2 440 434	200 028	2 802

TABLE B.3: ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (1994)

WEALTH	FISCAL YEAR: 1994									
	BOTTOM 90	TOP10_5	TOP5_1	TOP1_0.5	TOP0.5_0.1	TOP0.1_0.05	TOP0.05_0.01	TOP0.01	ALL	
Non Financial assets	66,75	60,49	63,80	68,10	39,43	51,25	79,38	50,73	64,90	
Housing	54,12	42,35	46,22	59,24	6,17	44,21	79,36	46,02	51,48	
<i>Tenant occupied dwelling</i>	14,31	3,27	1,10	0,57	1,25	0,62	0,20	1,55	10,66	
<i>Owner occupied dwelling</i>	39,81	39,09	45,13	58,67	4,92	43,59	79,16	44,47	40,82	
Business assets	12,63	18,14	17,58	8,86	33,26	7,04	0,02	4,71	13,42	
Financial assets	33,25	39,51	36,20	31,90	60,57	48,75	20,62	49,27	35,10	
Stocks	3,78	13,05	12,15	9,77	50,97	22,11	-0,02	36,21	7,86	
Deposits	12,11	6,87	4,69	1,75	5,29	1,20	0,14	1,47	9,80	
Superannuation	17,37	19,59	19,35	20,38	4,31	25,44	20,50	11,59	17,44	
<i>Total Assets</i>	100	100	100	100	100	100	100	100	100	
			ASSETS							
Mortgage	74,91	48,58	45,08	39,53	10,36	6,33	15,26	16,51	68,52	
Tenant occupied dwelling	30,77	36,95	28,82	13,49	4,52	0,26	0,12	1,59	28,78	
Owner occupied dwelling	44,13	11,63	16,26	26,04	5,84	6,06	15,14	14,92	39,74	
Student loans	2,38	4,07	4,78	3,28	5,77	6,04	5,16	5,08	2,73	
Other loans	12,69	28,60	29,78	61,45	21,27	22,87	45,77	45,10	15,74	
Business loans	10,02	18,75	20,35	-4,25	62,60	64,77	33,81	33,31	13,01	
<i>Total Liabilities</i>	100	100	100	100	100	100	100	100	100	
			LIABILITIES							

TABLE B.6: ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (1997)

WEALTH	FISCAL YEAR: 1997									
	BOTTOM 90	TOP10_5	TOP5_1	TOP1_0.5	TOP0.5_0.1	TOP0.1_0.05	TOP0.05_0.01	TOP0.01	ALL	
Non Financial assets	63,38	64,78	69,35	49,50	60,33	51,07	42,70	37,04	63,21	
Housing	50,81	56,74	63,99	17,37	39,62	15,34	5,10	4,41	50,50	
<i>Tenant occupied dwelling</i>	11,37	4,80	4,38	4,68	3,05	4,66	5,08	4,41	9,65	
<i>Owner occupied dwelling</i>	39,44	51,95	59,61	12,68	36,57	10,68	0,02	0,00	40,84	
Business assets	12,57	8,04	5,36	32,14	20,71	35,72	37,60	32,62	12,71	
Financial assets	36,62	35,22	30,65	50,50	39,67	48,93	57,30	62,96	36,79	
Stocks	5,99	4,61	4,56	34,70	22,57	39,89	51,27	60,01	7,88	
Deposits	11,00	6,23	5,36	6,11	3,23	3,98	4,56	2,65	9,58	
Superannuation	19,64	24,38	20,73	9,68	13,86	5,06	1,47	0,30	19,33	
<i>Total Assets</i>	100	100	100	100	100	100	100	100	100	
			ASSETS							
Mortgage	72,11	35,64	24,06	53,03	16,51	29,58	99,81	99,94	67,52	
Tenant occupied dwelling	27,22	15,97	7,46	33,16	4,38	19,34	99,73	99,92	25,52	
Owner occupied dwelling	44,89	19,66	16,60	19,87	12,13	10,24	0,08	0,03	42,00	
Student loans	2,37	11,61	4,66	2,54	3,98	3,36	0,00	0,00	2,82	
Other loans	13,16	44,68	45,64	45,41	34,35	28,72	-1,27	-0,40	16,24	
Business loans	12,36	8,07	25,64	-0,98	45,16	38,34	1,47	0,46	13,42	
<i>Total Liabilities</i>	100	100	100	100	100	100	100	100	100	
			LIABILITIES							

TABLE B.7: ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (1998)

WEALTH	FISCAL YEAR: 1998									
	BOTTOM 90	TOP10_5	TOP5_1	TOP1_0.5	TOP0.5_0.1	TOP0.1_0.05	TOP0.05_0.01	TOP0.01	ALL	
Non Financial assets	62,76	67,21	66,04	69,76	46,28	44,23	40,46	19,00	62,67	
Housing	50,55	56,16	56,85	63,76	12,68	4,07	4,18	2,30	50,12	
<i>Tenant occupied dwelling</i>	11,66	0,79	4,02	0,20	3,86	4,04	4,16	2,30	9,43	
<i>Owner occupied dwelling</i>	38,89	55,36	52,84	63,56	8,82	0,03	0,02	0,01	40,69	
Business assets	12,20	11,06	9,19	6,01	33,60	40,16	36,28	16,70	12,54	
Financial assets	37,24	32,79	33,96	30,24	53,72	55,77	59,54	81,00	37,33	
Stocks	6,63	3,32	9,11	2,01	39,44	47,35	52,48	75,35	8,24	
Deposits	10,84	2,77	5,17	1,51	6,43	5,92	5,47	5,28	9,21	
Superannuation	19,77	26,70	19,68	26,71	7,85	2,49	1,59	0,36	19,88	
<i>Total Assets</i>	100	100	100	100	100	100	100	100	100	
			ASSETS							
Mortgage	70,55	32,04	19,99	27,89	57,51	99,56	99,76	99,86	66,33	
Tenant occupied dwelling	28,41	11,37	6,17	0,51	41,39	99,43	99,68	99,81	26,56	
Owner occupied dwelling	42,14	20,67	13,82	27,39	16,11	0,13	0,07	0,04	39,77	
Student loans	2,67	6,40	4,91	3,95	2,30	-0,01	0,00	0,00	2,92	
Other loans	14,06	39,93	42,79	74,06	41,35	-2,28	-1,27	-0,75	16,83	
Business loans	12,72	21,63	32,31	-5,90	-1,15	2,73	1,51	0,89	13,91	
<i>Total Liabilities</i>	100	100	100	100	100	100	100	100	100	
			LIABILITIES							

TABLE B.11: ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2002)

WEALTH	FISCAL YEAR: 2002									
	BOTTOM 90	TOP10_5	TOP5_1	TOP1_0.5	TOP0.5_0.1	TOP0.1_0.05	TOP0.05_0.01	TOP0.01	ALL	
Non Financial assets	67,16	66,52	72,94	65,44	67,19	46,21	41,81	19,91	67,10	
Housing	56,57	54,25	67,34	49,31	55,69	1,03	1,06	3,97	56,25	
<i>Tenant occupied dwelling</i>	19,23	7,62	4,96	2,92	1,66	0,85	0,96	3,93	14,66	
<i>Owner occupied dwelling</i>	37,34	46,62	62,38	46,39	54,03	0,18	0,10	0,03	41,59	
Business assets	10,59	12,28	5,61	16,13	11,50	45,18	40,75	15,94	10,86	
Financial assets	32,84	33,48	27,06	34,56	32,81	53,79	58,19	80,09	32,90	
Stocks	6,84	9,65	4,09	15,42	10,99	44,63	52,25	74,09	8,29	
Deposits	8,98	3,11	2,32	3,24	2,11	5,41	4,40	4,62	6,98	
Superannuation	17,02	20,72	20,64	15,90	19,71	3,75	1,53	1,37	17,63	
<i>Total Assets</i>	100	100	100	100	100	100	100	100	100	
			ASSETS							
Mortgage	83,31	78,29	53,43	23,16	19,70	98,12	89,90	99,01	78,82	
Tenant occupied dwelling	51,24	69,86	38,33	8,02	4,52	97,64	87,31	98,76	50,49	
Owner occupied dwelling	32,06	8,43	15,10	15,15	15,17	0,48	2,59	0,25	28,33	
Student loans	1,43	1,52	3,66	4,70	6,23	0,00	0,01	0,00	1,73	
Other loans	8,77	13,76	27,38	37,68	30,38	1,03	5,55	0,54	11,27	
Business loans	6,50	6,43	15,54	34,45	43,69	0,84	4,54	0,44	8,18	
<i>Total Liabilities</i>	100	100	100	100	100	100	100	100	100	
			LIABILITIES							

TABLE B.12: ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2003)

WEALTH	FISCAL YEAR: 2003										ALL
	BOTTOM 90	TOP10_5	TOP5_1	TOP1_0.5	TOP0.5_0.1	TOP0.1_0.05	TOP0.05_0.01	TOP0.01			
Non Financial assets	76,16	71,08	75,43	79,65	68,05	55,53	48,84	28,57			74,97
Housing	68,43	55,09	69,96	80,09	41,09	2,70	1,49	6,01			65,89
<i>Tenant occupied dwelling</i>	36,60	12,59	7,79	5,87	5,32	2,57	1,41	5,98			29,25
<i>Owner occupied dwelling</i>	31,83	42,50	62,17	74,22	35,76	0,13	0,08	0,03			36,65
Business assets	7,73	15,98	5,47	-0,44	26,97	52,83	47,35	22,56			9,08
Financial assets	23,84	28,92	24,57	20,35	31,95	44,47	51,16	71,43			25,03
Stocks	4,44	8,26	3,12	0,49	17,47	36,15	44,12	64,75			5,64
Deposits	6,84	3,74	2,40	1,55	3,50	5,06	4,92	5,34			5,84
Superannuation	12,56	16,92	19,06	18,31	10,98	3,25	2,13	1,35			13,55
<i>Total Assets</i>	100	100	100	100	100	100	100	100			100
			ASSETS								
			LIABILITIES								
Mortgage	92,53	91,82	55,94	22,66	61,29	99,55	97,50	97,71			90,19
Tenant occupied dwelling	77,21	87,01	40,74	2,03	50,98	99,48	97,09	97,34			75,59
Owner occupied dwelling	15,31	4,81	15,20	20,63	10,30	0,07	0,40	0,37			14,60
Student loans	0,60	0,48	3,95	4,74	2,36	0,00	0,00	0,00			0,77
Other loans	4,03	5,70	25,40	36,67	18,40	0,31	1,74	1,59			5,38
Business loans	2,84	2,00	14,71	35,93	17,95	0,14	0,76	0,70			3,66
<i>Total Liabilities</i>	100	100	100	100	100	100	100	100			100

TABLE B.15: ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2006)

WEALTH	FISCAL YEAR: 2006									
	BOTTOM 90	TOP10_5	TOP5_1	TOP1_0.5	TOP0.5_0.1	TOP0.1_0.05	TOP0.05_0.01	TOP0.01	ALL	
Non Financial assets	76,12	61,91	68,01	66,51	59,56	40,50	27,44	14,86	71,95	
Housing	69,91	50,40	58,53	58,35	37,44	7,12	4,26	1,47	63,92	
<i>Tenant occupied dwelling</i>	40,70	14,76	8,51	3,56	7,15	7,03	4,19	1,46	31,61	
<i>Owner occupied dwelling</i>	29,21	35,64	50,02	54,79	30,28	0,09	0,06	0,02	32,32	
Business assets	6,20	11,51	9,48	8,16	22,12	33,37	23,19	13,39	8,03	
Financial assets	23,88	38,09	31,99	33,49	40,44	59,50	72,56	85,14	28,05	
Stocks	5,19	11,49	9,60	9,72	25,55	52,83	66,09	78,90	8,54	
Deposits	5,96	3,96	2,24	1,64	2,45	3,32	3,55	3,78	5,05	
Superannuation	12,73	22,64	20,15	22,13	12,44	3,36	2,91	2,47	14,46	
<i>Total Assets</i>	100	100	100	100	100	100	100	100	100	
			ASSETS							
Mortgage	94,52	46,07	27,40	30,79	14,61	87,63	85,78	87,51	91,31	
Tenant occupied dwelling	81,05	43,15	20,86	26,90	5,53	87,19	85,27	87,07	78,31	
Owner occupied dwelling	13,48	2,92	6,54	3,89	9,08	0,44	0,50	0,44	13,00	
Student loans	0,44	4,04	6,07	4,33	2,88	0,03	0,03	0,03	0,68	
Other loans	3,23	32,10	39,04	36,15	69,37	10,23	11,76	10,33	5,05	
Business loans	1,81	17,79	27,49	28,73	13,14	2,11	2,43	2,13	2,96	
<i>Total Liabilities</i>	100	100	100	100	100	100	100	100	100	
			LIABILITIES							

TABLE B.16: ASSETS AND LIABILITIES COMPOSITION BY WEALTH PERCENTILE (2007)

WEALTH	FISCAL YEAR: 2007									
	BOTTOM 90	TOP10_5	TOP5_1	TOP1_0.5	TOP0.5_0.1	TOP0.1_0.05	TOP0.05_0.01	TOP0.01	ALL	
Non Financial assets	66,21	69,30	70,21	68,79	63,32	53,37	65,68	46,18	66,40	
Housing	60,67	49,56	55,86	50,17	36,90	37,86	64,66	36,92	57,23	
<i>Tenant occupied dwelling</i>	25,20	14,49	8,10	5,67	5,76	2,66	0,33	1,47	19,46	
<i>Owner occupied dwelling</i>	35,47	35,07	47,76	44,49	31,14	35,20	64,33	35,45	37,77	
Business assets	5,54	19,74	14,35	18,62	26,42	15,51	1,02	9,26	9,17	
Financial assets	33,79	30,70	29,79	31,21	36,68	46,63	34,32	53,82	33,60	
Stocks	6,97	10,70	9,43	13,13	24,10	32,25	3,07	31,62	9,19	
Deposits	7,28	4,00	2,47	1,88	2,34	2,21	0,23	2,06	5,71	
Superannuation	19,54	16,00	17,89	16,21	10,24	12,17	31,02	20,13	18,71	
<i>Total Assets</i>	100	100	100	100	100	100	100	100	100	
			ASSETS							
Mortgage	89,90	24,04	17,30	20,04	20,92	22,68	11,27	7,99	84,79	
Tenant occupied dwelling	67,48	10,16	4,00	3,70	5,17	11,31	2,67	0,55	63,05	
Owner occupied dwelling	22,43	13,88	13,30	16,35	15,76	11,37	8,60	7,45	21,73	
Student loans	0,74	9,79	8,89	4,33	2,33	9,38	7,92	7,26	1,25	
Other loans	5,49	48,54	56,03	46,63	68,98	43,51	48,59	49,97	8,85	
Business loans	3,87	17,63	17,78	29,00	7,77	24,43	32,22	34,77	5,11	
<i>Total Liabilities</i>	100	100	100	100	100	100	100	100	100	
			LIABILITIES							

TABLE B.21: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUIN-
TILE (1994)

WEALTH	FISCAL YEAR: 1994					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 69,62	65,16	65,13	66,06	61,40	64,30
Housing	% 61,56	48,49	53,95	56,89	48,26	52,36
<i>Tenant occupied dwelling</i>	% 5,00	27,89	18,26	12,28	3,36	10,84
<i>Owner occupied dwelling</i>	% 56,55	20,60	35,69	44,60	44,90	41,52
Business assets (net of liabilities)	% 8,06	16,67	11,18	9,17	13,14	11,93
Financial assets	% 30,38	34,84	34,87	33,94	38,60	35,70
Stocks	% 6,18	4,09	1,20	3,16	14,80	7,99
Deposits	% 12,45	17,40	13,37	10,63	5,27	9,97
Superannuation	% 11,76	13,35	20,30	20,15	18,52	17,74
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 97,46	88,67	75,38	62,01	47,00	78,77
Tenant occupied dwelling	% 11,10	64,44	45,48	33,27	28,39	33,09
Owner occupied dwelling	% 86,36	24,23	29,89	28,74	18,62	45,68
Student loans	% 0,31	2,30	3,47	5,44	7,57	3,14
Other loans (consumer debt, investment debt...)	% 2,22	9,03	21,15	32,55	45,43	18,09
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.22: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUIN-
TILE (1995)

WEALTH	FISCAL YEAR: 1995					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 76,58	64,61	61,19	64,04	64,94	65,61
Housing	% 68,80	50,84	50,02	54,87	52,32	54,37
<i>Tenant occupied dwelling</i>	% 24,06	28,31	19,22	15,10	4,77	14,57
<i>Owner occupied dwelling</i>	% 44,74	22,53	30,80	39,77	47,55	39,80
Business assets (net of liabilities)	% 7,78	13,77	11,17	9,17	12,62	11,24
Financial assets	% 23,42	35,39	38,81	35,96	35,06	34,39
Stocks	% 4,46	4,99	5,50	5,86	9,92	7,09
Deposits	% 9,45	16,39	13,01	11,03	5,28	9,59
Superannuation	% 9,50	14,02	20,31	19,07	19,86	17,71
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 98,91	87,92	80,33	69,83	64,35	85,23
Tenant occupied dwelling	% 49,97	59,77	51,10	47,12	48,74	51,01
Owner occupied dwelling	% 48,93	28,15	29,23	22,71	15,61	34,23
Student loans	% 0,16	2,09	2,89	4,27	5,17	2,19
Other loans	% 0,93	9,99	16,78	25,91	30,48	12,58
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.23: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (1996)

WEALTH	FISCAL YEAR: 1996					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 69,22	55,43	60,58	63,91	65,82	63,66
Housing	% 65,41	52,17	44,67	43,60	55,91	52,24
<i>Tenant occupied dwelling</i>	% 6,87	18,32	15,93	16,10	7,38	11,77
<i>Owner occupied dwelling</i>	% 58,54	33,85	28,74	27,50	48,53	40,47
Business assets (net of liabilities)	% 3,81	3,27	15,91	20,31	9,91	11,42
Financial assets	% 30,78	44,57	39,42	36,09	34,18	36,34
Stocks	% 6,29	10,39	5,82	6,30	7,48	7,22
Deposits	% 10,37	11,70	13,86	12,73	6,65	10,02
Superannuation	% 14,12	22,48	19,74	17,07	20,05	19,10
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 98,33	94,86	75,08	74,66	31,27	81,18
Tenant occupied dwelling	% 22,53	68,54	44,79	54,59	10,46	39,31
Owner occupied dwelling	% 75,80	26,32	30,29	20,07	20,81	41,87
Student loans	% 0,29	0,72	4,43	2,85	10,21	2,78
Other loans	% 1,38	4,42	20,49	22,49	58,51	16,03
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.24: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (1997)

WEALTH	FISCAL YEAR: 1997					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 73,24	59,28	58,33	61,03	62,57	62,52
Housing	% 72,39	38,34	42,92	55,09	50,43	51,44
<i>Tenant occupied dwelling</i>	% 17,85	18,17	10,80	10,20	3,96	9,83
<i>Owner occupied dwelling</i>	% 54,54	20,17	32,12	44,89	46,46	41,60
Business assets (net of liabilities)	% 0,85	20,94	15,41	5,95	12,15	11,08
Financial assets	% 26,76	40,72	41,67	38,97	37,43	37,48
Stocks	% 3,72	8,31	7,26	4,99	11,23	8,02
Deposits	% 11,87	16,19	12,13	10,93	5,43	9,76
Superannuation	% 11,17	16,22	22,28	23,05	20,76	19,69
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 97,33	84,43	74,10	57,96	35,40	77,98
Tenant occupied dwelling	% 25,02	53,61	35,96	29,50	13,74	29,48
Owner occupied dwelling	% 72,31	30,82	38,14	28,46	21,66	48,51
Student loans	% 0,63	2,02	3,93	6,20	9,05	3,26
Other loans	% 2,03	13,55	21,96	35,84	55,55	18,76
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.25: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (1998)

WEALTH	FISCAL YEAR: 1998					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 72,44	57,46	58,38	61,81	61,17	61,91
Housing	% 68,75	35,65	44,13	56,34	50,12	51,14
<i>Tenant occupied dwelling</i>	% 15,84	16,98	11,37	10,91	3,57	9,62
<i>Owner occupied dwelling</i>	% 52,91	18,68	32,77	45,42	46,56	41,52
Business assets (net of liabilities)	% 3,69	21,81	14,25	5,48	11,05	10,77
Financial assets	% 27,56	42,54	41,62	38,19	38,83	38,09
Stocks	% 3,88	10,47	6,97	6,57	10,95	8,41
Deposits	% 10,94	15,31	11,31	10,77	5,37	9,40
Superannuation	% 12,74	16,76	23,34	20,84	22,50	20,28
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 97,35	83,67	74,25	55,56	33,57	77,05
Tenant occupied dwelling	% 25,57	55,33	41,04	31,75	12,51	30,86
Owner occupied dwelling	% 71,78	28,34	33,21	23,82	21,06	46,19
Student loans	% 0,62	2,47	3,87	6,57	9,00	3,40
Other loans	% 2,03	13,86	21,88	37,87	57,43	19,55
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.26: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (1999)

WEALTH	FISCAL YEAR: 1999					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 71,58	61,23	60,14	59,96	59,57	61,56
Housing	% 76,35	48,12	48,89	50,04	46,36	51,76
<i>Tenant occupied dwelling</i>	% 22,29	19,24	14,16	7,76	3,53	10,47
<i>Owner occupied dwelling</i>	% 54,06	28,88	34,73	42,28	42,83	41,29
Business assets (net of liabilities)	% -4,77	13,11	11,25	9,93	13,21	9,79
Financial assets	% 28,42	38,77	39,86	40,04	40,43	38,44
Stocks	% 4,52	7,42	7,31	5,36	14,39	9,29
Deposits	% 12,37	15,15	11,47	8,13	4,87	8,81
Superannuation	% 11,53	16,21	21,08	26,54	21,17	20,35
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 96,36	87,59	70,69	57,11	44,81	78,74
Tenant occupied dwelling	% 32,53	53,24	48,05	34,13	29,46	37,67
Owner occupied dwelling	% 63,83	34,35	22,64	22,98	15,36	41,07
Student loans	% 0,88	2,43	3,71	6,24	7,38	3,15
Other loans	% 2,76	9,98	25,60	36,65	47,81	18,12
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.27: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2000)

WEALTH	FISCAL YEAR: 2000					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 63,29	65,71	61,94	66,56	59,08	62,43
Housing	% 57,91	55,06	50,91	62,02	48,24	53,54
<i>Tenant occupied dwelling</i>	% 4,36	27,76	21,11	16,77	4,08	12,54
<i>Owner occupied dwelling</i>	% 53,55	27,30	29,80	45,25	44,16	41,00
Business assets (net of liabilities)	% 5,38	10,65	11,03	4,54	10,84	8,89
Financial assets	% 36,71	34,29	38,06	33,44	40,92	37,57
Stocks	% 7,66	8,60	7,44	4,87	13,49	9,37
Deposits	% 8,43	14,63	9,43	8,74	4,67	7,98
Superannuation	% 20,63	11,05	21,19	19,83	22,77	20,21
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 97,79	88,26	77,70	62,04	31,90	77,61
Tenant occupied dwelling	% 17,22	62,51	51,48	39,04	12,68	34,94
Owner occupied dwelling	% 80,58	25,74	26,22	23,00	19,22	42,67
Student loans	% 0,32	2,42	3,08	5,64	9,28	3,31
Other loans	% 1,88	9,32	19,23	32,33	58,82	19,07
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.28: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2001)

WEALTH	FISCAL YEAR: 2001					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 64,85	57,36	62,96	62,46	65,84	63,59
Housing	% 56,02	46,57	55,53	55,14	55,57	54,45
<i>Tenant occupied dwelling</i>	% 7,81	24,56	24,41	17,75	5,76	13,73
<i>Owner occupied dwelling</i>	% 48,20	22,01	31,12	37,39	49,81	40,72
Business assets (net of liabilities)	% 8,83	10,79	7,43	7,32	10,27	9,14
Financial assets	% 35,15	42,64	37,04	37,54	34,16	36,41
Stocks	% 5,98	14,51	10,31	9,00	9,04	9,62
Deposits	% 7,33	14,88	10,12	8,84	4,22	7,70
Superannuation	% 21,84	13,25	16,61	19,70	20,90	19,10
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 98,04	90,55	91,12	81,22	60,28	84,77
Tenant occupied dwelling	% 23,67	60,98	72,38	65,28	41,41	52,18
Owner occupied dwelling	% 74,37	29,57	18,74	15,94	18,87	32,59
Student loans	% 0,35	2,28	1,21	2,37	5,06	2,14
Other loans	% 1,61	7,17	7,67	16,41	34,66	13,09
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.29: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2002)

WEALTH	FISCAL YEAR: 2002					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 64,34	58,65	69,32	70,06	66,66	66,56
Housing	% 61,19	38,70	59,37	63,13	58,07	57,18
<i>Tenant occupied dwelling</i>	% 4,37	16,44	28,69	25,32	6,98	14,90
<i>Owner occupied dwelling</i>	% 56,82	22,25	30,68	37,81	51,10	42,28
Business assets (net of liabilities)	% 3,15	19,96	9,95	6,93	8,58	9,37
Financial assets	% 35,66	41,35	30,68	29,94	33,34	33,44
Stocks	% 6,40	12,23	6,21	6,29	9,56	8,42
Deposits	% 8,02	11,26	9,01	9,62	3,95	7,10
Superannuation	% 21,24	17,85	15,46	14,03	19,84	17,92
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 97,43	89,94	92,16	82,95	67,48	85,85
Tenant occupied dwelling	% 17,62	62,66	76,66	68,75	52,52	54,99
Owner occupied dwelling	% 79,81	27,28	15,50	14,21	14,96	30,86
Student loans	% 0,33	1,21	1,13	2,34	4,25	1,88
Other loans	% 2,24	8,85	6,71	14,70	28,27	12,27
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.30: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2003)

WEALTH	FISCAL YEAR: 2003					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 80,65	74,24	75,55	74,95	71,80	74,65
Housing	% 75,38	53,51	73,37	73,77	62,50	66,71
<i>Tenant occupied dwelling</i>	% 52,03	34,13	41,84	30,57	12,95	29,61
<i>Owner occupied dwelling</i>	% 23,35	19,37	31,53	43,20	49,55	37,10
Business assets (net of liabilities)	% 5,26	20,74	2,18	1,18	9,30	7,94
Financial assets	% 19,35	25,76	24,45	25,05	28,20	25,35
Stocks	% 4,30	6,67	4,01	3,04	7,89	5,71
Deposits	% 4,48	5,29	10,01	7,82	4,23	5,91
Superannuation	% 10,58	13,79	10,43	14,18	16,08	13,72
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 99,38	97,76	90,44	81,03	80,21	93,62
Tenant occupied dwelling	% 81,28	88,44	68,82	60,13	69,17	78,46
Owner occupied dwelling	% 18,11	9,32	21,62	20,90	11,04	15,15
Student loans	% 0,07	0,11	1,60	2,51	2,52	0,80
Other loans	% 0,55	2,13	7,96	16,46	17,26	5,58
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.31: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2004)

WEALTH	FISCAL YEAR: 2004					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 87,58	74,76	82,66	80,38	78,50	80,93
Housing	% 87,91	74,16	79,61	71,34	68,82	75,23
<i>Tenant occupied dwelling</i>	% 56,93	29,37	68,01	51,88	42,20	48,74
<i>Owner occupied dwelling</i>	% 30,98	44,80	11,60	19,46	26,61	26,49
Business assets (net of liabilities)	% -0,33	0,60	3,05	9,04	9,68	5,70
Financial assets	% 12,42	25,24	17,34	19,62	21,50	19,07
Stocks	% 1,89	3,74	2,64	3,18	8,01	4,75
Deposits	% 5,33	10,40	3,82	2,97	2,43	4,13
Superannuation	% 5,20	11,10	10,88	13,46	11,06	10,19
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 99,16	98,47	77,95	40,85	63,84	97,13
Tenant occupied dwelling	% 90,34	95,38	62,71	23,35	57,52	90,16
Owner occupied dwelling	% 8,83	3,09	15,24	17,50	6,32	6,97
Student loans	% 0,14	0,24	2,00	4,39	3,78	0,34
Other loans	% 0,70	1,29	20,05	54,76	32,38	2,53
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.32: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2005)

WEALTH	FISCAL YEAR: 2005					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 87,59	72,15	68,59	65,60	63,76	71,79
Housing	% 86,98	70,05	65,52	50,01	51,51	64,33
<i>Tenant occupied dwelling</i>	% 58,02	27,18	25,00	28,25	13,07	30,14
<i>Owner occupied dwelling</i>	% 28,96	42,87	40,52	21,75	38,43	34,19
Business assets (net of liabilities)	% 0,61	2,10	3,07	15,60	12,25	7,47
Financial assets	% 12,41	27,85	31,41	34,40	36,24	28,21
Stocks	% 3,19	5,68	5,62	9,75	14,16	8,64
Deposits	% 5,80	9,33	7,29	4,98	3,34	5,39
Superannuation	% 3,41	12,84	18,50	19,67	18,74	14,17
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 98,99	93,35	89,34	50,55	43,92	93,80
Tenant occupied dwelling	% 82,79	82,01	81,27	38,45	34,22	79,47
Owner occupied dwelling	% 16,19	11,35	8,07	12,10	9,70	14,33
Student loans	% 0,21	0,87	1,09	2,48	5,93	0,70
Other loans	% 0,81	5,78	9,57	46,96	50,15	5,50
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.33: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2006)

WEALTH	FISCAL YEAR: 2006					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 89,60	73,76	59,29	67,67	61,97	71,65
Housing	% 91,10	75,15	52,70	50,92	49,69	64,62
<i>Tenant occupied dwelling</i>	% 62,42	27,29	36,12	25,03	13,36	31,95
<i>Owner occupied dwelling</i>	% 28,68	47,87	16,58	25,89	36,33	32,67
Business assets (net of liabilities)	% -1,51	-1,39	6,59	16,76	12,28	7,03
Financial assets	% 10,40	26,24	40,71	32,33	38,03	28,35
Stocks	% 1,92	3,84	6,98	7,68	15,76	8,64
Deposits	% 5,03	9,43	7,59	4,89	3,32	5,10
Superannuation	% 3,45	12,97	26,14	19,75	18,95	14,62
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 99,02	94,16	71,67	45,42	44,53	94,10
Tenant occupied dwelling	% 83,56	85,72	62,86	34,60	38,10	80,70
Owner occupied dwelling	% 15,46	8,44	8,81	10,82	6,43	13,40
Student loans	% 0,21	0,85	2,17	3,26	5,97	0,70
Other loans	% 0,77	4,99	26,16	51,33	49,50	5,21
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.34: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2007)

WEALTH	FISCAL YEAR: 2007					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 65,35	56,60	66,67	71,77	66,62	65,96
Housing	% 77,42	68,16	56,81	52,15	52,37	57,97
<i>Tenant occupied dwelling</i>	% 33,84	35,34	25,08	20,72	9,02	19,71
<i>Owner occupied dwelling</i>	% 43,58	32,81	31,73	31,43	43,36	38,26
Business assets (net of liabilities)	% -12,07	-11,56	9,86	19,62	14,25	7,99
Financial assets	% 34,65	43,40	33,33	28,23	33,38	34,04
Stocks	% 7,36	7,25	7,47	7,09	11,90	9,30
Deposits	% 9,56	10,33	7,11	5,16	3,18	5,78
Superannuation	% 17,73	25,82	18,75	15,97	18,30	18,95
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 98,41	95,85	91,56	74,15	46,83	89,35
Tenant occupied dwelling	% 51,28	85,07	82,82	60,16	35,62	66,45
Owner occupied dwelling	% 47,13	10,78	8,75	13,99	11,21	22,90
Student loans	% 0,14	0,32	0,93	2,90	7,61	1,32
Other loans	% 1,45	3,82	7,50	22,96	45,56	9,33
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.35: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2008)

WEALTH	FISCAL YEAR: 2008					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 82,70	74,94	69,88	59,12	65,25	68,22
Housing	% 81,69	48,00	53,65	61,43	59,16	59,79
<i>Tenant occupied dwelling</i>	% 18,52	37,92	25,26	30,52	10,85	20,99
<i>Owner occupied dwelling</i>	% 63,17	10,08	28,39	30,91	48,32	38,79
Business assets (net of liabilities)	% 1,01	26,94	16,24	-2,31	6,09	8,43
Financial assets	% 17,30	25,06	30,12	40,88	34,75	31,78
Stocks	% 3,98	9,57	6,38	7,18	8,42	7,53
Deposits	% 5,23	6,38	6,77	11,18	4,60	6,38
Superannuation	% 8,09	9,11	16,97	22,52	21,73	17,86
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 99,04	97,27	89,81	79,57	59,19	89,84
Tenant occupied dwelling	% 33,33	95,18	86,73	75,12	55,32	64,92
Owner occupied dwelling	% 65,71	2,09	3,09	4,45	3,87	24,92
Student loans	% 0,15	0,09	1,24	3,72	5,22	1,31
Other loans	% 0,81	2,64	8,95	16,71	35,59	8,85
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.36: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2010)

WEALTH	FISCAL YEAR: 2010					
	Q1	Q2	Q3	Q4	Q5	ALL
	ASSETS					
Non Financial assets	% 77,65	69,71	77,11	77,58	75,73	75,84
Housing	% 82,87	71,06	60,72	64,99	62,80	69,54
<i>Tenant occupied dwelling</i>	% 54,73	41,45	36,25	31,15	27,09	37,91
<i>Owner occupied dwelling</i>	% 28,14	29,60	24,47	33,84	35,72	31,63
Business assets (net of liabilities)	% -5,22	-1,35	16,39	12,59	12,92	6,31
Financial assets	% 22,35	30,29	22,89	22,42	24,27	24,16
Stocks	% 2,12	2,65	3,49	2,88	7,87	4,49
Deposits	% 7,82	8,95	6,58	4,33	3,04	5,62
Superannuation	% 12,41	18,68	12,83	15,21	13,36	14,05
<i>Total Assets</i>	% 100	100	100	100	100	100
	LIABILITIES					
Mortgage	% 99,05	97,79	66,72	51,50	27,88	95,43
Tenant occupied dwelling	% 81,26	92,89	51,96	38,48	19,52	81,09
Owner occupied dwelling	% 17,79	4,90	14,75	13,02	8,36	14,34
Student loans	% 0,06	0,43	8,61	8,53	8,44	0,64
Other loans	% 0,90	1,78	24,67	39,97	63,68	3,93
<i>Total Liabilities</i>	% 100	100	100	100	100	100

TABLE B.37: ASSETS AND LIABILITIES COMPOSITION BY WEALTH QUINTILE (2011)

WEALTH	FISCAL YEAR: 2011						
	Q1	Q2	Q3	Q4	Q5	ALL	
	ASSETS						
Non Financial assets	%	77,44	47,00	63,19	70,01	68,76	66,89
Housing	%	76,98	49,35	59,77	56,79	55,92	58,85
<i>Tenant occupied dwelling</i>	%	23,24	19,88	27,00	20,46	12,51	18,63
<i>Owner occupied dwelling</i>	%	53,74	29,47	32,78	36,33	43,41	40,22
Business assets (net of liabilities)	%	0,46	-2,35	3,42	13,22	12,84	8,04
Financial assets	%	22,56	53,00	36,81	29,99	31,24	33,12
Stocks	%	3,18	7,24	4,00	4,71	8,01	6,00
Deposits	%	8,35	19,33	9,63	6,23	4,31	7,73
Superannuation	%	11,03	26,43	23,17	19,05	18,92	19,39
<i>Total Assets</i>	%	100	100	100	100	100	100
	LIABILITIES						
Mortgage	%	99,10	94,11	90,13	79,17	63,55	89,42
Tenant occupied dwelling	%	35,12	72,07	79,18	63,51	50,27	55,91
Owner occupied dwelling	%	63,98	22,04	10,95	15,66	13,28	33,51
Student loans	%	0,13	0,59	1,72	3,45	4,91	1,53
Other loans	%	0,77	5,30	8,15	17,38	31,54	9,04
<i>Total Liabilities</i>	%	100	100	100	100	100	100

C. Data appendix

C.1 National Account Data

C.1.1 Capital income and wealth in national accounts

TABLE C.1: CAPITAL INCOME IN NATIONAL ACCOUNTS

VARIABLE	SOURCE	PUBLICATION	SERIES
SUPERANNUATION			
Imputed interest ¹	ABS	5204.0.T36	A2421964T
FIXED INCOME CLAIMS			
Interest	ABS	5204.0.T36	A2421963R
<i>minus</i> Interest on consumer debt ²	ABS	5204.0.T36	A2421976A
STOCKS			
Dividends	ABS	5204.0.T36	A2421965V
<i>plus</i> Reinvested earnings ³	ABS	5204.0.T36	A3539254X
HOUSING			
Gross operating surplus from ownership of dwellings by persons	ABS	5204.0. T49	A2422348F
<i>equals</i> Gross rent - Imputed rent for owner-occupiers	ABS	5204.0. T49	A2422340L
<i>plus</i> Gross rent - Actual rent for housing	ABS	5204.0. T49	A2422341R
<i>minus</i> Interest paid on tenant-occupied mortgage <i>derived from</i>			
Interest paid on mortgage	ABS	5204.0. T36	A2421975X
Loans and placement	ABS	5204.0. T41	A222092L
Tenant occupied mortgage	ABS	5204.0. T36	A2421975X
<i>minus</i> Consumption of fixed capital on tenant occupied housing stock <i>derived from</i>	RBA		
Consumption of fixed capital			
Residential land and dwellings	ABS	5232.0. T43	A83728305F
Value of owner occupied dwelling	SIH	6553.0. T3	
Value of other residential property	SIH	6553.0. T3	
BUSINESS INCOME			
Gross Mixed Income (25% K ; 75% L) ⁴	ABS	5204.0.T36	A2421961K
<i>plus</i> Rent on natural assets (received)	ABS	5204.0.T36	A2421966W
<i>minus</i> Rent on natural assets (paid)	ABS	5204.0.T36	A2421978F
<i>minus</i> Interest on unincorporated business	ABS	5204.0.T36	A2519082W

¹ This item includes pensions received by retired households and imputed interests for people that have accumulated superannuation wealth but are still working. When we only needed the observable part of this item, i.e. the income actually received by households, we used data provided by the Survey of Income and Housing (SIH), "Superannuation income received by households".

² This item is not observable in tax data, reason for which it is not present in Table C.7 to compute the control income

³ This item is not observable in tax data, reason for which it is not present in Table C.8 to compute the control income

⁴ This decomposition follows Piketty and Zucman (2014)

TABLE C.2: WEALTH IN HOUSEHOLD BALANCE SHEET

VARIABLE	SOURCE	PUBLICATION	SERIES
SUPERANNUATION			
Insurance technical reserves	ABS	5204.T41	A2422087V
FIXED INCOME CLAIMS			
Deposits	ABS	5204.T41	A2422083K
<i>plus</i> Securities (assets)	ABS	5204.T41	A2422084L
<i>minus</i> Securities (liabilities)	ABS	5204.T41	A2422091K
<i>minus</i> Consumer and UI loans ¹			
<i>equals</i> Loans and placement	ABS	5204.0. T41	A222092L
<i>minus</i> Loan Outstandings to Households for Housing	ABS	5232.0. T51	A3571775F
BUSINESS ASSETS			
Business wealth			
<i>equals</i> Non financial assets	ABS	5204.T41	A2422062X
<i>minus</i> Residential land and dwellings	ABS	5232.0. T43	A83728305F
Financial assets and liabilities related to business wealth			
<i>equals</i> Other accounts (assets)	ABS	5204.T41	A2422089X
<i>minus</i> Other accounts (liabilities)	ABS	5204.T41	A2422093R
TENANT OCCUPIED HOUSING			
Tenant occupied housing stock			
<i>derived from</i> ²			
Residential land and dwellings	ABS	5232.0. T43	A83728305F
Value of owner occupied dwelling	SIH	6553.0. T3	
Value of other residential property	SIH	6553.0. T3	
<i>minus</i> Mortgage of owner-occupiers	RBA	D2	DBLSLPHO
STOCKS			
Shares and other equities	ABS	5204.T41	A2422085R

¹ To be consistent with fiscal data, interest paid by UI must be deduced from gross mixed income to get net business income. However, there is no business debt in household balance sheet. To infer the aggregate value of business loans, we used HILDA and assumed that the share of business loans in non-mortgage debt in household balance sheet was the same than the one computed from HILDA.

² To limit the discrepancy between ABS and SIH totals, we applied the following methodology. For the years 2004-2014, we compute the share of owner-occupied housing in the total SIH housing stock and apply this ratio to the ABS data. When intermediary years were missing, we used linear interpolation.

For the years prior to the SIH, we assume the share of owner-occupied housing in total stock is given by the value of the last year available, i.e. 2004.

C.1.2 Excluding non-profit institutions from household sector

Non-profit institutions (NPIs) are included in the Household (HH) sector by the ABS. NPIs **ABS satellite accounts** and the **SIH**, where NPIs are not present, allows us, for some years, to exclude NPIs from the HH sector (after ensuring consistency between the definitions of wealth between the two sources). For the intermediary years, we used linear

interpolation¹. Since we had no information on the composition of the non financial portfolio of NPIs, i.e. on the arbitrage between housing and business assets, to be consistent with the housing income item that excludes non-profit institutions, we allocated all NPIs' non financial wealth in the HH business wealth. Finally, for years prior to 2000, first year where we have information on NPIs, we assumed the size of the NPIs sector was given by the size of 2000.

Figure C.1-C.5 shows that excluding the NPIs has a limited effect on the wealth rate of returns. The most affected asset is business wealth. This is the consequence of our extreme hypothesis that allocated all NPIs non financial wealth in the HH sector.

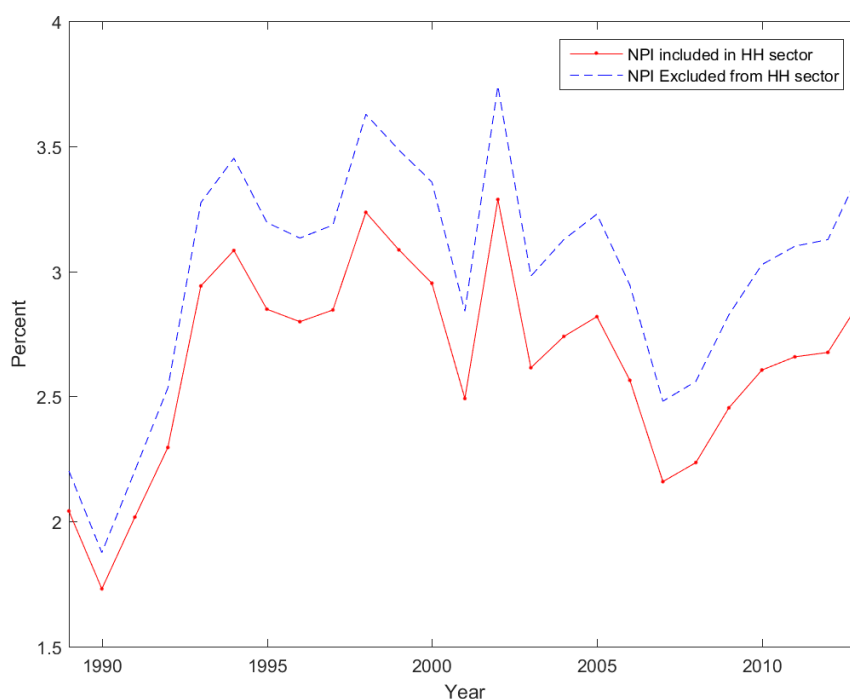


FIGURE C.1: Return business assets

¹In order to limit the incidence of the interpolation, we used the linear interpolation on the ratio of the NPIs' aggregate on total household sector. It ensures that the size of the NPIs sector is stable in the intermediary years

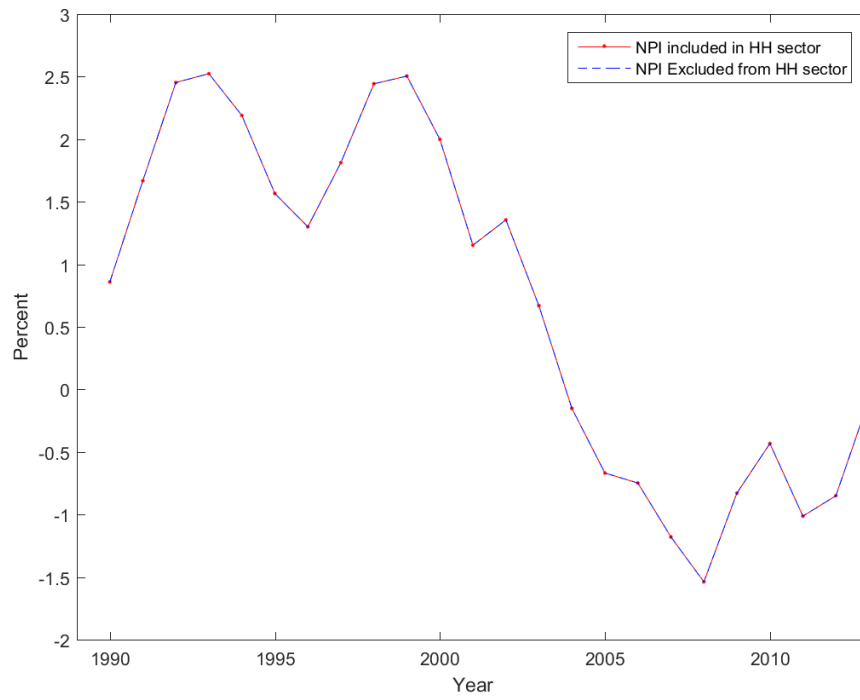


FIGURE C.2: Return housing

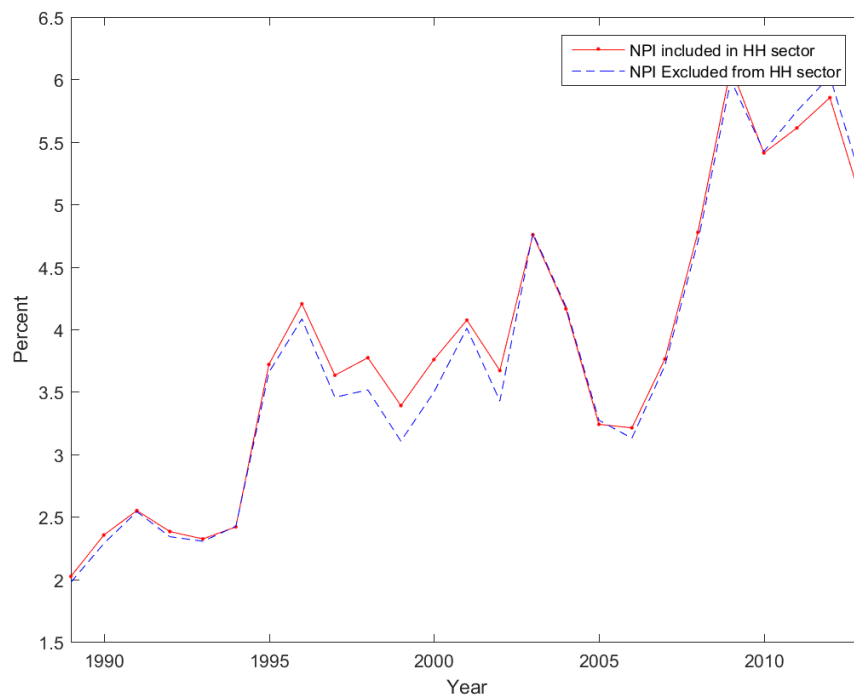


FIGURE C.3: Return stocks

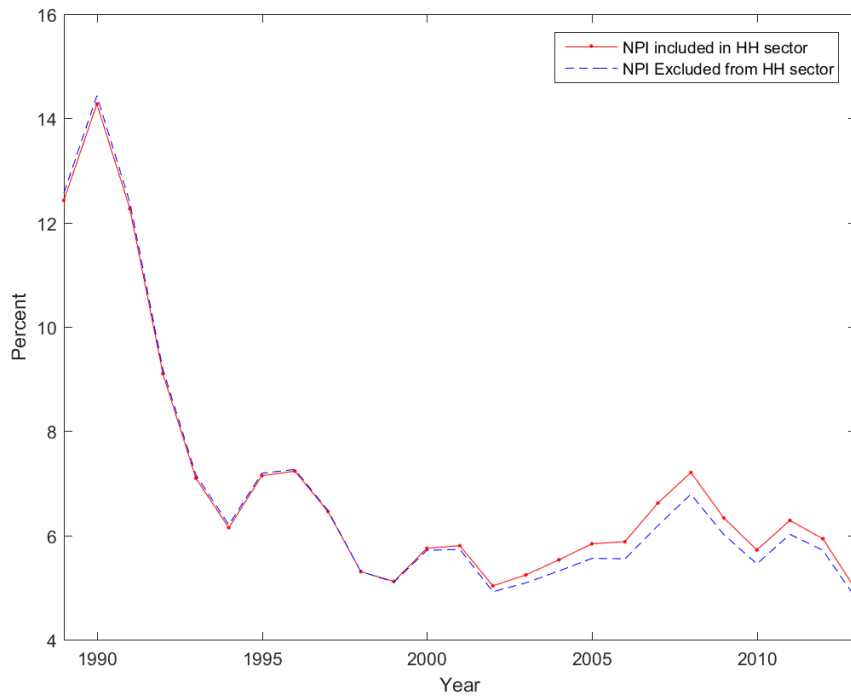


FIGURE C.4: Return deposits

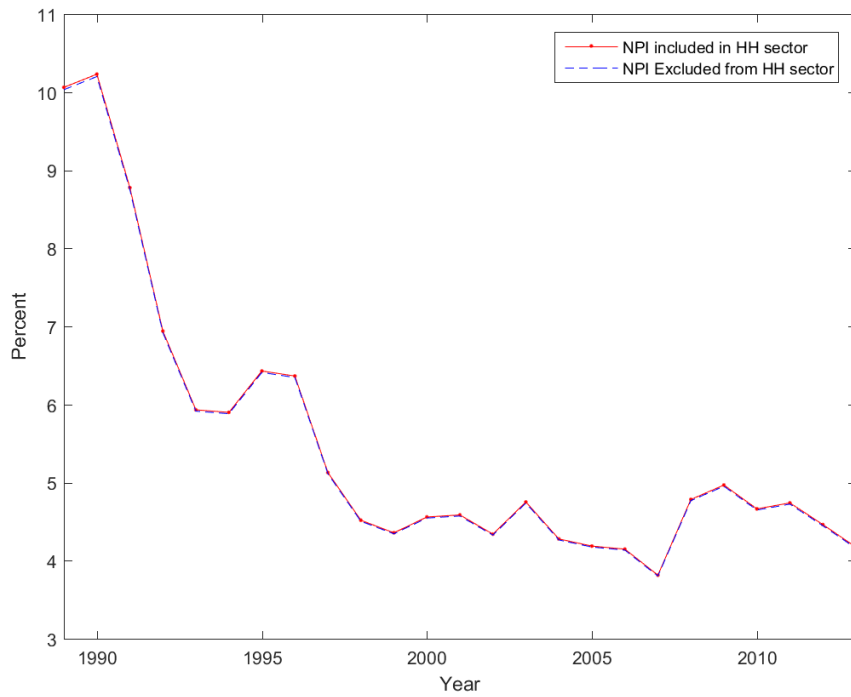


FIGURE C.5: Return superannuation

C.2 Comparison between our synthetic sample and the ATO Sample files

The ATO proposes microfiles presenting information on a randomly selected sample of filers on a large number of income items and personal characteristics. Following the years, this sample represents a 1 or 2% sample of tax-filers. The data are confidentialized using a zero-mean randomized perturbation. Sample files are also bottom and top-coded. The top-coding is problematic since it affects many members of top income groups (see Burkhauser, Hahn, and Wilkins, 2016). We thus decided to use the Pareto Curve Approach furthered by Fournier (2015) to estimate individual data using tabulated data, that are neither top- or bottom-coded nor perturbed. Table C.3 shows how the Pareto curve performs in reproducing the population distribution on a series of capital income components² for the fiscal year 2003-2004. Before computing the information on the left hand side of the table, non taxable filers (those who filled a return but were not taxable) have been introduced. That explains why a significant part of the population is included in the bracket 5000-10000: since all non-taxable filers are attributed the same income (6220 \$ for this year), they are part of the same income bracket. This uniform imputation explains why the sample composition below 15 000 \$ is smoother in the ATO sample data than in our synthetic sample. However, one should note that the bottom coding of the ATO's sample might affect the quality of the data of lowest income bracket. Our Pareto curve method allocated far too many individuals in the income bracket 15 000 - 20 000. As a consequence, the following income brackets lack individuals. In the upper part of the distribution, the Pareto curve method allows to overcome the drawback of the top coding treatment imposed to the ATO micro-data. As one can see, the Pareto curve approach allows to estimate the income of individuals that do not belong to ATO microdata.

If we look at the average income by bracket, except for business income/loss, the fit is good: members of a given income bracket have generally a close mean income whatever sample we are looking in. For business income, our method to recover individual income from tabulated data tend to reduce the dispersion and thus oversmooth the distribution of business income.

Generally, solving the discrepancy in the taxable income distribution should allow a better reproduction of Australian taxable population and overcome the drawback of using the ATO micro-files, especially the top-coding. In that sense, when the within income bracket means are generally close between the two samples, the discrepancy between population means should be corrected by a better reproduction of taxable population distribution. In particular, introducing dispersion in the non-taxable filers, for instance by introducing random deviations from the mean, should improve the fit at the bottom of the distribution.

A second way to improve the fit between our synthetic population and the actual distribution would be to improve the reproduction of the bivariate distribution of income and its source, e.g. business income. The simple approach we used - assuming individuals income is composed as the overall bracket income - might fail when the income source is concentrated on a few number of individuals by bracket. Improving the reproduction of the bivariate distribution of taxable income and income components should improve the fit.

²For the variables definitions, see Section C.5.

Bracket (\$)	SYNTHETIC POPULATION GENERATED BY PARETO CURVE ESTIMATION										ATO SAMPLE FILES									
	Share population (%)	Total income	Labor	Dividends	Net rent	Interest	Net Business	Pensions	Taxable income	Share population (%)	Total income	Labor	Dividends	Net rent	Interest	Net Business	Pensions	Taxable income		
0-5000	0.24	3 000	1 628	137	630	126	-45	39	2 637	9.61	1 287	1 578	213	-414	216	5 513	140	1 633		
5000-10000	21.71	7 159	6 127	226	-91	430	-8	674	6 676	8.10	8 404	4 464	131	-23	344	3 103	301	7 595		
10000-15000	6.96	13 394	11 082	159	-64	376	774	135	12 498	9.06	13 519	6 974	186	-16	481	2 522	649	12 481		
15000-20000	7.29	18 671	15 456	239	-101	467	1 004	442	17 506	8.89	18 840	11 144	323	-23	656	3 641	1 139	17 484		
20000-25000	8.21	23 878	19 888	347	-106	620	1 083	1 091	22 455	8.42	23 908	16 221	347	-90	627	3 909	1 319	22 477		
25000-30000	8.35	28 975	25 277	342	-147	561	1 085	1 333	27 482	8.21	28 909	22 253	311	-140	489	2 674	1 390	27 490		
30000-35000	8.11	34 101	30 407	370	-211	528	1 105	1 236	32 508	8.01	34 098	27 841	339	-255	496	2 666	1 281	32 470		
35000-40000	7.29	39 299	35 319	451	-275	539	1 158	1 115	37 538	7.07	39 198	32 170	435	-176	827	2 810	1 139	37 421		
40000-45000	6.01	44 467	40 005	578	-339	557	1 177	976	42 500	6.27	44 452	36 987	499	-248	631	2 865	1 188	42 441		
45000-50000	5.85	49 788	44 686	693	-378	619	1 271	1 030	47 578	5.23	49 533	41 411	647	-385	536	3 833	996	47 406		
50000-60000	8.02	57 736	51 415	1 023	-430	703	1 319	952	55 159	7.94	57 152	47 494	892	-371	807	4 669	846	54 605		
60000-160000	11.03	115 042	93 527	5 538	-744	1 861	4 734	2 045	109 616	11.81	84 513	65 210	2 420	-570	1 077	6 905	1 449	80 949		
160000-260000	0.62	205 387	137 673	18 525	-751	3 779	15 925	3 080	195 131	0.97	208 729	142 081	6 651	-863	2 872	23 501	1 638	199 500		
260000-360000	0.15	318 346	193 654	34 430	-771	6 074	29 845	4 260	302 167	0.19	321 845	54 669	48 874	203	5 271	139 906	9 561	304 700		
360000-460000	0.08	429 672	236 281	53 217	-740	8 517	43 619	5 189	407 450	0.11	417 646	50 882	143 270	-1 901	5 260	55 588	2 743	406 731		
460000-560000	0.03	534 097	225 428	84 508	-102	11 453	63 301	4 926	505 428	0.03	512 117	76 231	125 650	2 668	8 788	142 587	10 137	503 370		
560000-660000	0.02	645 963	269 162	110 408	140	14 071	71 575	5 684	608 178	0.01	608 178	112 342	104 611	-7 977	6 771	0	0	588 510		
660000-760000	0.02	751 240	304 373	148 791	819	16 908	70 847	5 930	706 282	0.01	752 243	317 494	85 832	18 705	9 799	17 823	0	699 448		
760000-860000	0.01	850 254	340 275	178 327	1 246	19 402	74 152	6 380	797 833	0.02	855 145	569 340	50 950	-2 731	11 505	12 264	4 360	814 983		
860000-960000	0.0029	976 318	366 330	262 235	3 279	23 813	50 215	5 408	907 229	0.01	957 667	385 767	20 712	-2 100	18 942	7 608	0	911 249		
960000-1000000	0.0009	1 054 048	395 495	283 113	3 540	25 709	54 213	5 839	979 458	0.01	1 008 674	183 934	2 973	-309	2 277	355 125	0	985 406		
1000000-1200000	0.0033	1 174 146	440 558	315 371	3 943	28 639	60 390	6 504	1 091 057	0.02	1 126 674	165 948	21 871	144	7 695	1 174 604	19 653	1 072 917		
1200000-1400000	0.0020	1 390 880	521 880	373 585	4 671	33 925	71 537	7 704	1 292 454	0.01	1 326 690	233 964	41 165	-996	3 477	0	0	1 286 268		
1400000-1600000	0.0013	1 606 640	602 836	431 537	5 396	39 188	82 634	8 900	1 492 946	0.01	1 443 399	151 652	43 821	1 462	8 091	0	0	1 435 923		
1600000-1800000	0.0009	1 822 562	683 853	489 533	6 121	44 454	93 740	10 096	1 693 588	0.003	1 664 029	173 425	171 242	0	12 240	0	0	1 648 413		
1800000-2000000	0.0006	2 038 071	764 716	547 418	6 844	49 711	104 824	11 289	1 893 846	0	1 893 846	0	0	0	0	0	0	1 893 846		
Above 2 millions	0.0029	4 274 048	1 603 688	1 147 993	14 353	104 248	219 827	23 675	3 971 593	0	3 971 593	0	0	0	0	0	0	3 971 593		
All population	100	39 650	33 121	1 341	-252	722	1 498	1 027	37 691	100	37 692	27 645	1 014	-239	656	4 698	1 016	35 919		

TABLE C.3: SAMPLE FILES AND SYNTHETIC SAMPLE: YEAR 2003-2004

Note: This table presents the share of population belonging to a specified income bracket. The average income of the people belonging to this bracket for a series of income variables is also presented. On the final line, population means are reported.

C.3 Data used to match National Accounts and Taxation data

TABLE C.4: TOTAL INCOME

NATIONAL ACCOUNT (ASNA)
POSITIVE COMPONENTS
Superannuation received by households ¹
Gross business income
<i>equals</i> Gross mixed income
<i>plus</i> Rent on natural (received)
<i>minus</i> Rent on natural (paid)
Property income receivable: Interest
Property income receivable: Dividends
Net tenant occupied rents ²
Labor income
<i>equals</i> Compensation of employees
<i>plus</i> Secondary income receivable: Social benefits receivable: Workers' compensation
<i>plus</i> Social benefits receivable: Social assistance benefits
NEGATIVE COMPONENTS
Property income payable: Interest payable: Unincorporated enterprises
Consumption of fixed capital:
<i>equals</i> Household sector consumption of fixed capital
<i>minus</i> Tenant occupied consumption of fixed capital ³
TAXATION DATA (ATO)
Taxable income
<i>plus</i> Total deduction
<i>plus</i> Tax losses of earlier income years ⁴
<i>equals</i> TOTAL INCOME

¹ Source: Survey of Income and Housing. Contrary to National Account data, this item does not include latent interest on superannuation wealth accumulated by non retired population

² Including GOS on dwelling rents is problematic because of imputed rents. To avoid this problem, we exclude owner-occupied rents from the computation of total income. Net tenant occupied rents are estimated using SIH and RBA data.

³ This item is deduced to avoid double accounting

⁴ This item is not available for all years for all income brackets. For instance, this information is missing for the top income data available from 1994 to 1999. When taxes carried forward are missing, total income is set equal to taxable income plus total deductions.

TABLE C.5: BUSINESS INCOME

ABS: NATIONAL ACCOUNT¹	
Gross Mixed Income (25% K ; 75% L)	5204.0.T36, A2421961K
<i>plus</i> Rent on natural income (received)	5204.0.T36, A2421966W
<i>minus</i> Rent on natural income (paid)	5204.0.T36, A2421978F
<i>minus</i> Interest on unincorporated business	5204.0.T36, A2519082W

ATO: TABULATED DATA

Net income or loss from business

Note: See tables dedicated to ATO data for more information

¹ Interest paid on unincorporated business loans are deducted to be consistent with the item in fiscal data. The decomposition between capital and labor income follows Piketty and Zucman (2014)

TABLE C.6: SUPERANNUATION

ABS: NATIONAL ACCOUNT	
Imputed interest	5204.0.T36, A2421964T

ATO: TABULATED DATA[2007-2013]¹

Australian annuity or superannuation income stream - taxed

Australian annuity or superannuation income stream - untaxed

[1994-2007]¹

Other Australian Pension and Annuities

See tables dedicated to ATO data for more information

NB: National account item includes both realized and latent interests while ATO variable only present realized interests payments. The SIH have been used when only the realized component of the national account item was necessary.

¹ Starting from 2007-2008, tax base for superannuation has changed, leading to different variables in taxation series

TABLE C.7: FIXED INCOME CLAIMS

ABS: NATIONAL ACCOUNT	
Interest	5204.0.T36, A2421963R

ATO : TABULATED DATA¹

Gross interests

Note: See tables dedicated to ATO data for more information

TABLE C.8: STOCKS

ABS: NATIONAL ACCOUNT	
Dividends	5204.0.T36, A2421965V

ATO: TABULATED DATA

Dividends franked

plus Dividends unfranked

Note: See tables dedicated to ATO data for more information

TABLE C.9: HOUSING

ABS: National Account	
Income from dwelling rent received by persons	5204.0. T49, A2519108J
<i>equals</i> Gross operating surplus from ownership of dwellings by persons	5204.0. T49, A2422348F
<i>minus</i> Interest paid on tenant-occupied mortgage	
<i>minus</i> Consumption of fixed capital	

ATO: TABULATED DATA

Net rents

Note: See tables dedicated to ATO data for more information

National account item presents both tenant-occupied and owner-occupied rents. We systematically exclude the owner-occupied part of the national account aggregate to be consistent with taxation data that only present observed net rents

C.4 Comparison of our results with the Mean Split Histogram technique

Australian Top income shares have historically been computed using the Mean Split Histogram method (see Burkhauser, Hahn, and Wilkins, 2015 for more details). Figure C.6 shows that our top income series (excluding capital gains from income) are very close to those obtained using the methodology applied by Burkhauser, Hahn, and Wilkins (2015)³. The top-income shares are usually higher using the Pareto curve approach. However, the dynamic is similar than that of the shares found using the MSH method. A statistical break in the way non-taxable filers are treated is responsible for the sharp increase in top shares for the year 2010. For information, Figure C.6 also proposes the share of income held by top 0.01% individuals.

³The MSH income series can slightly differ from Burkhauser, Hahn, and Wilkins (2015) because the total income used here differs from the one they adopted.

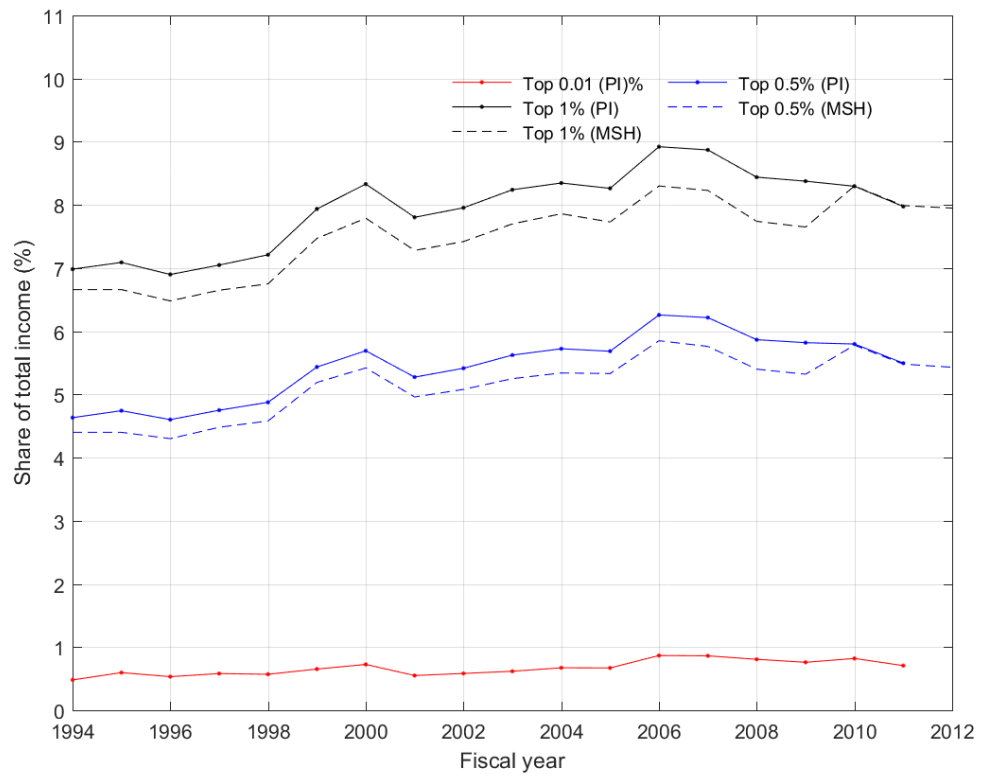


FIGURE C.6: Top income shares

Note: PI: Data computed using the Pareto Curve methodology ; MSH: Data computed using the Mean Split Histogram (see Burkhauser, Hahn, and Wilkins, 2015)

C.5 Taxation data used, more details

TABLE C.10: TABULATED DATA

YEAR	TABLE	TITLE
2012-13	Table 9: Individuals	Selected items, by total income and taxable income
2011-12	Table 9: Individual tax	Selected items, by total income and taxable income
2010-11	Table 8: Individual tax	Selected items, by total income and taxable income
2009-10	Table 5: Personal tax	Selected items, by taxable income Part B: Income, credits, selected deductible, withheld and adjustment items
2008-09	Table 5: Personal tax	Selected items, by taxable income Part B: Income, credits, selected deductible, withheld and adjustment items
2007-08	Table 5: Personal tax	Selected items, by taxable income Part B: Income, credits, selected deductible, withheld and adjustment items
2006-07	Table 5: Personal tax	Selected items, by taxable income Part B: Income, credits, selected deductible, withheld and adjustment items
2005-06	Table 5: Personal tax	Selected items, by taxable income Part B: Income, credits, selected deductible, withheld and adjustment items
2004-05	Table 5: Personal tax	Selected items, by taxable income Part B: Income, credits, selected deductible, withheld and adjustment items Part D: Tax offset items
2003-04	Table 5: Personal tax	All items, by taxable income Part B: Income, credits, selected deductible, withheld and adjustment items
2003-04	Table 5: Personal tax	All items, by taxable income Part B: Income, credits, selected deductible, withheld and adjustment items
2002-03	Table 5: Personal tax	All items, by taxable income Part B: Income, credits, selected deductible, withheld and adjustment items
2001-02	Table 5: Personal tax	All items, by taxable income Part B: Income, credits, selected deductible, withheld and adjustment items
2000-01	Table 5: Personal tax	All items, by taxable income Part B: Income items Part C: Personal tax Part D: Other income, deductions, losses, tax offsets and credits (supplement items)
1999-00	Table 5B: Personal tax	All items, by taxable income
	Table 5C: Personal tax	All items, by taxable income
1998-99	Table 8: Individuals	All items by grade of taxable income
	Table 14: Individuals	Taxpaters with a taxable income of \$ 500 000 or more
1997-98	Table 10: Individuals	All items by grade of taxable income
	Table 14: Individuals	Taxpayers with taxable income of \$500 000 or more
1996-97	Table 11: Individuals	All items by grade of taxable income
	Table 15: Individuals	Taxpayers with taxable income of \$500 000 or more
1995-96	Table 8: Individuals	All items by grade of taxable income
	Table 14: Individuals	Taxpayers with taxable income of \$500 000 or more
1994-95	Table P18	Grade of taxable income and industry by all items
	Table C5	Taxpayers with taxable income of \$500 000 or more: by grade of taxable income

TABLE C.11: TABULATED DATA: 2012-2013

TAXABLE INCOME					
Taxable income or loss					Table 9
INCOME BRACKETS					
< 6000	6001-10,000	10,001-18,200	18,201-25,000	25,000-30,000	30,001-37,000
37,001-40,000	40,001-45,000	45,001-50,000	50,001-55,000		
55,001-60,000	60,001-70,000	70,001-80,000	80,001-90,000		
90,001-100,000	100,001-150,000	150,001-180,000	180,001-250,000	250,001-500,000	
500,001-1,000,000	More than one million				
INTEREST					
Gross interest					Table 9
DIVIDENDS					
Dividends franked amounts					Table 9
<i>plus</i> Dividends unfranked amounts					Table 9
SUPERANNUATION					
Australian annuities and superannuation income streams - taxable component - taxed element					Table 9
Australian annuities and superannuation income streams - taxable component - untaxed element					Table 9
HOUSING					
Net rent					Table 9
<i>equals</i> Net rent - profit					Table 9
<i>plus</i> Net rent - loss					Table 9
BUSINESS INCOME					
Total net income or loss from business					Table 9
OTHER INTERESTING INFORMATION					
Total income					Table 9
Imputation credits					
<i>equals</i> Share of franking credit from franked dividends					Table 9
<i>plus</i> Dividends franking credit					Table 9
Salary or wages					Table 9
Net capital gain					Table 9

TABLE C.12: TABULATED DATA: 2011-2012

TAXABLE INCOME					
Taxable income or loss					Table 9
INCOME BRACKETS					
< 6000	6001-10,000	10,001-18,200	18,201-25,000	25,000-30,000	30,001-37,000
37,001-40,000	40,001-45,000	45,001-50,000	50,001-55,000		
55,001-60,000	60,001-70,000	70,001-80,000	80,001-90,000		
90,001-100,000	100,001-150,000	150,001-180,000	180,001-250,000	250,001-500,000	
500,001-1,000,000	Other ¹	More than one million			
INTEREST					
Gross interest					Table 9
DIVIDENDS					
Dividends franked amounts					Table 9
<i>plus</i> Dividends unfranked amounts					Table 9
SUPERANNUATION					
Australian annuities and superannuation income streams - taxable component - taxed element					Table 9
Australian annuities and superannuation income streams - taxable component - untaxed element					Table 9
HOUSING					
Net rent					Table 9
<i>equals</i> Net rent - profit					Table 9
<i>plus</i> Net rent - loss					Table 9
BUSINESS INCOME					
Net income or loss from business					Table 9
OTHER INTERESTING INFORMATION					
Total income					Table 9
Imputation credits					
<i>equals</i> Share of franking credit from franked dividends					Table 9
<i>plus</i> Dividends franking credit					Table 9
Salary or wages					Table 9
Net capital gain					Table 9
Interest deductions					Table 9
Dividend deductions					Table 9

¹ This category includes a limited number of people. We added them to the bracket that starts with \$500,000 since the people in the "Other" have a taxable income per head close to those within this bracket.

TABLE C.13: TABULATED DATA: 2010-2011

TAXABLE INCOME						
Taxable income or loss						Table 8
INCOME BRACKETS						
< 6000	6001-10,000	10,001-15,000	15,001-20,000	20,001-25,000	25,000-30,000	
30,001-37,000						
37,001-40,000	40,001-45,000	45,001-50,000	50,001-55,000			
55,001-60,000	60,001-70,000	70,001-80,000	80,001-90,000			
90,001-100,000	100,001-150,000	150,001-180,000	180,001-250,000	250,001-500,000		
500,001-1,000,000	Other ¹	More than one million				
INTEREST						
Gross interest						Table 8
DIVIDENDS						
Dividends franked amounts						Table 8
<i>plus</i> Dividends unfranked amounts						Table 8
SUPERANNUATION						
Australian annuities and superannuation income streams – taxable component – taxed element						Table 8
Australian annuities and superannuation income streams - taxable component - untaxed element						Table 8
HOUSING						
Net rent						Table 8
<i>equals</i> Net rent - profit						Table 8
<i>plus</i> Net rent - loss						Table 8
BUSINESS INCOME						
Net income or loss from business – primary production						Table 8
<i>plus</i> Net income or loss from business – non-primary production						Table 8
OTHER INTERESTING INFORMATION						
Total income						Table 8
Imputation credits						
<i>equals</i> Share of franking credit from franked dividends						Table 8
<i>plus</i> Dividends franking credit						Table 8
Salary or wages						Table 8
Net capital gain						Table 8
Interest deductions						Table 8
Dividend deductions						Table 8

¹ This category includes a limited number of people. We added them to the range that starts with \$500,000 since the people in the "Other" have a taxable income per head close to those within this range.

TABLE C.14: TABULATED DATA: 2009-2010

TAXABLE INCOME					
Taxable income or loss					Table 5
INCOME BRACKETS					
Non taxable	< 6000	6001-10,000	10,001-15,000	15,001-20,000	20,001-25,000
25,001-30,000	30,001-35,000				
35,001-40,000	40,001-45,000	45,001-50,000	50,001-55,000		
55,001-60,000	60,001-70,000	70,001-80,000	80,001-90,000		
90,001-100,000	100,001-150,000	150,001-180,000	180,001-250,000	250,001-500,000	
500,001-1,000,000	Total				
INTEREST					
Gross interest					Table 5
DIVIDENDS					
Dividends franked					Table 5
<i>plus</i> Dividends unfranked					Table 5
SUPERANNUATION					
Australian annuities and superannuation income streams taxable component taxed element					Table 5
Australian annuities and superannuation income streams taxable component untaxed element					Table 5
HOUSING					
Net rent					Table 5
BUSINESS INCOME					
Total net business income/loss					Table 5
OTHER INTERESTING INFORMATION					
Total income or loss					Table 5
Imputation credits					
<i>equals</i> Share of franking credit from franked dividends					Table 5
<i>plus</i> Dividends franking credit					Table 5
Salary or wages					Table 5
Total salary & wages in assessable income					Table 5
Net capital gain					Table 5

TABLE C.15: TABULATED DATA: 2008-2009

TAXABLE INCOME						
Taxable income or loss						Table 5
INCOME BRACKETS						
Non taxable	< 6000	6001-10,000	10,001-15,000	15,001-20,000	20,001-25,000	
25,001-30,000	30,001-35,000					
35,001-40,000	40,001-45,000	45,001-50,000	50,001-55,000			
55,001-60,000	60,001-70,000	70,001-80,000	80,001-90,000			
90,001-100,000	100,001-150,000	150,001-200,000	200,001-250,000	250,001-500,000		
500,001-1,000,000	Total taxable					
INTEREST						
Gross interest						Table 5
DIVIDENDS						
Dividends franked						Table 5
<i>plus</i> Dividends unfranked						Table 5
SUPERANNUATION						
Australian annuities and superannuation income streams taxable component taxed element						Table 5
Australian annuities and superannuation income streams taxable component untaxed element						Table 5
HOUSING						
Net rent						Table 5
BUSINESS INCOME						
Total net business income/loss						Table 5
OTHER INTERESTING INFORMATION						
Total income or loss						Table 5
Imputation credits						
<i>equals</i> Share of franking credit from franked dividends						Table 5
<i>plus</i> Dividends franking credit						Table 5
Salary or wages						Table 5
Total salary & wages in assessable income						Table 5
Net capital gain						Table 5
Interest deductions						Table 5
Dividend deductions						Table 5

TABLE C.16: TABULATED DATA: 2007-2008

TAXABLE INCOME					
Taxable income or loss					Table 5
INCOME BRACKETS					
Non taxable	< 6000	6001-10,000	10,001-15,000	15,001-20,000	20,001-25,000
25,001-30,000	30,001-35,000				
35,001-40,000	40,001-45,000	45,001-50,000	50,001-55,000		
55,001-60,000	60,001-70,000	70,001-80,000	80,001-90,000		
90,001-100,000	100,001-150,000	150,001-200,000	200,001-250,000	250,001-500,000	
500,001-1,000,000	Total taxable				
INTEREST					
Gross interest					Table 5
DIVIDENDS					
Dividends franked					Table 5
<i>plus</i> Dividends unfranked					Table 5
SUPERANNUATION					
Australian annuities and superannuation income streams taxable component taxed element					Table 5
Australian annuities and superannuation income streams taxable component untaxed element					Table 5
HOUSING					
Net rent					Table 5
BUSINESS INCOME					
Total income or loss					Table 5
Imputation credits					
<i>equals</i> Share of franking credit from franked dividends					Table 5
<i>plus</i> Dividends franking credit					Table 5
Salary or wages					Table 5
Total salary & wages in assessable income					Table 5
Net capital gain					Table 5
Interest deductions					Table 5
Dividend deductions					Table 5

TABLE C.17: TABULATED DATA: 2006-2007

TAXABLE INCOME					
Taxable income or loss					Table 5
INCOME BRACKETS					
Non taxable	< 6000	6001-10,000	10,001-15,000	15,001-20,000	20,001-25,000
25,001-30,000	30,001-35,000				
35,001-40,000	40,001-45,000	45,001-50,000	50,001-55,000		
55,001-60,000	60,001-70,000	70,001-80,000	80,001-90,000		
90,001-100,000	100,001-150,000	150,001-200,000	200,001-250,000	250,001-500,000	
500,001-1,000,000	More than one million	Total taxable			
INTEREST					
Gross interest					Table 5
DIVIDENDS					
Dividends franked					Table 5
<i>plus</i> Dividends unfranked					Table 5
SUPERANNUATION					
Other Australian pension and annuities					Table 5
HOUSING					
Net rent					Table 5
BUSINESS INCOME					
Total Net Business Income					Table 5
OTHER INTERESTING INFORMATION					
Total income or loss					Table 5
Imputation credits					
<i>equals</i> Share of franking credit from franked dividends					Table 9
<i>plus</i> Dividends franking credit					Table 5
Salary or wages					Table 5
Total salary & wages in assessable income					Table 5
Net capital gain					Table 5
Interest deductions					Table 5
Dividend deductions					Table 5

TABLE C.18: TABULATED DATA: 2005-2006

TAXABLE INCOME						
Taxable income or loss						Table 5
INCOME BRACKETS						
< 6000	6001-10,000	10,001-15,000	15,001-20,000	20,001-25,000	25,001-30,000	
30,001-35,000						
35,001-40,000	40,001-45,000	45,001-50,000	50,001-55,000			
55,001-60,000	60,001-70,000	70,001-80,000	80,001-90,000			
90,001-100,000	100,001-150,000	150,001-200,000	200,001-250,000	250,001-500,000		
500,001-1,000,000	More than one million					
INTEREST						
Gross interest						Table 5
DIVIDENDS						
Dividends franked						Table 5
<i>plus</i> Dividends unfranked						Table 5
SUPERANNUATION						
Other Australian pension and annuities						Table 5
HOUSING						
Net rent						Table 5
<i>equals</i> Net rent - profit						Table 5
<i>plus</i> Net rent - loss						Table 5
BUSINESS INCOME						
Total Net Business Income or Loss						Table 5
OTHER INTERESTING INFORMATION						
Total income or loss						Table 5
Imputation credits						
<i>equals</i> Share of franking credit from franked dividends						Table 5
<i>plus</i> Dividends franking credit						Table 5
Salary or wages						Table 5
Total salary & wages in assessable income						Table 5
Net capital gain						Table 5
Interest deductions						Table 5
Dividend deductions						Table 5

TABLE C.19: TABULATED DATA: 2004-2005

TAXABLE INCOME						
Taxable income or loss						Table 5B
INCOME BRACKETS						
< 6000	6001-10,000	10,001-15,000	15,001-20,000	20,001-25,000	25,001-30,000	
30,001-35,000						
35,001-40,000	40,001-50,000	50,001-60,000				
60,001-80,000	80,001-100,000					
100,001-200,000	200,001-500,000					
500,001-1,000,000	More than one million					
INTEREST						
Gross interest						Table 5B
DIVIDENDS						
Dividends franked						Table 5B
<i>plus</i> Dividends unfranked						Table 5B
SUPERANNUATION						
Other Australian pension and annuities						Table 5B
HOUSING						
Net rent						Table 5B
<i>equals</i> Net rent - profit						Table 5B
<i>plus</i> Net rent - loss						Table 5B
BUSINESS INCOME						
Total Net Business Income or Loss						Table 5B
OTHER INTERESTING INFORMATION						
Total income or loss						Table 5B
Total Imputation credits						Table 5D
Salary or wages						Table 5B
Total salary & wages in assessable income						Table 5B
Net capital gain						Table 5B
Interest deductions						Table 5B
Dividend deductions						Table 5B

TABLE C.20: TABULATED DATA: 2003-2004

TAXABLE INCOME					
Taxable income or loss					Table 5B
INCOME BRACKETS					
< 6000	6001-10,000	10,001-15,000	15,001-20,000	20,001-25,000	25,001-30,000
30,001-35,000					
35,001-40,000		40,001-50,000		50,001-60,000	
60,001-80,000		80,001-100,000			
100,001-200,000		200,001-500,000			
500,001-1,000,000		More than one million			
INTEREST					
Gross interest					Table 5B
DIVIDENDS					
Dividends franked					Table 5B
<i>plus</i> Dividends unfranked					Table 5B
SUPERANNUATION					
Other Australian pension and annuities					Table 5B
HOUSING					
Net rent					Table 5B
<i>equals</i> Net rent - profit					Table 5B
<i>plus</i> Net rent - loss					Table 5B
BUSINESS INCOME					
Total Net business income/loss					Table 5B
OTHER INTERESTING INFORMATION					
Total income or loss					Table 5B
Total Imputation credits					
<i>equals</i> Imputation credit - primary					Table 5B
<i>plus</i> Imputation credit - secondary					Table 5B
Salary or wages					Table 5B
Total salary & wages in assessable income					Table 5B
Net capital gain					Table 5B
Interest deductions					Table 5B
Dividend deductions					Table 5B

TABLE C.21: TABULATED DATA: 2002-2003

TAXABLE INCOME					
Taxable income or loss					Table 5B
INCOME BRACKETS					
< 6000	6001-10,000	10,001-15,000	15,001-20,000	20,001-25,000	25,001-30,000
30,001-35,000					
35,001-40,000		40,001-50,000		50,001-60,000	
60,001-80,000		80,001-100,000			
100,001-200,000		200,001-500,000			
500,001-1,000,000		More than one million			
INTEREST					
Gross interest					Table 5B
DIVIDENDS					
Dividends franked					Table 5B
<i>plus</i> Dividends unfranked					Table 5B
SUPERANNUATION					
Other Australian pension and annuities					Table 5B
HOUSING					
Net rent					Table 5B
<i>equals</i> Net rent - profit					Table 5B
<i>plus</i> Net rent - loss					Table 5B
BUSINESS INCOME					
Total Net business income/loss					Table 5B
OTHER INTERESTING INFORMATION					
Total income or loss					Table 5B
Total Imputation credits					
<i>equals</i> Imputation credit - primary					Table 5B
<i>plus</i> Imputation credit - secondary					Table 5B
Salary or wages					Table 5B
Total salary & wages in assessable income					Table 5B
Net capital gain					Table 5B
Interest deductions					Table 5B
Dividend deductions					Table 5B

TABLE C.22: TABULATED DATA: 2001-2002

TAXABLE INCOME					
Taxable income or loss					
INCOME BRACKETS					Table 5
< 6000	6001-9,999	10,000-14,999	15,000-20,000	20,001-24,999	25,000-29,999
30,000-34,999					
35,000-39,999		40,000-50,000		50,001-60,000	
60,001-79,999		80,000-99,999			
100,000-199,999		200,000-499,999			
500,000-999,999		More than one million			
INTEREST					
Gross interest					Table 5B
DIVIDENDS					
Dividends franked					Table 5B
<i>plus</i> Dividends unfranked					Table 5B
SUPERANNUATION					
Other Australian pension and annuities					Table 5B
HOUSING					
Net rent					Table 5D
<i>equals</i> Net rent - profit					Table 5D
<i>plus</i> Net rent - loss					Table 5D
BUSINESS INCOME					
Total Net business income/loss					Table 5D
OTHER INTERESTING INFORMATION					
Total income or loss					Table 5B
Total Imputation credits					
Salary or wages					Table 5B
Total salary & wages in assessable income					Table 5B
Net capital gain					Table 5D
Interest deductions					Table 5B
Dividend deductions					Table 5B

TABLE C.23: TABULATED DATA: 2000-2001

TAXABLE INCOME					
Taxable income or loss					Table 5
INCOME BRACKETS					
< 6000	6001-9,999	10,000-14,999	15,000-20,000	20,001-24,999	25,000-29,999
30,000-34,999					
35,000-39,999		40,000-50,000		50,001-60,000	
60,001-79,999		80,000-99,999			
100,000-199,999		200,000-499,999			
500,000-999,999		More than one million			
INTEREST					
Gross interest					Table 5B
DIVIDENDS					
Dividends franked					Table 5B
<i>plus</i> Dividends unfranked					Table 5B
SUPERANNUATION					
Other Australian pension and annuities					Table 5B
HOUSING					
Net rent					Table 5D
<i>equals</i> Net rent - profit					Table 5D
<i>plus</i> Net rent - loss					Table 5D
BUSINESS INCOME					
Total Net business income/loss					Table 5D
OTHER INTERESTING INFORMATION					
Total income or loss					Table 5B
Total Imputation credits					
<i>equals</i> Imputation credit - primary					Table 5B
<i>plus</i> Imputation credit - secondary					Table 5B
Salary or wages					Table 5B
Total salary & wages in assessable income					Table 5B
Net capital gain					Table 5D
Interest deductions					Table 5B
Dividend deductions					Table 5B

TABLE C.24: TABULATED DATA: 1999-2000

TAXABLE INCOME						
Taxable income or loss						Table 5
INCOME BRACKETS						
< 5400	5401-9,999	10,000-14,999	15,000-20,700	20,701-24,999	25,000-29,999	
30,000-34,999						
35,000-38,001	38,001-39,999	40,000-50,000	50,001-69,999			
70,000-99,999	100,000-199,999	200,000-499,999				
500,000-999,999	More than one million					
INTEREST						
Gross interest						Table 5B
DIVIDENDS						
Dividends franked						Table 5B
<i>plus</i> Dividends unfranked						Table 5B
SUPERANNUATION						
Other Australian pension and annuities						Table 5B
HOUSING						
Net rent						Table 5C
<i>equals</i> Net rent - profit						Table 5C
<i>plus</i> Net rent - loss						Table 5C
BUSINESS INCOME						
Total Net business income/loss						Table 5C
OTHER INTERESTING INFORMATION						
Total income or loss						Table 5C
Total Imputation credits						
<i>equals</i> Imputation credit - primary						Table 5B
<i>plus</i> Imputation credit - secondary						Table 5B
Salary or wages						Table 5B
Total salary & wages in assessable income						Table 5B
Net capital gain						Table 5B
Interest deductions						Table 5B
Dividend deductions						Table 5B

TABLE C.25: TABULATED DATA: 1998-1999

TAXABLE INCOME						
Taxable income or loss						Table 8 ^a
INCOME BRACKETS						
< 5400	5401-9999	10,000-14,999	15,000-20,700	20,701-24,999	25,000-29,999	
30,000-34,999	35,000-38,800	38,801-39,999	40,000-50,000			
50,001-69,999	70,000-99,999					
100,000-199,999	200,000-499,999					
500,000-599,999	600,000-799,999					Table 14
800,000-999,999	1,000,000 - 1,999,999	2,000,000 and over				
INTEREST						
Gross interest						Table 8, part1 ; Table 14
DIVIDENDS						
Dividends franked						Table 8, part1 ; Table 14
<i>plus</i> Dividends unfranked						Table 8, part1 ; Table 14
SUPERANNUATION						
Other Australian pension or annuities						Table 8, part1
HOUSING						
Net rent						Table 8, part1 ; Table 14
<i>equals</i> Net rent - profit						Table 8, part1
<i>plus</i> Net rent - loss						Table 8, part1
BUSINESS INCOME						
Total Net business income/loss						Table 8, part1 ; Table 14
OTHER INTERESTING INFORMATION						
Total income or loss						Table 8, part1 ; Table 14 ^b
Total Imputation credits						Table 8, part2 ; Table 14
Total salary & wages in assessable income						Table 8, part1 ; Table 14
Net capital gain						Table 8, part1 ; Table 14
Interest and dividend deductions						Table 10, part1

^a: In this table, we also have information on individuals that earn more than 500,000. However, we can extract information in Table 14 to have more precision on the top earners

^b: This item is not presented in the table but can approximately be inferred by adding total rebates to taxable income.

^c This item is not available for top income earners. To estimate it for top earners, we use information in Table 8 to estimate the superannuation income of top earners. We assume subcategories (e.g. [500,000 ; 600,000], [600,000 ; 800 000] ; [800,000 ; 1,000,000]) are distributed as the category available on Table 8, e.g. for [500,000;1,000,000].

TABLE C.26: TABULATED DATA: 1997-1998

TAXABLE INCOME						
Taxable income or loss						Table 10 ^a
INCOME BRACKETS						
Non taxable	< 5400	5401-9999	10,000-14,999	15,000-20,700	20,701-24,999	25,000-29,999
30,000-34,999	35,000-38,000	38,801-39,999	40,000-50,000			
50,001-69,999	70,000-99,999					
100,000-199,999	200,000-499,999					
500,000-599,999	600,000-799,999					Table 14
800,000-999,999	1,000,000 - 1,999,999	2,000,000 and over				
INTEREST						
Gross interest						Table 10, part1 ; Table 14
DIVIDENDS						
Dividends franked						Table 10, part1 ; Table 14
<i>plus</i> Dividends unfranked						Table 10, part1 ; Table 14
SUPERANNUATION						
Other Australian pensions or annuities ^c						Table 10, part1
HOUSING						
Net rent						Table 10, part1 ; Table 14
<i>equals</i> Net rent - profit						Table 10, part1
<i>plus</i> Net rent - loss						Table 10, part1
BUSINESS INCOME						
Total Net business income/loss						Table 10, part1 ; Table 14
OTHER INTERESTING INFORMATION						
Total income or loss						Table 10, part1 ; Table 14 ^b
Total Imputation credits						Table 10, part2 ; Table 14
Total salary & wages in assessable income						Table 10, part1 ; Table 14
Net capital gain						Table 10, part1 ; Table 14
Interest and dividend deductions						Table 10, part1

^a: In this table, we also have information on individuals that earn more than 500,000. However, we can extract information in Table 14 to have more precision for the top earners

^b: This item is not presented in the table but can approximately be inferred by adding total rebates to taxable income.

^c This item is not available for top income earners. To estimate it for top earners, I use information in Table 10 to estimate the superannuation income of top earners. I assume subcategories, e.g. [500,000 ; 600,000[, [600,000 ; 800 000[; [800,000 ; 1,000,000[, are distributed as the category available on Table 10, e.g. for [500,000;1,000,000[.

TABLE C.27: TABULATED DATA: 1996-1997

TAXABLE INCOME						
Taxable income or loss						Table 10 ^a
INCOME BRACKETS						
Non taxable	< 5401	5401-9999	10,000-14,999	15,000-20,700	20,701-24,999	25,000-29,999
30,000-34,999	35,000-38,000	38,001-39,999	40,000-50,000			
50,001-69,999	70,000-99,999					
100,000-199,999	200,000-499,999					
500,000-599,999	600,000-799,999					Table 14
800,000-999,999	1,000,000 - 1,999,999	2,000,000 and over				
INTEREST						
Gross interest						Table 10, part1 ; Table 14
DIVIDENDS						
Dividends franked						Table 10, part1 ; Table 14
<i>plus</i> Dividends unfranked						Table 10, part1 ; Table 14
SUPERANNUATION						
Annuities, Other Pensions, Superannuation, etc. ^c						Table 8, part1
HOUSING						
Net rent						Table 10, part1 ; Table 14
<i>equals</i> Net rent - profit						Table 10, part1
<i>plus</i> Net rent - loss						Table 10, part1
BUSINESS INCOME						
Total Net business income/loss						Table 10, part1 ; Table 14
OTHER INTERESTING INFORMATION						
Total income or loss						Table 10, part1 ; Table 14 ^b
Total Imputation credits						Table 10, part1 ; Table 14
Total salary & wages in assessable income						Table 10, part1 ; Table 14
Net capital gain						Table 10, part1 ; Table 14
Interest and dividend deductions						Table 10, part1

^a: In this table, we also have information on individuals that earn more than 500,000. However, we can extract information in Table 14 to have more precision for the top earners

^b: This item is not presented in the table but can approximately be inferred by adding total rebates to taxable income.

^c This item is not available for top income earners. To estimate it for top earners, I use information in Table 10 to estimate the superannuation income of top earners. I assume subcategories, e.g. [500,000 ; 600,000], [600,000 ; 800 000] ; [800,000 ; 1,000,000], are distributed as the category available on Table 10, e.g. for [500,000;1,000,000].

TABLE C.28: TABULATED DATA: 1995-1996

TAXABLE INCOME					
Taxable income or loss					Table 8 ^a
INCOME BRACKETS					
< 10000	10,000-14,999	15,000-19,999	20,000-24,999	25,000-34,999	
35,000-49,999	50,000-99,999				
100,000-499,999					
500,000-599,999	600,000-799,999				Table 14
800,000-999,999	1,000,000 - 1,999,999	2,000,000 and over			
INTEREST					
Gross interest					Table 8, part1 ; Table 14
DIVIDENDS					
Dividends franked					Table 8, part1 ; Table 14
<i>plus</i> Dividends unfranked					Table 8, part1 ; Table 14
SUPERANNUATION					
Annuities, Other Pensions, Superannuation, etc. ^c					Table 8, part1
HOUSING					
Net rent					Table 8, part1 ; Table 14
<i>equals</i> Net rent - profit					Table 8, part1
<i>plus</i> Net rent - loss					Table 8, part1
BUSINESS INCOME					
Total Net business income/loss					Table 8, part1 ; Table 14
OTHER INTERESTING INFORMATION					
Total income or loss					Table 8, part1 ; Table 14 ^b
Total Imputation credits					Table 8, part1 ; Table 14
Total salary & wages in assessable income					Table 8, part1 ; Table 14
Net capital gain					Table 8, part1 ; Table 14
Interest and dividend deductions					Table 8, part1

^a: In this table, we also have information on individuals that earn more than 500,000. However, we can extract information in Table 14 to have more precision for the top earners

^b: This item is not presented in the table but can approximately be inferred by adding total rebates to taxable income.

^c This item is not available for top income earners. To estimate it for top earners, I use information in Table 8 to estimate the superannuation income of top earners. I assume subcategories, e.g. [500,000 ; 600,000], [600,000 ; 800 000] ; [800,000 ; 1,000,000], are distributed as the category available on Table 8, e.g. for [500,000;1,000,000].

TABLE C.29: TABULATED DATA: 1994-1995

TAXABLE INCOME					
Taxable income or loss					P18 ^a
< 10000	10,000-14,999	15,000-19,999	20,000-24,999	25,000-34,999	
35,000-49,999	50,000-99,999				
100,000-499,999					
500,000-599,999	600,000-799,999				C5
800,000-999,999	1,000,000 - 1,999,999	2,000,000 and over			
INTEREST					
Gross interest					P18 ; C5
DIVIDENDS					
Dividends franked					P18 ; C5
<i>plus</i> Dividends unfranked					P18 ; C5
SUPERANNUATION					
Annuities, Other Pensions, Superannuation, etc. ^c					P18
HOUSING					
Net rent					P18 ; C5
BUSINESS INCOME					
Total Net business income/loss					P18 ; C5
OTHER INTERESTING INFORMATION					
Total income or loss					P18 ; C5
Total Imputation credits					P18 ; C5
Total salary & wages in assessable income					P18 ; C5
Net capital gain					P18 ; C5
Interest and dividend deductions					P18

^a In this table, we also have information on individuals that earn more than 500,000. However, we can extract information in Table C5 to have more precision for the top earners

^b This item is not presented in the table but can approximately be inferred by adding total rebates to taxable income.

^c This item is not available for top income earners. To estimate it for top earners, I use information in Table P18 to estimate the superannuation income of top earners. I assume subcategories, e.g. [500,000 ; 600,000[, [600,000 ; 800 000[; [800,000 ; 1,000,000[, are distributed as the category available on P18, e.g. for [500,000;1,000,000[.

Bibliography

- Ando, Albert and Franco Modigliani (1963). "The" life cycle" hypothesis of saving: Aggregate implications and tests". In: *The American economic review* 53.1, pp. 55–84.
- Atkinson, Anthony B and Andrew Leigh (2007). "The distribution of top incomes in Australia". In: *Economic Record* 83.262, pp. 247–261.
- Burkhauser, Richard V, Markus H Hahn, and Roger Wilkins (2015). "Measuring top incomes using tax record data: A cautionary tale from Australia". In: *The Journal of Economic Inequality* 13.2, pp. 181–205.
- (2016). "Top Incomes and Inequality in Australia: Reconciling Recent Estimates from Household Survey and Tax Return Data". In:
- Campbell, John Y (2006). "Household finance". In: *The Journal of Finance* 61.4, pp. 1553–1604.
- Cochrane, John H (2009). *Asset Pricing:(Revised Edition)*. Princeton university press.
- Favilukis, Jack, Sydney C Ludvigson, and Stijn Van Nieuwerburgh (2015). "The Macroeconomic Effects of Housing Wealth, Housing Finance, and Limited Risk-Sharing in General Equilibrium". In: *Journal of Political Economy, Forthcoming*.
- Fernández-Villaverde, Jesús and Dirk Krueger (2007). "Consumption over the life cycle: Facts from consumer expenditure survey data". In: *The Review of Economics and Statistics* 89.3, pp. 552–565.
- Finlay, Richard et al. (2012). "The distribution of household wealth in Australia: evidence from the 2010 HILDA survey". In: *RBA Bulletin*, pp. 19–27.
- Fisher, Irving (1930). "The theory of interest". In: *New York* 43.
- Fournier, Juliette (2015). "Generalized Pareto curves: Theory and application using income and inheritance tabulations for France 1901–2012". In:
- Friedman, Milton et al. (1957). "A Theory of the Consumption Function". In: *NBER Books*.
- Garbinti, Bertrand, Jonathan Goupille, and Thomas Piketty (2015). "Wealth inequality in France". In: *Paris School of Economics Working Paper*.
- Guerrieri, Luca and Matteo M Iacoviello (2015). "Collateral constraints and macroeconomic asymmetries". In: *Available at SSRN 2648869*.
- Hayashi, Fumio (1982). "Tobin's marginal q and average q: A neoclassical interpretation". In: *Econometrica: Journal of the Econometric Society*, pp. 213–224.
- Hicks, John Richard et al. (1975). "Value and capital: An inquiry into some fundamental principles of economic theory". In: *OUP Catalogue*.
- Justiniano, Alejandro, Giorgio E Primiceri, and Andrea Tambalotti (2015). "Household leveraging and deleveraging". In: *Review of Economic Dynamics* 18.1, pp. 3–20.
- Katic, Pamela and Andrew Leigh (2015). "Top Wealth Shares in Australia 1915–2012". In: *Review of Income and Wealth*.
- Kiyotaki, Nobuhiro and John Moore (1997). "Credit Cycles". In: *The Journal of Political Economy* 105.2, pp. 211–248.
- Kopczuk, Wojciech and Emmanuel Saez (2004). *Top wealth shares in the united states: 1916–2000: Evidence from estate tax returns*. Tech. rep. National Bureau of Economic Research.

- Lundberg, Jacob and Daniel Waldenström (2016). "DP11246 Wealth inequality in Sweden: What can we learn from capitalized income tax data?" In:
Nadaraya, Elizbar A (1964). "On estimating regression". In: *Theory of Probability & Its Applications* 9.1, pp. 141–142.
- Piketty, Thomas (2001). *Les hauts revenus en France au XXème siècle*. Grasset.
- (2014). "Capital in the 21st Century". In: *Cambridge: Harvard Uni*.
- Piketty, Thomas and Gabriel Zucman (2014). "Capital is back: wealth-income ratios in rich countries 1700-2010". In: *The Quarterly Journal of Economics* 129.3, pp. 1255–1310.
- Pudney, Stephen (1993). "Income and wealth inequality and the life cycle. A non-parametric analysis for China". In: *Journal of Applied Econometrics* 8.3, pp. 249–276.
- Saez, Emmanuel and Gabriel Zucman (2016). "Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data". In: *The Quarterly Journal of Economics* 131.2, pp. 519–578.
- Silverman, Bernard W (1986). *Density estimation for statistics and data analysis*. Vol. 26. CRC press.
- Tobin, James (1982). *Asset accumulation and economic activity: Reflections on contemporary macroeconomic theory*. University of Chicago Press.
- Watson, Geoffrey S (1964). "Smooth regression analysis". In: *Sankhyā: The Indian Journal of Statistics, Series A*, pp. 359–372.
-