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Tax Systems Analysis

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THE TENUOUS CASE FOR AN ANNUAL WEALTH TAX [*]

Robin Boadway, Pierre Pestieau

ABSTRACT: We explore the case for and against an annual wealth tax as part of the overall tax mix. Few countries now use wealth taxes, and those that do adopt narrow tax bases. Taxes on inheritances or bequest are more common, but they generate limited revenue and apply to relatively few taxpayer. In principle, annual wealth taxes are roughly equivalent to capital income taxes on the assets to which they apply, although there are some assets for which wealth taxes might be simpler to implement than capital income taxes. Annual wealth taxes are distinct in purpose from inheritance taxes which are useful adjuncts to income taxes even if capital income is exempt. We recount the persuasive arguments for taxing capital income, albeit at different rates than for other income, and for taxing inheritances regardless of whether capital income is taxed. We argue that if the desire to tax asset income and wealth transfers is appropriately addressed by capital income and inheritance taxation, the additional need for an annual wealth tax is minimal and its benefits do not outweigh its administrative costs.

JEL Codes: H21, H23

Keywords: Wealth tax, capital income tax, inheritance tax

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1. Introduction

The purpose of this paper is to critically evaluate to case for an annual wealth tax as part of a nation's tax system. To do so we review current received wisdom on the elements of a good tax system drawing on the normative tax design literature, recent tax commission findings and best practices. Naturally, the preferred tax system varies across nations because of historical and institutional factors, social norms and exposure of the national economy to international influences, including membership in organizations. Nonetheless, there are a number of design features that are common across countries, especially with regard to the choice of a tax base. To anticipate our conclusions, in our judgment the case for an annual wealth tax is not strong, as long as other elements of the taxation of assets are in place. In particular, if capital income is appropriately taxed and if there is an inheritance tax in place, a wealth tax adds relatively little of substance and entails additional administrative and political costs.

The current interest in wealth taxation is a response to the increase in wealth concentration and income inequality that have occurred in most OECD countries. Piketty (2013) went so far as to propose a world wealth tax, which is more utopian than feasible. The share of the wealthiest one percent in total pre-tax income has grown in the past decades, particularly in some English-speaking countries but also in some Nordic and Southern European countries. Some, like Piketty, attribute this to the natural forces of a growing economies whereby the rate of return on assets exceeds the rate of growth of the economy, and therefore of labour income. Others see it as a consequence of globalization, which hampers wage growth of lower- and middle-income workers and reduces their bargaining power.

After-tax income inequality has grown even more rapidly than pre-tax income inequality as national tax systems have become less progressive. Income tax rate structures have become flatter, and capital income tax rates have been competed down. Some countries have introduced a system of dual taxation whereby personal taxes on capital incomes were lowered relative to personal taxes on labour income. The average OECD statutory corporate income tax rate declined from 47 percent in 1981 to 25 percent in 2013 and taxes on dividend income fell from 75 percent to 42 percent. Realized capital gains are concentrated at the top of the income distribution and are only lightly taxed. In about one-half of OECD countries, capital gains made on shares are only subject to corporate income tax but not to personal income tax. Where capital gain are subject to personal tax, statutory tax rates on capital gains on shares range from 12 percent in Belgium to slightly above 55 percent in Denmark and Greece.

2. Wealth Taxation in Practice

Wealth can be taxed periodically in the hands of its owner, or it can be taxed only when wealth is transferred, typically at the end of life. Wealth taxation and wealth transfer taxation can take different broad forms. A wealth tax is typically levied on net wealth, that is, assets less liabilities. It can be levied periodically (e.g., annually) or as a once-off capital levy. Related to a wealth tax is the property tax, which is levied annually on real property and is typically used to finance local government. A wealth transfer tax can take two forms. It can be an estate tax levied on the total value of the estate of a bequeather or donor, or it can be an inheritance tax levied separately on the amount of inheritance received by each recipient. These taxes are levied on lifetime accumulations of wealth, and apply on death or within a prescribed number of years prior to death. There may also be gift taxes levied either on donors or recipients when gifts are made during the lifetime of donors or recipients. These are not necessarily related to assets accumulated over the lifetime.

The design of annual wealth taxes varies from country to country. Typically, not all forms of wealth are included, exemption levels apply, and the rate structure exhibits some progression. For example, the French wealth tax, called the solidarity tax on wealth (Impôt de solidarité sur la fortune or ISF), is instructive. It was introduced in 1981 and is an annual tax on persons in France having assets in excess of €800,000. Taxable wealth includes most forms of financial assets and real property but with a number of specific exemptions, including professional goods such as enterprises, depending on the percentage owned; vintage and collectors' objects more than one century old; artistic, literature, or industrial property rights; woods and participation in forestry plantations for 75 percent of their value; anonymous bonds; the capital value of pensions and retirement plan; and assets obtained as compensation for physical injury in accidents or due to illness. As well, the value of the principal home is reduced by 30 percent. The tax is levied on what remains of the gross value after subtracting deductible debts. The tax rates applying to the ISF range from 0.5 percent to 1.5 percent.

The combination of the exclusion of persons with limited amounts of wealth combined with the number of exemptions results in limited tax revenues being collected, as is the case with most wealth tax regimes. The wealth tax accounts for only 1.5 percent of total tax receipts, Moreover, its collection is costly, and it is known to drive away wealthy individuals from the country, resulting in a substantial financial loss. It is also prone to evasion as wealth owners move assets abroad. Partly as a result of these shortcomings, the ISF is being replaced in 2018 with an annual solidarity tax on real estate (IFI), which exempts all financial assets and therefore has a much narrower base.

Several countries have abolished or decreased net wealth taxes and inheritance taxes. Net wealth is now taxed in only a few OECD countries, and taxes on immovable property represent a small percentage of overall taxation. A couple of decades ago, one-half of OECD member countries

had some type of annual wealth tax. They have progressively discontinued it, for example, Austria and Denmark in 1995, Germany in 1997, Finland and Luxembourg in 2006, and Sweden in 2007. In those few countries that continue to have a wealth tax, its proceeds have decreased over time. The shares of wealth tax revenues in total tax revenues in 2015 were 3.6 percent in Switzerland, 0.3 percent in Spain, 1 percent in Norway, 1.5 percent in France, and 2 percent in Luxembourg.

Occasionally, a once-off tax on private wealth has been used as an exceptional measure to restore debt sustainability. To be effective, such a tax has to be implemented before avoidance is possible and with the expectation that it will not be repeated. Only in these circumstances does it not distort behaviour. A once-off wealth tax is seen by some as fair, despite the fact that it amounts to an unannounced confiscation of wealth. That is because it is only applied in unusual circumstances of financial stringency, or when wealth holders might be thought to have gained disproportionately while others suffered. There is a surprisingly large amount of experience to draw on. Such levies were widely adopted in Europe after World War I, and in Germany and Japan after World War II. They generally failed because the delay in introduction gave ample time for extensive avoidance and capital flight, in turn spurring inflation.

According to Piketty (2013), the two world wars and the 1930's economic crisis explain the periodic decrease in wealth concentration and in the importance of bequests in capital accumulation. These unfortunate events seem to have been more effective at equalizing the wealth distribution than the array of redistributive taxation used since then in various countries. The period since World War II has been spared cataclysmic events. Wealth has become more and more concentrated and the importance of bequests as a proportion of wealth accumulation has increased. It is thus possible that to return to a more reasonable wealth distribution, the ideal instrument would be a significant one-off wealth taxation. To work, such a policy would have to be unpredictable but also coordinated, as well as being politically feasible.

3. Wealth Taxation as Part of the Broader Tax System

An annual wealth tax is one of a family of taxes that apply to asset wealth or its return. Other such taxes include capital income taxes, business income taxes, wealth transfer taxes and annual taxes on real property. These taxes generally exist alongside broad-based taxes on consumption and taxes on labour income. Different countries adopt very different mixes of tax bases, but virtually all are hybrid systems that combine elements of two benchmark tax bases. One is comprehensive income taxation under which the tax base is the sum of consumption and net changes in wealth, that is, net savings. The second benchmark base is consumption itself, and it can be taxed either by personal taxation or indirectly by taxed on consumption transactions. Neither comprehensive income nor personal consumption are readily observed by the tax authority, but both can be indirectly measured using tax bases that are equivalent to them in present value terms. Using the consumer's lifetime budget constraint, the comprehensive income

tax base is equivalent in present value terms to the sum of labour income, capital income and inheritances. By the same token, the consumption base is equivalent in present value terms to labour income, inheritances and that part of capital income reflecting windfall, or unexpected, gains. In what follows, it will be useful to fit annual wealth taxes into this framework of broad tax bases.

As mentioned, most tax systems are some hybrid of income and consumption taxes. To appreciate the potential for wealth taxes to be a component of these hybrid tax systems, it is useful to recount how various elements of standard tax bases contribute to the comprehensive income versus consumption balance. Consumption can be taxed explicitly and indirectly by a broad, destination-based value-added tax (VAT), although progressive rate structures are precluded. Alternatively, consumption can be also taxed under the personal tax system using one of two approaches. Consumption expenditures can be directly and progressively taxed by a personal base defined as labour and capital income (including inheritances) less savings. This is equivalent to what the Meade Report (1978) called the registered asset approach, and corresponds roughly with the way in which private pensions are typically treated. The alternative form of personal consumption tax, also identified by the Meade Report, is the tax-prepaid approach where the base is labour income and inheritances, that is, total income less capital income. The tax-prepaid approach captures consumption imperfectly to the extent that capital income includes windfall gains, such as unexpected returns or rents from monopoly circumstances.

Arguably, the returns to investment are increasing in the size of an individual's portfolio, so are higher for high-income persons. Analysing the returns of a number of American college endowments, Piketty (2013) observes that the very largest ones obtain real returns of close to 10 percent a year, while smaller ones must make do with 5 percent. More recently, Fagereng et al. (2016) and Kacperczyk et al (2016) have empirically verified that expected rates of return on private portfolios tend to increase with portfolio size. As a result, wealthier persons obtain higher rates of return on their savings. For that reason, the Mirrlees Review (2011) proposed a variant of the tax-prepaid approach whereby for savings in assets other than interest-bearing accounts and pensions, only returns up to a risk-free rate-of-return allowance (RRA) would be tax-exempt, while above-normal returns would be fully taxed. This would ensure that consumption financed by rents is taxed. As well, to the extent that above-normal returns accrue to higher-income taxpayers, taxation equity might be improved by taxing them differentially. More generally, tax systems defined using income as the base implicitly tax consumption since it is one of the uses to which income is put.

Actual tax systems do not include all consumption in the tax base regardless of whether they aim to tax income or consumption. VAT systems typically exempt some types of consumption, such as food and other necessities. Tax bases that rely on the tax-prepaid approach do not include consumption financed from rents or windfall gains. And, personal tax bases do not include consumption financed from inheritances to the extent that the latter are not themselves taxed, although they do implicit tax bequests made, which might not be regarded as consumption. When

inheritances are taxed, they are usually only partially taxed and are taxed more favourably that ordinary income. High exemption levels apply, and some forms of wealth transfers are exempt such as farms and family businesses. On the other hand, housing is often included in inheritance tax bases. Countries that do not have inheritance taxes nonetheless apply capital gains tax to accrued capital gains on inheritances. In the few countries having annual wealth taxes, these are typically an alternative to an inheritance tax, despite the fact that they fulfil very different functions.

Tax systems generally include various elements of capital income along with labour income or consumption. However, they do so imperfectly, so they remain far from the comprehensive income benchmark. The imperfections come in two types: some forms of asset income are not included in the tax base, and for those that are, capital income may be taxed at different rates than labour income. To illustrate these, it is useful to recount the number of ways in which capital income is sheltered from tax in what are otherwise income tax systems. To the extent that the VAT is part of the tax mix, capital income is taxed at a lower rate than labour income since the VAT is roughly equivalent to a tax on labour income. Even where capital income is taxed, preferential rates may apply. This is the case for dual income tax systems in the Nordic countries and elsewhere, and for capital gains in many countries. In some countries, capital income from some specified quantity of assets or savings can be sheltered. Saving in private pensions is typically fully sheltered by registered asset treatment, but only up to some limit. Some countries partially exempt capital income earned on financial assets, either by exempting a given amount of capital income or by exempting the capital income on some given amount of savings. Housing is typically treated as a tax-prepaid asset whose imputed rent, including capital gains, is tax exempt. At the same time, property taxes apply to housing owners, albeit to finance local public services. More generally, assets whose return takes a non-financial form are usually tax-exempt, although they may be subject to capital gains taxation on realization.

Business income tax treatment often mirrors that of personal income. Countries that nominally tax personal income (as opposed to consumption) also tax business capital income. For corporations, income earned on behalf of shareholders is the tax base, albeit often imperfectly defined, and the corporate tax may be at least partially integrated with the personal tax. The implication is that shareholder income earned in corporations is ultimately taxed at close to the personal rate. Unincorporated businesses also pay tax under the personal tax system on their full capital income. Income of corporations accruing to debt-holders is not taxed at the corporate level since it is taxed at the personal level. Some countries tax only above-normal capital income earned in businesses using a cash-flow equivalent tax such as the Allowance for Corporate Equity. This aligns with what the Mirrlees Review recommended. The taxation of human capital tends to approximate consumption tax treatment: the cost of human capital accumulation, such as forgone earnings, are largely tax-deductible, while the increase in earnings is taxable.

The reasons for taxing capital income favourably compared with consumption or labour income, and why some forms of capital income are exempt, are many. On theoretical grounds, some

taxation of capital income can be justified as an efficient way of redistributing from better-off to worse-off individuals (Banks and Diamond, 2010). Higher income persons have lower consumption discount rates so tend to save more, future consumption and leisure might be complements, and as pointed out those with larger savings tend to earn higher rates of return. In addition, taxing capital income has been justified as a way of addressing the inefficiency associated with the absence of wage insurance and with credit constraints. Typically, these arguments would support capital income taxation at lower rates than labour income taxation, and with rates that are higher for high-income persons. At the same time, capital income tax rates are constrained by the possibility of avoidance through tax planning or capital flight. Some types of asset income would be difficult to tax from an administrative point of view, such as human capital and housing for which imputed income is hard to measure. Also, some assets are tax-sheltered on policy grounds, like saving for retirement for which encouragement might be warranted on behavioural grounds. Preferential treatment of investments by entrepreneurs and small businesses is a response to the high risk of failure and limited access to capital markets many face. Some have argued for capital income taxation on second-best grounds as a counter to tax distortions elsewhere in the tax system. For example, Jacobs and Bovenberg (2010) find that a positive tax rate on capital income is optimal to induce more investment in human capital when the latter is discouraged by progressive earnings taxation. As well, it is argued that taxing capital income is desirable when inherited wealth is not observable so avoids inheritance taxation.

Strong arguments also support the case for deploying an inheritance tax as a complement to consumption, labour income and capital income taxation, regardless of the extent to which capital income is taxed. From the point of view of recipients, inheritances represent a form of windfall gain that can be used to finance consumption over one's lifetime. Regardless of whether the personal tax system is based on consumption tax or comprehensive income tax principles, taxing consumption is an element. If consumption could be taxed directly, taxing inheritances that finance that consumption would be redundant. For example, a VAT will tax consumption expenditures regardless of how they are financed. On the other hand, taxing consumption at the personal level by using either the tax-prepaid approach or the registered asset approach will require that inheritances be taxed. Recall that the tax-prepaid approach exempts capital income from the base, and will be equivalent to consumption taxation only if all forms of non-capital income are in the base, including labour income, transfers and inheritances. Similarly, under registered asset treatment, the tax base is income less savings, where income includes labour and capital income, transfers and inheritances. If the tax base is income rather than consumption, the same principles require including inheritances in the base since they are equivalent to income. Naturally, in choosing tax rates one must take into account behavioural responses, such as changes in labour supply, savings, and in the case of inheritance taxation changes in bequests, but the choice of base is separate from these considerations.

The tax treatment of bequests raises additional considerations. If bequests are considered equivalent to any other consumption choice, as revealed preference principles might suggest, they

should be treated as such for tax purposes. This treatment would automatically be the case for personal taxes based either on income or on consumption using the tax-prepaid or registered asset approaches. Bequests would not be taxed under VAT systems: doing so would require that bequests be treated as taxable transaction. Matters would be more complicated if one took the view that bequests were not acts of consumption but reductions in the availability of income for one's own consumption. In this case, one might want to give a deduction for bequests from the tax base, similar to the tax treatment of charitable donations as discussed in Diamond (2006). This is not the practice in actual tax systems, so we ignore it as an option here. Taxing bequests left by donors might also be considered to be an alternative to taxing inheritances received in the hands of recipients, perhaps on administrative simplicity grounds. In this case, nothing of principle is added to what we have argued above, except that the tax rate applied to a tax levied on bequests cannot be conditioned on recipients' economic circumstances. In what follows, we take the position that the taxation of inheritances and not bequests is preferred. One further consideration in bequest taxation has been raised by Kaplow (2001, 2008) and Farhi and Werning (2010). They argue that because a bequest benefits both the donor (by revealed preference) and the recipient, it will entail an externality. Donors will choose the size of bequest based on their personal benefit, which may include the altruistic benefit that motivates the bequest, and will not take separate account of the benefit of the recipient. Therefore, bequests should be subsidized the take account of this externality. This raises issues that are of limited relevance for us, given that we are concerned mainly with what to include in the personal tax base, and not how it should be taxed.

A wealth tax would add one more layer of taxation of assets to the existing patchwork of capital income and inheritance taxes. In principle and as discussed further below, the annual taxation of wealth is analogous to the taxation of income from that wealth, depending on how it is designed. To the extent that income from wealth is proportional to the stock of wealth, taxing wealth directly is equivalent to taxing the capital income from that wealth. However, there are some differences. If wealth taxation is based on the market value of wealth, which is the expected present value of future returns possibly adjusted for risk, a capital income base will be more variable than a wealth base. Moreover, capital income taxation will tax unexpected, or windfall, gains whereas a wealth tax will not. Where returns to wealth take an imputed form, taxing wealth itself may be much simpler than taxing the returns. This may be the case for housing and for valuables that give an intrinsic return. On the other hand, some forms of wealth are inherently more difficult to measure than the income streams to which they give rise, such as human wealth that either has been endowed in the individual or has been accumulated. We explore these issues further below.

Two final points can be made about wealth taxation versus other forms of asset taxation before analysing the case for and against it. First, some might argue that wealth per se should be taxed because of the benefit it generates for its owners. Wealth may yield an intrinsic benefit to its owners, such as the prestige and status associated with being seen to be wealthy. Moreover,

wealth may confer power and influence to wealth-owners, particularly those with substantially higher-than-average accumulations. For example, such persons might exert significant influence over political decisions of the government. Basing a tax on wealth on the possibility of its power and prestige would represent a motive for taxation that goes beyond standard utilitarian arguments. If the wealth had been accumulated from above-normal returns due to windfall gains or monopoly rents, taxing them ex post might be justified to the extent that the tax system did not tax them as they were earned regardless of the power and prestige to which they give rise. To the extent that these considerations are true, they would reinforce the case for wealth taxation being highly progressive.

Second, while wealth taxation is analogous to the taxation of the returns to wealth, it is different than bequest or inheritance taxation. Bequests represent a cumulative accrual of wealth over the lifetime, and inheritances represent windfall increases in wealth early in one's lifetime. In contrast, wealth taxation is a recurring annual tax on wealth over the life cycle. Thus, a wealth tax applies to saving done partly for life-cycle smoothing purposes, while a bequest tax applies to wealth accumulated over and above that used for life-cycle smoothing and an inheritance tax applies to windfall increases in wealth. Even if one did not want to tax capital income or capital itself, for example, if the tax system aimed to tax consumption, one might still want to tax inheritances. This would be the case to the extent that consumption is taxed on the income or source side of the budget rather than directly, since the budgetary source of consumption finance comes from both labour income and inheritances.

More generally, to understand the allocative and distributional effects of wealth and wealth transfer taxation one needs to take account of the motives for accumulating wealth. Among these motives, one distinguishes those, which are purely selfish and those, which concern intergenerational transfers (gifts and bequests). Consumption smoothing is the traditional motive for saving over one's life-cycle, with or without uncertainty. It includes the need of replacement income after retirement, financing of children's education, precautionary saving and self-insurance. It is well-known that this kind of saving decreases with social insurance, and tends to be smaller when individuals are short-sighted. In case of imperfect annuity markets and "premature" death, part of life-cycle saving is not consumed and leads to accidental or unplanned bequests. By their nature, these are unaffected by bequest or inheritance taxation. On the contrary, a tax on capital income or on wealth will have disincentive effects on this type of saving.

Parents care about the likely lifetime utility of their children and hence about the welfare of future generations. Consequently, wealthier parents tend to make larger bequests, and holding parent's wealth constant, children with higher labour earnings receive smaller bequests. Alternatively, parents can be motivated not by pure altruism but by the direct utility they receive from the act of giving, also referred to as warm glow giving. It can be explained by some internal feeling of virtue arising from sacrifice in helping one's children or by the desire of controlling their life. In either case, taxing that kind of capital accumulation either through an annual wealth tax or a tax on bequests will have a disincentive effect on saving that has to be taken into account.

The advantage of taxing wealth at the end of the lifecycle is that it induces altruistic parents to make inter vivos gifts much earlier to children who are often liquidity constrained. The taxation of wealth, whatever its form, can also lead parents to invest in their children's education, which is not taxed and most often subsidized.

4. The Economic Arguments for Wealth Taxation

In this section, we probe in more detail the case for including wealth tax as part of the tax system. The arguments for taxing wealth are heavily influenced by the similarities between taxing wealth and capital income. Under certain conditions, these two forms of taxation are effectively identical. To see this, suppose that an individual has wealth consisting of a fully owned house and a portfolio of stocks. Suppose furthermore that the tax on capital income includes the imputed income of the home and the dividends plus the accrued capital gains of the stocks. Let us also suppose that these capital incomes are such that their present value is equal to the value of the wealth to be taxed and furthermore that both taxes are flat rate. Under these assumptions, there would be equivalence between the two types of levy.

In practice, this is far from the case for many reasons. The two taxes do not have the same base. Some assets are exempt from the wealth tax and others from the capital income tax. Taxes on capital income apply at most at preferential rates to realized capital gains and not to accrued capital gains, although these are covered by the wealth tax assuming the value of assets is properly assessed. In that respect, there can be a huge discrepancy between the market value of a dwelling and its cadastral value. Also, the tax rates are different in level and progressivity, and in the exemption level. Consider the example of France where capital income taxation and an annual wealth tax coexist. The taxation of capital income comes from two sources: the standard progressive income tax that is paid by less than one-half of taxpayers and a flat rate social security contribution that is paid by most taxpayers. The annual wealth tax is paid by less than one percent of taxpayers.

Another important difference is the tax base. The annual wealth tax base comprises housing net of debts, deposits, some financial assets but not others nor business assets. As a consequence, this base represents only half of the wealth held by those less than one percent of taxpayers. All sorts of exemptions reduce the tax base of both the social security contribution and the income tax such that the tax on capital income amounts to one-half of what it could yield without these exemptions. Among these exemptions, there are the accrued capital gains, the return of life insurance and the basic saving account. To sum up, the French case illustrates well the fact that two taxes that could be theoretically identical end up quite different in their yields and their incidence.

Besides the differences between wealth and capital income taxes mentioned, two other differences are often advanced in the discussion on the relative merits of the two taxes. The first one concerns the liquidity aspect. Someone can have huge wealth but a small income that makes

him unable to pay the annual tax. In the political debate in France, opponents of the wealth tax used the example of a retired fisherman who had a small pension (€1000) but a house that was worth €3 million because it was located in a place that over the years had become a fancy resort. Naturally, he was unable to pay the wealth tax. The government then introduced a ceiling of 75 percent of income on the sum of the income and wealth tax, which reduces the redistributive power of the wealth tax. Similarly, in Germany a court held that the sum of wealth tax and income tax should not exceed one-half of a taxpayer's income. Eventually the wealth tax was declared to be unconstitutional because of its confiscatory nature. As for the second difference, there is the argument that the wealth tax would induce taxpayers to get the highest return possible to pay the tax whereas the capital income tax would have the opposite effect.

To compare wealth and capital income taxation more precisely, let A_t denote the asset wealth of a household in tax period *t*, and assume for now that the tax authorities can measure it. In well-functioning asset markets, the value of an asset is the present value of its expected returns accounting for a risk premium. These expected returns can include 1) financial payments like interest, dividends, royalties; 2) capital gains; and 3) imputed returns like consumption benefits in the case of consumer durables, jewellery and artwork. The annual wealth tax liability would be $\tau_w A_t$, where τ_w is the rate of wealth tax. The tax on capital income can we written $\tau_k r_t A_t$, where τ_k is the tax on capital income and r_t is a composite return on asset wealth. The tax on capital income is like a tax on wealth at the rate $\tau_k r_t$. The difference between the two taxes is that the tax on capital income varies with the rate of return on assets as well as their value whereas the wealth tax varies only with the latter.

Recall the arguments for taxing capital income outlined above. An income taxation should include a tax on capital income when any of the following circumstances apply: 1) high-wage taxpayers discount future consumption at a lower rate than low-wage ones; 2) wage rate uncertainty exists which is not insurable; 3) credit constraints limits borrowing against future wages; 4) rates of return on wealth increase with portfolio size; and 5) future consumption is complementary with leisure. In addition, to the extent that returns to wealth take the form of windfall gains or rents, they should be taxed. Taken together, these arguments support the case for some capital income tax. The rate of capital income tax need not be high as that on labour income, and it should also be progressive if that is feasible administratively.

Given these arguments, a wealth tax might be viewed as a supplement to capital income taxation where the latter is imperfect. For some types of assets, the rate of return might be difficult to measure. Examples include owner-occupied housing, automobiles and other consumer durables, personal valuables, and cash. A wealth tax that targeted these assets could be beneficial, although valuation and compliance problems would be challenging. For some other assets, both the rate of return and the asset value might be difficult to measure. An important example of this is human capital. Its return can be implicitly taxed if the income tax system is progressive, but otherwise human capital tends to be a tax-sheltered asset. Personal businesses also yield capital income that can be challenging to measure, but measuring their asset value is no less difficult, especially

intangible assets, which are increasingly important. More generally, capital income earned on behalf of shareholders by corporations can be taxed using a corporate income tax and integrated with the personal tax of shareholders. Arguably, it would be easier to tax corporate-source income using a wealth tax. The latter would apply to the value of corporate stocks held by taxpayers directly with no need to use a corporate tax at all.

Overall, the case for implementing a wealth tax as a complementary way of taxing capital income is limited. The argument is strongest for assets like housing and other durables whose returns are difficult to measure, and for corporate stocks whose returns can be sheltered within the corporation unless they are pre-emptively taxed using a corporate tax. In the case of housing and some business assets, the property tax already applies to them.

At the same time, there are significant drawbacks to wealth taxation as a substitute for capital income taxation. An important one is that a tax on capital income includes windfall gains in the tax base while a wealth tax does not. The value of wealth reflects expected returns, and these do not change if there is a windfall gain. Given that the taxation of windfall gains is highly desirable, this is a significant drawback to a wealth tax. By the same token, a tax on capital income will apply to returns to risk, while a wealth tax will not. As long as there is loss-offsetting in the income tax system, this should not be a significant drawback to capital income taxation. Indeed, in some circumstances taxing returns to risk can be a valuable form of insurance that increases risk-taking (Domar and Musgrave 1944, Stiglitz 1969, Buchholz and Konrad 2014).

As well, there are some assets whose returns can be measured more readily than their asset value. This is the case for intangible assets like intellectual property or goodwill both of which give rise to a stream of taxable earnings, typically in the hands of businesses. Taxing income generated by these assets is more feasible than taxing the asset values themselves.

There are various other arguments for wealth taxes that go beyond those based on the taxation of capital income. Piketty (2013) has proposed a wealth tax (albeit a worldwide one) to address the growing wealth inequality partly due to relatively high rates of return on wealth. A wealth tax can be designed in such a way as to focus on large accumulations of wealth, for example, by giving a generous deduction for low levels of wealth and imposing a relatively high tax rate on large accumulations. The issue is whether a wealth tax is the best way to address the issue of growing wealth inequality, given that it does not tax windfall gains directly. At best it taxes wealth accumulated from past windfall gains. An alternative is to tax windfall gains as they accrue through the taxation of capital income. A capital income tax can be designed so that its base focuses on above-normal returns to capital. An example is the Rate of Return Allowance proposed by the Mirrlees Review (2011) that would tax only returns to unsheltered assets in excess of a normal rate of return. Such a tax could be harmonized with the income tax system and be subject to progressive rates. Even so, it might not be possible to make it progressive enough to address extreme wealth inequality.

More generally, evidence suggests that the growing inequality of wealth is in turn reflected in a growing proportion of saving being done for bequests as opposed to life-cycle smoothing (Piketty 2013, Alvaredo, Garbinti and Piketty 2017). In these circumstances, wealth inequality is of policy concern largely because high levels of wealth are transferred to succeeding generations. Addressing this issue directly would involve a tax on inheritances rather than an annual wealth tax given that the latter also taxes wealth held for life-cycle smoothing purposes.

From a political economy point of view, wealth taxes in part might reflect commitment problems of the government. It is well-established in the literature that even (or especially) a fully benevolent government cannot avoid the temptation to tax existing accumulations of wealth, whether of households or corporations. Indeed, a strong case can be made that the reason why capital income seems to be taxed at rates higher than optimal income tax analysis would suggest is precisely because governments cannot avoid taxing capital or wealth that has been previously accumulated. They are constrained only by the fact that such taxes discourage future capital accumulation. Whether governments can be constrained from the temptation to tax "old" capital is an open question. Such temptation might be more inviting if a wealth tax is in place than if it is not.

Capital income taxes also have some advantages of flexibility from a tax design point of view. Capital income taxes can have exemption levels as in France and the UK. In addition, some forms of capital income are tax-sheltered, such as saving for retirement, and these tax-sheltered savings can have an upper limit that restricts their availability to high-income persons. In addition, capital income tax can be designed so that it only applies to above-normal earnings, as in the case of RRA taxation proposed by the Mirrlees Review mentioned above. Capital income tax may not apply to certain asset returns, like housing, but it can be augmented by property taxation or taxation of housing capital gains. Finally, under a dual income tax a proportional tax rate can be applied to capital income. This tax makes evasion more difficult than ordinary income tax since financial intermediaries can be used to withhold tax. These aspects may be difficult to replicate using wealth taxation.

The upshot of this discussion is that a wealth tax is to a large extent an imperfect substitute for a tax on capital income. It has the advantage that it can tax assets whose return is difficult to measure for income tax purposes, especially consumer durables. At the same time it is inferior to capital income taxation when rates of return are easier to measure than asset values, such as intangible assets, intellectual and knowledge property and personal businesses. But it has the significant disadvantage that it does not tax windfall gains. Moreover, it is no better than capital income taxation for taxing human capital returns and for taxing inheritances at rates reflecting their advantage to inheritors.

There is still the argument alluded to earlier than wealth may give direct benefit to its owners either as a utility benefit or as a source of power and prestige. Verifying such a benefit is virtually impossible, so it is hard to justify basing wealth taxation on this argument.

There are also various administrative problems with wealth taxation that make compliance and collection costly. For one thing, there is risk of capital flight and pervasive inequity arising from wide variety of loopholes (like change of residency). As well, measurement difficulties lead to exemptions like artwork and durables, and family enterprises are often exempt on social grounds. These problems also affect inheritance and capital income taxation. The need to value assets frequently implies that the wealth tax has a low yield relative to administrative costs compared with inheritance tax. Finally, wealth and wealth transfer taxes are surprisingly unpopular even though a majority of citizens would be net gainers from such a tax.

5. Conclusions

The discussion above emphasizes the distinction among annual wealth taxation, capital income taxation and wealth transfer taxation (either on bequests given or inheritances received). Wealth and capital income taxes are analogous and fulfil similar functions. Under certain circumstances, they are equivalent. The ultimate rationale for taxing wealth is the same as for taxing capital income, and we have recounted the arguments underlying this rationale in detail above. Given that, the case for an annual wealth tax rests primarily on shortcomings of capital income taxation. There may be some assets for which the returns are difficult to measure, such as housing and other consumer durables. An annual tax on the value of such assets could in principle be a useful complement to capital income taxation. That must be weighed against the administrative and compliance costs of such taxes, which could be substantial. In practice, annual taxes on housing values are frequently used as instruments for financing local government. Given that, the case for taxing the imputed income of housing is reduced.

Wealth taxes have some other, less compelling, advantages over capital income taxation. Unlike the latter, wealth taxes do not tax stochastic returns to risk, although they do tax any risk premium that is capitalized in asset values. However, to the extent that capital income tax regimes afford loss offsetting, the taxation of returns to risk is mitigated. A tax on substantial accumulations of wealth can address the possibility that wealth ownership yields privileges, status and power that some might deem worthy of taxation, especially where the wealth is a result of pure luck. As well, wealth taxation might make up for the shortcomings of actual capital income tax regimes, such as the preferential treatment of capital gains. On the other hand, this might be best remedied by reforming the capital income tax system.

By the same token, capital income taxes have some advantages over wealth taxes. For some assets, the value is more difficult to measure than the returns to the assets, such as intangible intellectual property. As well, capital income taxes include windfall gains, whereas these are not capitalized into asset values since they are unexpected.

Our judgment is that a well-functioning capital income tax dominates an annual wealth tax. The benefit of implementing the latter alongside a capital income tax do not compensate for the significant administrative costs that would be involved. However, this judgment comes with some caveats. The case for relying solely on capital income taxation (along with labour and consumption taxation) is strongest when the capital income tax includes all forms of capital income including capital gains. That is not to say that the rate of taxes applied to capital income should be the same as those applying to labour income. A dual income tax system with a uniform rate applied to capital income has significant administrative advantages. At the same time, taxing housing wealth using a property tax rather than taxing imputed rent makes good sense, especially since property taxation is a well-established tax for financing local government.

The role of wealth transfer taxes is distinct from both wealth and capital income taxes. Inheritances represent a source of income to recipients from which consumption can be financed over one's lifetime. Even if tax design were based on consumption so capital income goes untaxed, inheritance taxation would be required as a complement to personal taxation. This would be the case under both tax-prepaid and registered treatment of assets. In principle, the same tax rate should apply to inheritance as to other elements of the tax base, but that poses difficulties since inheritances are received in lump-sums rather than annually. Some compromise would have to be found. Interestingly, both the Meade Report (1978) and the Mirrlees Review (2011) recommended an inheritance tax alongside a personal consumption tax system. In the case of the former, the personal tax system would be based solely on tax-prepaid and registered asset treatment. The Mirrlees Review differed in that income from shares would be taxed on an RRA basis so would include above-normal capital income.

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