1. Introduction

let a palace arise beside the little house, and it [the latter] shrinks from a little house to a hut (Karl Marx, [1849] 1977, p. 216)

This book is about the distribution of wealth among persons, described by statisticians as the size distribution of wealth, and the way this distribution has changed over time. Why is the distribution of wealth important? How can the distribution of wealth be measured? How unequal is this distribution in practice, and has the degree of inequality changed over time? What factors determine the degree of inequality? What criteria can be used to rank alternative distributions of wealth? What instruments are available to a government that wishes to change the distribution of wealth? How is the distribution of wealth related to the aggregate amount of wealth? These are the questions to which this book provides answers. The answers have many dimensions, notably economic, statistical, ethical, political, sociological and legal.

‘Distribution’ and ‘wealth’ may each be interpreted in more than one way. We accordingly begin by stating explicitly how these terms are used in this book. First, we basically follow John Stuart Mill in defining ‘wealth’ as ‘all useful or agreeable things which possess exchangeable value’ (Mill, [1848] 1965, p. 10), the definition that in the context of economics is said to have ‘been most widely accepted’ (Oxford English Dictionary, 2015). Second, we define a distribution (in general) as ‘[t]he way in which a particular measurement or characteristic is spread over the members of a class’, and the ‘the distribution of wealth’ in particular as being ‘[t]he division of the aggregate [wealth] . . . of any society among its individual members’ (Oxford English Dictionary, 2015).1 We next discuss each of these concepts in more detail.

1.1 WHAT IS MEANT BY WEALTH?

Wealth is not the same thing as income. While income is a flow concept, wealth is a stock concept. That wealth is a stock, not a flow, is implicit in Mill’s definition. Mill, however, did not spell this out, the distinction between stocks and flows being first clearly established, as its fervent
advocate Irving Fisher acknowledged (Fisher, 1896, pp. 532–3), by Edwin Cannan. While Cannan did not publish anything on this distinction until 1893 (Cannan, 1893, p. 14), in an unpublished article entitled ‘The Two Wealths’, inspired by a study of the accounts of a British railway company and ‘read in a somewhat amplified but less symmetrical form to the Oxford Economic Society on March 1 1887’ (Cannan, 1897, p. 280), Cannan made the distinction as clearly as anyone has done since:

It is, in fact, universally recognised, that an individual’s capital exists at a point in time, and not in a length of time, and that his income exists in a length of time and not at a point of time. The same distinction, surely, is to be found between the capital and the income of a community; a community has a certain amount of income in the year 1886 and a certain amount of capital at 10 a.m. on the 1st of June 1886, but it has not a certain amount of income at 10 a.m. on the 1st of June, nor a certain amount of capital in the course of the year 1886. (Cannan, 1897, p. 281)

Given that wealth is a stock, what does it comprise? The word ‘wealth’ is derived from ‘weal’, a state of well-being, but over time it came to be identified with possession of the durable objects on which well-being depends, and to be measured by the exchangeable value of these objects. The wealth of a country, as Jack Revell (1965, p. 368) pointed out, ‘consists of two elements – the value of tangible assets located in the country and the net total of claims on overseas residents’, the second element comprising tangible assets owned by domestic residents but located outside the country minus tangible assets located in the country but not owned by its citizens. The wealth of an economic unit within a country, such as an individual, can also be seen as consisting of two elements – in this case, the value of tangible assets owned by the individual and the net total of the individual’s claims on tangible assets, the second element comprising financial assets net of liabilities.

Some of the objects which make up a country’s wealth are owned communally (public sector wealth), while the remainder are owned privately (private sector wealth). Private sector wealth assumes a private property system, the key features of which were neatly summarised by Harold Demsetz (1965, p. 62) as follows:

Crucially involved is the notion that individuals have control over the use to which scarce resources (including ideas) can be put, and that this right of control is saleable or transferable. A private property right system requires the prior consent of ‘owners’ before their property can be affected by others. The role of the body politic in this system is twofold. Firstly, the government or courts must help decide which individuals possess what property rights and, therefore, who has the power to claim that his rights are affected by others.
Secondly, property rights so assigned must be protected by the police power of the state or the owners must be allowed to protect property rights themselves.

Stewart (1991, p. 99) provided a concise summary of the view taken by the 1975 Royal Commission on the Distribution of Income and Wealth in the United Kingdom on the calculation of private sector wealth, namely that it should in principle include not only:

marketable wealth which includes all assets for which a value can immediately be realised, net of liabilities . . . plus value of occupational and state pension rights, . . . [but also] the net worth of the company sector, collective wealth of the public sector (e.g. schools, hospitals and local authority housing), the value of human wealth (e.g. the value to an individual of the investment in his education and training), contingent rights to forms of income other than [occupational and state] pension rights . . . (e.g. child benefit and income-related benefits) and the value of restricted access to certain assets like subsidised tenancies.

However, measuring the value of all but the first of these types of assets, and dividing the result between individuals, both involve such conceptual and practical problems that actual calculations of the personal distribution of wealth are most commonly based on marketable wealth alone. Nonetheless, some of the empirical studies outlined in Chapter 3 include one or more of the additional types of assets referred to by the 1975 Royal Commission; their authors’ reasons for such inclusions are discussed in that chapter.

Marketable wealth may take any one of a number of forms, some of which are more liquid than others, in the sense that they can be exchanged for money quickly with little if any loss of potential value. Housing is a relatively illiquid form of marketable wealth, while more liquid forms include cash, and other financial assets ranging in liquidity from money at call to shares. In this book the composition of wealth is discussed only in so far as it has a bearing on the distribution of wealth, to which we now turn.

1.2 WHAT IS MEANED BY THE DISTRIBUTION OF WEALTH?

The principal concern of this book is neither the distribution of wealth between the owners of land, labour and capital, commonly known as either the ‘factor’ or the ‘functional’ distribution of wealth, nor the distribution of wealth between generations, namely the intertemporal distribution of wealth. Rather, the book is principally concerned with what may be referred to either as the ‘personal distribution of wealth’ or as the ‘size
distribution of wealth’. The term ‘size distribution of wealth’ is useful in that it is an application of a precise statistical term describing the frequency distribution of some characteristic of a population according to size. To this bloodless statistical term, however, we prefer the ‘personal distribution of wealth’, though ‘personal’ needs to be interpreted broadly, because in some contexts it is more appropriate to talk about the distribution of wealth not between individuals but between households, a distinction treated in more detail in Chapter 2.

A useful benchmark for measuring the personal distribution of wealth is a society in which every individual possesses the same amount of wealth. In such a society wealth can be said to be equally distributed. In every other case the distribution of wealth can be said to be unequal – though measuring the degree of inequality is no easy matter, as will become apparent in Chapter 2.

The distribution of wealth shares with public goods the characteristic that whatever is enjoyed by one member of a society is enjoyed by all. Just as it is impossible for one member of a society to experience a high level of defence provision and another member of the same society to experience a low level, so it is impossible for one member of a society to experience an equal distribution of wealth and another member of the same society simultaneously to experience an unequal distribution of wealth. On the other hand, while increasing the level of defence provision inescapably involves an opportunity cost, this may or may not be true of (say) reducing the degree of inequality in the distribution of wealth, depending on whether or not the consequence is a lower amount of wealth in the aggregate and/or a lower level of national income. This question is examined extensively in Chapter 8.

It is also commonly the case that a very unequal distribution of wealth is ‘a public bad, as it creates a kind of society that decreases the welfare of all – most obviously, through the crime it engenders and, less proximately, through the lack of community that it engenders’ (Roemer, 1994a, p. 461); though a very unequal distribution of wealth may not be accompanied by crime if there is a sufficiently authoritarian regime.

1.3 WHY IS THE DISTRIBUTION OF WEALTH IMPORTANT?

There is by now a substantial literature on the distribution of income; the interested reader is referred in particular to Handbook of Income Distribution, volume 1 (2000) and volume 2A (2015), edited by Anthony B. (Tony) Atkinson and François Bourguignon. A separate study of the
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distribution of wealth might appear superfluous if it were true that the distribution of wealth is the same as the distribution of income. In fact, however, the distribution of wealth is always more unequal than the distribution of income.

The distribution of wealth also need not necessarily mirror that of income. This fact is illustrated by calculations reported in an article by Donald L. Lerman and James D. Mickesell, based on the 1983 United States Survey of Consumer Finances data, showing that ‘in 1983 the correlation coefficient between income and wealth for all U.S. households was [only] .49’ (Lerman and Mickesell, 1988, p. 789), and that ‘[i]f income is measured net of the yield from net worth (i.e., if capital gains, IRA income,7 dividends, interest, and rent are removed from total income), the income-wealth correlation between income and wealth of all families falls to .26’ (Lerman and Mickesell, 1988, p. 789). This relatively low correlation between the distribution of wealth and the distribution of income reflects the fact that some people, notably the elderly, are typically ‘asset rich but income poor’, while others, notably young adults, are typically ‘income rich but asset poor’. The lifecycle hypothesis proposed by Modigliani and Brumberg (1954) attributes inequality in the distribution of wealth to this relationship, on the basis that an individual's holdings of assets increase throughout their life, such that the distribution of wealth at any single point in time is likely to capture those who are younger and relatively poor but will become wealthier, and those who are older and relatively wealthy but were once poorer.

As Peter Whiteford puts it, following similar comments made by the Australian Bureau of Statistics, compared with net worth a ‘more comprehensive measure of total household resources’ (Whiteford, 2014, page not numbered) is to be found in the combination of net worth and income. Given the relatively low correlation between the distribution of wealth and the distribution of income, the distribution of total resources among households may be less unequal than the distribution of either wealth or income. Whiteford provides an example of this using figures from the Australian Bureau of Statistics for 2009–10, when the ratio of the top 20% to the bottom 20% for net worth was 62.0, for disposable income was 5.10, and for net worth when households are ranked by disposable income (that is, for the ratio of net worth of the top 20% of disposable incomes to the net worth of the bottom 20% of disposable incomes) was only 3.2; this apparently puzzling result is explained in part by the fact that a large component of net worth, namely house ownership, was distributed more equally than disposable income. But it is illegitimate of Whiteford to conclude that ‘these figures suggest that wealth is actually more equally distributed than income when the joint distribution of income and wealth is used’
(Whiteford, 2014, page not numbered); they show only that resources are more equally distributed than wealth (and income). Unfortunately, neither the Australian Bureau of Statistics nor Whiteford notes that the distribution of total household resources among households can alternatively be measured by disposable income when households are ranked by net worth. Figures from the Australian Bureau of Statistics for 2009–10 show that by comparison with a ratio of the top 20% to the bottom 20% for net worth of 62.0, the ratio of disposable incomes for the top 20% by net worth to disposable incomes for the bottom 20% by net worth was 10.9, a reduction from 62.0, as is to be expected, but not a ratio that suggests such a degree of equality as does the ratio resulting when the Australian Bureau of Statistics and Whiteford measure of the distribution of total household resources is used.

The distribution of wealth is important in its own right because the well-being of individuals is affected by their wealth independently of their income. To take a simple example, consider a society in which the distribution of income is equal, but half the population has wealth and half does not. The well-being of those possessing wealth will exceed that of those without wealth for a number of reasons. Those possessing wealth will be better able to purchase a home in a secure environment, and will find it easier to cope with an adverse economic event such as loss of an uninsured asset. They will be able to sustain a higher consumption level after retirement. They will be able to leave more to their children. Given these economic advantages, they have the option of making do with less income than those without wealth, so as to be able to enjoy more leisure. They are likely to enjoy a higher social status, particularly if their wealth takes a conspicuous form, such as an expensive house in a prestigious locality. And the more wealthy the individual, the greater the political power they are likely to enjoy, not only if the wealth takes the form of media ownership, but also through the ability to influence political parties through contribution of funds.

Of course possessing wealth carries with it some disadvantages. As Lisa A. Keister (2000, pp. 7–8) put it:

Excess wealth can attract unwanted media attention and solicitations of various kinds. In some cases, wealth can invite security threats and may produce social isolation. Moreover, wealth ownership may dampen achievement motivation and performance in both those who have created wealth and those who stand to inherit it.

But from the point of view of well-being these disadvantages of wealth are far outweighed by the advantages; as the entertainer Sophie Tucker expressed it, ‘I’ve been rich, and I’ve been poor. Believe me, rich is better’
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(quoted in Keister, 2000, p. 8). The distribution of well-being thus depends not only on the distribution of income, but also on the distribution of wealth.

1.4 HAS THE DISTRIBUTION OF WEALTH BECOME MORE OR LESS UNEQUAL OVER TIME?

Over time the advantages initially enjoyed by the wealthy may be enhanced, for three reasons in particular. First, the more wealthy one is, the greater the capacity one has to save out of income and add to wealth; indeed, as demonstrated by Tony Aspromourgos (2015, pp. 291–3), a sufficient condition for increasing inequality in the pre-tax distribution of wealth over time is that the saving rate of the wealthy exceeds the saving rate of the poor. Second, wealth has the capacity to generate more wealth. Many forms of wealth are accompanied by interest or dividend payments which allow wealth to increase. In addition, those possessing wealth will find it easier to borrow from a bank for investment purposes – ‘to him that hath shall be given’. Third, as shown in Piketty (2014), historically, compared with the growth rate of income from other income sources, the growth rate of the return on wealth has been substantially greater. Though in a private property society a necessary condition for an individual’s wealth to generate wealth is a set of institutional arrangements which provide effective protection of both property rights and property transactions, as Hernando De Soto (2000) stressed, this is a condition lacking in many Third World countries. However, lawmakers in developed countries have enabled the wealthy to prosper ‘[b]y making assets fungible, by attaching owners to assets, assets to addresses, and ownership to enforcement, and by making information on the history of assets and owners easily accessible’ (De Soto, 2000, p. 58).

1.5 INEQUALITY IN THE DISTRIBUTION OF WEALTH AND POVERTY

It may seem obvious that there is a connection between inequality in the distribution of wealth on the one hand and poverty on the other, but the closeness of the connection depends on how ‘poverty’ is defined. The definition to be found in the Oxford English Dictionary (2015) reads ‘[t]he condition of having little or no wealth or few material possessions’. It follows from this definition that if two societies have the same distribution of wealth among those who are not in poverty, the distribution of wealth
will be more unequal in that society with the greater proportion of its population in poverty. However, the most that can be said of the obverse proposition, namely that of two societies, the one with the greater proportion of its population in poverty will have a more unequal distribution of wealth, is that it is likely to be true, because alternatively inequality could be concentrated among those who are not in poverty.

It should be noted that the term ‘poverty line’, though obviously related to ‘poverty’, is commonly used to refer to a level not of wealth but of income; the Oxford English Dictionary (2015) defines it as ‘the estimated minimum income needed to purchase the necessities of life’. Since the publication of Adam Smith’s Wealth of Nations, at least, it has been widely recognised that the concept of ‘means of subsistence’ contains a conventional element that has resulted in its content increasing over time as societies become more affluent. Eventually this resulted in the term ‘poverty line’ being changed from an absolute to a relative measure. In Australia, for example, while in 1966 Ronald Henderson and his co-workers at the Melbourne University Institute of Applied Economic and Social Research specified a poverty line in absolute terms, in 1975 the Report of the Commission of Inquiry into Poverty headed by Henderson defined it as a fraction of the average wage, adjusted for family size. Estimating the proportion of the population that falls below the ‘poverty line’ has thus become a partial measure of inequality in the distribution of income (Henderson et al., 1975). Similarly, estimating the proportion of the population that is in poverty, defined, say, as possession of zero or negative net wealth, could be used as a partial measure of inequality in the distribution of wealth.

1.6 ASPECTS OF THE DISTRIBUTION OF WEALTH NOT CONSIDERED IN THIS BOOK

In the first edition of this book (Schneider, 2004a, p. 53), it was noted that unfortunately it was not possible to say much about the world distribution of wealth, though it is possible to say something about it as a result of the recent Branko Milanovic and Shlomo Yitzhaki (2002) study of the world distribution of income. This study both estimated the Gini coefficient for the world distribution of income to be 0.659, and found that the Gini coefficient for the distribution of income did not exceed 0.6 for any individual country other than Namibia. Even if the Gini coefficient for the distribution of wealth of 0.93 resulting from a sample survey in Sweden is disregarded as an outlier, a number of estimates of Gini coefficients for the distribution of wealth in individual countries in recent times
have exceeded 0.8, and taking into account also the fact that these coefficients are typically double those for the distribution of income, it seems reasonable to conclude that the Gini coefficient for the world distribution of wealth is at least as high as 0.9.

Subsequent research reported in Davies et al. (2011) has shown that the suggested Gini coefficient figure of 0.9 for the world distribution of wealth is probably too high. While Davies et al. (2011) include, as already noted, a comparison of the distribution of wealth in 20 countries, the declared goal of the article is ‘to try to estimate the global distribution of household wealth’ (ibid., p. 223) for the year 2000, which as the authors point out ‘requires imputation of both wealth levels and distribution to the countries with missing data’ (ibid., p. 223). The authors met this requirement by making use of the best available data for each country, and by making the figures for each country comparable with those for other countries by using purchasing power parity exchange rates. They concluded that the global distribution of wealth in 2000 did not differ greatly from the distribution of wealth in the group of 20 countries for which reasonably good distribution of wealth figures existed, the Gini coefficient for the global distribution of wealth being 0.802, and for the group of 20 (which they estimate accounts for 75% of global wealth) being 0.796. They further found that the wealth shares of the 10%, 5% and 1% wealthiest adults were 70.7%, 56.7% and 31.6% respectively, and that the wealth share of the 50% poorest was as little as 3.7%. Alternatively, using official exchange rates as the basis of their calculations, ‘which is appropriate if attention is focused on the rich and super rich’ (ibid., 2011, p. 250), the authors arrived at a Gini coefficient for the global distribution of wealth of 0.892, and a wealth share of the wealthiest 10% of adults of 85%.

Beyond these observations, we do not intend to delve any deeper into the question of how wealth is distributed between countries, or how that distribution of wealth between countries has changed over time. Similarly, this book does not explore the distribution of wealth between populations based on other characteristics such as gender or race. Though it is likely that analysis of the distribution of wealth in these dimensions could yield important insights into the nature of the distribution of wealth, this edition, like the first, focuses primarily on aggregate measures of the distribution of wealth between cohorts of individuals or households, and inequality in that distribution within countries.
1.7 PLAN OF THIS BOOK

Chapter 2 explains why measuring the distribution of wealth is by no means straightforward, and describes and compares measures which are commonly used, such as the Lorenz curve, the Gini coefficient, and the wealthiest x per cent share in total wealth. Chapter 3 summarizes the known facts about the distribution of wealth, drawing on studies both of changes in the distribution of wealth in particular countries over time and of country-by-country differences in the distribution of wealth at particular points in time. Chapter 4 discusses the relative importance of the factors that determine the distribution of wealth, addressing in particular the question of the extent to which unequal distributions merely reflect the age structure of the population, each individual’s wealth increasing up to the age of retirement and decreasing thereafter. Chapter 5 examines theories leading to the conclusion that the distribution of wealth changes over time, notably that advanced recently by Thomas Piketty in *Capital in the Twenty-First Century* (2014). Chapter 6 grapples with the thorny problem of how to rank alternative distributions of wealth, and Chapter 7 deals with the means by which the distribution of wealth can, if desired, be changed. Chapter 8 examines the evidence for and against the proposition that making the distribution of wealth less unequal would lead to a smaller amount of wealth in the aggregate. Chapter 9 outlines the principal conclusions to be drawn from the preceding chapters.

NOTES

1. Note that the *Oxford English Dictionary* defines distribution in the context of political economy as the distribution not of wealth in particular but of ‘the produce of the industry’ in general. That this definition can apply to the wealth of all society is demonstrated by the quotations included in the *Oxford English Dictionary*.
2. ‘[T]he suffix th indicates a state or condition, so that “wealth” indicated a state or condition of being well, . . . just as “health” indicated a state of being healed’ (Cannan, 1914, p. 3). There was a time, however, when ‘weal’ did not require a suffix.
3. Since the focus of this book is on the personal distribution of wealth, the fact that government bonds and ‘outside’ money involve a liability of the private sector as a whole is here ignored.
4. For a discussion of the intergenerational distribution of wealth see Meade, 1976, chapter IX.
5. This point is made by Meade (1976, p. 17).
6. This is a simplification of reality in that it ignores the administrative costs of changing the distribution of wealth, in the direction of either less or more inequality.
7. ‘IRA income’ stands for the ‘individual retirement arrangement income’ received by United States citizens who set up their own superannuation scheme.