Session 8B: Well-Being Over Time II
Time: Friday, August 10, 2012 PM

Paper Prepared for the 32nd General Conference of
The International Association for Research in Income and Wealth

Boston, USA, August 5-11, 2012

International Comparisons of Economic Well-Being: The Levy Institute Measure of Economic Well-Being (LIMEW)

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International Comparisons of Economic Well-Being: the Levy Institute Measure of Economic Well-Being (LIMEW)

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July 15, 2012 Draft

Abstract: We compare economic well-being in Canada, France, Great Britain, and the U.S. in the 1990s and 2000s using an expanded measure of economic well-being called the Levy Institute Measure of Economic Well-Being (LIMEW). LIMEW is different in scope from the official U.S. Census Bureau measure of gross money income (MI) in that our measure includes noncash transfers, public consumption, imputed income from wealth, and household production and nets out personal taxes. We find that while Canada and Great Britain have substantially narrowed their gap over time with respect to the U.S. in terms of median living standards, France reduced its gap with respect to the U.S only slightly. Moreover, the Gini coefficient of LIMEW was considerably higher in the U.S. than the other three countries, and the gap in inequality rose over time relative to Great Britain and France. We also analyze the trends in LIMEW and MI in the U.S. from 1959 to 2007. While the annual growth rates of median LIMEW and MI are very close over the whole period (0.67 and 0.63 percent), median LIMEW grew much faster than median MI after 1982 and much slower before. The Gini coefficient of MI is uniformly higher than that of LIMEW but both show about the same change from 1959 to 2007. Decomposition analysis shows that changes in inequality are driven to a large extent by non-home wealth in LIMEW and earnings in MI.

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Acknowledgments: We are grateful to the Alfred P. Sloan Foundation for their generous financial support. Asena Caner, Hyunsub Kum, and Melissa Mahoney contributed to the creation of the LIMEW estimates for the U.S. The LIMEW estimates for Canada were developed in collaboration with Andrew Sharpe, Alexander Murray, Benjamin Evans, and Elspeth Hazell. We are grateful for the contributions by Ramzi Hadji and Georges Menahem toward the estimates of LIMEW for France.

1 Introduction

In our parlance, *economic well-being* refers to the household's command over the goods and services produced in a modern capitalist economy during a given period of time. The Levy Institute Measure of Economic Well-Being (LIMEW) is premised on the view that the command exercised by the households is mediated by three key institutions--the market, state, and household. The magnitude of the command is approximated by a measure that reflects the resources available to the household for facilitating current consumption or acquiring physical or financial assets. The three institutions form interdependent parts of an organic entity, and household economic well-being is fundamentally shaped by the complex functioning of this entity.

The ongoing research project at the Levy Institute has developed long-term estimates of LIMEW for the United States for a set of benchmark years dating from 1959 to 2007. The choice of years was dictated by data availability. We have also created, in collaboration with an international team of scholars, estimates of LIMEW for three other advanced industrialized countries, Canada, France, and Great Britain. For Canada, the estimates are for 1999 and 2005 (Sharpe et al. 2011); for France, the estimates are for 1989 and 2000 (Masterson et al. 2011); and, for Great Britain, the estimates are for 1995 and 2005 (Eren et al. 2011). The choice of benchmark years were guided by three considerations: they should not be earlier than the late 1980s, appropriate microdata on income, wealth, and time-use should be available, and comparable estimates for the U.S. should be possible.

We provide a brief outline of the LIMEW in the next section (Section 2). In the subsequent section (Section 3), we summarize the main comparative results in the form of a

series of bilateral comparisons between the U.S. and each individual country. Our goal was to develop for each country estimates that were as comprehensive as permitted by the data for comparison with the U.S. As the quality and extent of data available varied across countries, we did not aim to produce multilateral comparisons because that would have meant compromising on the comprehensiveness of our measure for individual countries. We present the main results on the long-term trends in the LIMEW for the U.S. and compare it to the trends in gross money income, the usual measure of economic well-being, in Section 4. Concluding remarks are made in the last section (Section 5).

2 The Structure and Logic of LIMEW

2.1 Historical Background

The household's command over the goods and services produced during a given period of time is normally calibrated by an income measure. The logic behind this is that household income should, in principle, reflect the resources available to the household over a given period of time (typically, a year) for facilitating current consumption or acquiring assets. Gross money income (MI) is the standard measure used for this purpose in the United States.

However, MI is known to have many shortcomings. The landmark report by the Canberra Group (2001), a group of international experts on household income statistics, highlighted many of these deficiencies. In particular, MI does not include an estimate of in-kind social benefits, no valuation is included for household production or public consumption, property income is a limited indicator of the benefits from wealth holdings, and taxes are not netted out of the measure. As a result, money income gives a distorted picture of actual economic well-being.

The LIMEW overcomes many of the shortcomings of MI and disposable (i.e., after-tax) money income.[1] Since the state plays a crucial role in the direct provisioning of the "necessaries and conveniences of life" (to use Adam Smith's famous expression), such as public education and highways, we include estimates of public consumption in our measure. Since nonmarket household work, such as childcare, cooking, and cleaning, also provides the necessaries and conveniences of life, we also include household production in LIMEW. We also include estimates of long-run benefits from the ownership of wealth (other than homes) in the form of an imputed lifetime annuity, a procedure that, in our view, is superior to considering current property income from assets. Services derived from owner-occupied housing are valued by means of imputed rent in our measure.

The LIMEW is best thought of as a measure of resource availability, which provides both actual and potential consumption from market, private (household), and public sources. Money income included in the LIMEW and (imputed) income from nonhome wealth clearly constitutes resource availability that is, though underpinned by historical and institutional factors, largely determined by market forces. Imputed values of benefits from owner-occupied housing, noncash government transfers, and household production serve as market substitutes. Imputed rent to owner-occupied housing is a substitute for the payment of actual rent for a similar dwelling (this, in fact, is the definition of imputed rent in national accounts). Non-cash government benefits such as Food Stamps, Medicare, and Medicaid provide payment for market services. Our definition of household production is based on the provision of market substitutes by the household such as cooked meals, childcare, and the like.

[1] Wolff and Zacharias (2007) provided an overview of the LIMEW and discussed results for the U.S. in the 1990s using MI, LIMEW and the Census Bureau's broadest definition of disposable income.

Major components of public consumption in our measure consist of public services that provide private goods – that is, those that are rival and excludable in consumption. These include education, health, water and sanitation, and the like. These are services for which equivalents exist in the private market. In fact, many of these services like water and sewerage are "bought" by individuals through a user fee. User fees charged by the government are indicative of a market transaction. We exclude defense spending and government overhead spending because there are no clear substitutes of private goods and because they do not provide any direct service to specific groups of households. The latter criterion (the provision of services directly usable by households) is the motivation behind including the expenditures on some types of "impure" public goods such as highways, firefighting etc., in our measure.

We believe that LIMEW is a better guide to actual trends in the standard of living because we account for nonmarket household labor, the security value of wealth, in-kind social benefits, and public consumption. Intergroup disparities in economic well-being can be understood in a more complete fashion with the aid of LIMEW than focusing solely on pre or post-tax money income. We also believe that LIMEW provides a more comprehensive measure of economic inequality. As one might expect, household production and public consumption are distributed much more equally than earnings among households. On the other hand, inequality in wealth is generally much higher than that of income or earnings. LIMEW allows us to estimate the net effect of including all three components, as well as compare their impact on overall inequality with that of earnings, taxes, and the like.

Our measure is, of course, not the first attempt to construct an "extended income" concept. The Canberra Group (2001), mentioned above, proposed a measure of extended income. However, their notion is narrower in scope than ours. In particular, they argued in favor in

retaining property-type income as their nonhome wealth measure (identical to that of money income), whereas we use an imputed annuity to nonhome household wealth. Like us, they also propose using imputed rent on owner-occupied housing. While they net out only income taxes, payroll taxes, and property taxes to obtain their measure of adjustable disposable income, we also net out consumption taxes, whenever sufficient information is available to do so. Moreover, we include an imputed value to public expenditures allocated to households, while their proposed measure does not.

Smeeding and Weinberg (2001) proposed a measure very similar to the Canberra Group. Their "wealth" measure is property-type income plus net realized capital gains on wealth. Though this concept is broader than that of the Canberra Group, it is still narrower than ours since we implicitly include both realized and *unrealized* capital gains. Smeeding and Weinberg use the return on equity on owner-occupied housing to value home real estate whereas we like the Canberra group use imputed rent on housing. While the former subtract only income taxes, payroll taxes, and property taxes to obtain their measure of net total income, we also deduct consumption taxes, subject to availability of data. Finally, as noted above, we include public consumption in our measure whereas Smeeding and Weinberg do not.[2]

2.2 Construction of the LIMEW

LIMEW is constructed as the sum of the following components: base income; income from wealth; net government expenditures (both cash and non-cash transfers and public consumption, net of taxes); and household production. The major components of the LIMEW for the U.S.

[2] Also see Wolff and Zacharias (2003) for further comparisons with alternative approaches to the measurement of economic well-being. Another approach to measuring extended income is from Citro and Michael (1995) in the context of measuring poverty.

between 1989 and 2007 are shown in Table 1. It should be noted that there are some differences depending on the years that are compared. There are also some differences in the construction of LIMEW across bilateral comparisons. These differences will be noted later during the course of our discussion. We now turn to a summary of the procedures used to construct LIMEW.[3]

Base money income is defined as gross money income less the sum of property income (interest, dividends, and rents), private pension income and government cash transfers. Earnings make up the overwhelming portion of base money income. The remainder consists of interpersonal transfers, workers' compensation paid by the private sector, and other small items. Noncash remuneration provided by employers is added to base money income to derive base income. For example, employer contributions for health insurance premiums are added to base money income in the case of the U.S., as they constitute the main form of noncash compensation for U.S. employees.[4]

The second component is imputed income from the household's wealth holdings. MI includes interest, dividends, and rent. From our perspective, property income is an incomplete measure of the economic well-being derived from the ownership of assets. Owner-occupied housing yields services to their owners over many years, thereby freeing up resources otherwise spent on housing. Financial assets, can, under normal conditions, be a source of economic security in addition to property-type income.

We distinguish between home wealth and other wealth. Housing is a universal need and home ownership frees the owner from the obligation of paying rent, leaving an equivalent

[3] See Wolff, Zacharias, and Masterson (2009) for a discussion of the methodology used to construct the U.S. historical estimates reported in this paper.

[4] We did not have enough information to impute the employer contributions for health insurance in the U.S. LIMEW prior to 1982. Therefore, the historical estimates of LIMEW discussed later in this paper (Section 4) do not include this component.

amount of resources for consumption and asset accumulation. Hence, benefits from owner-occupied housing are reckoned in terms of the replacement cost of the services derived from it (i.e., a rental equivalent). We estimate the benefits from non-home wealth (including private pension wealth[5]) using a lifetime annuity method. We calculate an annuity based on a given amount of wealth, an interest rate, and life expectancy. The annuity is the same for the remaining life of the wealth holder and the terminal wealth is assumed to be zero (in the case of households with multiple adults, we use the maximum of the life expectancy of the head of household and spouse in the annuity formula). Moreover, in our method, we account for differences in portfolio composition across households. Instead of using a single interest rate for all assets, we use a weighted average of asset-specific and historic real rates of return, where the weights are the proportions of the different assets in a household's total wealth.

The third component is net government expenditures—the difference between government expenditures incurred on behalf of households and taxes paid by households. Government expenditures included in LIMEW are cash transfers, noncash transfers, and public consumption. These expenditures, in general, are derived from the National Income and Product Accounts. Government cash transfers are treated as part of the money income of the recipients. In the case of government noncash transfers, our approach is to distribute the appropriate actual cost incurred by the government among recipients of the benefit.

The other type of government expenditure that we include in LIMEW is public consumption. We begin with a detailed functional classification of government expenditures. We then exclude certain items because they fail to satisfy the general criterion of increasing the

[5] In the Canadian LIMEW, the estimated values of defined-benefit pension plans are included in pension assets, in addition to defined-contribution plans. For the purposes of comparison, we estimated the value of defined-benefit pension plans for the U.S. also.

household's command over goods or services. These items generally form part of the social overhead (e.g., national defense) and do not provide for a market substitute. Other expenditures, such as transportation, are allocated only in part to households because part of the expenditure is also incurred on behalf of the business sector. The household sector's share in such expenditures can be estimated on the basis of information regarding its utilization (for example, miles driven by households and businesses). The remaining expenditures (such as health) are allocated fully to households.

In the second stage, the expenditures for each functional category are distributed among households. Some expenditure such as education, highways, water and sewerage are distributed on the basis of estimated patterns of utilization or consumption, while others such as public health, fire, and police are distributed equally among the relevant population.

The third part of net government expenditures is taxes. We align the aggregate payroll, income and property taxes in the microdata with their NIPA counterparts, as we did for government expenditures. Estimates of consumption taxes are also included in the household tax burden.[6] However, it is not aligned to a macroeconomic aggregate because national accounts do not report the household portion of consumption taxes separately.

The fourth component of LIMEW is the imputed value of household production. Three broad categories of unpaid activities are included in the definition of household production: (1) core production activities, such as cooking and cleaning; (2) procurement activities, such as shopping for groceries and for clothing; and (3) care activities, such as caring for babies and reading to children. These activities are considered as "production," since they can be assigned,

[6] Detailed information required for the estimation of consumption taxes was not available for the U.S. prior to 1989. As a result, our historical estimates discussed later in the paper (section 4) do not include consumption taxes.

generally, to third parties apart from the person who performs them, although third parties are not always a substitute of the person, especially for the third activity.

Our strategy for imputing the value of household production is to value the amount of time spent by individuals on the basis of its replacement cost as indicated by the average earnings of domestic servants or household employees. Research suggests that there are significant differences among households in the quality and composition of the "outputs" of household production, as well as the efficiency of housework. The differentials are correlated with household-level characteristics (such as wealth) and characteristics of household members (such as the influence of parental education on childrearing practices). Therefore, we modify the replacement-cost procedure and apply to the average replacement cost a discount or premium that depends on how the individual (whose time is being valued) ranks in terms of a performance index. Ideally, the performance index should account for all the factors relevant in determining differentials in household production and the weights of the factors should be derived from a full-fledged multivariate analysis. Given the absence of such research findings, we incorporated three key factors that affect efficiency and quality differentials--household income, educational attainment, and time availability--with equal weights attached to each.

As noted by Greenwood and Holt (2011, pp. 18-19), the LIMEW lacks certain aspects of a broader notion of economic well-being or, more generally, the "quality of life." In particular, leisure, environmental services, and years of healthy life are not captured in the LIMEW measure. Moreover, public goods and services are measured in terms of government expenditures on input rather than in terms of how such spending affects health outcomes, the degree of public safety, mobility, educational achievement, and the like. In addition, such aspects of well-being as the free services provided by nature and the community and the enjoyment of

friends, art, music, and literature are not depicted by the LIMEW index. Greenwood and Holt, for example, argue in favor of supplementing the elements of the LIMEW with objective outcome measures of health status, life expectancy, educational attainment, public safety, and environmental quality. However, our measure, while more narrowly defined than a true 'standard of living' measure, is measurable in a way that the latter are not and does shed light on important trends in economic well-being and impact of policy on it.

3 Economic Well-Being in the U.S. in a Comparative Light

3.1 Economic Well-Being of the Average Household

The most widely used indicator in comparing economic performance across countries is per capita GDP.[7] According to this indicator, the United States had a solid lead over Britain, Canada, and France during the period studied here. With respect to Britain, the U.S. per capita GDP was 31 percent higher in the mid-2000s as against 34 percent in the mid-1990s. The comparison between Canada, and the U.S. showed that the per capita GDP in the latter was 23 percent higher around 2005, only slightly lower than the 25 percent lead it had around 2000. In the case of France, the U.S. lead in per capita GDP actually widened from 32 percent in 1989 to 39 percent in 2000.

Unlike per capita GDP, which is a measure of aggregate economic performance, the LIMEW is a broad measure of household economic well-being. The average U.S. household did not maintain its lead over the average household in Britain, Canada and France during the 1990s

[7] We used real per capita GDP estimates in 2000 purchasing power parity U.S. dollars in the comparisons stated in this paragraph. The source of data is the OECD website: http://stats.oecd.org/Index.aspx?DatasetCode=SNA_TABLE1. (The series identifier is "GDPHVPVOB: GDP per capita, 2000 constant PPPs, U.S. dollars")

and the first half of the 2000s (Figure 1). The convergence with Britain was the most dramatic: the average household in the U.S. was only 5 percent better off than its British counterpart in the mid-2000s as against 28 percent in the mid-1990s. For Canada too, there was notable improvement, with the average Canadian household narrowing its deficit vis-à-vis the U.S. from 12 percent around 2000 to only 8 percent around 2000. The comparison with France showed the most favorable result for the U.S. because the lead enjoyed by the average U.S. household declined only slightly from 27 percent in 1989 to 25 percent in 2000. The relative economic well-being of the average American household does not look anywhere near as spectacular as that of the relative per capita GDP of the U.S.

3.2 The Middle Quintile

To better understand the gap in the economic well-being between the average American household and their counterparts in the other countries, it is useful to take a closer look at the average well-being of the households in the middle fifth (quintile) of the distribution of household well-being. In general, the change in the LIMEW of the average household is quite closely approximated by the change in the average LIMEW of the middle quintile. Unlike the former, the latter can be decomposed exactly into its constituent parts and such a breakdown can offer some insights about the factors affecting the well-being of the average household (e.g., improved labor market conditions that might be reflected in higher earnings as distinct from increase in government expenditures on public services that might be reflected in higher net government expenditures).

Turning first to the most dramatic case of convergence observed above, i.e., Britain, we find that the American middle quintile lost some of its lead in base income over the period

because the growth in base income was faster in Britain than in the U.S. (Table 2). However, the decline in the U.S. lead in LIMEW was far higher than the decline in the U.S. lead in base income ($13,000 versus $2,000 in 2000 purchasing power parity (PPP) adjusted dollars).[8] A much bigger shift than in base income took place in net government expenditures where the U.S.-British gap turned from $3,000 to *negative* $4,000. Government expenditures for households in the form of transfers and public consumption increased much faster in Britain than in the U.S., while the extent to which the U.S. middle quintile enjoyed a lower tax liability narrowed. In a striking reversal of fortunes, the American middle quintile lost its lead in income from wealth almost completely over the period: from a level that was about 80 percent higher than the British in mid-1990s it became virtually on par with them in mid-2000s. The convergence was apparently due to the disturbing immiserization of the American middle quintile in terms of wealth--reflected in the absolute decline in the amount of income from wealth in the U.S.--accompanied by a modest increase in the amount for the British.[9]

The comparison between the middle quintiles in Canada and the U.S. from around 2000 to around 2005 shows that their gap in base income shrank because while the Canadians experienced an increase in base income, the American experience was the opposite. Unlike in the case of Britain, the fall in the U.S. lead in LIMEW was smaller than the decline in the U.S. lead in base income ($3,000 versus $7,000 in 2000 PPP U.S. dollars). However, just as in the case of Britain, the income from wealth of the American middle quintile became smaller with respect to

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[8] All the dollar values reported in this section are in 2000 PPP U.S.$. See note to Figure 1 for details.

[9] The relative position of the U.S. middle quintile worsened with respect to household production also over the period, mainly because of the change in the gap in the hours spent on household production. From a level that was about 3 percent higher than the British, the U.S. middle quintile came to a position of near parity with the British. Coupled with the relatively lower hourly wage of domestic workers in U.S., this resulted in the lower value of household production for the U.S. middle class.

their Canadian counterparts over the period.[10] Income from wealth, which, around 2000, was only 4 percent lower in the U.S. than in Canada became 15 percent lower around 2005. In fact, income from wealth fell in both countries, but it fell by a much greater extent in the U.S. (13 vs. 2 percent).

Net government expenditures were, somewhat surprisingly, higher for the middle quintile in the U.S. than Canada, because of the higher average tax liability of the latter. The U.S. lead in net government expenditures became larger over the period, reflecting the sharp increase in transfers and decrease in taxes, thus helping to ameliorate the extent to which the U.S. middle quintile was losing ground in terms of LIMEW relative to Canada. The gap between the two countries in LIMEW would have also narrowed more, if the level of household production had not switched from being 13 percent lower for the middle quintile in the U.S. than in Canada to virtual parity. Part of the reason behind this was that the higher hours of housework in the U.S. became still higher while they fell in Canada. The other reason is the narrower gap in the implicit unit value of household production due to the decline in the Canadian unit value, which primarily reflects the decline in the hourly wage of domestic workers in Canada.[11]

In the case of France, the middle quintile's lower average LIMEW relative to their U.S. counterpart was entirely due to their lower base income (reflecting primarily lower household earnings). However, the gap in base income was smaller in 2000 than 1989 (the U.S.-to-France ratio declined from 2.03 to 1.82). In terms of the other components, France had a lead over the

[10] We included the estimated values of wealth associated with defined-benefit pension plans in our definition of household wealth for the U.S. in order to facilitate comparisons with Canada. In the public-use version of the Canadian wealth survey datafile, a single variable is provided for "pension wealth," and it is impossible to distinguish the wealth associated with defined-benefit versus defined-contribution pension plans.

[11] The hourly wage of domestic workers in Canada fell from $9.20 to $8.80 in Canada while it rose from $7.42 to $7.74 in the U.S (all amounts are in 2000 PPP dollars).

U.S. in both years. Just as we found in the British and Canadian comparisons, the position of the U.S. middle quintile relative to the French worsened in terms of income from wealth as it fell from a level that was 5 percent lower than the French in 1989 to a level that was 15 percent lower in 2000. The gap in net government expenditures, on the other hand, remained stable with the U.S. middle quintile receiving 56 cents for every dollar received by the French. Most of the gap here can be accounted for by the much higher level of transfers received by the middle-quintile French households because public consumption was actually higher and taxes were only slightly lower in the U.S. We found that the average value of household production in the two countries moved towards parity between 1989 and 2000, primarily as a result of an increase in the hours of household production in the U.S. and a decline in France.

3.3 Gaps in Well-Being Across the Distribution

We now shift our focus from the middle of the LIMEW distribution to examine how American households in the different deciles of the (LIMEW) distribution have fared relative to their counterparts in the other countries. The comparison of the U.S. and Britain is shown in Figure 2. Panel A shows the percentage by which the average LIMEW of each decile in the U.S. exceeded or fell short of their British counterpart. In the mid-1990s, the lead enjoyed by the U.S. households was positively correlated with the position in the distribution. That is, the richer American households were richer than the richer British households by a greater extent than the poorer American households were better-off than the poorer British households.[12] By the mid-2000s, American households throughout the distribution lost their lead in LIMEW over the

[12] Of course, the gap was the greatest for top decile in the U.S. at 65 percent, which is almost double of the gap enjoyed by the ninth decile.

British households. Most notably, the bottom 40 percent were now *below* their British counterparts. This is a sharp contrast from mid-1990s, when they enjoyed a lead of 16-24 percent over their British counterparts. Those in the top 50 percent did maintain the lead over their British counterparts, but the extent of the lead, as in the mid-1990s, increased with the decile. In fact, the distribution of the gap has become even more "pro-rich" as shown by the steeper gradient of the curve in the later period. The change in the distributional profile of the U.S.-British gap is due to the difference between the two countries in how growth in well-being was shared across the distribution (Panel B). "The rich got richer" in the U.S. while growth went in favor of the lower income groups in Britain. The households in the higher rungs of the distribution experienced faster growth than those in the lower rungs in the U.S.; the opposite pattern prevailed in Britain.

A similar comparison of the U.S. with Canada revealed that, just as in the comparison with Britain, the lead enjoyed by the American households was "pro-rich" in both years (Figure 3, Panel A). Indeed, it was not merely "pro-rich" it was also "pro-very rich". That is, the lead was much larger for the 9th and particularly the top deciles.[13] The relatively less "pro-very rich" pattern in the later year was probably a result of the losses suffered by the rich U.S. households in their income from wealth and also because of the growth in income from wealth for the rich Canadian households. We can also see, similar to the outcome of the British comparison, that American households throughout the distribution lost their lead over Canadian households. It also appears that the relative reduction in the gap was higher for those in the upper portions of the distribution. This pattern is accounted for by the differences in income growth rates across

[13] The top decile in the U.S. had an average LIMEW that was double that of their Canadian counterpart in 2000 and about 75 percent higher in 2005.

the deciles (Figure 3, Panel B). Growth in well-being favored the higher income groups more than the lower income groups in both countries, a sharp contrast with respect to what we observed above for Britain from the mid-1990s to mid-2000s. However, the Canadian pattern was more "pro-rich" than the U.S. as shown by the steeper gradient of the Canadian curve. The only group that suffered a notable absolute decline in their LIMEW was the top decile in the U.S.

The comparison of U.S. and France also indicated that, in general, the lead enjoyed by the U.S. households over their French counterparts increased with their relative position in the LIMEW distribution (Figure 4, Panel A). The only exception was found for the bottom 10 percent of households where the gap between the two countries appears to have almost vanished by 2000. In contrast to the convergence between the bottom 10 percent in the two countries, the gaps between the other portions of the distribution, except at the top two deciles, remained stable across the two years. This was a reflection of the comparatively similar rates of income growth experienced by the households in these portions of the distribution in the two countries (Figure 4, Panel B). Notably, the gap between the top deciles in the two countries widened greatly over the period, with the American top decile's average LIMEW exceeding their French counterpart by 123 percent in 2000, compared to "only" 83 percent in 1989.

3.4 Inequality

The distribution of LIMEW across the deciles offers a visual and intuitive picture of inequality. But, they are not helpful in understanding the differences (across countries and years) in the overall level of inequality and its structure. A summary measure of inequality that can be decomposed can help in this task. We now turn to this task by comparing the Gini coefficient--

the most widely used summary measure of inequality--and its decomposition by the major components of LIMEW across countries.[14]

The evidence we presented above regarding the pattern of growth in well-being across the deciles in the U.S.-Britain comparison suggests that overall inequality would have declined in Britain (because the lower rungs of the distribution gained more from overall growth than the higher rungs) and increased in the U.S (because the higher rungs of the distribution gained more from overall growth than the lower rungs). This expectation is borne out by the Gini ratios of the two countries, and the fact that the gap in the inequality of LIMEW between the two countries widened between mid-1990s and mid-2000s from 5.6 to 8.8 Gini points (Table 3, Panel A). The relatively high level of inequality in the U.S. is mainly accounted for by the higher disequalizing effect of base income and income from wealth, the two components of LIMEW that are most susceptible to the functioning of markets (labor and capital markets). Out of the 8.8 point gap in the Gini between the two countries in the mid-2000s, base income contributed 3.9 points, income from wealth contributed 6.1 points, and household production made a negative (offsetting) contribution of 2.9 points. The redistributive effect of taxes and government spending accounted only for a very small part of the difference in the inequality between the two countries. The contribution of net government expenditures to the difference in inequality was only 0.7 and 0.4 Gini points in the mid-1990s and mid-2000s, respectively.

Our comparison of growth across deciles in Canada and the U.S. indicates that we should expect overall inequality to decline in the latter (recall the drop in the average LIMEW for the

[14] Decomposition of inequality by income components is a standard technique used to assess the amount of inequality accounted for by individual components in the total amount of inequality (Lerman 1999). The decomposition results are not conclusive evidence on causality. However, they do identify the contribution of individual components to overall inequality. The degree of inequality accounted for by a component is the product of that component's concentration coefficient and its share in income (Kakwani 1977).

top decile) and rise in the former (because the top parts of the distribution gained more from the growth in well-being). The estimates of the Gini ratio (Table 3, Panel B) confirm the expectation and the gap in the Gini ratios between the two countries fell from 12 to 9.2 Gini points during the first half of the 2000s. Similar to our findings from the British comparison, the results from the decomposition exercise indicate that the much higher level of inequality in the U.S. is principally accounted for by the disequalizing effect of market forces. Out of the 9.2 point gap between the two countries around 2000, base income contributed 3.8 points, while income from wealth contributed 8.3 points. In contrast, household production made a negative contribution of 1.5 points. Analogous to the British comparison, net government expenditures, often taken as an index of the redistributive effect of government expenditures and taxation, contributed very little to the difference in inequality between the U.S. and Canada.

Turning next to the French-U.S. comparison, we find that the level of overall inequality in France rose modestly by 1.6 Gini points from 1989 to reach a level of 25.3 in 2000 (Table 3, Panel C). This is consistent with the pattern of income growth across deciles that we observed earlier, which showed practically identical income growth for the second through ninth deciles, and higher growth rates for the top and bottom deciles. Because the Gini coefficient is sensitive to changes in the middle of the distribution (in this case, loss in income shares), it showed a modest increase. In contrast, the increase in economic inequality in the U.S. was far from modest: the Gini ratio increased by 6.2 Gini points from 1989 to attain a level of 38.3 in 2000. The increase is consistent with the "pro-rich" pattern of income growth that we saw across the deciles, which led to an increase in the share of aggregate LIMEW going to the higher rungs of the distribution and a decrease in the share of the lower rungs of the distribution.

As a result of the greater increase in the U.S., the inequality gap between the two countries widened from 8.2 in 1989 to 12.9 Gini points in 2000. The results from the decomposition analysis points, just as in the case of the other two comparisons, to the much larger disequalizing effects of markets in the U.S. Base income and income from wealth contributed, respectively, 12.1 and 9.3 Gini points to the inequality gap between the two countries in 2000. However, unlike the other two bilateral comparisons, net government expenditures actually contributed substantially toward narrowing the inequality divide. Somewhat surprisingly, this was entirely due to the inequality-reducing effects of net government expenditures in the U.S. rather than in France, where net government expenditures had a minor inequality-enhancing effect in both years.

4 Long-Term Trends in LIMEW in the U.S.

4.1 Trends in the Level of LIMEW, MI, and Hours Worked

We next turn to trends in LIMEW in the U.S. from 1959 to 2007. Over the entire 1959–2007 period, median LIMEW grew at an annual rate of 0.67 percent (Table 4). There was a lot of variation by sub-periods. Trends differ substantially between LIMEW and MI. From 1959 to 1972, median LIMEW gained only 0.4 percent per year, while from 1972 to 1982 median LIMEW suffered an absolute decline. This was followed by a growth burst from 1982 to 1989 of 2.8 percent per year. However, growth slowed down from 1989 to 2004 when median LIMEW could muster only a 0.9 percent advance per year, and collapsed to a snail's pace of 0.2 percent per year between 2004 and 2007.

How do these growth rates compare to the conventional measure MI? Over the entire 1959–2007 period, median MI grew at almost the same rate as median LIMEW, 0.63 per year

compared to 0.67 percent per year. There are much larger differences by sub-periods. In the 1959–1972 period, median MI grew at an annual rate that was *four* times higher than that of median LIMEW. From 1972 to 1982, both LIMEW and MI fell in absolute terms, with LIMEW showing a rate of decline that was twice as high. The result of the differing trends in the two measures can be seen in the fact that while the level of LIMEW in 1982 was roughly 2 percent *lower* than in 1959, the level of MI in 1982 was approximately 16 percent *higher*. Subsequently, in the years 1982 to 1989, both measures recorded very high growth rates, but LIMEW grew almost twice as fast.[15] Similar to LIMEW, MI also registered a decline in the annual growth rate between 1989 and 2000, and the latter grew at only half the pace of the former. The two measures moved in different directions between 2000 and 2004--LIMEW rising and MI falling. In the succeeding years, 2004 to 2007, MI grew almost five times as fast as LIMEW, yet the level of MI in 2007 was lower than in 2000. In sum, the median value of LIMEW showed a much smaller growth than MI during the 1960s (the so-called "golden age" was not so golden according to the LIMEW), a much steeper decline from the early 1970s to the depression-like year of 1982, and much faster growth during the 1980s and 1990s. The slowdown in household economic well-being during the first decade of 2000s was evident in both measures, though it was starker in the case of MI.

Addendum A shows trends in the various measures of well-being in equivalent dollars (that is, income adjusted for family size and composition).[16] Both LIMEW and MI show a higher

[15] Note the fact that 1982 was the bottom of a deep recession, which increases the measured growth accordingly.

[16] The equivalence scale used here is the three-parameter scale employed in the U.S. Census Bureau's experimental poverty measures. The scale equals $(A+0.8+0.5*(C-1))^{0.7}$ for single-parent households and $(A+0.5*(C-1))^{0.7}$ for all other households, with *A* and *C* representing, respectively, the number of adults and children. We used the same scale also in our international comparisons.

rate of growth when an equivalence scale adjustment is applied. This difference reflects the reduction in average household size over these years. Over the entire 1959 to 2007 period, median LIMEW and MI grew at almost the same rate, 1.01 and 1.05 percent per year, respectively. As before, median equivalent LIMEW displayed faster growth after 1982, while median equivalent MI grew faster before 1982.

The story is not complete without considering hours worked (the obverse of leisure time). Addendum B shows total hours worked. By our calculations, there was a noticeable decline in median annual hours worked from 1959 to 1982 (0.5 percent per year) that was almost entirely due to a large decline in housework. In contrast, there was a marked rise in total hours worked from 1982 to 1989 (0.7 percent per year) that was entirely due to an increase in market work (i.e., the labor market).[17] There was little change from 1989 to 2000. But, between 2000 and 2007, total hours fell at the annual rate of 0.5 percent, due mainly to the sharp decline in market work and secondarily to a more modest reduction in housework. During the 1959–2007 period, median hours worked fell by 9.6 percent overall, as median market work fell by 3.3 percent and housework fell by 23.0 percent.

4.2 The Middle Quintile Over Time

We now turn to a closer examination of the changes in the third quintile of the LIMEW distribution, for the reasons that we already mentioned (Page 10). As we noted before, median LIMEW in 1982 was slightly lower than in 1959. The same pattern is also observed for mean LIMEW for the third quintile. The decline in the latter was partially due to the decline in

[17] Again, the increase in labor market hours is due in part to comparing a recession year to an expansion year.

household production from 32 to 21 percent or by $7,000 in 2007 dollars (Table 5 and Figure 5).[18] Decreases in housework hours and the unit value of housework represented 28 and 72 percent of the decline, respectively (estimates not shown). This decline was partially offset by the robust growth in net government expenditures, which climbed from 3 to 12 percent of LIMEW, or by $5,300. Another reason for the sluggish growth in LIMEW over this period was the drop in base income between 1972 and 1982, (from 62 to 59 percent, or by $4,400), that wiped out the $4,400 gain in the 1959–1972 period.

The composition of LIMEW for the middle quintile remained relatively stable from 1982 to 1989 and the very high rate of growth of the mean LIMEW of the middle quintile (22 percent) was due to relatively balanced growth in all four components. In particular, average base income for the middle quintile rose by $6,600, and household production increased by $5,200. Most of the gain (98 percent) in household production was due to a rise in the unit value of housework.

The growth of the mean LIMEW of the middle quintile slowed between 1989 and 2000. The composition of LIMEW of the middle quintile was also relatively stable over this period and the slowdown was attributable to the reduced growth of all components. However, between 2000 and 2004, the growth of mean LIMEW of the middle quintile slowed to a crawl, gaining only 3.9 percent. Over these years, the composition of LIMEW changed dramatically in favor of net government expenditures, which rose by $4,900, while base income and income from wealth declined by $2,500 and $900, respectively. These trends were largely reversed from 2004 to 2007, with net government spending showing negative growth and base income and income from

[18] All the dollar estimates in this section are in 2007 dollars.

wealth showing positive gains. However, household production also declined over these years, and mean LIMEW grew by only 0.5 percent.

Mean LIMEW of the middle quintile grew by 38 percent (as about the same as median LIMEW for all households) over the 1959–2007 period. Of this gain, 17.1 percentage points (or 45 percent) was due to the increase in net government expenditures (Table 5 and Figure 5) in the form of an increase in transfers (18 percentage points) and public consumption (10 percentage points), while an increase in the tax burden subtracted 10 percentage points. The increase in base income added another 17 percentage points to the growth in LIMEW of the middle class, while gains in income from wealth contributed only 4 percentage points. Household production barely made any contribution toward the growth of middle class LIMEW over the period. Table 5 also presents a growth decomposition of the average MI for its middle quintile. For MI, 54 percent of its 43 percentage point gain was attributable to the growth of base income and 42 percent to increased cash transfers.

According to the LIMEW measure, the public sector was the leading source of the growth in the standard of living of the middle class between 1959 and 2007. The share of net government expenditures in the LIMEW of the middle quintile rose dramatically from 3 to 15 percent between 1959 and 2007. Government expenditures for the middle class grew much faster than their LIMEW over the period: As a percentage of LIMEW, expenditures rose by 17 percentage points from 12 to 29 percent between 1959 and 2007. Much of this increase was driven by the growth in transfers which, as a percentage of LIMEW, rose from 4 to 16 percent over the period, an increase of 12 percentage points. In turn, two-thirds of the increase in the percentage share of transfers in LIMEW occurred as a result of the expansion of transfer programs which did not exist in 1959 (Medicare, Medicaid and Earned Income Tax Credit

(EITC), etc.). Public consumption, the other type of government expenditures, also increased much faster than LIMEW but slower relative to transfers. This was reflected in its percentage share of LIMEW, which rose from 8 to 13 percent between 1959 and 2007. Out of the 5 percentage points increase in the share of public consumption in LIMEW, 3 percentage points came from the increasing share of education expenditures in LIMEW.

The increase in labor income was a close second to net government expenditures in contributing to the growth in the economic well-being of the middle quintile between 1959 and 2007, while gains in income from wealth were a distant third. According to MI, most of the growth was due to rises in labor earnings over the period.

4.3 Economic Inequality Over Time in the U.S.

As the final part of our analysis, we turn our attention to overall inequality in the U.S. It is striking that the income shares of the middle three quintiles were lower in 2007 than in 1959 in both the LIMEW and MI distributions (Table 6). The change in the division of the economic pie favored the top quintile and the top 5 percent far more than the bottom quintile. The bottom quintile showed a slight drop in its share of total LIMEW but no change in its share of total MI, while the top quintile's share of aggregate LIMEW and MI went up by 6.0 and 5.6 percentage points, respectively.

The increase in the share of the top quintile and the top 5 percent was relatively moderate in terms of both aggregate LIMEW and MI from 1959 to 1989, followed by a big surge from 1989 to 2000, and then little change between 2000 and 2007. The bottom quintile also saw modest growth in its share till 1989, but lost ground thereafter. In all the years studied here, the top quintile fared better according to MI than LIMEW in terms of its share in the overall pie (50

versus 48 percent in 2007) and the bottom quintile received a larger share in LIMEW than MI (5.4 versus 3.4 percent in 2007).

The decline in the income share of the middle class (the third quintile) between 1959 and 2007 was similar in LIMEW and MI (2.3 and 2.5 percentage points). The share of the second quintile fell by 1.6 percentage points in LIMEW and 2.2 percentage points in MI, while that of the fourth quintile fell by 1.9 and 0.8 percentage points in LIMEW and MI, respectively. The most pronounced declines in the shares of the middle three quintiles happened during the 1989–2000 period.

Consistent with the data on quintile shares, MI shows a larger degree of inequality than LIMEW according to the Gini coefficient (Table 7). The lower inequality in LIMEW compared to MI is primarily due to the inclusion of public consumption and household production. Equivalence-scale adjustment lowers measured inequality in both LIMEW and MI. This is not surprising in light of the well-known correlation that exists between household size and income. The bottom rungs of the income distribution tend to have more single-person households and smaller families than the higher rungs. Additionally, in the case of LIMEW, public consumption and household production display strong positive correlation with household size. Consider, for example, households with school-age children. The single largest component of public consumption is public education, for which we have imputed per-pupil expenditures as a part of LIMEW. Households with more school-age children would, in general, have larger amounts of public consumption allocated to them. Similarly, hours spent on household production also tend to increase with both the number of adults and the number of children at home, thus producing a positive correlation between household size and value of household production.

The Gini coefficients indicate a considerably higher level of inequality in 2007 than 1959 for both LIMEW and MI. This result is also consistent with the pattern of changes in quintile income shares discussed earlier. The increase was about the same for MI (5.8 Gini points) and LIMEW (5.9 Gini points).[19] Neither measure shows considerable change in inequality between 1959 and 1972. According to MI, almost all of the increase in inequality occurred from 1989 to 2000. In somewhat similar fashion, the LIMEW measure shows almost no change in inequality from 1959 to 1982, a modest rise from 1982 to 1989 (0.2 point increase) and then a large spurt of 6.0 points from 1989 to 2000, followed by little change between 2000 and 2007.

The results from our decomposition analysis showed that, in 2007, the leading contributor to inequality was base income, which accounted for 46 percent of the overall Gini coefficient for LIMEW (Table 8). Income from wealth was second, accounting for 39 percent and followed by household production (19 percent). Net government expenditures actually made a negative contribution of -4.2 percent, mainly due to taxes, -14 percent.

A comparison with the decomposition of MI is useful. In 2007, base income, the first component of the two measures, accounted for 94 percent of the overall Gini coefficient for MI. The contribution of base income to the level of inequality was thus markedly lower in LIMEW than MI. The lower contribution is mainly due to the fact that base income constitutes a smaller share of LIMEW than of MI.

The estimates in Table 8 suggest that although LIMEW and MI show comparable increases in inequality over the 1959-2007 period, the principal source of the increase is different in the two measures: changes in the level and distribution of income from nonhome wealth

[19] Time trends are quite similar for equivalence-scale adjusted measures.

account for the bulk of the growth in the inequality of LIMEW, while for MI, base income accounts for by far the largest part in the increase in MI inequality.

Net government expenditures helped ameliorate the increase in inequality in LIMEW and transfers served the same function for MI. The moderating effect of net government expenditures was stronger in LIMEW in comparison to transfers in MI between 1959 and 2000. However, when we also include the first years of the 21st century in our comparison, the position is reversed: Net government expenditures accounted for a reduction of 0.4 Gini points between 1959 and 2007, compared to the contribution of transfers toward a reduction of 1.2 points in MI. The main reason behind this reversal appears to be due to the notable decline in the inequality-reducing effect of taxes in LIMEW.

Household production was the largest single component restraining the growth of inequality of LIMEW between 1959 and 2007. The decline in its contribution (of 3.4 Gini points) stemmed entirely from the decline in its share of LIMEW. As noted before, there was a sizeable decline in the overall hours spent on household production activities and this development is mirrored in the fall in the share of household production in LIMEW.

5 Concluding Remarks

We compare economic well-being in Canada, France, Great Britain, and the U.S. in the 1990s and 2000s using an expanded measure of economic well-being called the Levy Institute Measure of Economic Well-Being (LIMEW). We find convergence in median living standards between the U.S. and the other three countries over time. The convergence with Britain was the most dramatic: the average household in the U.S. was only 5 percent better off than its British counterpart in the mid-2000s as against 28 percent in the mid-1990s. For Canada too, there was

notable improvement, with the average Canadian household narrowing its deficit vis-à-vis the U.S. from 12 percent around 2000 to only 8 percent around 2000. However, in the case of France, the lead enjoyed by the average U.S. household declined only slightly from 27 percent in 1989 to 25 percent in 2000.

The level of LIMEW inequality was considerably higher in the U.S. than the other three countries. Moreover, the inequality gap between the U.S. and Britain widened from 5.6 to 8.8 Gini points from the mid-1990s to the mid-2000s and that between the U.S. and France from 8.2 to 12.9 Gini points. In contrast, the difference narrowed between the U.S. and Canada.

We also find that median income in the U.S. grew sluggishly over the 1959 to 2007 period by any measure, particularly when compared to the annual growth in GDP per capita (2.3 percent). The annual growth rate in median LIMEW and MI were, respectively, 0.67 and 0.63 percent. The congruence between LIMEW and the conventional measure, MI, in the rates of change in the median over the 1959–2007 period masks important differences by subperiod. Median LIMEW showed much slower growth from 1959 to 1982 than median MI. Subsequently, median LIMEW grew faster from 1982 to 2007.

According to the LIMEW measure, the public sector was the leading source of the growth in the standard of living of the middle class between 1959 and 2007. The effect of net government expenditures in sustaining middle class living standards was particularly strong between 1959 and 1982 and between 2000 and 2007. Indeed, between 2000 and 2007, during which median LIMEW grew by only 0.6 percent per year, the increase in net government expenditures accounted for *134 percent* of the growth of LIMEW, as base income and income from wealth both contracted in absolute terms. The increase in net government expenditures of

the middle quintile, in turn, was mainly due to gains in transfers and secondarily to increase in public consumption.

According to both MI and LIMEW, there was a substantial growth of inequality in the U.S. over the years from 1959 to 2007. Time trends were also similar for the two measures, though for different reasons. Both measures show a modest rise in in inequality from 1959 to 1989 and then a large spike from 1989 to 2000 followed by little change through 2007. Decomposition analysis shows that income from nonhome wealth made by far the largest contribution to the increase in inequality between 1959 and 2007 recorded for LIMEW. In contrast, in the case of MI, the principal factor behind the increase in inequality was the rising contribution from base income. These two factors were particularly important in explaining the inequality surge of their respective measures during the 1990s. Net government expenditures helped moderate the increase in inequality between 1959 and 2007 in the case of LIMEW.

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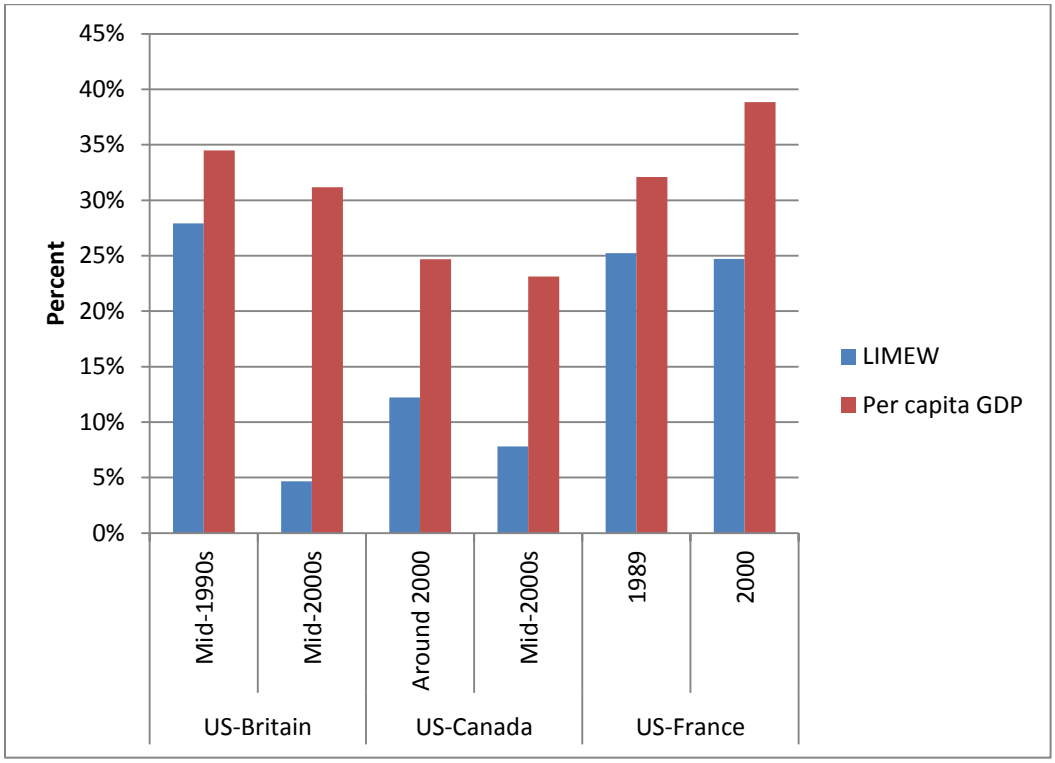
Figures and Tables

Figure 1 U.S. lead economic performance as measured by alternative indicators (gap between the U.S. value and the other country's value expressed as a percent of the other country's value)



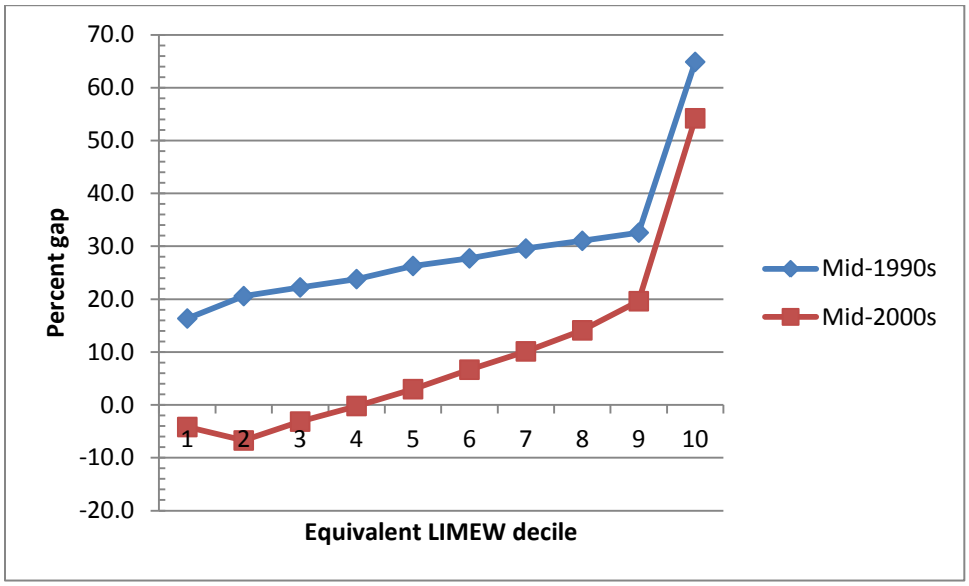
Notes:

(i) *LIMEW*: The values for LIMEW shown in the graph are based on the household median values of LIMEW in each country, adjusted by an equivalence scale. The equivalence scale used in the calculation was the three-parameter equivalence scale used in several studies by the U.S. Bureau of Labor Statistics and Census Bureau (see, e.g., Short2001; the formula can be found in note 14). The equivalent median LIMEW for each country was adjusted for inflation using the implicit price deflator for actual individual consumption with the base year of 2000. The inflation-adjusted estimates were then converted into 2000 U.S. dollars using the purchasing power parities (PPPs) for actual individual consumption. We obtained the implicit price deflators and the PPPs from the OECD website. (Accessed on 01 Mar 2010 19:35 UTC (GMT) from OECD.Stat).

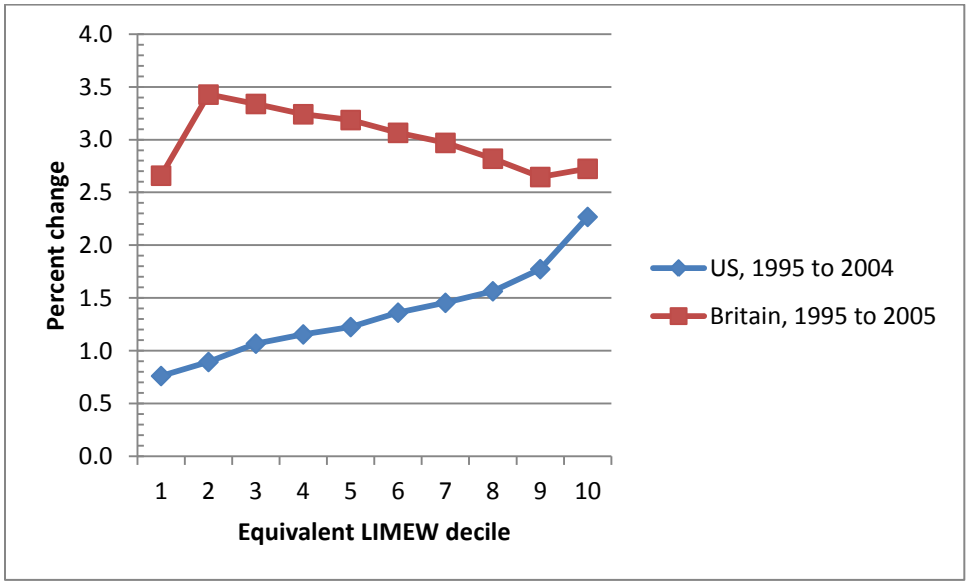
(ii) *Per capita GDP*: The values for per capita GDP shown in the graph are based on real per capita GDP estimates in 2000 purchasing power parity U.S. dollars. They were obtained from the OECD website. (Accessed on 02 Mar 2010 21:25 UTC (GMT) from OECD.Stat).

Figure 2 Economic well-being by deciles of equivalent LIMEW, U.S. and Great Britain

A. Gap in average equivalent LIMEW by decile (gap between the U.S. value and the British value expressed as a percent of the British value)



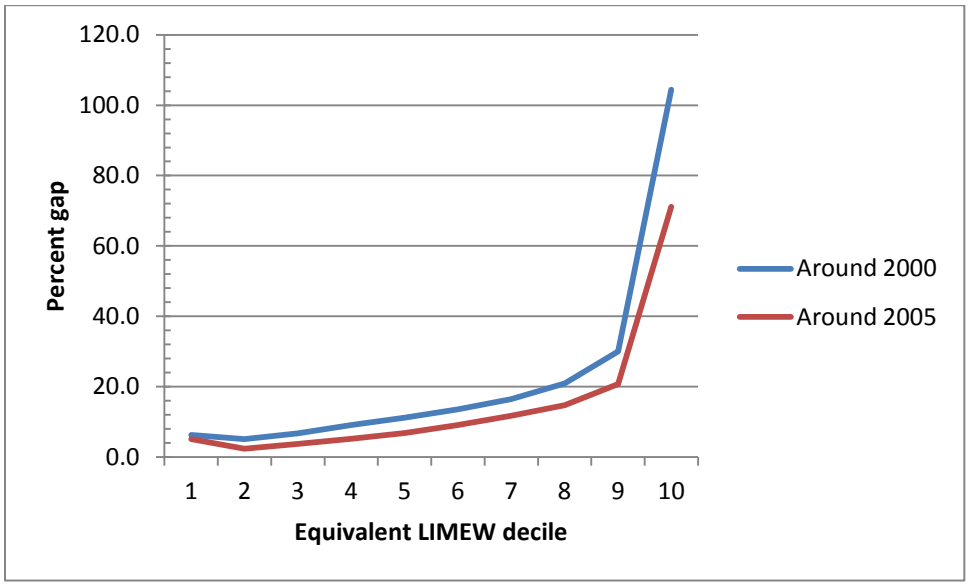
B. Average annual percent change in average equivalent LIMEW by decile



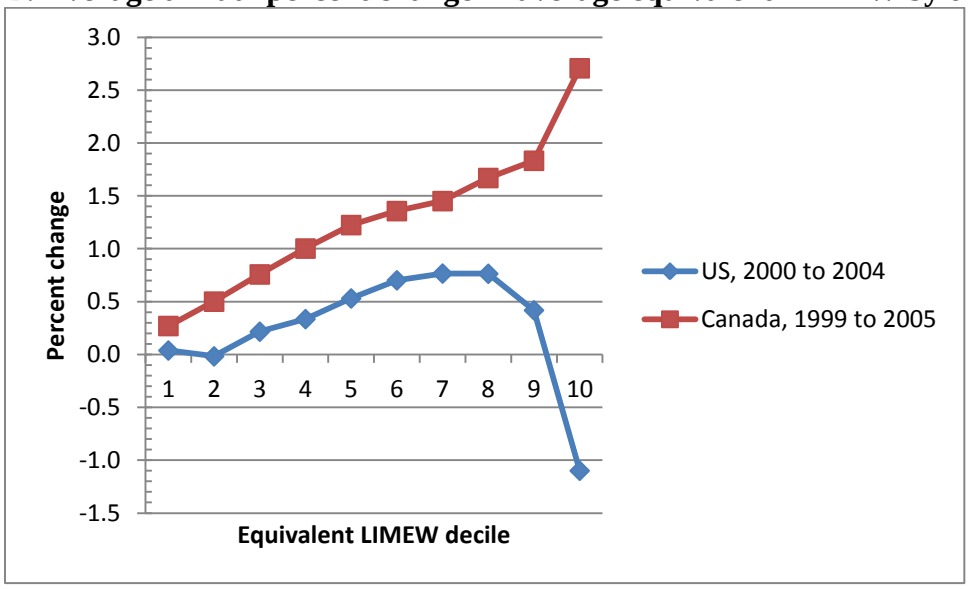
Note: See note to Figure 1 for an explanation of the equivalence scale and PPP used in the estimates.

Figure 3 Economic well-being by deciles of equivalent LIMEW, U.S. and Canada

A. Gap in average equivalent LIMEW by decile (gap between the U.S. value and the Canadian value expressed as a percent of the Canadian value)



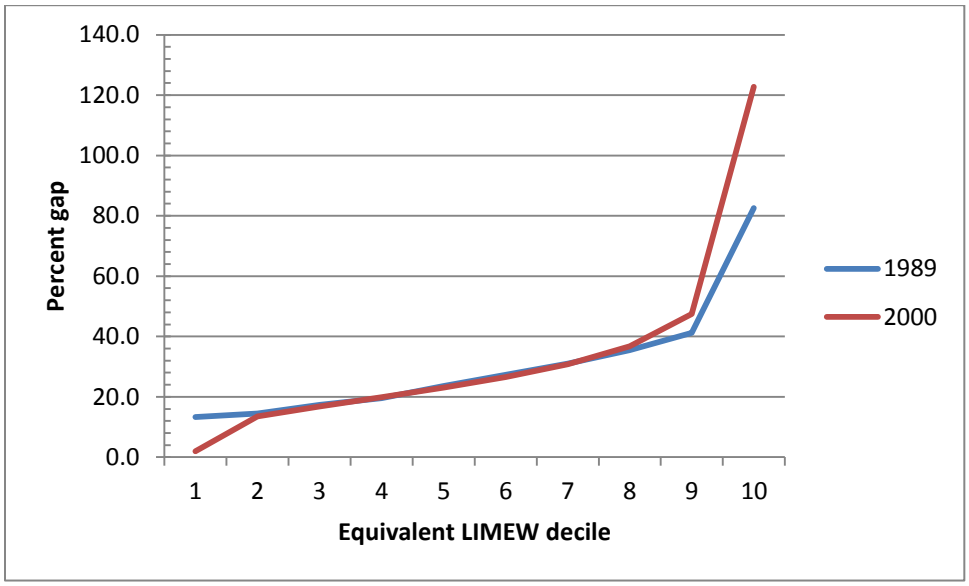
B. Average annual percent change in average equivalent LIMEW by decile



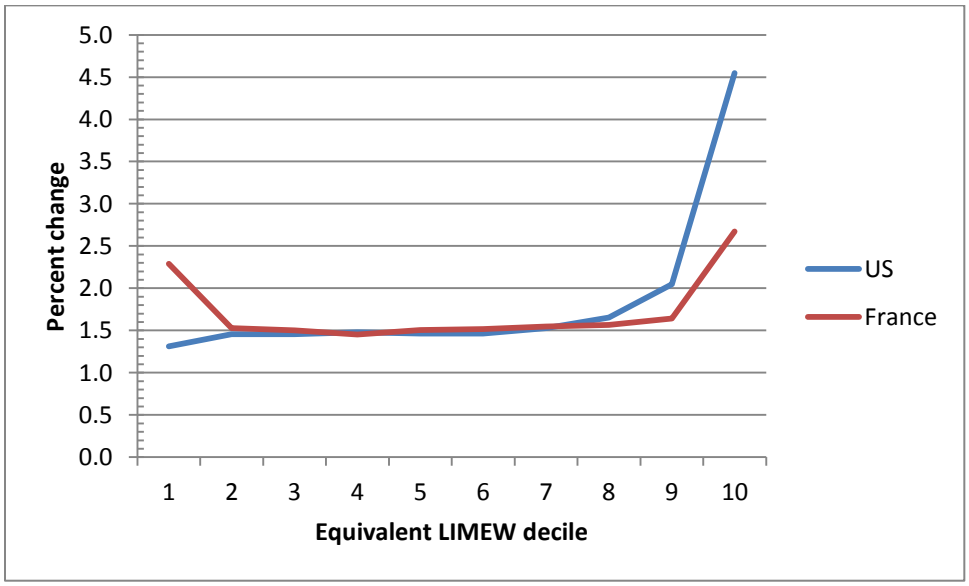
Note: See note to Figure 1 for an explanation of the equivalence scale and PPP used in the estimates.

Figure 4 Economic well-being by deciles of equivalent LIMEW, U.S. and France

A. Gap in average equivalent LIMEW by decile (gap between the U.S. value and the French value expressed as a percent of the French value)



B. Average annual percent change in average equivalent LIMEW by decile, 1989 to 2000



Note: See note to Figure 1 for an explanation of the equivalence scale and PPP used in the estimates.

Figure 5 Contribution to the Percentage Change in the Third Quintile's Mean LIMEW in the U.S. (percent)

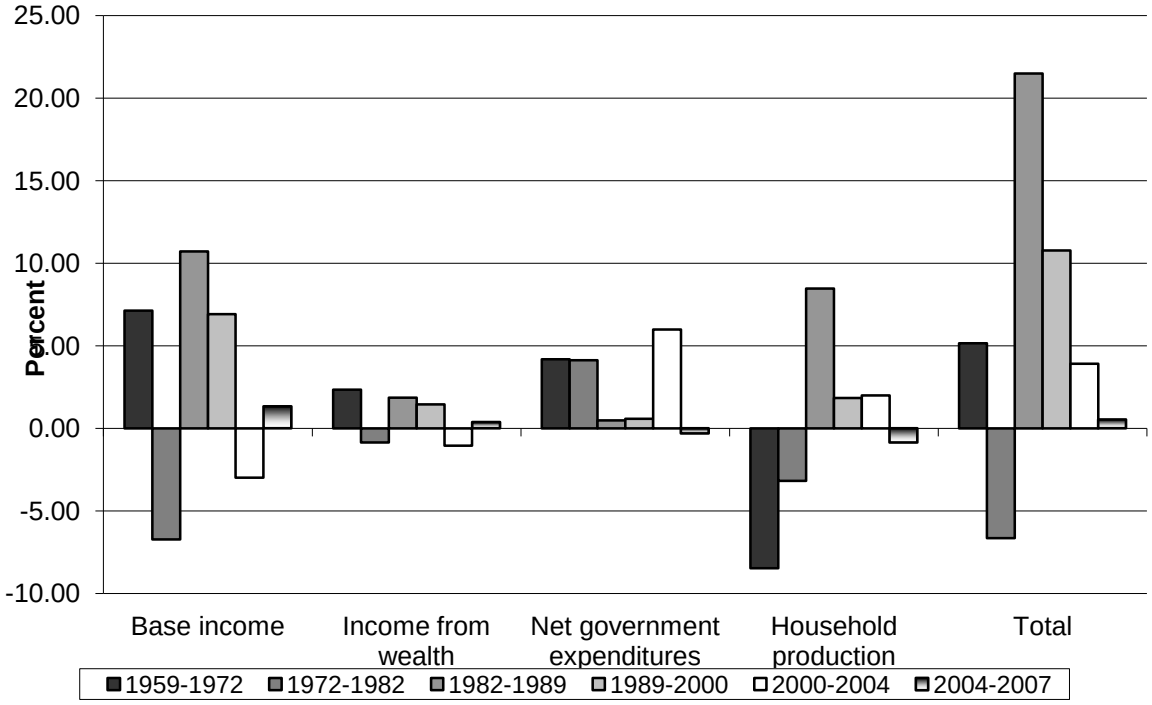


Table 1 Construction of the LIMEW files for the U.S., 1989 to 2007

Line No	Component	Source
1	Earnings	ADS/ASEC
2	Money income other than earnings	
3	Property income	
4	Private pensions	
5	Government cash transfers	
6	Other money income	
7	Money income (MI): Sum of Lines 1	
8	*Less*: Property income (Line 3), Private pensions (Line 4) and Government cash transfers (Line 5)	
9	*Equals*: Base money income	
10	*Plus*: Employer contributions for health insurance	ADS/ASEC
11	*Equals*: Base income	
12	*Plus*: Income from wealth	Statistical matching of ADS/ASEC with SCF
13	Annuity from nonhome wealth	
14	Imputed rent on owner-occupied	
15	*Less*: Taxes	
16	Income taxes	ADS/ASEC and NIPA
17	Payroll taxes	
18	Property taxes	
19	Consumption taxes	ADS/ASEC and estimates from ITEP
20	*Plus*: Cash transfers	Same as Line 5 above; and, NIPA for relevant aggregates
22	*Plus*: Noncash transfers	ADS/ASEC, administrative data and NIPA
23	*Plus*: Public consumption	ADS/ASEC and others (see section A.4)
24	*Plus*: Household production	Statistical matching of ADS/ASEC and AUTP/ATUS
25	*Equals*: LIMEW	

Notes: ADS = Annual Demographic Supplement; ASEC = Annual Social and Economic Supplement; SCF = Survey of Consumer Finances; NIPA = National Income and Product Accounts; ITEP = Institute for Taxation and Economic Policy; AUTP = Americans' Use of Time Project; ATUS = American Time Use Survey

Table 2 Economic well-being of the "middle class" (middle quintile of equivalent LIMEW), a*verage values in 2000 PPP U.S.$ (except for hours)*

A. U.S. and Britain

	Mid-1990s		Mid-2000s		U.S.-to-Britain ratio	
	U.S.	Britain	U.S.	Britain	Mid-1990s	Mid-2000s
Base income	47,491	33,505	53,703	41,181	1.42	1.30
Income from wealth	5,623	3,148	4,106	3,987	1.79	1.03
Net government expenditures	9,600	6,611	10,539	14,595	1.45	0.72
Transfers	12,521	16,545	14,508	23,959	0.76	0.61
Public consumption	9,258	5,031	11,204	8,095	1.84	1.38
Taxes	-12,179	-14,964	-15,174	-17,459	0.81	0.87
Household production	17,886	20,186	22,176	26,534	0.89	0.84
LIMEW	80,601	63,450	90,524	86,296	1.27	1.05
Hours of household production	*2,420*	*2,339*	*2,538*	*2,569*	*1.03*	*0.99*

B. U.S. and Canada

	Around 2000		Around 2005		U.S.-to-Canada ratio	
	U.S.	CA	U.S.	CA	Around 2000	Mid-2000s
Base income	54,165	40,377	51,150	44,549	1.34	1.15
Income from wealth	9,494	9,936	8,303	9,784	0.96	0.85
Net government expenditures	6,479	6,363	11,248	9,135	1.02	1.23
Transfers	12,110	15,249	15,071	17,017	0.79	0.89
Public consumption	10,407	10,785	11,220	12,164	0.96	0.92
Taxes	-16,037	-19,671	-15,043	-20,046	0.82	0.75
Household production	22,041	25,300	23,793	23,955	0.87	0.99
LIMEW	92,179	81,978	94,495	87,424	1.12	1.08
Hours of household production	*2,603*	*2,491*	*2,704*	*2,443*	*1.05*	*1.11*

C. U.S. and France

	1989		2000		U.S.-to-France ratio	
	U.S.	**FR**	**U.S.**	**FR**	**1989**	**2000**
Base income	46,668	23,003	55,952	30,663	2.03	1.82
Income from wealth	6,043	6,358	7,114	8,349	0.95	0.85
Net government expenditures	6,546	11,689	6,524	11,784	0.56	0.55
Transfers	10,120	18,576	12,172	21,546	0.54	0.56
Public consumption	8,554	6,833	10,384	8,155	1.25	1.27
Taxes	12,127	13,720	16,032	17,917	0.88	0.89
Household production	18,616	20,978	21,782	22,357	0.89	0.97
LIMEW	77,873	62,028	91,372	73,154	1.26	1.25
Hours of household production	*2,483*	*2,315*	*2,581*	*2,073*	*1.07*	*1.24*

Note: See note to Figure 1 for an explanation of the equivalence scale and PPP used in the estimates.

Table 3 Decomposition of economic inequality (Gini decomposition of equivalent LIMEW) Gini points

A. U.S. and Britain	**U.S.**		**Britain**		**U.S. *minus* Britain**	
	Mid-1990s	**Mid-2000s**	**Mid-1990s**	**Mid-2000s**	**Mid-1990s**	**Mid-2000s**
Gini	31.7	34.0	26.2	25.2	5.6	8.8
Base income	21.3	21.1	18.4	17.2	2.8	3.9
Income from wealth	9.8	11.0	4.2	4.9	5.6	6.1
Net government expenditures	-5.7	-4.6	-6.5	-4.9	0.7	0.4
Household production	6.4	6.5	10.0	8.0	-3.5	-1.5

B. U.S. and Canada	**U.S.**		**Canada**		**U.S. *minus* Canada**	
	Around 2000	**Mid-2000s**	**Around 2000**	**Mid-2000s**	**Around 2000**	**Mid-2000s**
Gini	38.6	37.6	26.6	28.5	12.0	9.2
Base income	18.0	18.1	13.5	14.3	4.5	3.8
Income from wealth	20.3	18.2	8.0	9.9	12.4	8.3
Net government expenditures	-5.6	-4.2	-4.4	-4.2	-1.2	-0.1
Household production	5.9	5.6	9.6	8.5	-3.7	-2.9

C. U.S. and France	**U.S.**		**France**		**U.S. *minus* France**	
	1989	**2000**	**1989**	**2000**	**1989**	**2000**
Gini	32.0	38.2	23.7	25.3	8.2	12.9
Base income	18.9	19.0	9.2	6.9	9.6	12.1
Income from wealth	12.4	18.8	5.3	9.5	7.1	9.3
Net government expenditures	-6.0	-5.8	0.9	1.6	-6.9	-7.4
Household production	6.7	6.3	8.3	7.3	-1.6	-1.1

Table 4 Trends in economic well-being and work in the U.S., 1959 to 2007

	Median Values in 2007 Dollars						
	1959	**1972**	**1982**	**1989**	**2000**	**2004**	**2007**
LIMEW	62,479	65,465	61,150	74,316	82,320	85,520	86,080
Money income (MI)	36,988	44,388	42,989	48,388	50,575	48,530	50,000
Addendum A: Equivalence scale adjustment							
Equivalent LIMEW	70,346	79,462	78,458	97,962	108,945	112,648	114,083
Equivalent MI	41,291	53,499	55,614	64,636	68,752	65,887	68,031
Addendum B: Annual hours of work (median values)							
Market work	2,150	2,105	2,080	2,236	2,340	2,080	2,080
Housework	2,617	2,065	2,155	2,103	2,063	2,123	2,014
Total	5,084	4,600	4,501	4,718	4,749	4,683	4,593
	Annual Percentage Change						
	1959-1972	**1972-1982**	**1982-1989**	**1989-2000**	**2000-2004**	**2004-2007**	**1959-2007**
LIMEW	0.36	-0.68	2.82	0.93	0.96	0.22	0.67
Money income (MI)	1.41	-0.32	1.70	0.40	-1.03	1.00	0.63
Addendum A: Equivalence scale adjustment							
Equivalent LIMEW	0.94	-0.13	3.22	0.97	0.84	0.42	1.01
Equivalent MI	2.01	0.39	2.17	0.56	-1.06	1.07	1.05
Addendum B: Annual hours of work							
Market work	-0.16	-0.12	1.04	0.41	-2.90	0.00	-0.07
Housework	-1.80	0.43	-0.35	-0.18	0.73	-1.74	-0.54
Total	-0.77	-0.22	0.67	0.06	-0.35	-0.64	-0.21

Table 5 Contribution by Component to the Change in LIMEW and MI of the Middle Quintile in the U.S., 1959-2007 (percent)

	1959-1972		1972-1982		1982-1989		1989-2000		2000-2004		2004-2007		1959-2007	
	LIMEW	**MI**	**LIMEW**	**MI**	**LIMEW**	**MI**	**LIMEW**	**MI**	**LIMEW**	**MI**	**LIMEW**	**MI**	**LIMEW**	**MI**
Base Income	**7.1**	**10.5**	**-6.7**	**-7.0**	**10.7**	**12.4**	**6.9**	**6.0**	**-3.0**	**-3.6**	**1.3**	**2.5**	**16.6**	**23.4**
Income from wealth	**2.3**	**2.2**	**-0.9**	**2.2**	**1.9**	**0.6**	**1.5**	**-1.9**	**-1.1**	**-1.3**	**0.4**	**0.4**	**4.1**	**1.7**
Home wealth	1.6		-0.5		0.5		-0.6		-0.6		-0.1		-0.3	
Nonhome wealth	0.7		-0.3		1.4		2.1		-0.4		0.5		4.4	
Net government expenditures	**4.2**	**8.0**	**4.1**	**3.9**	**0.5**	**-0.3**	**0.6**	**3.1**	**6.0**	**3.3**	**-0.3**	**-2.2**	**17.1**	**18.0**
Transfers	5.3	8.0	4.1	3.9	0.7	-0.3	2.0	3.1	2.7	3.3	1.3	-2.2	17.9	18.0
Public consumption	4.5		-0.6		2.0		1.6		0.6		0.8		9.5	
Taxes	-5.6		0.6		-2.2		-3.0		2.7		-2.3		-10.3	
Household production	**-8.5**		**-3.2**		**8.5**		**1.8**		**2.0**		**-0.9**		**0.1**	
Total	**5.2**	**20.7**	**-6.7**	**-0.9**	**21.5**	**12.7**	**10.8**	**7.2**	**3.9**	**-1.6**	**0.5**	**0.6**	**38.0**	**43.2**

Table 6 Share of Each Quintile and the Top 5 percent in Aggregate Income (in percent), 1959 – 2007

	Quintiles					Top 5 Percent
	1	**2**	**3**	**4**	**5**	
1959						
LIMEW	5.6	12.0	17.4	23.2	41.8	17.1
MI	3.4	10.9	17.3	24.3	44.0	17.3
1972						
LIMEW	5.7	11.7	17.1	23.5	41.9	16.8
MI	3.7	9.7	17.4	25.2	43.9	16.2
1982						
LIMEW	6.4	11.6	16.6	22.9	42.4	17.6
MI	4.0	10.1	16.6	24.7	44.7	16.4
1989						
LIMEW	6.3	11.6	16.6	22.9	42.6	17.5
MI	3.9	9.7	16.2	24.5	45.6	17.0
2000						
LIMEW	5.5	10.3	14.9	21.1	48.2	23.5
MI	3.6	8.9	14.8	23.1	49.7	21.8
2004						
LIMEW	5.6	10.5	15.4	21.7	46.8	22.6
MI	3.4	8.7	14.7	23.3	50.0	21.6
2007						
LIMEW	5.4	10.4	15.1	21.3	47.8	23.1
MI	3.4	8.7	14.8	23.5	49.6	21.0

Table 7 Economic Inequality by Measure, 1959 to 2007 (Gini coefficient x 100)

	1959	1972	1982	1989	2000	2004	2007
LIMEW	36.1	36.3	36.0	36.3	42.3	41.0	42.0
MI	40.3	40.7	40.9	41.8	46.0	46.5	46.2
Equivalence scale adjusted measures							
Equivalent LIMEW	32.8	31.7	30.8	31.9	38.2	36.5	37.8
Equivalent MI	40.1	38.9	39.1	40.0	44.1	44.5	44.3

Table 8 Decomposition of Inequality by Income Source and Income Measure (Gini points x 100)

	1959	**2000**	**2007**	**Change, 1959 to 2007**
LIMEW				
Base money income	19.7	20.9	19.4	-0.4
Income from wealth	6.4	17.1	16.5	10.1
Imputed rent	1.2	1.8	1.5	0.4
Annuities	5.2	15.3	14.9	9.7
Net government expenditures	-1.4	-3.9	-1.8	-0.4
Transfers	0.8	1.0	1.4	0.6
Public consumption	1.8	2.4	2.7	1.0
Taxes	-3.9	-7.3	-5.9	-2.0
Household production	11.4	8.2	8.0	-3.4
Total	36.1	42.3	42.0	5.9
Money Income				
Base money income	38.6	43.6	43.7	5.1
Property income	1.5	3.4	3.4	1.9
Transfers	0.2	-1.0	-0.9	-1.2
Total	40.3	46.0	46.2	5.8

Note: Contribution of each income source is expressed in Gini points multiplied by 100. The numbers shown in the row labeled "Total" refers to the Gini ratio of the income measure.