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An Overview of Personal Wealth

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This volume examines personal assets or wealth from a global perspective. Wealth is the value of physical and financial assets minus debts. It is a crucial determinant of well-being, and is being studied carefully in an increasing number of countries. While valuable international comparisons have been made, there has, so far, not been an attempt to integrate national perspectives fully and to look at personal wealth from a global viewpoint.

1 Why Study Wealth?

Wealth is one of the two major sources of household income. The other is human capital. For income there is a huge literature on the distribution within countries, and there is also now a sizeable literature on the global distribution. As part of that work, researchers study the flow of income from human capital—that is, labour earnings—without estimating the distribution of human capital itself. Why then can we not confine ourselves to the study of capital income? Why is it important also to study the stock of personal wealth that generates this flow?

A short answer is that, whereas labour earnings are easy to measure while the value of human capital is not, the situation is the opposite for physical and financial capital. In the latter case, income is often unobserved or badly measured and the value of the stock is more easily estimated. Most assets are bought and sold and have values that can in principle be observed. To take an example of practical importance, the imputed rent on an owner-occupied house is generally more difficult to establish than the value of the house.

While it might be agreed that, in principle, it is desirable to study the distribution of wealth, it may be pointed out that there are measurement difficulties in this area too. Furthermore, it could be argued, the bulk of personal resources and income are on the human rather the non-human side.

Since on average about 60–70 per cent of personal income comes from human capital, is it not good enough for most purposes just to look at labour earnings? The answer is no, for a number of reasons. One of these is that the share of labour income is not so high in many developing countries. Also, household wealth is less equally distributed than labour earnings or family income. As estimated in Davies et al. (Chapter 19, this volume), the world Gini coefficient for household wealth is about 0.89. The world Gini for household income is only about 0.80 (Milanovic 2005).

Since personal assets, unlike human capital, can be bought and sold, they provide a store of value. This gives assets functions that cannot be played by human capital. First, people can self-insure by 'saving against a rainy day'. This function is especially important in poor countries, where social safety nets are lacking, there is more dependence on agriculture with all its risks, and vulnerability to disasters is greater. Saving for retirement and other predictable future needs is also important.

Personal assets can be used as collateral for loans. This is often important in starting a business. And, if loans cannot be obtained, personal assets can be transformed into cash and thereby into business equity. Again this may be especially important in poor countries where financial markets are less developed. Having personal wealth can also give people more independence in other ways. It is easier to insist on your rights when you have the resources to hire a good lawyer, for example. Political power may also be related to wealth.

Is it always equally important to include wealth in one's analysis? The significance of wealth depends on the environment. In a corrupt society wealth may buy more power. Where there are public pensions, a good supply of rental housing, free health care, and low-cost education, many people may be able to have a good life with little private wealth. However, lack of assets may be a big problem in a country where people face high income risk and there is little social security. The distribution of wealth may therefore be of most concern in poor, developing, and transition countries.[1]

2 Definitions and Conceptual Issues

The definition of wealth is deceptively simple: the value of assets minus debts. However, there is some debate about which assets should be included, and there are valuation problems. Difficulties centre on the asset rather than

[1] It is probably also more important in a country like the USA, where many people lack health insurance, public schooling is poor in many areas, and transfer payments are less generous or more difficult to get than in other high-income OECD countries. It is not *only* in poor, developing, or transition countries that personal wealth can be important for well-being.

debt side. For example, should pension rights be included? Occupational or employer-based pensions might be regarded as deferred labour compensation, and therefore part of the return on human capital. Even if such pension rights are included in non-human wealth, should this be at a discount in view of their illiquidity? And what is the status of public pension rights, given that the benefits could legally be altered without permission or compensation of the 'owners'? Is there really a property right to such pensions?

The question of whether to include pension rights is often moot, due to lack of data. Where data are available, they are sometimes only partial. For example, the US Survey of Consumer Finance includes defined contribution pension plans (readily measured) but excludes defined benefit plans (difficult to measure). Attempts to include all private pensions have been made in some cases. In the UK, for example, the Inland Revenue's series 'D' and 'E' estimates include private pensions, and private plus public pensions. Private pensions pushed the wealth share of the top 1 per cent down from about 18 per cent in the mid-1980s to 14 per cent, and adding both private and public pensions decreased the share further to 11 per cent (Davies and Shorrocks 2000: 605–76). In the USA, on the other hand, Wolff and Marley (1989: 765–844) found that adding private pensions had little impact on overall inequality, but that after public pensions were added the share of the top 1 per cent fell from 30 to 20 per cent in 1981. Adding private pensions may have an equalizing or disequalizing effect depending on how important they are at different wealth levels in a particular country. Public pension rights are generally rather equally distributed.

It may be unclear whether some assets should be classified as belonging to the state or to households. Some countries have extremely wealthy rulers or heads of state. In some cases—for example, the UK—a careful distinction is made between the ruler's personal wealth and state assets like official residences. However, in some transition, developing, and resource-rich countries, it is not clear that such a line can be readily drawn.[2]

Even after the list of personal assets has been determined, there remain conceptual difficulties associated with valuation. For many assets there is a difference between a 'going concern' versus 'realization' valuation (see, e.g., Atkinson and Harrison 1978). For a going concern, it would be normal to use replacement value for real assets. However, the realization approach is more commonly used in household surveys. This is appropriate if we are interested

[2] An interesting case is that of oil-rich monarchical states, of which Saudi Arabia is the leading example. Saudi Arabia has a large royal family, and its members share much of the ownership of the country's oil. Their affairs are, however, intimately connected with those of the state (see Cahill 2006). In this and similar cases the question of whether the assets should be considered personal or state assets could have practical implications for measurement. Estimates of the value of oil and other natural resources by country are available; see, e.g., World Bank (2006a).

in such questions as how much wealth people can draw on in emergencies.[3] Since each approach has its own uses, though, it can pay to have estimates prepared on the two alternative bases, as in Atkinson and Harrison (1978).

An example where realization and going-concern valuations lead to very different results is life insurance. In household surveys it is common to value insurance on a 'cash surrender'—that is, realization—basis. In this approach term insurance has no value. If one takes a dynastic view of the family, this is odd. An actuarial valuation would be more appropriate. While 28 per cent of American families had life insurance according to the 2001 Survey of Consumer Finances (SCF), it accounted for only 5.3 per cent of total financial assets. That small share reflects only the savings component, and leaves out the actuarial value of death benefits entirely.

A difficulty in international comparisons lies in the classification of different kinds of assets and debts. A central example concerns business assets and debts. In some household surveys respondents are simply asked to report their 'business equity'. In other cases, however, they are asked to detail business assets and debts, and these may be aggregated by type with the household's other assets and debts. This will result in a different apparent composition of household wealth than classifying business equity as a separate asset. Within countries this is not a problem. However, international comparisons of portfolio composition become more difficult when not all countries use the same approach.

There are other international differences in classification. Not all countries distinguish between mortgage and consumer debt. Among real assets, 'housing' generally refers to the gross value of owner-occupied housing, including the land occupied. However, this is not always clear. In Italy, for example, in the Survey of Household Income and Wealth (SHIW), housing includes all houses owned by the household, owner-occupied or not. And in China the value is net of mortgage debt, and land is not included. For financial assets, varying levels of detail are seen. In some cases, for example, all forms of deposit are lumped together; in others, they are separated. Sheltered retirement savings may be separated, or the underlying assets held in this form may be aggregated with stocks, bonds, and so on.

As in income distribution studies there is an important question of the choice of unit—households, families, individuals, or perhaps adults. Some of the considerations are similar to those for income, but others differ.

[3] It has been argued by some that, if a major purpose of personal wealth is to offset risk, in addition to the usual measures of wealth we should look at more narrow measures that omit illiquid assets—for example, houses, vehicles, and other durables (see, e.g., Shorrocks 1987b; Jenkins 1990). E. N. Wolff (1990b) provides a wealth variant in his study of wealth and poverty in the USA, fungible wealth that omits durables and household inventories. Omitting housing or durables results in a more unequal distribution of wealth, emphasizing the vulnerability of many households to income or other risk.

A household or family basis is often used in income studies, since it is believed either that members share their income for consumption purposes or that they should. However, the presumption of sharing does not necessarily apply to wealth. For example, the bulk of a family's wealth might legally be in the husband's name. Or the husband and wife may have independent ownership of assets they brought to the marriage or inherited. The adult children may have no legal claim on the family's assets. These considerations may make the choice of an individual or adult unit more attractive in the case of wealth than for income.

Many countries have wealthy citizens living offshore for tax or other reasons. This raises the question of whether the distribution of wealth should be estimated on a residence or citizenship basis. The residence basis is normally used, but—for example, in making lists of the rich—journalists sometimes use citizenship. A related problem is that wealthy individuals may hold much of their assets offshore. These assets should be included, but it may be very difficult to estimate their value.

A further conceptual issue is the relationship between personal and national wealth. Ultimately, all wealth must belong to *people*. It might therefore seem that a country's personal wealth and its national wealth should be the same. However, national balance sheets recognize the separate wealth of non-personal sectors—for example, non-profit organizations (NPOs), private corporations, and the state. It is sometimes argued that the net worth of these sectors should be imputed to persons. While this may appear to be an attractive argument, note that a similar argument can be made for income. Also, there are considerable conceptual and practical difficulties in performing the imputations. Finally, the net worth of non-personal sectors is generally much less than their assets, so that the quantitative impact of the proposed imputation is not necessarily large. For such reasons, it is not common to make imputations for the wealth of non-personal sectors when studying the distribution of wealth, and such calculations are not made in this volume.

National wealth includes the value of foreign assets and is net of liabilities to the rest-of-the-world. For some countries foreign investments are much larger than liabilities, so that national wealth is significantly larger than domestic wealth. Estimates of the latter have been provided for 120 countries in World Bank (2006a), which pays particular attention to natural resources. In order to put the World Bank numbers on a personal basis, it would be necessary to add net foreign wealth and to deduct the wealth of the state, NPOs and other non-personal sectors. There can be large differences between domestic and personal wealth in countries with a large (positive or negative) net foreign balance, or in countries with state ownership of large natural resources. It appears that no one has yet attempted to generate national or personal sector wealth numbers from the Bank's estimates.

3 Data Sources

For some purposes—for example, estimating macroeconomic relationships—interest centres on aggregates. A balance sheet for the personal sector as a whole is needed, preferably on an annual basis. As discussed in Chapter 19, such balance sheets are currently available for fifteen high-income Organization for Economic Cooperation and Development (OECD) countries, as well as the Czech Republic and South Africa. In fifteen additional cases, including most of Central Europe, a balance sheet of financial assets and liabilities is available.

While the balance sheet of the personal sector is interesting, it tells us nothing about the distribution of wealth, or about differences in portfolios. Evidence on the distribution and composition of wealth can be generated from three major sources: data on investment income, wealth and estate tax records, and household surveys. The investment income multiplier approach has been used where direct information on wealth is not available. If the distribution of investment income, by type of asset, is known, one can estimate the corresponding wealth by multiplying by the inverse of an asset-specific rate of return. In recent years the best example of the use of this approach has been in Australia (Dilnot 1990; Baekgaard 1997). While this can be a useful method, it is generally better to seek direct estimates. As household wealth surveys become more widespread and reliable, we may expect even less use of the investment income multiplier method.[4] However, it can still be useful where information on the upper tail of the wealth distribution from other sources is poor, or in countries that lack surveys.

Wealth tax records have been used to estimate the distribution of wealth, notably in the Nordic countries, and the estate tax source has been used for a long time in the UK and USA. The methods involved and results obtained are discussed in several places in this volume, for example by Jäntti and Sierminska (Chapter 2), Ohlsson et al. (Chapter 3), Atkinson (Chapter 4), and Davies et al. (Chapter 19). Unlike the investment income method, estimation based on wealth and estate tax records is not becoming less important over time. Recently, new studies using such data have been done for France, Spain, Switzerland, and the USA by Thomas Piketty, Emmanuel Saez, and co-authors (see Kopczuk and Saez 2004b; Alvaredo and Saez 2006; Piketty et al. 2006; Dell et al. 2007; Ohlsson et al., Chapter 3, this volume). The UK still does not have a regular wealth survey, although that may change.[5] And, while

[4] Australia now has good direct evidence from the Household, Income and Labour Dynamics in Australia (HILDA) survey—for example, reducing the need to apply the investment income multiplier method in that country (see Headey et al. 2005).

[5] The UK is an official participant in the Luxembourg Wealth Study (LWS), which aims to develop internationally comparable household wealth survey data.

the USA has excellent survey evidence, attention is still paid to estate tax-based results as a check and an alternative way of viewing the distribution.[6]

Finally, there are household surveys. While these have many advantages, they are subject to both sampling and non-sampling error. The former is a significant problem, since the distribution of wealth is highly skewed, and it has been known for a long time that this reduces reliability. Non-sampling error may arise from systematic variation in response rates with wealth (for example, lower rates among the rich), and misreporting (generally under-reporting) of assets by respondents. Survey organizations have developed sophisticated methods to combat these errors. One of the most useful is to oversample households expected to have high wealth—for example, on the basis of income tax records. Such oversampling is required for a household survey to provide reliable estimates of the upper tail. The technique is used in the USA, Canada, Finland, Spain, and a few other countries. It should be applied more widely.

4 Contribution of this Volume

This volume is divided into four parts. The middle two, which are the longest, cover wealth distribution in developing and transition countries and the role of major asset types in economic development and performance. The final section has a single chapter that presents the first available estimates of the global distribution of household wealth. The first section sets the stage by looking at wealth in the developed world, where we have the best data.

4.1 *The Rich and the Super-Rich*

The volume begins with three chapters that study the 'rich and the super-rich'—the world's wealthiest countries and the richest people who live in those countries. We begin in Chapter 2 with a snapshot of personal wealth in OECD countries today, mainly as revealed in household surveys. As Markus Jäntti and Eva Sierminska outline, sample surveys of wealth have become increasingly sophisticated and have spread. They summarize results from twelve countries. Asset coverage varies, and, while most countries use interviews, the Nordic countries use wealth tax records. Several, but not all, countries use a high-income sampling frame. Because of these differences in

[6] The estate tax-based estimates are on an individual basis, whereas the SCF results are on a household basis, and there are other differences—for example, in asset coverage. The two sources show somewhat contrasting pictures with regard to changes in inequality over time; see the discussion by Ohlsson et al., Chapter 3, this volume.

methods, the data allow only rough comparisons.[7] In terms of means, it is found that the USA is the wealthiest, followed by Italy, Japan, Australia, the Netherlands, and Canada.

Jäntti and Sierminska also look at asset composition and incidence. They find that home ownership rates have risen over time. This rate is at its highest (68 per cent) in the USA, followed by Italy (66 per cent), Canada (60 per cent), and the UK (57 per cent). While always important, the value of housing varies considerably: from 38 per cent of non-financial assets in Italy to 80 per cent in Germany. On average, housing makes up about 40 per cent of net worth (see Chapters 5 and 19 as well as Chapter 2). Considerable variation is also seen in the composition of financial assets, with greatest variation in mutual funds and retirement accounts—both very important in the USA, for example, but unimportant in some other countries.

To date, consistent measures of wealth inequality have not been available for many countries. In Chapter 19 this problem is tackled by fitting smooth distributions for each country and comparing the inequality measures generated. Jäntti and Sierminska instead use a simple indicator of inequality that can be computed for eight OECD countries from published data. This is the difference in the logs of mean and median wealth. Among the seven high-income countries in this group, the USA has the highest value (1.45) and Sweden the lowest (0.37). In three countries where comparisons can be made over time (Finland, Italy, and the USA), wealth inequality rose over the 1990s.

In Chapter 3 Ohlsson et al. examine historical evidence on the evolution of wealth inequality in seven OECD countries, using wealth and estate tax data as well as survey evidence. Data are available for the UK and USA going back to 1740 and 1774 respectively—before the Industrial revolution—and for France from 1807. Series begin for Denmark, Norway, Sweden, and Switzerland in the early twentieth century. Since the Nordic countries were late to industrialize, some of these data also go back to a pre-industrial time.

As originally suggested by Kuznets, one might expect an inverse U-shaped path of inequality during development. Ohlsson et al. find roughly such a pattern for wealth in France, the UK, and the USA. On the other hand, wealth inequality has been stable in Switzerland, and in the Nordic countries we do not find rising inequality in the early years. Finally, after the downswing observed in most countries, wealth inequality reached considerably lower levels than before industrialization. Thus a better description is an inverse J- rather than U-shaped path.

The declining wealth inequality seen in six of the seven countries in the mid-twentieth century is associated with a fall in income inequality. There was

[7] A major international project, the Luxembourg Wealth Study (LWS), is developing comparable wealth data for ten countries: Austria, Canada, Cyprus, Finland, Germany, Italy, Norway, Sweden, the UK, and the USA; see www.lisproject.org/lws.htm.

a spread of wealth holding to wider circles, and a growth of 'popular assets'—automobiles, other durables, and owner-occupied housing. Two world wars, the depression, and redistributive taxation may also have played a role.

Trends over the last three decades are of interest. A continuing increase in income inequality began in the mid-1970s in the USA, and roughly similar patterns have been seen in the UK and elsewhere. With deregulation of financial markets, a spread of share holding, and buoyant stock markets, an increase in wealth inequality might be expected. Surprisingly, although an upward trend over the twenty years beginning in the early 1980s can be detected in each country in the Ohlsson et al. sample, except for France, which does not have enough data points to allow a conclusion, the expected upward trend is not as strong as one might have expected. This has attracted particular attention in the USA, where estate multiplier data show no upward trend in the share of the top 1 per cent, and where the Survey of Consumer Finance shows only a mild increase in concentration. Shares of the top 1 and 5 per cent rose in the SCF from the 1983 survey to surveys conducted from 1989 to 1995. However, the share of the top 5 per cent fell after 1995 and that of the top 1 per cent dropped from 38.1 per cent in 1998 to 33.4 per cent in 2001, taking it back very close to the 1983 value of 33.8 per cent.

The lack of a stronger upward trend in top wealth shares in the last few decades of the twentieth century may be partly due to the strength of house prices in this period. A rise in house prices tends to increase the wealth share of middle groups, for whom housing is a very important component of the household portfolio, and to decrease shares for top groups, since housing is relatively less important for them. Wolff (2005) has identified another important part of the puzzle for the USA. The standard measure of wealth in the USA includes only a part of pension wealth—that is, defined contribution (DC) pension plans. The Gini coefficient for this measure of wealth rose from 0.799 in 1983 to 0.826 in 2001, an increase of just 3.4 per cent. However, when all forms of pension and social-security wealth are included, the Gini rose from 0.590 to 0.663, a rise of 12.4 per cent. Thus the impression that wealth inequality in 2001 was not very different from that in 1983 is dispelled if a more complete measure of wealth is used.

In Chapter 4 Tony Atkinson examines how the 'head count' of the rich and inequality within this group have changed over time in France, Germany, the UK, and the USA. This parallels studies of poverty, which estimate the number below the 'poverty line' and inequality among the poor. Atkinson defines the rich as those with more than 30 times mean income. He finds that concentration in this group is very high. Typically the Gini coefficient of wealth is about 0.5 in this group, and its top quarter holds about one half of the group's wealth. There were also major changes in the number of the rich and concentration among them in the twentieth century, although these changes differed across countries. Atkinson's longest time series are for France

and Germany, where he finds that there was a large drop in the percentage rich from the First World War to the period immediately after the Second World War. During this time, though, trends in concentration differed, with inequality among the wealthy declining in France but changing little in Germany. After 1950 the percentage rich rebounded in both France and Germany, as the wealthy rebuilt their war-damaged fortunes. The trend was in the other direction in the UK and USA, where both the percentage rich and the degree of concentration among them declined. After about 1980 we find, however, that both the percentage rich and the degree of concentration rose in the USA. Concentration also increased in Germany, although not in France. (Atkinson's UK data do not extend into this period.) The *Forbes* billionaire list indicates, however, that *globally* concentration rose over this period. It has been suggested by some that one reason for this trend could be the increasingly 'winner takes all' character of markets resulting from globalization. Lists of the wealthy, such as those published by *Forbes* magazine, allow one to identify sources of wealth to an extent. The highest echelons tend to be dominated by self-made fortunes. The force of inheritance is reduced by estate division, which is typically more equal now than it was in former times. As Atkinson points out, this provides reason to expect that the relative importance of inheritance may be less at the very top than lower among the wealthy.

4.2 *Wealth in the Developing World and Transition Countries*

The second part of the volume begins with chapters on wealth distribution in China and India, and moves on to European transition countries, Latin America, and Africa. China is both the largest developing country and the largest transition country. It had 20.6 per cent of the world's population in 2000. Along with India it is also one of just two developing countries that have had repeated wealth surveys. The fact that China and India both have evidence on wealth holding over a significant period of time gives us an important window on trends in a large segment of the developing world—one comprising 37.4 per cent of the world's population in 2000. This is complemented by a wealth survey conducted by the Rand Corporation in 1997 for the third most populous developing country, Indonesia, as part of the Indonesian Family Life Survey (IFLS) panel study (see Davies and Shorrocks 2005, and Davies et al., Chapter 19, this volume).

Chinese wealth surveys are available for 1988 (rural areas only), 1995, and 2002. The latter two surveys look at rural and urban sectors separately and together. As set out by Li and Zhao in Chapter 5, wealth inequality, while apparently still low by international standards, has been rapidly increasing. This parallels the trend in income inequality. In 1995 the Gini coefficient for wealth in China as a whole was 0.40 while in 2002 it had risen to 0.55.

The increase was due mostly to a rise in the rural–urban gap. In 1995 rural wealth averaged 83 per cent of urban, but by 2002 urban wealth had risen so much that this ratio was down to 28 per cent. The fastest growing urban asset was housing, reflecting partly housing privatization but mostly rising prices and new construction.[8]

The Chinese wealth surveys (like those in India) do not over-sample the rich and probably understate the importance of the upper tail. However, this problem may not be more severe than in the several developed countries that do not over-sample at the top. It could even be less severe. The survey response rate is about 95 per cent in both China and India, suggesting that the differential response problem may be less than in developed countries, where typical response rates are 60–70 per cent. Also, in high-income countries one usually finds many people on the *Forbes* list of billionaires, making it clear that there is indeed a very long upper tail. China, however, still had relatively few billionaires on the *Forbes* list when the 2002 survey was conducted (just one, versus five in India).

There have now been five modern wealth surveys in India, conducted at roughly decennial intervals. The evidence they provide is examined closely by Subramanian and Jayaraj in Chapter 6. The first survey, in 1961–2, was confined to rural areas, but both urban and rural areas have been covered since. The most recent survey is for 2002–3. Fairly consistent definitions and concepts have been used throughout. Sample sizes are very large: 143,285 in 2002–3, for example. This allows reliable disaggregation by occupation, caste, and state.

While there are similarities between China and India, there are also great differences. One of these is that India is not a transition country. Substantial wealth inequality was found in India from the time of the first surveys, and there has been no evident upward trend since that time. While, as mentioned above, the estimated upper tail is probably too short, the Gini coefficient of 0.689 for wealth in the country as a whole in the most recent survey is about average in international terms, and much higher than the Gini in China. There is a large rural–urban gap: in 2002–3 rural wealth averaged 73.9 per cent of urban. Inequality is fairly high in both sectors, with Ginis of 0.629 and 0.664 for rural and urban areas respectively. The share of the top 1 per cent is 15.7 per cent in the 2002–3 survey, and rises to 17.8 per cent if the 178 most wealthy Indians reported by the *Business Standard* magazine are added on. There is considerable horizontal wealth inequality in India. Mean wealth in

[8] The tendency for housing privatization in urban areas to raise measured wealth inequality can be criticized as partly spurious. The value of use-rights in public housing is not normally included in the data, which exaggerates the inequality-increasing effect of privatization, as explained by Li and Zhao, Chapter 5, and as also discussed by Yemtsov, Chapter 15, both this volume.

the rural area of the most prosperous state exceeds that in the least wealthy state by a factor of 9.2, and the corresponding urban ratio is 3.1. Wealth is also very low for members of the scheduled tribes and castes, and for rural labourers. On the bright side, mean wealth has been rising quite quickly in India, approximately doubling in both rural and urban areas between 1981–2 and 2002–3. This rate of growth is less than observed in China, but it is more evenly shared between rural and urban areas. Overall wealth inequality did not change appreciably between 1991–2 and 2002–3, a period during which wealth inequality was rising rapidly in China. The fact that India grew fairly rapidly during that period without an apparent rise in wealth inequality is encouraging.

The survey evidence for Indonesia indicates even higher concentration than is apparent in India (see Davies et al., Chapter 19). The share of the top 10 per cent in 1997 was 65.4 per cent versus 52.9 per cent in India and 41.4 per cent in China in their most recent surveys. At 0.764, the Gini coefficient estimated for Indonesia by Davies et al. is high compared to those for China and India reported above. Gini figures imputed for Bangladesh and Vietnam by Davies et al. are similar to that for India. The Ginis for Pakistan and Thailand are somewhat higher, but still below Indonesia's.

In contrast to the largest countries in Asia, the European transition countries, Africa, and Latin America have not had wealth surveys at the national level. There are some balance-sheet data, evidence on the distribution of land and the incidence of some other assets, and information that can be used to estimate the distribution of housing wealth. For these areas we have *some* pieces of the puzzle. A series of chapters take the existing pieces and assemble as much of the puzzle as possible, starting with the European transition countries.

In Chapter 7 Sergei Guriev and Andrei Rachinsky discuss the evolution of personal wealth in the former Soviet Union (FSU) and Central and Eastern Europe (CEE), telling how industrial assets and natural resources were privatized and how their ownership has changed over time—Yemtsov's Chapter 15 complements this discussion by estimating the distribution of housing wealth in Russia, Poland, and Serbia. The most fascinating story is that of the Russian oligarchs, men who quickly became fabulously wealthy by obtaining state assets at low prices in the early transition. Although the oligarchs appear to have run their enterprises efficiently, how they obtained their wealth is heavily resented by many Russians. President Putin enforced his famous pact with the oligarchs, under which they stayed out of politics and paid taxes, while he left them alone to run their businesses. However, renationalization is now underway. What happens to the distribution of wealth in Russia in coming years depends in part on the extent and nature of this renationalization.

While there are no household surveys or tax-based information on wealth in the FSU or CEE countries, we do have the *Forbes* lists of billionaires, and

estimated numbers of millionaires from Merrill-Lynch. The most striking feature, once again, is the Russian situation. As Guriev and Rachinsky point out, the combined wealth of the 26 Russian billionaires in 2004 was 19 per cent of Russian GDP, whereas, for comparison, the total wealth of the 262 USA billionaires was only 7 per cent of USA GDP. Even without any overall estimates, it seems likely that the Russian wealth distribution is one of the most unequal in the world.

The evolution of wealth inequality in the other European transition countries is also interesting. In the CEE countries, the prospect of EU accession has encouraged the development of property rights, financial institutions, and the rule of law. Together with relatively transparent privatization, these conditions have stimulated private enterprise and have produced a more equal distribution of wealth than in Russia. In the FSU countries aside from Russia, oligarchs are also apparently missing. However, Guriev and Rachinsky point out that autocratic rulers have effectively captured state assets in a number of cases. They suggest that these rulers may be regarded as the 'ultimate oligarchs'.

In Chapter 8, Florencia Torche and Seymour Spilerman outline what is known about the distribution of personal assets in Latin America. They show that a great deal can be said, even though full wealth surveys are not available. There has been considerable attention to the distribution of *land* in Latin America, since it is less equally distributed there than in most other parts of the world. The inequality is less extreme in Bolivia, Mexico, and Nicaragua, where substantial land reforms took place at various times. In most of Latin America there is relatively high access to land, but there is enormous concentration among landowners—a pattern that began with large estates being given to an elite group in colonial times. While land is still an important asset in Latin America, its dominance has been reduced, since most of the population now lives in urban areas. Here housing is very important. Fortunately, it is possible to impute house values by applying a multiplier to reported rental values (Yemtsov uses similar techniques in Chapter 15). Using this method, Torche and Spilerman find that housing wealth in Latin America is more unequal than income, which is itself very unequal. Gini coefficients of housing wealth range from 0.5 to 0.6. This helps to confirm the high wealth inequality in this region, although it should be noted that housing wealth is less unequal in several countries, for example, Chile, where governments have had programmes to assist home-buyers. The picture is rounded out by a study of the distribution of investment income, based on national household surveys from across the region, which confirms the view of informed observers that capital income is very unequally distributed in Latin America.

Juliano Assunção studies the distribution of land and the impact of land reform in Brazil. Although Brazil has become a largely urban society, Assunção

finds that 39 per cent of households still own land. Land ownership is popular partly for a range of non-agricultural purposes: as a hedge against inflation, as collateral, as a tax shelter, and even to launder illegal funds. There is a tension between these motives and the principle in Brazilian law, now enshrined in the 1988 Constitution, that ownership is contingent on the land being used. Recent major land reforms, from 1985–9 under the Sarney government, and after 1992 under Cardoso, have been confined to the 'disappropriation' of idle land. Assunção estimates the impact of land disappropriations in a state on the likelihood that households will own land. When household characteristics are held constant, there is only a positive effect for poor and less-educated households. The impact on inequality of land holding among landowners is positive, since the land is redistributed in relatively small parcels mainly to poor households. If inequality in land holding among the population as a whole were considered, however, it would probably decline, because of the reduction in the number of non-holders.

An interesting theme that emerges from Latin America is that, in countries with very high inequality, redistribution may occur via assets as well as, or instead of, via income. This happens in part spontaneously, through squatting, but also in part through official programmes of land reform and housing access. There is an attempt, in Sen's language, to redistribute *capabilities* (see Subramanian and Jayaraj, Chapter 6). Such a tendency adds to the importance of studying personal wealth.

The last three chapters in Part II are on Africa. Chapter 10, by Aron, Muellbauer, and Prinsloo, estimates household balance sheets for South Africa over the period 1975–2003. Along with distributional data, balance sheets are one of the two essential tools for studying household wealth. Unfortunately, with the exception of Mexico, no other developing countries currently have balance-sheet data. Such data are being developed, however, in a number of emerging market and transition countries, such as the Czech Republic, Poland, and Hungary. Chapter 10 explores the problems faced in generating such data.

In some developed countries, such as Australia, Canada, the UK, and the USA, complete national balance sheets have been developed. These include balance sheets not only for the household sector, but for the corporate, government, external, and other sectors. Especially since estimates for many household sector totals are obtained by subtracting the holdings of other sectors from economy-wide aggregates, it might appear that a household sector balance sheet cannot be produced on its own. Fortunately, it *is* possible to assemble good household balance sheets without generating complete balance sheets for other sectors.

Estimates of many financial assets and liabilities can be made from 'counterpart data'. Bank deposits, for example, have their counterpart in a liability of the banks. While in such cases the holdings of the household sector can be identified, in others, such as that of notes and coins, educated guesswork is

needed. Estimating household share holdings is particularly difficult. Aron et al. estimate these by cumulating past acquisitions of shares shown in flow-of-funds data. In countries without flow-of-funds data, total share holding would have to be divided between the household and other sectors by some other means, perhaps on the basis of dividends reported for tax purposes. Tangible assets can be estimated using perpetual inventory and other methods.

Aron et al. use their balance sheets to identify some interesting trends. Prior to 1989, the personal wealth to disposable income ratio fluctuated between about 3.5 and 4.0 in South Africa, but after that it fell to the range 2.5–3.0. This was related to a rise in debt, and also a decline in housing wealth. In recent years housing wealth, which is strongly affected by price changes, has rebounded, and there are signs that the overall wealth to income ratio rose after 2003. Other trends have been a decline in liquid assets and a rise in pension wealth. These trends show that household wealth can be very dynamic, and that balance sheets can add to our knowledge of changes in household circumstances. It is to be hoped that researchers in more countries will be able to assemble household balance sheets.

In Chapter 11 Christian Rogg focuses on rural Africa, which accounts for about 63 per cent of the continent's population. He briefly discusses the evidence for various countries and then focuses on the Ethiopia Rural Household Survey (ERHS), a panel study of fifteen representative villages that provides some of the most detailed and reliable evidence on wealth in rural Africa. Villagers in Ethiopia are mainly engaged in agriculture and, although relatively poor, hold assets in the form of food and crops, livestock, and farming equipment in addition to some housing and consumer durables. Cash or liquid assets are of little importance. Under the Ethiopian constitution land cannot be bought or sold. It is more equally distributed than other assets, but its inequality is about average for African countries. Wealthier households invest particularly in additional livestock, which is riskier than, for example, food and crops. Villagers in locations with more variable rainfall, however, invest less in livestock. These observations are consistent with economists' ideas about how portfolio choice should vary with wealth and the riskiness of assets. Rogg finds that the main motives for saving in rural Ethiopia are for precautionary reasons, investment, and to some extent bequest. Life-cycle motives are less important than in developed countries. He also finds, interestingly, that, while assets are more unequally distributed than consumption, they are less unequal than income. This reflects variable returns and uncertainty in farm incomes, and is suggestive of the role of assets in providing self-insurance.

The last chapter in Part II, by Ronelle Burger and co-authors, uses information on whether people own particular assets from the Demographic and Health Surveys (DHS) for Ghana to construct an *asset index*. Similar approaches

have been applied in various countries for two purposes. Where both asset indices and measures of income or consumption are available, they correlate fairly highly. Researchers therefore have used asset indices as a measure of welfare or resources in cases where other indicators were not available. A second use of asset indices has been as a *supplement* to information on income or consumption. Burger et al. ask to what extent asset indices can substitute for direct evidence on wealth. If such a substitution can be made, it may be helpful in many other developing countries.

The data used by Burger et al. record whether households own nine assets. In addition, the type of flooring in the home enters the index. Multiple correspondence analysis (MCA) is used. The results are appealing. Owning a car increases the index value by about 24 times as much as a bicycle, for example; a radio is 'worth' about half as much as a TV; and a tractor bumps up the index more than twice as much as a horse and cart. The 'values' of the assets in the index reflect not only the market value of the asset but the significance of related assets. Owning a video recorder turns out to have the largest impact on the index, reflecting the fact that video recorders are owned mainly by the wealthiest households, who hold many related assets. Burger et al. are able to evaluate their index using the 1998 Ghana Living Standards Survey (GLSS). The GLSS lacks data on livestock and debt, but otherwise has fairly complete asset coverage. It is found using the GLSS data that an index based on the same ten characteristics as the asset index constructed using the DHS data is moderately correlated with broad measures of household wealth, and behaves similarly to them in important ways. This suggests that DHS-type data can be used to construct asset indices that can stand in for wealth, at least for some purposes, in countries that lack full wealth data.

An interesting sidelight is that all three studies for Africa show household wealth increasing, either for a significant period in the 1990s (Ethiopia) or both in the 1990s and the early 2000s (South Africa and Ghana). The studies for Ethiopia and Ghana also find a strong positive effect of education on wealth. These findings make clear that progress in building household wealth is quite possible in Africa, and in some cases has indeed been occurring.

4.3 *Role of Personal Assets in Economic Development and Performance*

Part III begins with two studies that look at major asset types—financial holdings, and housing. These are followed by chapters on housing privatization in transition economies, the impact of land titles and credit markets, gender-related aspects of wealth holding, and the informal sector.

In Chapter 13 Patrick Honohan discusses the role of household financial assets in development. Financial assets make up 30–40 per cent of net worth in typical developed countries according to survey evidence. The ratio appears to

be smaller in developing countries; as low as 6 per cent in India. Reported debt is also less important in developing countries. In addition, some patterns observed in developed countries, such as the decline in riskiness of portfolios at higher ages, and the increase in risk-taking with wealth, are not so evident in developing countries. There is a widespread belief that increasing access to financial institutions and products is important for welfare and development. Honohan assembles data on financial access in 150 countries and shows that the relationship between financial access and poverty is not robust. On the other hand, there *is* a robust (negative) relationship between financial depth, measured, for example, by the ratio of deposits or credit to GDP, and poverty. There are competing explanations for this, but so far no consensus. It seems likely though that it is the *use* of financial products, including loans, not access to those products, that is crucial in reducing poverty.

The single most important asset in the personal sector is housing. As discussed by John Muellbauer in Chapter 14, the evidence from developed countries indicates that housing market activity may have strong effects on macroeconomic behaviour. One important pathway in the 'monetary transmission mechanism' lies from interest rates through home borrowing to housing demand and new construction. And the housing market itself may be the source of macroeconomic disturbances resulting from changes in consumer expenditure in response to house prices. In recent years there has been anxiety that house prices in several important OECD countries have risen unsustainably. Muellbauer argues that, while such concerns should not be dismissed, they have been overblown. He also demonstrates that the macroeconomic significance of the housing market is related to key institutional features that vary greatly between countries.

While the role of housing in monetary transmission might seem a remote concern in many poor countries, some developing countries are growing rapidly, and such concerns may soon become relevant. Increased development of mortgage finance in developing countries, for example, may have important effects. As noted earlier, in developed countries a high fraction of new businesses is financed through mortgages on homes. Also, housing is the most important of those popular assets whose spread helped to equalize the distribution of wealth in developed countries through much of the twentieth century. The development of good mortgage finance and high rates of home ownership may be an important element both in achieving growth and in reducing inequality.

Housing wealth has also been a centre of interest in transition countries, as discussed by Ruslan Yemtsov in Chapter 15. There the rate of home ownership increased greatly in a few years because of privatization. A number of studies have concluded that privatization reduced income or consumption inequality, when in-kind benefits of housing are taken into account. Yemtsov, however, points out measurement difficulties, particularly the lack

of attention to differences in quality and market value of housing. He argues that, if such a large wealth transfer was really equalizing, one should see a downward impact on inequality in consumption *omitting* housing benefits, but across eighteen transition countries, from the former USSR and Central Europe, there is no such relationship. Yemtsov goes further, using survey data on housing, income, and consumption to construct estimates of the market value of housing and rental values for Russia, Poland, and Serbia. In all three countries there was little variation with income in the value of a privatized dwelling. Thus, if the percentage of households experiencing privatization had been the same across income groups, it would have been equalizing. However, the incidence of privatization rose sharply with income—for example, from 19 per cent in the bottom consumption quintile in Russia to 41 per cent in the top quintile. This contributes to the result that the effect of housing services (both from privatized and non-privatized dwellings) on consumption inequality is small and negative in Russia and Poland, and also small but positive in Serbia.

The impact of privatization on inequality *in housing wealth* is somewhat negative in each country Yemtsov studies, in the sense that inequality of overall housing wealth is less than that of non-privatized housing alone. This equalizing effect is obtained because, although privatized houses are, on average, worth more than non-privatized, the inequality in value of privatized housing is estimated to be much smaller. Since housing is such a sizable asset and both financial assets and debts are low for households in transition countries, the effect of privatization on inequality in total wealth may also have been negative, although the data required to test this hypothesis are not available.

In Chapter 16 Jim MacGee looks at the role of land titling, first explaining the elements that are required for it to be effective. These include efficient registration of land transactions, a comprehensive database on land titles, known as a cadastre, and a register of mortgages and other liens on property. Developed countries have these elements, and also enforce property rights and the rights of mortgagors. However, the same is not true in many developing and transition countries. MacGee asks what impacts this may have on growth and development, and also on wealth distribution. There is a range of empirical evidence indicating that lack of formal land titling reduces investment and productivity, as well as borrowing. These are anti-growth impacts. The effect on wealth inequality is less easy to predict. In a world with poor land titles and underdeveloped credit, households need to accumulate wealth in order to be able to purchase housing or start a business, or for precautionary reasons. Secure land titles and better credit markets may reduce wealth holding of low-income or young people by reducing these motives for saving. Such effects may raise wealth inequality. This conclusion is supported by a number of dynamic simulation exercises in recent years. Thus not all increases in wealth inequality are necessarily 'bad'.

Chapter 17 looks at gender-related aspects. As Carmen Deere and Cheryl Doss detail, gender is potentially more important in wealth studies than for income or consumption. There can be more gender inequality in asset ownership within the family, for example, than there is in consumption. Also, 'ownership' is multi-faceted. The right to receive income from an asset may belong to one person, while the right to sell or the right to inherit may belong to others, including people outside the immediate family. These rights are often fractured along gender lines. Deere and Doss document that there is a considerable gender gap in asset ownership in the developing world. They outline four constraints on women's ownership: state, family, community, and market, paying particular attention to legal regimes, since these come to the fore in comparative analyses. Both marital and inheritance regimes are important. An important step forward for marital property regimes was the 1981 Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), now ratified by most UN member countries. Under CEDAW women must have equal rights to own, transact, and benefit from property whether married or not. The convention has had significant impact in Latin America, but apparently less effect in Africa and India. In many parts of Africa, matters are difficult, since marital rights are affected by overlapping legal systems based on civil, religious, and customary law.

An important aspect of inheritance regimes is the degree of testamentary freedom. In India, legislation in the 1950s conferred complete testamentary freedom, which provides the least protection for widows. In Latin America, there has been a move towards reserving a share of the estate for widows, adding to their protection in most of this region through a half share in marital community property. In Africa, inheritance rules tend to be complex and are heterogeneous across countries and communities. The inheritance rights of women are generally weak, and are even so where matrilineal lineage is practised. This reinforces the tendency of the marital regime to make women's access to land dependent on marriage. There have been improvements in women's access to land in Latin America, but progress has been relatively slow in Africa. There is evidence that wives' land ownership not only increases their welfare, but is positively related to the fraction of the household budget spent on food and the amount of child schooling.

A large fraction of wealth in developing and transition countries lies in the informal sector. In Chapter 18 Pratap and Quintin report a shift in thinking about the informal sector that de-emphasizes barriers to workers in obtaining jobs in the formal sector, and highlights instead institutional deficiencies, such as unnecessary bureaucracy and poor tax administration. Given the latter, many entrepreneurs will find it more profitable to stay in the informal sector, despite the resulting poor access to credit. Lack of credit leads to undercapitalized firms, lower output, and lower wages throughout the economy than could be achieved with better institutions and a smaller informal sector.

De Soto (2000) has argued that the amount of untitled real estate in the informal sectors of developing and transition countries is huge. His point estimate for the year 1997, based on extrapolating from four or five countries studied in detail, is $US9.34 trillion. He refers to this wealth as 'dead capital', arguing that it cannot be used as collateral and has limited marketability. Other investigators have criticized de Soto's estimates, and have found that people in the informal sector typically do have significant access to loans. However, there is a consensus that the problem de Soto identified is nonetheless significant. This has given impetus to titling programmes in many countries. Woodruff (2001) reviews the evidence and gives a best guess of $US3.4 trillion for the amount of informal sector capital. For comparison, this is 21 per cent of the total household wealth that Davies et al. estimate (in Chapter 19) was held in the world's 162 low- and middle-income countries in the year 2000.[9]

5 The Global Picture

The final section of the volume has just one chapter, by James Davies, Susanna Sandström, Tony Shorrocks, and Ed Wolff (DSSW hereafter). This chapter provides the first available estimate of the world distribution of household wealth. The authors require two key inputs: country wealth levels and the distribution of wealth within countries. Data on wealth levels are available for thirty-nine countries, from either balance-sheet or survey sources. Estimates of the distribution of wealth are available for twenty countries from household surveys, wealth tax, or estate tax-based studies. The countries with wealth data include 56 per cent of the world's population and it is estimated that they have 80 per cent of the world's wealth. Evidence from these countries is used to develop techniques that allow the imputation of wealth levels and distributions to the remaining countries.

The results of the DSSW study are striking. The top 2 per cent of the world's adults are estimated to hold 50 per cent of the world's household wealth. The Gini coefficient for world wealth is 0.89, which is the same value one would obtain in a population of ten people if one person had $US1,000 and the other nine had just $US1. Clearly, the world distribution of wealth is highly unequal. North America, Europe, and the high-income Asian countries (for example, Japan, Korea, Hong Kong, and Singapore) each have between about 25 and 35 per cent of the world's wealth. Latin America, Africa, the transition countries, and much of Asia share the rest. Interestingly, while

[9] Chapter 19 estimates that $US104.4 trillion was held in the 24 high-income OECD countries, $US4.6 trillion in 43 high-income non-OECD countries, and $US16.3 trillion in low- and middle-income countries.

world wealth inequality is certainly greater than average inequality within countries, the difference is not as great as in the case of income. One reflection of this is that wealth inequality in the USA is at almost the same level as world wealth inequality. In contrast, there is a significant step-up from USA income inequality to world income inequality.

A further finding of DSSW is that portfolio patterns differ considerably across countries. Predictably, land and agricultural assets are relatively more important in developing countries. However, even within the OECD there are very large variations. In some countries, such as Japan, Italy, and a number of European transition countries, there is a strong preference for safe liquid assets, such as bank deposits. Participation in share holding, and ownership rates for other risky assets, are low. In contrast, in the USA, the UK, and some other countries, there is much wider ownership of corporate shares and far less emphasis on safe assets. In the long run these differences ought to have consequences for the distributions of both wealth and income.

6 Conclusions

A number of important conclusions can be drawn from the above discussion and from the studies in this volume. Most of these are of a positive nature, but some are normative. It is clear that low wealth and poor access to credit exacerbate poverty problems in developing and transition countries. Providing institutions, programmes, and policies that will help the poor to build their wealth and borrow on appropriate terms is, therefore, an objective that should have wide support. Broad consensus can also be expected that people should not be able to build fortunes through corruption or unfair competition, and that action to prevent this is important. Whether there should also be attempts to *redistribute* wealth, and what form they should take, is a more controversial matter, and one that is beyond the scope of this volume. We have seen, however, that in developing countries with very unequal distribution of land, and in transition countries with questionable privatization practices, there tends to be great inequality of income and wealth. If equitable land reforms or redistribution of privatized assets can be performed in an orderly fashion, and have broad popular support, then they would seem to have much to recommend them.

Some of the key conclusions from the research reported in this volume are:

- Household wealth is highly unequal, both within countries and in the world as a whole.
- During industrialization wealth inequality first rose in most developed countries, but then experienced a long decline, with the spread of popular

assets and a decline in income inequality. This trend continued until the 1970s. The pattern can be described as an inverse J-shape.

- Within most countries the trend in the last three decades has been towards higher wealth inequality. In transition countries, this is partly a result of the replacement of socialist patterns of ownership by those of a market economy. Elsewhere it is associated with the rise in income inequality, deregulation of financial markets, and increases in share prices. The rise in wealth inequality has not been as strong as might have been expected in all countries, however. Using standard measures it has been especially weak in the USA. One force holding back the shares of the top 1 and 5 per cent has been rising house prices, which have a greater impact for middle groups. But recent evidence also suggests that the impression of little increase in wealth inequality in the USA may be misleading, since, when all forms of retirement wealth are included and attention is paid to overall inequality—that is, not just top shares—there is a significant upward trend in wealth inequality.
- Wealth differences between countries have on average probably been declining in recent years, because of the rapid increase in wealth in China and India.
- There has been a tendency in recent decades towards increased wealth concentration *among* the truly rich. This may be related to the increasingly 'winner-takes-all' nature of global markets.
- Trends in house prices and mortgage lending can have important implications for consumer expenditure and therefore for macroeconomic performance. The strength of these impacts varies across countries, depending on the nature of institutions and the level of financial development.
- In developing countries, whether people have access to financial institutions does not appear to affect poverty. The extent to which they *use* financial products is, however, negatively associated with poverty. This suggests that programmes that reduce practical barriers to the use of credit and savings vehicles by the poor are important.
- Lack of formal title to land and housing may slow income growth and hold back development. Such property cannot be used as collateral for loans from financial institutions. Continuing to promote titling programmes should help more households to access credit and build wealth in developing countries.
- Household portfolio choices differ considerably between countries. Research is needed to investigate why this is the case, and to establish whether there is a link between these differences and those in wealth inequality.
- Wealth is probably more important for welfare, particularly for the poor and low-income groups, in developing and transition countries than in high-income countries. Where social safety nets and credit availability are poor or lacking, household assets serve as an important form of self-insurance.

They also allow self-financing for business start-ups and operation. It is, therefore, especially important to study household wealth in developing and transition countries—precisely the countries where data are currently the poorest.

We hope that the research reported in this volume will be effective in demonstrating the great importance of personal assets in economic development, poverty reduction, and patterns of inequality. Future national and international assessments of poverty and inequality should make the best possible use of data on household assets and wealth, in addition to studying consumption and income. And much more needs to be done to increase the quality and availability of household wealth data. Central banks and national statistical agencies should work to produce household balance-sheet estimates. Wealth questions should be included on household surveys, and wealth surveys should over-sample the upper tail in order to obtain the most accurate possible results. Finally, international cooperation must be established in order to compare methods and experiences and to spread best practices in the development of household wealth data.