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Taxation as Insurance

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In this article, Brooks argues that the insurance feature of an income tax is frequently missing from political, rhetorical, and academic discussions about taxation and that its oversight can have major effects on political, economic, and moral questions regarding taxation.

A central yet often overlooked aspect of an income tax is that it acts as insurance against the risk of low income. Because a person's payments to government are a function of income, he can be assured that in a time of low income, his tax payments will decrease and transfers will increase, while the standard benefits of governments continue to flow. Because everyone, no matter how successful, faces some risk of lost income, that assurance provides us an insurance benefit, even if our income never actually drops.

This core feature of an income tax — and, really, government in general — is frequently missing from political, rhetorical, and even academic discussions about taxation. This is an unfortunate oversight because incorporating insurance can have important effects on political, economic, and moral questions regarding taxation.

What Do Taxes Pay For?

A simple way to think of taxes is as the combination of two things. First, a taxpayer is buying public services such as schools, roads, police, national defense, healthcare, and financial regulation. Thus, one part of a person's tax bill is simply the cost of those services. But it is extremely unlikely that any person pays exactly the value of the benefits received (even if we could precisely measure those benefits). Most everyone will pay either more or less than the value of those benefits. That's the second element — redistribution. Those paying more than the value of benefits received are redistributing some resources to those who pay less than the value of benefits received.

This is true even for someone who pays no taxes; that person is effectively buying public services but then receiving an offsetting transfer, funded by those who pay more than the value of the benefits they receive.

This bifurcation does not answer many of the difficult questions in tax policy, of course, not the least of which is trying to figure out what the value of the goods received is. It may not be hard to value food stamps or Social Security transfers, but what about clean air, property rights, and the rule of law?

Also difficult is deciding where to draw the line between what is purchasing a benefit and what is redistributing a benefit to someone else. Many things that look like transfers also contain at least some direct benefit to the transferor. Paying for another person's healthcare, education, food, and housing help to create a more healthy, educated, productive, and stable society, which benefits the transferor directly (even ignoring any normative preferences). How much benefit relative to the total cost is an open question, but it is certainly not zero.

But even if we account for all of those spillover benefits, there is still a category of benefit that we haven't accounted for: insurance.

Income Insurance

Set aside taxes for a minute and imagine a different program. Suppose there was something called "income insurance" that you could purchase in the market. The insurance would pay out some fraction of lost income if you, for whatever reason, earned less than you were expected to. You would purchase the insurance by paying a regular, actuarially fair premium based on your income risk. (Assume for now that an insurance company could actually measure things like "expected income" and "income risk." Let's also ignore any adverse selection and moral hazard problems.)

Would you buy that insurance? Let me ask that another way: Would you buy that insurance *in a world where the government performed no redistribution at all*? In that world, everyone is forced to pay exactly the value of the benefits they receive from government, no more, no less. If you lost your income for some reason, that would be financially devastating: You'd have no income *plus* a big unpaid bill from the government. I'd buy the insurance. We buy insurance against all sorts of other risks that could leave us financially devastated, including health insurance, life insurance, disability insurance, and property insurance. This seems like a natural extension.

So let's say you buy that insurance. But nothing happens this year — your income stays the same, so no payout. All you've done is cut a check for the premium to the insurance company, which it uses to pay the claims of those who did have income loss. Is that redistribution? In a literal sense, yes — the money you paid in is literally distributed to someone else. But I don't think of life insurance as redistribution in the public finance sense. I think of it as buying a product that benefits me, namely risk reduction. The same should be true for our income insurance product. Indeed, if this is just a market transaction in our thought experiment, it's axiomatic that it benefits me. I wouldn't have purchased it otherwise.

If this is true, it must be that some of what looks like redistribution in our tax system is really just purchasing insurance. Our system doesn't force you to pay the cost of all the government benefits you receive no matter what — those benefits continue even if you can't afford to pay them. Not only that, some additional transfers often kick in, such as Temporary Assistance for Needy Families, the Supplemental Nutrition Assistance Program, and Medicaid.

That additional transfers occur in periods of low income is no surprise — there's a reason we call those programs "social insurance." But it's not just that. Even if we didn't have specific transfers to low-income individuals, there would still be an insurance benefit simply from not having to pay taxes. Recall the thought experiment above. If your tax bill drops because of low income but government-provided goods and services — clean air, national defense, and the rule of law — continue to flow, you are getting a transfer because of your low income, paid for in part by the taxes you paid during periods of higher income. It follows that part of your tax bill — above and beyond an accounting of all other benefits received — includes some premium for the purchase of the income insurance embedded in the income tax. That amount is thus based not on some normative, other-regarding desire for a particular distribution of resources but rather on a *self-regarding* desire to protect oneself from the risk of low income. That is a benefit to the taxpayer herself.

Another way to see that income taxation has an insurance element is to compare the pretax volatility of income with the post-tax (and post-transfer) volatility of income. The system effectively narrows the range — reduces the variance — of possible after-tax incomes compared with pretax incomes.[1] If an individual turns out to have high pretax income, her after-tax income will be somewhat less; if she turns out to have low pretax income, her after-tax (and after-transfer) income will be somewhat more. Reducing the variance of possible outcomes is precisely what insurance does, by shifting that risk onto an insurer and thereby spreading it among all the insured. In this case some income risk is shifted onto the government itself, and thus, it doesn't go away. But the government is more able to insure against income risk than individuals are (for example, by borrowing cheaply), and it can be a mechanism for intergenerational risk-sharing (also through borrowing). Again, that shifting creates a real benefit to the taxpayer herself.

Income Risk and the Role of Luck

If there is an insurance benefit from taxation, how big is it? What is the appropriate "premium" to pay for that income insurance? That's unanswerable in any rigorous way, but it will depend on how much income risk an individual faces. Many people seem to believe that their income is simply an inevitable result of their industry and creativity and not subject to any risk — but that's clearly false. Bill Gates could have had a stroke on his way to his first meeting with IBM in 1980. Even a person whose income never drops still faces real risk. That one's income doesn't drop is not evidence that it *couldn't* drop. A high-income person should be no less frustrated by high taxes than a healthy person should be from his purchase of health insurance. Just because the person doesn't need expensive medical care doesn't mean the insurance was a waste. Indeed, that person comes out ahead — she has her health *and* the comfort from insuring against downside risk. The same is true for a high-income person paying for income insurance through the income tax — she has her high income *and* the comfort from insuring against total devastation and loss of government services if her income drops.

To be clear, even after accounting for this insurance benefit, the income tax likely still has purely redistributive transfers. The highest-income individuals are very likely paying amounts beyond the value of all the benefits received from government, including the insurance benefit. But trying to tease out exactly what is insurance and what is redistribution is a difficult task, particularly because we would need to estimate ex ante income risk but can

[1] A more apples-to-apples comparison would be to compare the volatility of after-tax income from an income tax with after-tax income from a lump sum tax that raises the same revenue.

only observe ex post results. And income risk is a much trickier concept to isolate compared with, for example, accident risk or life expectancy (particularly if we bring back in adverse selection and moral hazard concerns).

One way to phrase the question is to ask: How much of our income or wealth is based on pure luck, as opposed to intelligence, skills, or effort? Some studies have suggested that much of our income cannot be explained by the typical features, such as education, skills, and effort, meaning that much of it is attributable to chance. (And I suggest that the briefest observation of people you know will demonstrate that income does not correlate perfectly with intelligence, education, skills, and industry.)

But what does luck mean in this context? The notion that there is a large degree of chance in the outcomes of life is hardly a new or surprising observation. Moral philosophers have made that point repeatedly. In the modern era, the idea that life outcomes are in large part due to a lottery is most associated with John Rawls, who famously argued that even traits like intelligence and ability are distributed by chance when judged from a point before any of us are born.[2] The same could be said for where, to whom, and even when we are born. If all of that is attributed to chance, the variation in incomes merely because of active choices made during a person's life is relatively small.

But we don't necessarily have to step behind the veil of ignorance to believe that there is a large amount of uncertainty in income. Even individuals with roughly the same traits, education, family wealth, career choice, and so on can and do exhibit a wide variation in income. Several studies have found that income volatility is relatively high and has increased since the 1970s.[3] While some of that volatility may be attributable to choices by individuals and households, a decent chunk of it is likely to simply be luck.

Academic Literature

If you believe, as I do, that there is a decent amount of luck involved in determining our incomes and that the tax system mitigates some of the effects of that luck (on the upside and downside), the idea that taxation plays an insurance role follows naturally. Thus, it is somewhat surprising how rarely this idea enters academic discussions and models. In the economics literature, papers by Hal R. Varian and by Jonathan Eaton and Harvey S. Rosen in 1980 find that if labor income is uncertain, an income tax may be efficient even if a lump sum tax is available.[4] Varian, in particular, finds that optimal marginal tax rates on the higher earners could be high in that case, in contrast to J.A. Mirrlees's result of declining rates (in which he assumes that earnings ability is fixed).[5] Some papers followed that work, but by 2008, Louis Kaplow could still write that "the general problem of optimal income taxation in the presence of [income] uncertainty has not been the subject of extensive study."[6]

In Alan J. Auerbach and James R. Hines Jr.'s chapter on taxation and economic efficiency the *Handbook of Public Economics*, they state (in a footnote):

> One potentially important market failure *not* considered by this chapter is the incompleteness of markets in state-contingent claims that might otherwise be used to diversify risks. In such a setting, it is possible for taxation to improve welfare simply by reducing (after-tax) private returns — since the government can pool risks through its tax and spending actions.[7] [Emphasis added.]

In a 2011 paper, Hilary W. Hoynes and Erzo F.P. Luttmer quantify the insurance value of state tax-and-transfer programs. They find that the insurance value of state taxes is positive and rising with income, which they say may help to explain why there is relatively little out-migration by high-income people from high-tax states.[8]

The legal literature is also relatively thin, at least beyond high-level adoptions of Rawlsian conceptions of justice. I apply the taxation-as-insurance idea to fiscal federalism, asking whether a state or

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[2]*See* Rawls, *A Theory of Justice* 118 et seq. (1971).

[3]*See, e.g.*, Donggyun Shin and Gary Solon, "Trends in Men's Earnings Volatility: What Does the Panel Study of Income Dynamics Show?" 95 *J. Pub. Econ*. 973 (2011); Karen Dynan, Douglas Elmendorf, and Daniel Sichel, "The Evolution of Household Income Volatility," 12 *B.E. J. Econ. Anal. & Pol'y* 1 (2008). *But see* Wojciech Kopczuk, Emmanuel Saez, and Jae Song, "Earnings Inequality and Mobility in the United States: Evidence From Social Security Data Since 1937," 125 *Q.J. Econ*. 125 (2010) (finding relatively low and stable volatility).

[4]Varian, "Redistributive Taxation as Social Insurance," 14 *J. Pub. Econ*. 49 (1980); and Eaton and Rosen, "Optimal Redistributive Taxation and Uncertainty," 95 *Q.J. Econ*. 357 (1980).

[5]*See* Mirrlees, "An Exploration in the Theory of Optimum Income Taxation," 38 *Rev. Econ. Stud*. 175 (1971).

[6]Kaplow, *The Theory of Taxation and Public Economics* 118 (2008). Kaplow is somewhat skeptical of the ability of an income tax to function as insurance in part because the government will run into some of the same moral hazard problems that private insurance would — which is simply just another way of describing the labor-leisure distortion. *Id*. at 119.

[7]Auerbach and Hines, "Taxation and Economic Efficiency," in Auerbach and Martin Feldstein, eds., 3 *Handbook of Public Economics* 1362 n.8 (2002).

[8]Hoynes and Luttmer, "The Insurance Value of State Tax-and-Transfer Programs," 95 *J. Pub. Econ*. 1466 (2011).

federal government is better at absorbing individuals' income risk through the tax system (spoiler: it's the federal government).[9] Edward D. Kleinbard in his book *We Are Better Than This*[10] urges progressives to move away from the rhetoric of redistribution in part because much of what we think of as redistribution is really social insurance. Linda Sugin has also engaged with the tax-as-insurance notion.[11]

Even when focusing explicitly on government's role as an insurer, the tax system can sometimes be forgotten. David A. Moss's excellent book *When All Else Fails*[12] shows how government and legal institutions have worked to shift and spread risk in ways that have been central to our economic evolution. He discusses things such as limited liability for corporations, the bankruptcy system, the monetary system, Social Security, unemployment insurance, and disaster relief — but not the tax system itself. Recall again the central point I made above: Even if the government does not provide any explicit social insurance, there is insurance value simply from *not having to pay* the per-capita cost of running a state if income drops.

Conclusion

Why doesn't the academic literature, or political discussion, more closely consider the insurance value of taxation? A possible reason is that it's very hard to measure income risk, and it can change a lot over a person's lifetime. There is very likely a degree of path dependence to income, particularly following early investments in human capital, meaning that the probability distribution for a person's income may tighten over time. Further, many wealthy people are essentially self-insured through a combination of financial and human capital, and so they may not value the income tax's insurance role even if they still face income risk.

But the difficulty of measuring income risk does not imply that it doesn't exist or that there is no insurance value from income taxation. Even if we can't fully decouple insurance from redistribution, and even if it's different for each person, it's still in there somewhere, and analysts and policymakers should more explicitly take it into account. ■

[9]John R. Brooks, "Fiscal Federalism as Risk-Sharing: The Insurance Role of Redistributive Taxation," 68 *Tax L. Rev*. 89 (2014).

[10]Kleinbard, *We Are Better Than This: How Government Should Spend Our Money* 327-333 (2015).

[11]*See, e.g.*, Sugin, "A Philosophical Objection to the Optimal Tax Model," 64 *Tax L. Rev*. 229 (2011).

[12]Moss, *When All Else Fails: Government as the Ultimate Risk Manager* (2002).