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Government Effects on the Distribution of Income: An Overview

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ABSTRACT

This paper is the overview chapter of an edited volume on "The Distributional Effects of Government Spending and Taxation." The paper offers the author's perspective on the government's role as a redistributive agent. Taxation and public spending programs are analyzed using the experiences of the United States and other OECD countries. The stark differences among the respective welfare systems are examined from an economic policy lens assessing the success and failure of the tested social policy programs. The measurement and distribution of well-being for special segments of the population, i.e., the elderly and women, are considered.

A government's role as it relates to taxation and public spending has never gone unquestioned. The controversy arises from conservatives advocating fiscal responsibility and limited government intervention in a market economy, and thus supporting the notion that taxes should be levied at the lowest possible level specifically designated for the financing of the few public goods that only government can provide. There are advocates, on the other hand, supporting an expanded role for government and arguing in favor of higher taxes to finance more public goods, and for a social protection system of redistributive schemes that, to some extent, will correct the stark inequities in our society. Public provisioning of goods and services and redistribution policy can be defined according to different criteria, some of which have real economic significance while others are matters of convention and convenience. In general, "public spending can be wise or foolish, appropriate or inappropriate, effective or ineffective but—the paradox first pointed out by Keynes—it cannot be more costly to the economy as a whole than doing nothing" (Nell, 1988 p. 228).

The provisioning of public goods and services can be wide ranging. It can be classified into two broad categories: one involving *collective consumption goods*—goods and services affecting the entire population such as defense, the judicial system, police and fire protection, physical infrastructure, and so on, the other *private consumption goods*—those affecting individuals that can also be provided by the private sector, such as education and health care services, since they can meet the microeconomic criteria of excludability, positive supply curves and have no "external effects" found in the collective consumption goods (Samuelson 1966, pp. 1223-5, emphasis in the original). Moreover, the latter category of goods admittedly possesses "an element of variability in the benefit that can go to one citizen *at the expense* of some other citizen," but it is not necessarily synonymous to being optimally produced solely by the ordinary market process (Samuelson 1966, p. 1232, emphasis in the original). There can be a number of other arguments, however, supporting their place within the functions of government. These arguments can include: (i) market failure, (ii) basic needs considerations, (iii) externalities, (iv) distributional considerations (Hare 1988, p. 68).

Public finance projects, especially those involving education and health cannot be usually determined or ranked on the basis of their rate of return, but rather on their discounted net benefits (Summers 2003, p. 285). Education is subject to long-term decisions and the rates of return are assumed to be reflected in future earnings while health care is fraught with

incidence of adverse selection and moral hazard both resulting in inefficient markets or in absolute market failure. For both education and health are in the realm of public provisioning.

The concept of basic needs enters into the argument for the public provisioning of goods that are required to maintain "socially accepted norms or standards." Along the same line, minimum amounts of schooling and health to ensure social cohesion can be justified. Providing the elderly with a state pension may or may not be sufficient to cover their basic needs, the latter then requiring further public intervention (Hare, 1988 p. 69).

Externalities are hard to quantify, but they are nevertheless prominently present if one assumes that returns to education result in the societal improvement and thus redounding in benefits to a larger segment of the population beyond the individuals whose human capital has increased most absolutely. The same can be said for health care publicly provided as not only positively affecting those who fall ill, but also being beneficial to the rest by reducing the risk of infection (Hare, 1988, pp. 69-70).

Income distribution has always been a dominant concern of the public sector. Governments are empowered to impose taxes on commodities, income and wealth and spend the resulting revenues in many ways to achieve a more equitable distribution. Targeted re-distributive transfers, that is, assistance to the poor and the disabled, social insurance and pensions, agricultural supports, can benefit either a large segment of the population or a narrow one. "Similarly in the absence of a complete system of private markets for [particular goods and services] some public sector provision is likely to be justified on distributional grounds" (Hare, 1988, p. 70). The public supply of such goods and services is not tantamount to that provided only by state-run enterprises, but perhaps through partnership between the private and public sectors. The financing of such programs can come from various sources of general tax revenues or special tax-surcharges.

In general, neither benefits from public goods and services, nor costs are equally distributed. The wealthier constituency pays the larger share of the tax burden while poorer persons pay the smaller. Thus, their respective interests in the size of these programs are necessarily contradictory for the former prefer smaller programs while the latter the more generous. These include various programs of the welfare state, unemployment and disability insurance, retirement benefits, and special purpose subsidies and transfers. Public spending represented as a fraction of gross domestic product differs greatly across countries (Schwabish, Smeeding and Osberg, chapter 9, this volume). André Sapir (2005) for example, distinguishes

four models of Western European welfare state systems: The Nordic model of the Scandinavian countries and the Netherlands devotes the highest fraction of public expenditures on social protection and universal welfare provision. The model of the Anglo-Saxon countries (Ireland and the United Kingdom) offers relatively large social assistance of last resort with cash transfers directed mainly to working age individuals. The Continental model of Austria, Belgium, France, Germany, and Luxembourg relies primarily on strong employment protection and provides generous unemployment insurance and retirement benefits. Finally, the Mediterranean countries (Greece, Italy, Portugal, and Spain) focus their social expenditures on old-age retirement programs with differences in the degree of eligibility and benefit amounts. Employment protection is heavily regulated and support for early-retirement provisions result in reducing the number of job seekers.

The latest figures for 2002 taken from the EU Commission *Public Finance Report* (2004) show public spending for the Nordic countries to average more than 53 percent, the Anglo-Saxon countries and Japan a little less than 40 percent, the Continental and Mediterranean countries close 50 percent, but all above the corresponding 35 percent of Australia, Switzerland, and the United States. Furthermore, each country's composition of spending varies considerably. The fifteen member states of the European Union, before the last enlargement, devoted 3 to 16 percent of total public spending on the unemployed representing an income replacement rate of 20 to 90 percent. During the last three decades, a rapidly growing component of public spending in the United States, Europe, and elsewhere has been assigned to public pensions while public investment has been in the order of 3 percent of GDP. Transfers and subsidies had grown the most of all components of government primary spending in the postwar period especially in the years of 1960-1982; by 1990, they averaged one-half of the total public expenditures. Tanzi and Schuknecht (1995, 1996) tracking the historical development of subsidies and transfers, found that for the seventeen industrialized democracies that they studied,[1] subsidies and transfers were immaterial in those countries a century ago. In the postwar period in the OECD countries, the average transfer/subsidy share of GDP stood at about 9 percent around 1960, but grew to about 23 percent by around 1994. The overall growth of welfare state programs was unprecedented but varied widely among many countries, as noted earlier. In 1990, the GDP share in Japan was below 10 percent, whereas in the Netherlands it was close to 40 percent of GDP. In another part of the globe, some Latin American countries'

public spending on social protection has been very small and is devoted mainly to social insurance and directed albeit disproportionately to the upper middle class.

Beginning with the latter part of the nineteenth century, redistribution became one of the most important functions of government, requiring some form of imposed transfer of income and wealth from the better-off to the less so. The first old-age pension system, for example, was instituted in Germany in the late 1880s. Ever since, public spending for redistributive purposes continued to a varying degree. Financing World War I meant the imposition of higher taxes that continued after the conflict and were used to fund higher public expenditures. It is during this time that many countries instituted social security systems, and in the United States, following the Great Depression, the New Deal gave a boost to expansionary government expenditures including a number of work-related and income-assisted programs. Fast forward to the early 1970s, the role and size of the public sector were questioned when the Keynesian advocated activist government faltered. Questions relating to public sector expenditure efficiency became a major topic in the policy discussion and economic research arenas. In the rapidly growing literature of academic research on this topic, performance and efficiency indicators were devised, institutions and rules were assessed, and the optimal levels of government were suggested (Persson and Tabellini, 2001, Tanzi and Davoodi, 1997, Tanzi and Schuknecht, 2000, 2003, Rodrik 2000, Afonso et al. 2005). Public sector performance and efficiency put aside, present day societies play a crucial role in the economy in seeking to improve well-being and alleviate poverty.

Rising incomes have been associated with faster economic growth.[2] It was, until recently, assumed that poor and working families, even those with little or no education could ascend into the middle class, and those less fortunate who were unemployed, disabled, and the retired elderly would also be cared for by the modern welfare state. But, even though most of the OECD countries saw their economies grow in the 1980s and 1990s, public expenditures were cut in concert with legislative mandates for deficit reduction and “fiscal responsibility.” During the same period, a disturbing and marked increase in inequality was recorded, and in the United States especially, the robust economic growth notwithstanding, inequality has been distinctly higher. Yet, if economic growth does not improve the human condition, there is an expectation of a modern society’s redistributive policies that they have a positive impact on the level and distribution of household economic well-being together with an improvement in

inequality. Estimating, however, the impact of the distributional effects of government policies is itself a difficult task.

Part I of the book deals with public sector redistributive effects in the United States and opens with Wolff and Zacharias (chapter 2) who note, the last study to measure the net effect of government expenditures and taxes on economic well-being was for the year 1970, more than three decades ago, in contrast to a significant number of theoretical papers published on the topic.[3] Traditionally, the Census Bureau has provided estimates of extended measures of disposable income reflecting the effects of taxes and transfer payments, but as Wolff and Zacharias argue these measures do not represent an accurate estimate of economic well-being which to them is defined as "the magnitude of the command or access of the household over the products produced." The proper measures of well-being, aside from various transfers between the state and households that include direct and indirect taxation, need to account for expenditures such as schooling and physical infrastructure among other things, that is, public consumption in general attributable for the benefit of households and provided by the state. In addition, income must somehow include the employer contribution for various benefits and the imputed value from home and non-home wealth. In their analysis, Wolff and Zacharias proceed to construct two estimates of income they label pre-fiscal and post-fiscal income respectively. Pre-fiscal income is defined as the income that enables households to command products entailing market and quasi-market transactions, while the post-fiscal income is pre-fiscal income and net government expenditures. It is important to underscore the particular years of their estimates, 1989 and 2000, since these represent the terminal years of the last two exceptionally high growth periods for the United States. Furthermore, the period of the 1990s is distinct for a number of institutional and market changes were implemented affecting both the tax and expenditure policy including the "end of welfare as we know it."

The Wolff and Zacharias analysis shows that in 1989 and 2000, the effect of net government expenditures on the level and distribution of economic well-being was significant. Overall, their results indicate that net government expenditure was negative and that Americans were taxed more than they received in benefits from either transfers or public consumption. They also found that the difference between the mean and median values of pre-fiscal and post-fiscal income was small, in the range of 4 percent, while the mean and median values of post-fiscal income were about 20 to 30 percent higher than the money income—the most widely accepted measure. When their overall estimates, however, are examined by various categories of

income and household structure their results are much more revealing. Other estimates, painstakingly documented are based on (i) household characteristics, that is, race, age, family type and (ii) income deciles. Their conclusion, in contrast with the American notion of a small government since size is positively correlated with inefficiency and waste which has been shown to ring true for the better-off, can be summed-up as yet another endorsement in favor of activist government redistributive policies as an effective instrument in reducing income inequality.

Old-age income security looms large on a government's agenda whether it involves a state sponsored pension system or a framework within which incentives—tax preferred for retirement saving, can be promoted. Investigating the structure of privately funded retirement, Burman, Gale, Hall, and Orszag note in chapter 3 that there has always been government involvement in subsidizing retirement savings since the institution of income tax. Over the years, the United States government, irrespective of party affiliation, has offered incentives to promote retirement savings. These fall under the rubric of tax-preferred schemes based on a fraction of labor income. The incentives encouraging saving for retirement differ widely and their effectiveness is dependent on the level of earnings and accumulated wealth. Thus, the distributional effects of such programs are important, since they may involve either reduction of consumption for the low-income, low-wealth households or shifting of assets for the high-income, high net-worth households. The analysis undertaken by Burman, Gale, Hall, and Orszag focuses on the distributional effects of defined contribution pension plans that are either employer-sponsored or individually arranged. The authors using the Tax Policy Center's microsimulation model of the United States federal income tax system produce estimates of contributions and benefits. Defined contribution retirement plans were introduced relatively late in the 20th century in substitution of the long-implemented defined benefit plans that emulated those sponsored by the state, but it turned out to be difficult to finance their actuarially determined liabilities given the volatility of corporate profits and the relative freedom of investment adventuring. (Defined contribution plans are based on investment income from contributions—employer/employee or individually arranged IRAs—as opposed to defined benefit plans based on length of service and earnings especially late career earnings.) The authors' detailed simulations show that the tax benefits of new contributions to the defined contribution retirement plans are skewed, and are primarily favorable toward the highest income households, namely, more than 50 percent of the benefits accrue to the top 10 percent. In

contrast, the IRA plans are much less so, namely 60 percent of IRA tax benefits go to the top 20 percent of households and 85 percent of benefits accrue to the top 40 percent. The most disturbing finding is that the bottom 20 percent receives no benefit from the income tax incentives because few workers contribute since the tax benefit per dollar contribution is very small or zero due to the marginal income tax rate being low or zero. Similarly, the simulations of employer contributions show even skewer distributional patterns with the highest benefits going to the 0.1 percent of employees. The picture drawn from the Burman, Gale, Hall, and Orszag study calls for a serious reconsideration in creating incentives for retirement savings, that is, offering tax refunds to those in the lowest marginal income tax rate who contribute, that are more in concert with the reality facing the low-income segment of the population.

State sponsored retirement programs such as the United States's Social Security system are by far the most important mechanisms for achieving redistributive outcomes. Projections of retiree benefits over the long run given the variety of household characteristics have spurned much debate in the policy-making arena. This is precisely the main concern of chapter 4 authored by Butrica, Iams, and Smith. The authors analyze and contrast retiree incomes of various cohorts: current retirees (born in the 1926-35 period), near term retirees (born in 1936-45), early baby-boomer retirees (born in 1946-55), and late baby-boomers (born in 1956-65). Using the Social Security Administration's Model of Income in the Near Term (MINT), and taking into account a number of demographic and socioeconomic changes that have and are projected to take place in the foreseeable future, the authors project retiree incomes, replacement income rates and poverty rates for various population groups. Whereas Social Security was originally conceived as an insurance program with the objective to provide replacement income from work at retirement, it has, over time, expanded to include benefits for spouses, children, and the disabled. Retirement benefits are not solely determined on the basis of earnings from employment, but reflect marriage history and status at retirement, and spouse's earning history as well. The projections documented in chapter 4, include the changing trends of the typical family that now includes two wage earners or is headed by a single female working parent. The family structure also involves divorces and multiple marriages, and rising life expectancy rates. When these trends are taken into account, the projections yield benefits changes for recent retirees and for those at future retirement. The MINT projections estimate (i) future per capita income that includes in addition to Social Security benefits, private pension income, income from various assets, imputed rental income, secondary earnings, and income from non-spouse

family members living at home, (ii) poverty rates and (iii) income replacement rates. Methodological disagreements aside, the message of this analysis is that in general, baby boomers will most likely have higher incomes and lower poverty rates than those of the current retirees, and their replacement income rates will be lower than those suggested by financial planning advocates. The projections for several sub-groups of baby boomers however, show economic vulnerability for the old aged divorced women, never married men, Hispanics, high school dropouts, those with marginal attachment to the labor force, and those with the lowest lifetime wages. Moreover, it is very probable that a good number of them could be in poverty at retirement.

In evaluating the effectiveness of several key social programs, international comparisons become vital when assessing redistributive policies. Yet, such comparisons are particularly difficult given limitations and incompatibility of data. Parts II and III of the book, comprising chapters 5-10, attempt to address this important task. In chapter 5, a team of seven authors, Immervoll, Levy, Lietz, Mantovani, O'Donoghue, Sutherland, and Vesbist, offer a comparison among the redistributive aspects of taxation and social benefits in the 15 "old" member countries of the European Union using a microsimulation method of the European model, EUROMOD. Their cross-national analysis illustrates the effects of tax and social benefits programs on the level of household disposable income as well as the corresponding income inequalities before and after taxation and benefits are applied. The authors are able to overcome the various problems with cross-national data limitations and incompatibilities by partly harmonizing micro-data with the use of well-established simulation techniques. Their methodology does not use data to directly extract the tax and benefits, but instead, uses it as a basis to calculate tax liabilities and benefits entitlements in accordance with accepted rules that would result in observations being very close to those as if they were officially determined. Their results are framed in a way that particular comparisons can be drawn: the profile for the average household and that of either the top and the bottom quintiles is contrasted; the redistributive effects of four specific tax-benefit programs—means-tested benefits, non means-tested benefits, social contributions and income taxes—are determined; and the Gini coefficients are estimated to document changes in income inequalities resulting from the redistributive effects of tax-benefit systems. Their findings are striking in that there is extensive variation among the EU-15 countries. Pensions, for example, play a major role in reducing inequality in Austria, Germany, Luxembourg, France, and Spain and a minor one in Ireland, the United

Kingdom, and a lesser one in Denmark. Other findings show that non means-tested benefits are very important in the redistributive process in all 15 countries while the inequality reduction resulting from means-tested benefits varies significantly. Finally, the effect of income taxes on reducing inequality is high in the countries with the most equal distributions of disposable income such as Austria, Belgium, Denmark, Finland, Germany, Luxembourg, and the Netherlands, and also in Ireland and Spain. In summary, the Immervoll, et al., analysis reaffirms the welfare state categorization of Andrè Sapir referred to earlier.

The next three chapters are country specific sequential analyses of the tax-benefit distributional effects for Poland, Australia, and Korea. Leon Podkaminer explores Poland's redistribution experiences for the pre- and post-socialist periods. The economic system of pre-socialist Poland, he writes, was egalitarian ensuring fairness in the distribution of income and consumption. Consequently, inequality in personal income and wealth was fairly low and was complemented by a public pension system. The "shock therapy" of 1990 brought with it declining fortunes exemplified by a precipitous drop in real wages, farmer's incomes, and retirement benefits. These trends were halted for some years post-1991, that improved matters very much, only to return in the latter part of the 1990s instituting a new structure of public finance marked with low taxes—a de facto flat tax for all—and spending cuts including decreases in social transfers. The conclusion of this chapter suggests that based on the Polish experience, the controversial proposition that high levels of redistribution can be good for growth and less inequality should not be dismissed but be seriously reconsidered.

Australia's experience regarding its redistribution efforts is quite similar to other OECD countries as evidenced in the analysis presented in chapter 7. The country's tax-benefit program is not exemplary, but better than those found in most countries of the industrialized world. The winner/loser pairs vary depending on the taxes collected—some are progressive while others are regressive—and the benefit distributed. The winners, overall, are elderly Australians and sole parents while couples with no children and single person households are net losers. Using data obtained from the Australian Bureau of Statistics and Household Expenditure Surveys in 1998-99 and running simulations for 2001-02, Ann Harding, Rachel Lloyd, and Neil Warren cover a lot of ground in this chapter. They quite successfully estimate the social security cash transfers and family payments, income taxes, tax rebates, and allowances such as the health insurance rebate, the Commonwealth Goods and Services Tax, all excise taxes, and imputed values (non-cash) of health, welfare, and education benefits. Their approach of estimating an expanded

measure of household income is reminiscent of similar type measures of economic well-being—albeit with clearly distinct differences—employed by Wolff and Zacharias and Immervoll, et al., previously seen in chapters 2 and 5 respectively. Clearly, government intervention through collection of taxes and distribution of benefits lessens the gap between the poor and the better off. Moreover, the Harding, Lloyd, and Warren study demonstrates that Australia's system of taxes and benefits is designed to assist households over their lifecycle, by redistributing income and benefits from times of relative plenty to times of relative indigence such as when there are children and during retirement.

The empirical exploration of equity consequences of Korea's income tax system is the focus of chapter 8. Kwang Soo Cheong's analysis uses newer and novel methods of analyzing panel data in estimating the redistributive effects of the country's income tax system and the consequent changes in vertical equity and horizontal equity and tax-induced income re-ranking. Estimates of vertical equity demonstrate the degree of the tax progression while horizontal inequity is the result of tax-induced household income re-ranking. The author's findings reveal some undesirable redistributive effects of Korea's tax system affecting horizontal inequity, exemplified by the tax-induced household income re-ranking, in addition to re-affirming other studies' findings of the moderate degree of tax progressivity.

The relationship between inequality and social spending form the theme of chapter 9, which begins Part III of the book. In it, Jonathan Schwabish, Timothy Smeeding, and Lars Osberg consider a number of important, interesting, and intertwined issues relating to the questions they attempt to address. The focus is surveying non-elderly social expenditures and subsequently testing their relationship to inequality in a model the authors construct, incorporating variables such as values (which they equate with trust), growth, institutions, and immigrants using a dataset with 57 different sets of observations for 17 countries drawn from data collected by the Luxembourg Income Study, the OECD, and the World Value Survey. The reported results confirm Robert Reich's hypothesis who, referring to America's rich, noted that they "feel increasingly justified in paying only what is necessary to insure that everyone in their community is sufficiently well educated and has access to the public services they need to succeed" (1991). Alas, the Schwabish, Smeeding, and Osberg study shows that America's "fortunate top fifth" is not much different than those in other countries, too.

The final chapter (10) returns to the topic of pensions, and attempts to estimate various aspects of generosity. Mathieu Lefèbvre and Pierre Pestieau perform a series of econometric

tests to determine the correlation, evolution, and economic openness relations among three kinds of pension generosity based on: average benefits, early retirement, and poverty alleviation. The authors' results, considered perhaps controversial, indicate that the three types of generosity are not correlated, that the evolution into contributory plans has made them more generous and benefiting the poor, and that economic integration (openness) is linked, not significantly, with redistribution.

The chapters in this book present theories, findings, and applied policies dealing with one or more issues of income distribution and well-being. While many a reader may not agree with all of them, I hope the many lessons drawn from the success and failure of the tested social policies will help continue the search and development of better policies to improve economic inequality.

NOTES

1.The countries include: Australia, Austria, Belgium, Canada, France, Germany, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, United Kingdom, and the United States.

2. In the words of United States President John F. Kennedy, as he put it, “A rising tide lifts all boats.”

3. See, Bowles and Gintis (1982), Shaikh and Tonak (1987,1994).

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