TECHNOLOGY, MARKETS, AND THE INCOME TAX FRONTIER

ANDREW T. HAYASHI*

ABSTRACT

Income tax law and policy are fundamentally intertwined with private markets—causal effects run in both directions. The vitality of public markets can be stifled or invigorated by the way that they are taxed. The power to tax is the power to destroy. In turn, the computation and collection of income taxes depends upon the valuation and liquidity provided by markets. Moreover, the economic properties of tax rules are contingent upon the underlying market structures. Changes to these structures induced by technological innovation can alter the efficiency and equity properties of the prevailing income tax rules. In this Article, I explain how innovations associated with the digital transformation of business will—as an unintended consequence—reduce the administrative barriers to taxing income and improve the economic tradeoffs, thereby making it both feasible and desirable to push outward the frontier of the income tax’s domain.

TABLE OF CONTENTS

INTRODUCTION........................................................................................................... 1372
I. THE CODEPENDENCY OF TAX AND PUBLIC MARKETS ..... 1374
II. THE DIGITAL TRANSFORMATION AND MARKETIZATION.......................................................... 1381
III. THE SHARING ECONOMY .................................................................................... 1383
CONCLUSION ................................................................................................................ 1386

* Professor of Law and Nancy L. Buc ’69 Research Professor of Democracy and Equity, University of Virginia School of Law.
INTRODUCTION

Tax law operates on a background of individual preferences, cultural norms, institutions, markets, and a complex architecture of other laws and regulations. It is conventional in tax scholarship and policymaking to take those background conditions as fixed, and to consider questions about what to tax, how to tax, and how much to tax, using theoretical models and empirical estimates derived from those background conditions.

This is a sensible division of labor. It is hard to imagine tax scholarship making sustained progress if it could not take those conditions for granted and rely on shared assumptions about how markets operate and how economic behavior is expressed through the laws that regulate it. But, of course, these conditions do change. New markets form and evolve, old markets disappear, laws change, and new technologies enable new business practices. Some of these changes may have little effect on good tax policy, but others might be more significant.

For example, consider the evolution of the U.S. labor force over the last century. One of the most important changes—economically as well as culturally—is the dramatic increase in women’s participation in the paid-labor market.1 When women’s labor moved from the home to the marketplace, it became visible for both national accounting purposes and tax accounting purposes, resulting in a measured increase in output and taxable income.2 The change was also accompanied by an increased demand for market services to replace the work previously done by women without pay,3 creating a market where there had not been much of one before.

Such labor shifts from the private sphere to the public sphere register as an increase in economic activity because of the decision—for reasons of policy or administrative feasibility—to ignore the private sphere in national income and tax accounting. In the same way, renting out a spare room in one’s home gives rise to income, whereas enjoying the benefits of that room oneself does not. And so, as a general feature of national accounting, the

2. Id. at 128 (“The conventional history of economic growth embraces the unsurprising insight that when labor was reallocated from the family, where society didn’t place a dollar value on output, to the market, where it did, the economy appeared to have grown.”). This statement deals with the national income accounting of the transition from non-market to market labor, but the same would be true of taxable income, which also does not include income from non-market labor in its base. Unpaid work continues to be a significant source of economic value, and Professor Gondwe argues that this labor should be credited in the social assistance programs with work requirements. Nyamagaga R. Gondwe, The Tax-Invisible Labor Problem: Care Work, Kinship, and Income Security Programs in the Internal Revenue Code, 102 B.U. L. REV. 2389 (2022).
3. Folbre & Nelson, supra note 1, at 126 (documenting the rise in “professional care services”).
relocation of previously private activity to the public sphere and to the marketplace will be reflected as an increase in income and output. The income tax also follows the private/public distinction. The income tax reaches income that is generated in the public sphere, and it relies on public markets both to measure the amount of income that people have and to provide people with the cash liquidity they need to pay the taxes that they owe. And so, as markets proliferate and more of our time and resources are exchanged on those markets, the reach of the income tax stretches outward and income tax law applies to an ever-larger domain of our lives.

Market proliferation also changes the tradeoffs that must be negotiated when trying to decide how much to tax, specifically the tradeoff between revenue needs and the ways that taxes distort and disturb the choices and plans that people would otherwise have made in the absence of the tax. It is conventional in the economic literature to measure this disruption by the change in taxable income resulting from a change in tax rates. For example, increasing the tax on wages and salaries reduces the amount that people work, thereby reducing their taxable income as they shift from paid market labor to unpaid and untaxed leisure or household labor, or as they find other ways to lighten their tax burden.

But the magnitude of this response to a wage tax increase is not a permanent fixture of the world, or even of the United States, over time. It will depend on relative costs and benefits of paid and unpaid labor, and the flexibility that households have to respond to the higher tax—and these conditions evolve. For example, in a world of mostly single-earner married couples, the effect of an increase in this tax rate on a household’s taxable
income is almost certainly different than the effect in the world of mostly dual-earner couples that exists today. The difference in the sensitivity of labor supply choices—and taxable income—to higher tax rates implies a new outcome to the tradeoff between the efficiency costs of taxation and the need to raise revenue equitably.

In this Article, I consider how the emerging digital economy will draw more and more of our time, property, and activity into the income tax’s domain. The mechanism for this process is the increasing marketization of activities that currently reside in the private sphere. As we spend more of our time, energy, and resources transacting with other people and technology, more of our lives become observable to—and therefore capable of being regulated and taxed by—the government. Traditional tax policy criteria will generally regard this as a good development, because extending the reach of the income tax will tend to make it more efficient.

I. THE CODEPENDENCY OF TAX AND PUBLIC MARKETS

The federal income tax “base” begins with gross income and then provides a variety of allowances and deductions to arrive at taxable income—the quantity that is subject to tax under a progressive rate structure. What is gross income? The Internal Revenue Code (the “Code”) defines it as “all income from whatever source derived,”9 including a list of specific kinds of income, such as gains from dealings in property,10 dividends,11 and compensation for services.12 This list is only illustrative, however, and case law has had to draw boundaries around the statutory (and constitutional) meaning of income. For example, what about money that one discovered hidden in a recently purchased piano?13 What about debts that are repaid for less than their face amount?14 What about lodging or meals received from one’s employer?15

A useful touchstone for the definition of income is sometimes referred to as economic income, or the Haig-Simons definition of income, defined by the economist Henry Simons as “the algebraic sum of (1) the market value of rights exercised in consumption and (2) the change in the value of the store of property rights between the beginning and end of the period in

---

question.” Although a useful place to start, Haig-Simons income is broader than the meaning of income in Section 61 of the Code. Differences between gross income and the Haig-Simons definition of income can generally be grouped into two categories. There is income that is excluded as a deliberate matter of policy, generally with the objective of encouraging people to engage in the kinds of activities that earn that sort of income. For example, interest on certain state and local bonds is excluded from gross income by Section 103 of the Code, notwithstanding that interest is generally included in income. And up to $500,000 of gain on the sale of one’s home can be excluded from gross income, for reasons—mostly obscure—of deliberate public policy.

There would not be any particular difficulty in taxing income from state and local bonds or gains on the sale of one’s home. In the case of interest payments received in respect of bonds, the amount of interest—and therefore the amount that needs to be included in gross income—is easy to observe. The fact that interest is paid from the borrower to the lender, typically through a financial intermediary, makes it easy for the IRS to collect information about the payment by imposing reporting obligations—or even a tax withholding obligation—on the intermediary, and thereby easier to enforce compliance with the taxpaying obligation. In the case of gain on the sale of one’s home, the amount of gross income is again usually easy enough to calculate—as the excess of the amount paid for the property over whatever the seller paid herself for the home. Real estate transactions also generally leave a paper trail (through title transfer systems, for example) that could in principle be used to facilitate accurate income tax reporting.

Moreover, in both the cases of state and local bond interest and gain on the sale of one’s home, the taxpayer’s income typically takes the form of cash, obviating the “liquidity” problem that can arise in other contexts. Income need not take the form of cash. If you win a car at a game show, the fair market value of the car is income to you. If a lawyer provides legal

17. The exemption was initially thought to be constitutionally required under the “intergovernmental immunities doctrine.” The Supreme Court has since ruled that this is not the case. South Carolina v. Baker, 485 U.S. 505, 506 (1987). For a history of this exemption see Kevin M. Yamamoto, A Proposal for the Elimination of the Exclusion for State Bond Interest, 50 Fla. L. Rev. 145, 162–72 (1998). Nevertheless, the exemption persists, with some scholars justifying it as a federal subsidy to state and local government borrowing.
18. I.R.C. § 121.
19. A taxpayer’s basis in her home will also include any amounts spent on capital improvements, which will require some additional recordkeeping to properly compute her gain on the sale of the property.
20. Treas. Reg. § 1.74-1(a)(1) (gross income includes “amounts received from radio and television giveaway shows, door prizes, and awards in contests of all types”).
services to a client and accepts property or different services performed by the client as payment, the value of the property or those services is income to the lawyer.\footnote{21} The liquidity problem arises when the taxpayer has income, but not the cash to pay the tax.\footnote{22}

There are no administrative difficulties with taxing interest on state and local bonds or gain on the sale of one’s home. We could do it, but Congress has chosen not to. But there are other kinds of income that we do not tax because of these administrative challenges. For example, an increase in the value of one’s home over the course of a year represents an increase in wealth—and therefore income in the Haig-Simons sense—and yet we do not tax that gain generally until the property is sold.\footnote{23} This is the “realization requirement.” There are two reasons that we generally do not tax increases in the value of property until that increase has been crystallized by some transaction, such as a sale of the property. The first is the difficulty of measuring changes in the value of the property over time without the evidence of a market transaction. The second reason is concern about the potential hardship imposed by requiring taxpayers to come up with the cash to pay a cash tax on non-cash income.\footnote{24}

In some cases, the remedies for valuation and liquidity concerns may be worse than the disease. The realization requirement, for example, has been called the original sin of the income tax.\footnote{25} Because tax on gain is deferred until the gain is realized by some transaction, this naturally creates an incentive to delay the timing of that transaction as long as possible. The ability to defer the recognition of gain in this way not only creates pernicious distributional effects—lowering the effective tax rate on capital income, which tends to be concentrated in the hands of the highest-income taxpayers—but also economic inefficiencies, as taxpayers have an incentive to leave their investment capital locked into underperforming investments to

\footnote{21} Treas. Reg. § 1.61-2(d)(1) (“[I]f services are paid for in property, the fair market value of the property taken in payment must be included in income as compensation.”).

\footnote{22} Even when the taxpayer does have enough cash on hand to pay the tax, the mismatch between the form of income and form in which the tax must be paid can cause hardship. Andrew T. Hayashi, \textit{The Quiet Costs of Taxation: Cash Taxes and Noncash Bases}, 71 \textit{TAX L. REV.} 781, 781 (2018).

\footnote{23} Treas. Reg. § 1.1001-1(a) (“[T]he gain or loss realized from the conversion of property into cash, or from the exchange of property for other property differing materially either in kind or in extent, is treated as income or as loss sustained.”). There are also transactions (“constructive sales”) that are treated as sales, and therefore realization events. I.R.C. § 1259.

\footnote{24} Hayashi, supra note 22, at 782 (“Property tax limitations and the realization requirement for gains under federal income tax law have a common justification: concerns about imposing hardship on illiquid taxpayers.”). There are exceptions for certain taxpayers subject to mark to market accounting. I.R.C. §§ 175, 1256.

\footnote{25} \textit{Joseph Bankman, Daniel N. Shaviro, Kirk J. Stark & Edward D. Kleinbard, Federal Income Taxation} 230 (18th ed. 2019) (“Many tax scholars believe that the realization doctrine is the original sin of the federal income tax.”).
avoid triggering the recognition of taxable gain.\textsuperscript{26}

Invariably, the rules that provide relief to taxpayers from challenges associated with valuation and illiquidity create an attractive nuisance for well-advised taxpayers who steer their activities to transact in forms that benefit from this kind of relief. This nuisance then requires its own response, in the form of anti-abuse rules that prevent these relief provisions from excessively eroding the income tax base or creating too much distortion to economic activity and the distribution of the tax burden. For an example of this kind of rule, consider Section 1259 of the Code, which treats a set of transactions as "constructive sales" of certain financial positions, triggering the taxable recognition of gain (or loss) just as if the positions themselves had been sold.

Barter transactions, in which goods or services are exchanged for other goods or services (rather than cash) give rise to taxable gain or loss, notwithstanding the fact that there may be difficulties valuing the goods or services and collecting a cash tax in respect of the income from the transaction.\textsuperscript{27} Consider, for example, the lawyer who provides legal services to an artist in exchange for one of her works of art. The market value of the art is income to the lawyer, even though it may be difficult to value.\textsuperscript{28} The reason why valuation and liquidity concerns cannot be sufficient to exclude such arrangements from the tax base is easy enough to understand: failure to tax barter transactions would create a strong incentive for people to create a barter economy, which would be both less efficient than a cash economy and would allow them to avoid tax on their economic gain and shift the burden of funding government to people who, for whatever reason, cannot connect themselves to a barter network.\textsuperscript{29}

The barter example illustrates a general effect of the income tax. When one kind of income is taxed but another close substitute for that income is not, then people will tend to rearrange their affairs to take advantage of the tax difference. In this way, the income tax law affects which markets flourish and which falter. Consider the fact that health insurance provided by an employer to its employees is generally excluded from gross income,\textsuperscript{30} even though the insurance has economic value to the employees and that it serves

\begin{itemize}
\item \textsuperscript{26} Id. at 245 (discussing the “lock-in effect” that is an implication of the realization requirement).
\item \textsuperscript{27} Section 1001(b) of the Code provides that the amount realized from the disposition of property includes the fair market value of any property received. I.R.C. § 1001(b).
\item \textsuperscript{28} Compensation for services includes the fair market value of property received. Treas. Reg. § 1.61-2(d)(1).
\item \textsuperscript{29} For a general discussion of the taxation of barter transactions and barter clubs or networks, see Robert I. Keller, The Taxation of Barter Transactions, 67 MINN. L. REV. 441, 441 (1983).
\item \textsuperscript{30} I.R.C. § 106.
\end{itemize}
as a form of compensation that would be taxed if it were paid in cash. The
effect of this favorable tax treatment has likely played an important role in
the amount of resources directed toward the provision of health insurance.\textsuperscript{31}
Conversely, an increase in the effective tax rate on income from certain
goods or services will tend to suppress the public market for those goods and
services, redirecting resources either towards market substitutes or toward a
black-market in the goods or service.

Historically, an enormous amount of income from economic activity
has been left out of the tax base because the activity takes place within a
single household or because the income arises from activities performed by
a taxpayer for her own benefit. This latter category of income is known as
“imputed income.”\textsuperscript{32} Recall that Haig-Simons income includes the market
value of consumption benefits derived from goods and services. It is
irrelevant for this purpose who the provider of the goods and services is. If
an employee is given the rent-free use of an apartment by her employer, then
the rental value of the apartment is Haig-Simons income to the employee and
it is also gross income under the Internal Revenue Code. By contrast, if the
employee enjoys the use of an apartment that she herself owns, then the
rental value of the apartment, while it is Haig-Simons income to the
employee, is not taxable.\textsuperscript{33}

The same is true of the benefit that people get from using any durable
good that they own—but might otherwise rent from somebody else—including washing machines, automobiles, and boats. Similarly, if a barber
earns thirty dollars at his job and uses the money to pay for his own haircut,
then he has thirty dollars of economic income and thirty dollars of taxable
income for federal income tax purposes. But if he cuts his own hair (and we
assume that he does just as good a job on his own hair as he would do on
another person’s hair) then he has Haig-Simons income of thirty dollars, but
we do not, of course, tax the barber on the benefit he gets from cutting his
own hair. Needless to say, we have never tried to tax the “consumption”
benefit one gets from leisure, whatever the theoretical merits of doing so.

For these reasons, the shift of activity from the private sphere to the
public, from self-reliance to interdependent transactions, results in a
measured increase in taxable income. If my friend and I care for our own


\textsuperscript{32} See BANKMAN ET AL., supra note 25 at 134–42.

\textsuperscript{33} Under a Haig-Simons income tax, the taxpayer should also be entitled to depreciation deductions for the decline in value of the property over time. The tax consequences of the taxpayer as both landlord and tenant need to be included to determine the overall tax effect.
children and clean our own houses, then neither of us has income for federal income tax purposes, but if we watch each other’s children and clean each other’s houses, then the value of our childcare and household cleaning services become subject to tax. Interpersonal transactions make income legible to the tax system. As the number of these barter transactions increases, a market is likely to emerge that uses cash or some other fungible good to function as a currency. The shift from barter to using money to mediate transactions supercharges the market, increasing the volume of transactions and the amount of economic income created. As the number of transactions increases and money is used to price the goods and services exchanged, the amount of income becomes easier to measure and concerns about taxpayer liquidity will diminish. The emergence of a public market may also make it possible to impose information reporting or tax withholding obligations on market participants or intermediaries, thereby facilitating tax collection. In this way, the development of a market, along with the use of money, can increase the amount of taxable income and render previously untaxed activity—childcare and house cleaning, for example—subject to taxation.

This increase in the marketization of the economy, shifting activity from the private sphere where it is untaxed, to the public sphere where it is taxed, not only leads to an increase in taxable income and therefore tax revenue, but it also tends to increase the efficiency of the income tax rules. The efficiency of the income tax is measured in terms of how much it distorts the choices that people make, by inducing them to devote their time, capital, and effort to activities that avoid taxes rather than activities that generate the greatest real economic returns. 34 For example, someone facing a 30% tax rate would prefer to purchase a tax-exempt municipal bond paying 6% interest than purchase a taxable corporate bond paying 7% interest, because the tax-exempt bond yields a higher after-tax rate of return, notwithstanding the higher pre-tax rate of return on the corporate bond, which operates as a market signal of the fact that the corporation has a more productive use for the investor’s capital than the municipality.

Or consider the choice of a second earner in a household with small children deciding whether to take paid employment outside the home and pay for childcare, or work in the household where the services he renders to

---

his family are not subject to income tax. This person will forego paid employment opportunities even if he is more productive working outside the home because he must earn a substantially higher wage outside the home to allow him enough after-tax income to pay for the household work that he could otherwise provide. Or consider a homeowner with a spare bedroom that she rarely uses. Although she may derive only a modest amount of personal benefit from the room, in order to make it worthwhile to rent it out to a tenant, she must receive enough in rent such that, after the rental income is taxed, she is compensated for the inconvenience of having someone in her home, complying with whatever laws and regulations may apply to rental properties, advertising her space, processing rental payments, and so on. Increasing the tax rate on corporate bond interest, employment compensation, or rental income, will tend to encourage people to move their capital into tax-exempt investments, move their labor into the private sphere, and use their property for personal consumption rather than to rent it out.

It would be better from an efficiency perspective to tax all income at the same rate, thereby encouraging people to use market signals of scarcity and value to allocate their capital, time, and property to where it can generate the highest pre-tax rates of return. But we do not tax all income—including imputed income—at the same rate, or at all. How can market proliferation increase the efficiency of the income tax? The first is simply by providing a high enough rate of return to make remaining in the market worthwhile. Markets that create enough value for participants can induce them to participate and earn taxable income in that market. A modest increase in the tax rate will not push them out of the market if there is enough value created there. Ubiquitous and efficient markets that allow people to earn high pre-tax rates of return from deploying their resources make it possible to increase income tax rates without driving people out of those markets. This effect is well understood in developing economies, where the transition from informal to formal economies and the effects of marketization on tax capacity are starker. For example, there is evidence that as the labor force shifts from contract work toward more stable employment relationships, the standard deduction falls—meaning that the effective tax rate on labor income rises. That is, the development of a formal labor market facilitates an increase in labor income tax rates.

35. There are efficiency-based arguments to be made that capital income should not be taxed at all, turning the income tax into a consumption tax. See, e.g., David A. Weisbach & Joseph Bankman, The Superiority of an Ideal Consumption Tax over an Ideal Income Tax, 58 STAN. L. REV. 1413 (2006). I am concerned in this Article with the income tax.

II. THE DIGITAL TRANSFORMATION AND MARKETIZATION

The digital transformation of business and the economy increases the marketization of our lives, relocating personal, private activity into an observable transactional space that both creates enormous value—as markets typically do—and converts untaxed imputed income and leisure into taxable income. Time that was previously spent in leisure, volunteerism, or other untaxed activities can now be spent on any number of “side hustles,” running errands, or performing one-off tasks for someone else. Consider the platform Taskrabbit, which connects users with “skilled Taskers to help with odd-jobs and errands.” Or consider the widespread use by researchers of Amazon Mechanical Turk or survey vendors such as Qualtrics, which make it easy for people to spend small amounts of time on their smartphones or digital devices participating in online research studies.

The digital transformation of business enables this easy conversion of unpaid leisure time into paid work time through a variety of mechanisms. Digital platforms make it easy for the buy and sell sides of the short-term labor market to match, lowering search costs dramatically. Platforms typically provide mechanisms for developing and evaluating the reputations of counterparties, alleviating adverse selection issues. And they provide payment processing, advertising, and legal compliance services that would almost certainly be cost-prohibitive for individual users if they had to obtain them themselves in the marketplace. As a consequence, it is easier than ever before to perform paid labor during brief periods of downtime.

Not only has digitization made it easier to substitute paid work for leisure, but considering the value placed on data in the digital economy and

42. Apostolos Filippas, John J. Horton & Richard J. Zeckhauser, Owning, Using, and Renting: Some Simple Economics of the “Sharing Economy,” 66 MGMT. SCI. 4152, 4152–72 (2020). Filippas et al. discuss three ways that ecommerce has facilitated rental markets: “(i) market-thickening mechanisms, including taxonomies, search algorithms, and recommendation systems; (ii) reputation systems conveying information that allows P2P rental platforms to overcome—or at least substantially ameliorate—traditional market problems, such as moral hazard and adverse selection; and (iii) mechanisms that reduce ‘practical’ transaction costs, such as ways of accepting payments, escrow services, self-marketing features, and other software tools.” Id. at 4153.
the way that so many of us spend our time on social media platforms, it is now increasingly difficult to even draw a clear line between the two. The distinction made by economists, tax law scholars, and tax law itself, between work—typically viewed as toil engaged in solely for pecuniary compensation—and leisure—which is its own source of pleasure—has always been a simplification that glosses over the intrinsic enjoyment that people get from some aspects of their jobs.

Tax law generally places property and activity in discrete “buckets” identified by the predominant character of the property or activity. For example, a security may be debt or equity, but not a hybrid of the two, notwithstanding that its economic characteristics may not fit neatly in either category. Individuals are treated as engaging in an activity because of a business or profit motive—in which case the expenses associated with the activity will generally be deductible—or for personal reasons—in which case the expenses are not—but not both. But of course certain activities hold out the potential for both profit and personal consumption benefit.

But what is the predominant nature of social media engagement? On the one hand, scrolling through one’s Twitter or Instagram feeds, signaling one’s approval or disapproval of other people’s views or vacation photos, seems to be primarily a leisure activity. Even producing new content—TikTok videos, for example—is something that appears to be a source of enjoyment. But, of course, all of this “leisure” activity is mediated by platforms and there is an implicit barter exchange between users and the platforms, whereby users receive the services of the platform for “free” and the platform, in turn, is enabled to target advertising to the user and generally to collect and perhaps sell the user’s data from interacting with the platform. Are users engaged in the sale of personal property or the performance of services for the platforms in exchange for their services?

43. See I.R.C. § 162 (ordinary and necessary expenses incurred in carrying on a trade or business are deductible); I.R.C. § 212 (expenses incurred for the production of income are deductible); I.R.C. § 262 (personal expenses are not deductible).

44. Amanda Parsons argues that platform users should be treated as “digital laborers,” and explores the implications of this characterization for international tax rules. Amanda Parsons, Tax’s Digital Labor Dilemma, 71 DUKE L.J. 1781, 1781 (2022). There is a growing literature on the taxation of digital platforms. See, e.g., Andrew Hayashi & Young Ran (Christine) Kim, Taxing Digital Platforms, 26 VA. J.L. & TECH. 1, 1 (2023).

The blurriness of this distinction is most apparent when considering social media “influencers,” individuals who cultivate a platform presence (often characterized by conspicuous consumption or an aspirational lifestyle) that allows them to be compensated for advertising products using that platform. An individual engaged in a trade or business may deduct all the ordinary and necessary expenses paid or incurred in carrying on that trade or business, including travel and meals while away from home.46 This naturally encourages influencers to take aggressive positions about whether their lavish travel, personal care products, and meals, are business expenses.47

III. THE SHARING ECONOMY

Just as they allow people to monetize their leisure time more easily, digital platforms also make it easier to rent one’s property to others when one is not using it, or when one can get a higher return in the rental market than the imputed return from personal use of the property. In this Section I consider the significance of these new markets for durable-good rentals. I describe some of the important economic features of the so-called “sharing economy,” the market for short term rentals of durable consumer goods such as housing, cars, bicycles, and so on, and then describe some of the consequences of these new markets for tax law and policy.

Consider, for example, using one’s own car to drive for Uber or Lyft, the compensation from which reflects both the cost of the driver’s time (converting leisure into paid work) and the rental value of the car itself. Or consider Airbnb and other short-term property rental platforms, which allow people to rent out a portion of their residence or give landlords the option to rent investment properties on a short-term basis rather than enter long-term leases. Digital platforms provide the infrastructure to match cars and drivers or homes and guests, provide advertising, payment processing and reputational management, all of which make it cost-effective for people to drive during their spare time or rent out a portion of their property. Although the logic is mostly the same for all durable-good rentals, I will focus on the short-term property rental market.

The economic benefits of short-term rental markets are relatively clear, facilitating mutually beneficial transactions that would not otherwise take place, leaving both property owners and would-be renters better off. In

---

46. I.R.C. § 162.
47. If the influencer were not engaged in her activities because of a profit motive, then Section 183 of the Code would generally limit the deductibility of related expenses to the income from the activity. Whether the influencer has a profit motive is a facts and circumstances question that can be difficult to answer. For a proposal of how to do that, see Andrew T. Hayashi, A Theory of Facts and Circumstances, 69 ALA. L. REV. 289, 290 (2017).
economic jargon, there is an increase in consumer surplus in the market for housing services and an increase in the amount of housing services consumed overall.\textsuperscript{48} This is not to say that there are not some new costs associated with the emergence of the short-term rental market. For example, some worry that short-term renters are poor neighbors, imposing noise and other externalities on residential neighborhoods.\textsuperscript{49} There are also concerns that short-term rentals evade laws and regulations,\textsuperscript{50} exacerbate affordable housing issues, and increase home prices.\textsuperscript{51} At the same time, the availability of a short-term rental option creates significant benefits for both the renters and property owners that did not exist before.

The economists Apostolos Filippas, John Horton, and Richard Zeckhauser have argued that low-cost rental options can have important implications for the ownership of real estate in the long run.\textsuperscript{52} People who wanted to own a home but previously could not afford it may now be able to become owners by renting out a portion of a property. And people who were reluctant owners, buying property only because there was no other option, may now be able to rent on terms that are more favorable to them. The authors argue that the overall effect of a rental market on the number of owners vis-à-vis renters is ambiguous. Interestingly, whether the number of owners goes up or down, the ease of renting introduces a decoupling of real estate ownership from preferences for the personal enjoyment of real property. In a world where renting is very costly, the people who own durable goods such as homes and automobiles are those who value the consumption benefits the most. But as the cost—regulatory, advertising, payment processing, and taxation—of renting property to others falls, then the relationship between who owns property and who values it the most will weaken.

In the extreme case where it is costless to rent property, there is no correlation at all between who owns the property and how much they value

\textsuperscript{48} Filippas et al., \textit{supra} note 42, at 4152.
\textsuperscript{52} Filippas et al., \textit{supra} note 49.
its use. The reason is simple: when there are no meaningful costs to renting the property, the people who own the property need not be the people who value it the most—they can simply be people who rent it to the people who value it the most. But this does raise the question of which factors will determine the pattern of real estate and durable good ownership. If it is not the people who value the use of the property the most, then factors such as the cost of financing the acquisition of the property, or maintaining and managing it, may become more important. These are factors that are likely to benefit property owners operating at a large scale, which may suggest greater consolidation of property ownership following the emergence of rental markets.

The substantive tax treatment of income from participating in the sharing economy is relatively straightforward, even as there are challenges with tax enforcement and compliance in these new markets. But there are ways that tax rules may operate to impede the development of flourishing and efficient rental markets by increasing the after-tax costs of bringing residential properties to the market. In a few places, tax law places a thumb on the scale of using property that one owns as one’s principal residence, favoring the imputed income from homeownership over the taxable income from renting it.

Most obvious, of course, is the fact that imputed income is not taxed while rental income is taxed. A limited exception exists if one uses a “dwelling unit” as one’s residence during the year and rents it out for less than fifteen days. In that case, the rental income is excluded from gross income, but no deductions otherwise allowable because of the rental use of the property are allowed. Second, a homeowner who has a separate structure or room that would otherwise qualify as a home office is not entitled to deductions for that office if they rent the space when it is not in use. And third, under current law, expenses incurred for the production of

53. Id.
55. When there are no costs of bringing the durable good to the rental market, pricing becomes more efficient such that the price of purchasing the property and the per-period rental values converge. Filipas et al., supra note 49, at 31.
56. I.R.C. § 280A(g).
57. I.R.C. § 280A(a)–(c) (general disallowance of deductions—other than those, such as the mortgage interest deduction or deduction for local property taxes—does not apply to a portion of the dwelling unit that is exclusively used on a regular basis as the taxpayer’s principal place of business or,
income—such as the various costs incurred to make space available for short-term rental, including cleaning services, any fees paid to the digital platform, and so on—are not allowable until 2026.\textsuperscript{58} Individuals who are actively engaged in the business of renting out residential property are still able to deduct their expenses, but someone renting out a portion of their home for supplemental income would not be treated as being in the business of being a landlord.\textsuperscript{59}

At the very least, the costs of participating in sharing economy markets should be fully deductible to reduce the asymmetry in the taxation of rental income and imputed income and help facilitate the growth of these markets. Not only do these markets directly benefit the participants, but there is also a feedback effect that benefits tax administration as well. Rental income data can provide information to improve home value estimates used in determining assessments for local property tax purposes, and the option to rent one’s property helps alleviate the illiquidity concern.

CONCLUSION

One of the most dramatic changes wrought by the digital economy is the ease with which we can shift our time and property between the private and public spheres, between personal use and the market. This change not only unlocks enormous economic value, but it also expands the income tax’s domain, creating new frontiers for taxation and improving the efficiency of the income tax along the way.

\textsuperscript{58} These expenses, generally deductible under Section 212 of the Code, are miscellaneous itemized deductions that are not deductible for tax years beginning before January 1, 2016. I.R.C. § 67(g).

\textsuperscript{59} The question of whether someone’s income-producing activities rise to the level of being a “trade or business” is a facts and circumstances determination.