

# **State Digital Services Taxes: A Bad Idea Under Any Theory**

**by Karl A. Frieden and Douglas L. Lindholm**

Reprinted from *Tax Notes State*, April 10, 2023, p. 89

## State Digital Services Taxes: A Bad Idea Under Any Theory

by Karl A. Frieden and Douglas L. Lindholm



Karl A. Frieden



Douglas L. Lindholm

Karl A. Frieden is the vice president and general counsel of the Council On State Taxation. Douglas L. Lindholm is COST's president and executive director and an attorney.

In this article, Frieden and Lindholm critique the policy arguments made in favor of a "permanent" digital services tax at the state level in the United States.

### Introduction

Digital services taxes are barely five years old, but they have captured the imagination of some (and the scorn of others) both within the United States and abroad. In Europe and other countries, many national governments enacted DSTs as temporary measures to address perceived gaps in corporate income tax systems. They did so with the promise to withdraw the DSTs if international corporate tax reform under the auspices of the OECD's pillar 1 ratified new economic nexus and market-sourcing rules.<sup>1</sup> In the United States,

<sup>1</sup>Karl A. Frieden and Stephanie T. Do, "State Adoption of European DSTs: Misguided and Unnecessary," *Tax Notes State*, May 10, 2021, p. 581; and Frieden and Barbara M. Angus, "Convergence and Divergence of Global and U.S. Tax Policies," *Tax Notes State*, Aug. 30, 2021, p. 968.

despite the absence of similar gaps, Maryland enacted a state-level DST on a permanent basis, and other states are considering similar measures that impose gross receipts taxes on digital advertising, data mining, and other types of digital platform revenues (see Figure 1).

The debate over DSTs, both internationally and domestically, is now centered on trade and legal issues. The U.S. government has threatened trade retaliation against other national governments that adopt DSTs, which the United States, under both the Trump and Biden administrations, views as discriminatory against U.S. technology companies. That dispute is temporarily sidelined as both sides await the fate of the pillar 1 reforms.<sup>2</sup>

The Maryland DST is embroiled in a high-stakes lawsuit brought by affected businesses arguing that the state-level DST violates the anti-discrimination provisions of both the Internet Tax Freedom Act and the Constitution's commerce clause. The trial court in Maryland ruled in favor of the taxpayers on both statutory and constitutional grounds, and the case is now on appeal.<sup>3</sup>

<sup>2</sup>Frieden and Do, *supra* note 1; see OECD, "Pillar One — Amount A: Draft Multilateral Convention Provisions on Digital Services Taxes and Other Relevant Similar Measures" (Dec. 20, 2022).

<sup>3</sup>The Maryland DST statute, which imposes a gross receipts tax on digital advertisers with more than \$100 million in global revenues and \$1 million in Maryland digital advertising revenues, is under challenge in both federal and state court. *Chamber of Commerce of the United States v. Franchot*, Case 1:21-cv-00410-DKC, Civ. No. 21-cv-410 (D. Md. Feb. 18, 2021); and *Comcast of California/Maryland/Pennsylvania/Virginia/West Virginia LLC v. Comptroller of Maryland*, C-02-CV-21-00509 (Cir. Ct. Ann Arundel Cnty. 2021). Recently, a state court judge held that the Maryland DST violated both the ITFA and the Constitution's commerce clause. *Comcast*, C-02-CV-21-00509, "Order Granting Plaintiffs' Motion for Summary Judgment, Denying Defendant's Motion for Summary Judgment, and Denying Defendant's Motion to Strike" (Oct. 20, 2022). The Council On State Taxation filed an amicus brief in support of the taxpayers at the Maryland Supreme Court. Brief of Amicus Curiae Council On State Taxation in Support of Appellees, *Comptroller of Maryland v. Comcast of California et al.*, Maryland Supreme Court, No. 32 (Sept. 2022).



at least warrants serious consideration) as a tax on currently untaxed digital platform consumption, including “monetized” digital advertising and “non-monetized” personal consumer data collection.<sup>6</sup>

We will comment only minimally on the income tax “gap” approach favored by other countries as an explanation for and justification of national DSTs. This prioritization is because the “income tax” approach, at least at this juncture, is intended to justify a temporary, not permanent DST solution. In addition, this stopgap rationale, as we analyzed at length in a previous article, does not apply at the state level in the United States, where state corporate income taxes already broadly adopt economic nexus and market-sourcing rules that are the goals of the pillar 1 international tax reform.<sup>7</sup>

We also review some of the other less fully articulated DST justifications, including models based on a severance tax, a regulatory tax, and an excess profits tax. We show that these theories are either misdirected or just different iterations of the broader consumption tax model. We conclude that the analysts are half right: The consumption tax model is the best framework for understanding how a DST works, but the model demonstrates the folly, and not the virtues, of a state-level DST. A DST (or its sales tax equivalent) imposed on digital advertising or data mining is not really a novel concept but is a variation of the historically misguided pyramiding of sales tax on

business inputs dressed up in new digital era clothes.

## Part 1: The Consumption Tax Model

### The DST as a Consumption Tax

Under the consumption tax model, a DST is characterized as a gross receipts tax that ostensibly rectifies perceived “gaps” in the general consumption tax (the state retail sales tax in the United States). The most common gaps identified relate to “untaxed” sales of digital advertising, the sale or collection of data generated from user-provided information, and receipts from other digital intermediary activities. The proposed remedy is a newly created DST or an expanded conventional sales tax that includes the untaxed digital platform receipts in the consumption tax base.

Law professor Young Ran Kim, in a 2020 article spelling out the consumption tax approach to DSTs, observes:

DSTs are all designed as turnover taxes. In the most general sense, a turnover tax is defined as “a tax levied on the value of the sales revenue of a firm” rather than other commonly used tax bases such as corporate profits or sales price. Likewise, DSTs are imposed on the “gross revenue” of specific digital business models where revenues are linked to the participation of the business’s local users. Some commentators interpret DSTs as a disguised income tax, but this Article observes what positive law provides and analyzes DSTs as a turnover tax. A turnover tax is a subcategory of a consumption tax. A consumption tax refers to a taxing system where taxpayers are taxed based on how much they consume rather than how much they earn — income tax. Consumption taxes can take the form of turnover taxes, tariffs, excise taxes, and other taxes on consumed goods and services.<sup>8</sup>

<sup>6</sup> Among the state tax experts that use the consumption tax framework for explaining state DSTs are: Young Ran Kim and Darien Shanske, “State Digital Services Taxes: A Good and Permissible Idea (Despite What You May Have Heard),” 98 *Notre Dame L. Rev.* 741 (2022); Kim, “Digital Services Tax: A Cross-Border Variation of the Consumption Tax Debate,” 72 *Ala. L. Rev.* 131 (2020); David R. Agrawal and William F. Fox, “Taxing Goods and Services in a Digital Era,” 74 *Nat’l Tax J.* 1 (Mar. 2021); and Appleby, *supra* note 5. Each of these analysts advocate for DSTs or at least suggest serious consideration of DSTs (or their sales tax equivalents) as state tax policy options. All the above analysts discuss other potential DST justifications but rely primarily on the consumption tax model. Some analysts prioritize other DST justifications but have approaches that fit within the consumption tax framework. See generally Plattner, “The Virtues of a Simple Excise Tax on Personal Consumer Data,” *Tax Notes State*, Dec. 12, 2022, p. 956 (fn. 3); and Paul Romer, “A Tax That Could Fix Big Tech,” *The New York Times*, May 6, 2019. A Congressional Research Service study also concludes that the consumption tax framework is best suited for understanding DSTs. See Sean Lowry, “Digital Services Taxes (DSTs): Policy and Economic Analysis,” CRS, R45532 (Feb. 25, 2019).

<sup>7</sup> For an analysis of the income tax “gap” explanation and justification for a DST and why it does not apply to U.S. state-level DSTs, see Frieden and Do, *supra* note 1.

<sup>8</sup> Kim, *supra* note 6 at 159-160.

The identifiable elements of a DST certainly lend themselves to a consumption tax framework. A DST is generally based on gross receipts — from digital advertising, digital data collection, and digital platforms — not from net income. A DST is sourced to the market jurisdiction where the consumer resides or uses the services, not to where the income-producing activity occurs. Moreover, taxes based on gross receipts have historically been categorized as a form of consumption taxes.<sup>9</sup>

A 2019 Congressional Research Service study, while not taking a position on the merits of a DST, similarly makes clear a DST is structured like a consumption tax and not an income tax:

DSTs are structured as a selective tax on revenue (akin to an excise tax) and not as a tax on corporate profits. A tax on corporate profits taxes the return to investment in the corporate sector. Corporate profit is equal to total revenue minus total cost. In contrast, DSTs are “turnover taxes” that apply to the revenue generated from taxable activities regardless of costs incurred by a firm.<sup>10</sup>

Another strong indication that a DST is best viewed as a consumption tax is the similarity in proposals using either a newly created DST or an already existing sales tax to impose tax on digital platform receipts. Law professor Andrew Appleby, in his 2021 analysis of subnational (state) digital services taxation, concludes:

Although subnational jurisdictions have tended toward digital advertising gross receipts tax proposals thus far, several have proposed taxing digital advertising under their existing sales and use tax regimes. As with digital advertising tax proposals, most sales tax proposals have similar language defining the taxable digital advertising service.<sup>11</sup>

Other commentators have reached the same conclusion treating newly created DSTs or

expanded existing sales taxes as interchangeable ways of taxing digital platforms.<sup>12</sup>

### The Consumption Tax Gap

The second key element of the consumption tax model is the identification of gaps in the consumption tax base that a DST or sales tax equivalent can fill. The foundational principle, from the DST advocates’ perspective, is that the internet economy creates new and powerful digital business models that frustrate the ability of governments to appropriately exercise their taxing authority. Accordingly, gaps open up in the consumption tax base that never previously existed, requiring novel consumption tax solutions.

Under this view, two gaping holes weaken the consumption tax base. First is an absence of sales tax on monetized sales of advertising between digital platforms and user-advertisers. The second is a failure of the sales tax to adapt to (and tax) highly valuable non-monetized “barter” transactions between digital platforms and user-consumers.

In terms of monetized digital advertising services, this is not an entirely new phenomenon. Advertising has a long and storied history as a key business input in industrial, commercial, and retail supply chains through television, radio, billboard, and print mediums. But digital advertising, so the argument goes, is qualitatively different in kind, volume, and value. With a significant boost from user-provided data, digital advertising is individualized and targeted to consumers to an extent never before possible.<sup>13</sup> Significantly, none of the states impose a sales tax on digital advertising.

In terms of non-monetized services, the proponents of DSTs highlight the emergence of new and powerful digital platforms that create high value added barter transactions with user/consumers. The digital platforms give consumers access to search engines, an encyclopedic volume of information, entertainment, social networks,

<sup>9</sup> OECD, “Consumption Tax Trends 2020: VAT/GST and Excise Rates, Trends and Policy Issues,” Part 1 (2020).

<sup>10</sup> Lowry, *supra* note 6 at Summary.

<sup>11</sup> Appleby, *supra* note 5, at 15.

<sup>12</sup> Agrawal and Fox, *supra* note 6, at 292-97.

<sup>13</sup> Kim and Shanske, *supra* note 6, at Part I. A few of the smaller-population states (e.g., Hawaii and New Mexico) impose a sales tax on certain types of non-digital advertising. Federation of Tax Administrators, Sales Taxation of Services Survey: 2017 Update.

and other “free” internet content in exchange for extensive consumer-provided information about their likes, dislikes, personal history, and consumption patterns, coupled with consumer acquiescence to the viewing of targeted advertisements. In this view, consumer information is extremely valuable to a small number of highly profitable digital platform businesses that can use the data to enhance the value of either digital advertising or the sale of products on their own platforms. And yet this exchange/barter is not subject to sales or any other tax because it is not monetized.

Kim and law professor Darien Shanske explain the historically unique strength of two-sided digital platforms in the following terms:

Typically, digital platforms conduct two-sided, mutually reinforcing transactions with two sets of participants. The first exchange is a cash exchange between the platform and advertisers. An advertiser (e.g., a shoe store) pays the platform (e.g., Google or Facebook) to place an ad in front of targeted users, either directly to the platform’s own users . . . or in digital space on third-party websites or mobile apps . . . The second related transaction involves a barter exchange between the platform and a user (e.g., a Google user). The user allows the platform to show them advertisements and collect massive amounts of personal data in exchange for services (like web browsing, videos, or a constant stream of kitten photographs). These two sides of the transaction are deeply intertwined in both a business and technical sense. The collection of data allows the platform to target users, which is the very service being sold to advertisers: targeted and individualized access to users. It is thus not surprising that there is evidence that digital advertising is more effective than traditional advertising.<sup>14</sup>

According to these analysts, the problem is that neither monetized digital advertising

services nor non-monetized barter transactions are taxed under the existing sales tax. The former is untaxed because historically, older less potent forms of advertising are generally not subject to sales tax as a business input, and the latter because the transactions are not monetized, and typically the exchange of money is the starting point for identifying a taxable good or service. The absence of tax on these two very large and rapidly growing value added functions in the supply chain is what is characterized by DST proponents as the “consumption tax gap.”

Indeed, the classification of the transaction as a “barter transaction” helps legitimize the imposition of a consumption tax on digital advertising compared with earlier forms of media advertising. Because non-monetized barter transactions may be difficult to monetize, Kim and Shanske propose that a DST on digital advertising services can be used as a rough proxy of value.<sup>15</sup>

Although the barter transaction concept seems highly unusual and out of the tax policy mainstream, other tax experts reach similar conclusions about emerging gaps in the consumption tax created by digital platforms. For instance, economic professors David Agrawal and William Fox suggest several solutions to the consumption tax gap similar to those recommended by Kim and Shanske, albeit using expansion of the existing sales tax rather than the creation of a new special purpose DST. Agrawal and Fox highlight the problem of untaxed non-monetized transactions between digital platforms and end-use consumers. While not focusing on both sides of the barter transaction, they suggest consideration of a sales tax on the non-monetized consumer services (for example, the “free” use of internet services provided by the digital platform to the user/consumers). Agrawal and Fox state:

First, taxes could be levied on the implicit value of non-priced consumer services. Many other areas of non-priced

<sup>14</sup> Kim and Shanske, *supra* note 6, at 751-52.

<sup>15</sup> Kim and Shanske, *supra* note 6, at 764-65.

consumption exist and remain untaxed, but social media is distinct by virtue of its massive size and growth. Under this proposal, the social media company must remit any implicit tax on the value of consumer services, as no financial relationship exists with nonmonetized users.<sup>16</sup>

However, Agrawal and Fox also recognize the difficulty of coming up with a value for the non-monetized transactions between the digital platform and user-consumers and suggest that advertising revenues charged by the digital platform to user-advertisers are a proxy for this value: “Advertising revenues could operate as a surrogate for the implicit value of consumer services discussed earlier. Advertising can be thought of as a proxy for the marginal social media user’s value.”<sup>17</sup>

Appleby also underscores the pitfalls of nontaxed barter transactions. According to Appleby:

In contrast to a traditional two-party transaction in which a vendor provides a service to a consumer and the consumer pays the vendor a market price, the prevailing digital service business model reflects at least a three-party transaction. . . . The digital service provider extracts the end user’s personal data and uses that valuable resource to sell targeted advertising, which the provider embeds in its services to end users. In this business model, digital service providers are monetizing user data and jurisdictions are struggling to adequately tax the value inuring to the digital service provider.<sup>18</sup>

To address the emerging consumption tax gap, Appleby suggests several DST and sales tax solutions similar to those of Kim and Shanske and Agrawal and Fox. He explores the merits of imposing either a DST or a sales tax on digital advertising.<sup>19</sup> Appleby’s preferred approach is the

imposition of a data mining tax directly on the digital platform collection of consumer information. Appleby observes: “Rather than using a proxy for this value, such as digital advertising, a data mining tax has the most direct connection to the value corporations derive from user data.”<sup>20</sup>

## Other DST Theories

### Severance Tax Theory

The effectiveness of a consumption tax framework to explain (although not necessarily justify) a DST is apparent when contrasted with competing theories. One prominent alternative explanation is that a DST is a tax on large users of personal consumer data equivalent to a severance tax on energy resources. Robert Plattner, a former deputy commissioner for tax policy in the New York State Department of Taxation and Finance, spelled out this theory in a 2021 article supporting New York legislation that would impose a graduated rate “per head” tax on large collectors of consumer data as the measure for the non-monetized barter transaction.<sup>21</sup>

According to Plattner:

The tax is perhaps best thought of as analogous to a severance tax. Rather than crude oil or natural gas, the state resource in this instance is data specific to individual New Yorkers. These New Yorkers have a demonstrable legal interest in this data, and the state of New York has a connection to this resource that is similar to its connection to natural resources found within its borders. Both types of resources are closely linked to the state, in one instance to its land, in the other to its people. This linkage gives the state the right to impose a “severance tax” on the resource as it is “extracted” for commercial use.<sup>22</sup>

<sup>20</sup> *Id.* at 44.

<sup>21</sup> Plattner, *supra* note 5, at 1227-1232. Plattner also slightly expanded on his theory in a subsequent 2022 *Tax Notes* article: Plattner, *supra* note 6, at 1381-1388. The latter article primarily restated Plattner’s preference for a data tax measured by the number of consumers supplying data and not based on the volume of the data.

<sup>22</sup> Plattner, *supra* note 5, at 1228.

<sup>16</sup> Agrawal and Fox, *supra* note 6, at 292.

<sup>17</sup> *Id.* at 294.

<sup>18</sup> Appleby, *supra* note 5, at 2-3.

<sup>19</sup> *Id.* at 11-16.

**Figure 2.**  
**Which of These Is Mining?**



This analogy raises several problems (see Figure 2). First, consumer data collection is unlike energy resource extraction in multiple ways: Data is plentiful and expanding, unlike fossil fuel resources that are nonrenewable and diminishing; data is relatively clean from an environmental perspective while fossil fuel forms of energy are “dirty” and carry significant externality costs that justify a tax (for example, pollution and climate change); and commercial data collection derives from a consumer’s willingness to share personal data in exchange for free internet-based services, as contrasted with an energy producer’s unilateral actions to sever natural resources from the earth in a particular state.<sup>23</sup>

Traditionally, severance taxes are used by state governments to raise tax revenue to defray the costs that energy production imposes on a state, such as roads for access to production sites, schools and other services for workers’ families, and funds to offset environmental impacts.<sup>24</sup> With a data tax, there are no roads to build, no strip mining to mitigate, and no environmental cleanups to fund. The social media companies using the in-state residents’ data are typically not even located or headquartered in the state, and there is no corresponding justification for tax revenue to offset social and environmental costs.

To the extent social costs such as misinformation or “hate” speech associated with social media platforms exist, these costs are not state-specific but national or global in character and should be addressed on such a basis.

The CRS report on DSTs rejected the “severance tax” explanation. The report surveyed different theories for excise taxes, including “regulatory or environmental” taxes that are used to correct for perceived “market failure” and concluded:

Based on these classifications of excise taxes, it appears that a DST primarily serves as a revenue raising measure. The use of digital platforms does not appear to create negative spillovers to society, creating the economic justification for use of excise taxes to raise the price of individual transactions as a means to reduce the burden on society.<sup>25</sup>

The Plattner “severance tax” justification appears halfhearted at best, a “fig leaf” rationale with only several paragraphs of supporting analysis.<sup>26</sup> It is far-fetched to suggest that oil and gas severance taxes that apply to a one-sided extraction of (nonrenewable and polluting) natural resources located in a state are comparable to a multisided barter transaction in

<sup>23</sup> Even Plattner acknowledges some of these key differences: “Data is a valuable commodity, with the biggest collectors continually extracting it — and unlike oil, the supply of data is inexhaustible and environmentally benign.” Plattner, *supra* note 6, at 958.

<sup>24</sup> On severance taxes, see generally Walter Hellerstein, “Political Perspectives on State and Local Taxation of Natural Resources,” 19 *Ga. L. Rev.* 31 (1984).

<sup>25</sup> Lowry, *supra* note 6, at 15. For another skeptical view of the “severance tax” model, written before the publication of Plattner’s article, see Robert Goulder, “Should Data Extraction Be Taxed as a Natural Resource?” *Tax Notes Int’l*, July 27, 2020, p. 559.

<sup>26</sup> Plattner, *supra* note 5, at 1228-29.



which each side is providing something the other party wants and the digital platform using the data is not even located in the state.

Other than creating a solution that taxes the data collection directly and not digital advertising as a “proxy,” Plattner’s analysis is strikingly similar to that of other DST analysts who focus on taxing the untaxed non-monetized transaction between the digital platform providing free internet services and the user/consumer providing personal data.<sup>27</sup> Indeed, in Plattner’s follow-up article in late 2022 advocating for a data mining tax, he uses the same barter transaction analogy:

State and local sales taxes are not levied on the free access consumers are given to websites such as Google, Facebook, and YouTube. The access, of course, is not truly free. What’s really transpiring is a barter transaction, with free access exchanged for valuable personal data.<sup>28</sup>

Plattner is also clear on why he prefers the “data mining” tax version of a DST. First, by taxing all data provided by consumers, digital or non-digital, he believes the tax provides a better defense against an ITFA challenge. Second, the excise tax on data applies more broadly than a tax on digital advertising since many digital marketplaces (Plattner uses the example of Netflix) use personal consumer data not for increasing the value of digital advertising but for enhancing the value of their own business-to-consumer (B-to-C) sales.<sup>29</sup> Neither rationale supports the “severance” tax analogy but rather reinforces how much the tax on “data” is just an alternative (and larger) consumption tax “base” than a tax on digital advertising.

<sup>27</sup>The data tax Plattner advocates in lieu of a DST on digital advertising is based on a similar critique of the untaxed value of “the massive amounts of consumer data now collected that have proven to be the most valuable assets of some of the most successful businesses on the planet.” Plattner, *supra* note 5, at 1227.

<sup>28</sup>Plattner, *supra* note 6, at 956.

<sup>29</sup>Plattner, *supra* note 5, at 1229. Plattner’s explanation of the broader potential tax base of data mining compared with digital advertising highlights that an excise tax on consumer data is a tax on a business input, whether later monetized through digital advertising or by enhancing the value of B-to-C sales.

## Regulatory Tax Theory

Another justification for a DST that receives significant attention, at least at the state level in the United States, is economist Paul Romer’s advocacy of a sales tax on the gross receipts from targeted digital ads as a form of social regulation of Big Tech companies. It certainly didn’t hurt the publicity around this theory that Romer had previously received a Nobel Memorial Prize in Economic Sciences and that his article was published as an opinion piece in *The New York Times*.<sup>30</sup>

The Romer thesis is based on the assertion that the largest technology companies “have created a haven for dangerous misinformation and hate speech that has undermined trust in democratic institutions.”<sup>31</sup> For Romer, the problem is not the barter transaction between the digital platform and the user-consumer that provides personal data but the actual information content shared over social networks. According to Romer:

Most of the proposals to change platform companies rely on either antitrust law or regulatory action. I propose a different solution. Instead of banning the current business model — in which platform companies harvest user information to sell targeted digital ads — new legislation could establish a tax that would encourage platform companies to shift toward a healthier, more traditional model.<sup>32</sup>

Like other DST proponents, Romer supports a gross receipts tax on “targeted” digital advertisements but less to raise revenue than to change digital platform behavior. Romer believes a sales tax on digital advertising would spur technology companies to shift toward an advertisement-free subscription model that reduces the business model reliance on personal consumer data.<sup>33</sup> Romer is hopeful that the temporary pyramiding of consumption tax may ultimately lead to less pyramiding as digital

<sup>30</sup>Romer, *supra* note 6.

<sup>31</sup>*Id.*

<sup>32</sup>*Id.*

<sup>33</sup>*Id.*

platforms shift to subscription-based B-to-C models to avoid the double tax.

This is a rather dubious proposition, with little empirical support that business behavior will change, especially if implemented only in isolation by individual subnational governments. In both pre-digital and digital business models, products and services are sold with varying levels of advertising based on different marketing and pricing strategies. There is little reason to believe that a new state tax could tip the balance decisively toward advertising-free forms of commerce.<sup>34</sup> Moreover, there is virtually no chance the federal government would adopt this policy at the national level given its strong opposition to foreign DSTs as discriminatory against U.S. companies.<sup>35</sup> Like the Plattner theory, the Romer analysis is short on analysis (just one page), has generated little other academic support, and is really just a modest variation of the consumption tax framework for DSTs discussed above.<sup>36</sup>

### Excess Profits Tax Theory

Another explanation/justification for a DST or similar tax on digital advertising or digital data collection is that it operates as an “excess profits” tax. This theory is used either directly or

implicitly as an alternative basis for the tax by Kim and Shanske, Appleby, Agrawal and Fox, and Plattner.<sup>37</sup> Under this theory, large digital platforms and other technology companies are said to enjoy significant market power that facilitates earning extra-normal profits. From this perspective, a gross receipts or sales tax on digital advertising or digital data collection allows state governments to recapture some of these excess profits.

However, the suggestion that a DST operates effectively to tax excess profits is illusory. As noted earlier, under either the DST or sales tax equivalent, the consumption tax is based on gross receipts, not net income. There is thus no ability to isolate excess profits or identify any other kinds of profits. If two companies with identical revenue are subject to the DST, one with twice the profits as the other, both will pay the same amount of DST. If a recession or sharp market downturn occurs, a number of large technology companies, like other big businesses, will lose money. Nonetheless, these companies will continue to pay a DST on digital advertising or data mining based on gross revenue even as their net revenue becomes negative.

Clearly, this is why excess profits taxes historically are based on “net” revenue, not “gross” revenue. Without passing judgment on the need, or lack thereof, for an excess profits tax, far more tailored methods are available for addressing this problem than imposing a gross receipts tax that results in the potential pyramiding of consumption tax on a ring-fenced technology industry. The United States has significant experience with excess profits taxes, particularly in wartime. These taxes generally take the form of a graduated corporate income tax on income above a “reasonable” or “normal” rate of return on invested capital.<sup>38</sup>

<sup>34</sup> Indeed, “free” broadcast television gradually gave way to “fee for service” cable television, with or without advertisements, not because of the imposition of a sales tax on broadcast television (which did not happen), but because of changes in technology and communications industry business models.

<sup>35</sup> Republicans and Democrats agree on few tax issues at the national level — but both the previous Trump and current Biden administrations are united in their opposition to foreign countries adopting national DSTs. Both view national DSTs as discriminatory to U.S. multinationals and have threatened trade retaliation if foreign countries adopt DSTs. At a minimum, state adoption of DSTs is inconsistent with federal policy opposing other nations’ adoption of national DSTs. If state DSTs proliferate, what kind of message does that send to other advanced nations that are interested in maintaining, at least on a temporary basis, national DSTs? State DSTs face constitutional scrutiny as well. As articulated in the Supreme Court decision in *Japan Line Ltd. v. Los Angeles County*, 441 U.S. 434, 444-445 (1979), a state tax statute that undercuts the federal government’s ability to “speak with one voice” on important issues on national policy can be a violation of the foreign commerce clause. How would the U.S. government explain its principled opposition to national DSTs if other countries’ governments ask why the same sanctions did not apply to subnational jurisdictions within the United States itself? See generally Frieden and Angus, *supra* note 1, at 969-970.

<sup>36</sup> Other DST proponents similarly focus on taxing monetized digital advertisements (or non-monetized barter transactions) but for reasons other than social regulation. See Agrawal and Fox, *supra* note 6; and Appleby, *supra* note 5. Moreover, to the extent the Romer tax is imposed solely on digital advertising, it faces the same ITFA challenges as the Maryland DST.

<sup>37</sup> See Kim and Shanske, *supra* note 6, at 767-770; Appleby, *supra* note 5, at 3; Agrawal and Fox, *supra* note 6, at 294; and Plattner, *supra* note 6.

<sup>38</sup> W. Elliot Brownlee, *Federal Taxation in America: A History*, at 97-101, 130-142, 157, 164 (2016); Joseph J. Thorndike, *Their Fair Share: Taxing the Rich in the Age of FDR*, at 11-12, 16-21, 220-21, and 296-97 (2013); and Ajay K. Mehrotra, “Windfall Profit Taxes Have Benefits. But the Devil Is in the Details,” *The Washington Post*, Oct. 24, 2022. The 2017 Tax Cuts and Jobs Act’s global intangible low-taxed income provision and the OECD’s pillar 2 income inclusion rule are both forms of an “excess profits” tax, as they impose an income tax on foreign-source income above a “routine” rate of return. See generally Frieden and Angus, *supra* note 1.

## Income Tax Gap Theory

Finally, the income tax gap approach to DSTs, which is the favored justification in Europe and other countries for the “temporary” use of a national DST, has limited relevance at the subnational level in the United States. According to this rationale, antiquated national income tax systems are hampered by physical presence nexus rules and income-producing activity sourcing principles that result in untaxed income, particularly when new business models operate without a permanent establishment in the customer’s jurisdiction.

Even if DSTs are used in other countries on a temporary basis to fill gaps in their traditional corporate income taxes while awaiting international tax reform (under the auspices of the OECD pillar 1 reforms), the DST solution itself is more akin to a gross receipts or consumption tax approach. The income tax framework is not a description of what type of tax a DST is but rather an argument that a gross receipts tax or similar consumption tax is needed to circumvent the limitations of traditional national corporate income tax systems that lack the legal authority to use economic nexus or market-sourcing rules. The DST is needed in these countries, so the argument goes, for practical reasons because it is not considered an income tax and therefore is not subject to limitations on national-level income taxes imposed by international law and treaties.<sup>39</sup>

However, at the state level in the United States, the income tax gap theory has no place at the table. The states led the way internationally with the widespread introduction of economic nexus and market-sourcing principles into state corporate income taxes. While these innovations generally preceded the digital economy, they were readily adapted by the states to apply to digital platforms and remote internet sellers frequently operating without physical presence in

their customers’ jurisdictions. Accordingly, there is no income tax gap in the U.S. states’ corporate income tax base that justifies the use of DSTs.<sup>40</sup>

## Part 2: The Illusion of the Consumption Tax Gap

From our perspective, the consumption tax model is the best framework for understanding how a DST or its sales tax equivalent operates. But that is where our agreement with the proponents of a state-level DST ends. The consumption tax model demonstrates the flaws, and not the merits, of a state-level DST (or its sales tax equivalent) imposed on monetized digital advertising or non-monetized data mining. Despite the novelty of two-sided digital platforms, they create no consumption tax gap. Rather, the DST represents a new chapter in the long and troubled history of state sales tax systems that “pyramid” the tax by imposing sales tax on both intermediate business inputs and retail consumer purchases. With DSTs, this design flaw of our subnational retail sales tax is replicating itself, albeit with a new digital age twist.

## Not a Traditional Taxable Barter Transaction

To fully understand how the pyramiding of sales tax works in relation to a DST, let’s begin with the more novel consumption tax gap characterized by a non-monetized barter transaction. According to Kim and Shanske:

Tax systems have been struggling to adapt to the digitalization of the economy. At the center of the struggles is taxing digital platforms, such as Google or Facebook. These immensely profitable firms have a business model that gives away “free” services, such as searching the web. The service is not really free; it is paid for by having the users watch ads and tender data. Traditional tax systems are not designed to tax such barter transactions, leaving a gap in taxation. . . . A DST is a tax

<sup>39</sup> See Frieden and Do, *supra* note 1.

<sup>40</sup> *Id.* One indication of the weakness of the “income tax gap” theory as applied to state corporate income taxes (and not foreign country national taxes) is the de-emphasis of the income tax approach among some of the leading advocates of state DSTs. See generally: Plattner, *supra* note 6, at 956 (fn. 2); Kim and Shanske, *supra* note 6, at 806-807; Agrawal and Fox, *supra* note 6, at 292-97.

on consumption from the barter side of platforms that is not currently taxed.<sup>41</sup>

The problem with the untaxed barter transaction justification for a DST is that the non-monetized arrangement arising from the digital platform business model is wholly dissimilar from barter transactions previously included in a sales (and income) tax base. Generally, a sales tax base does not include non-monetized transactions. The basic premise of a consumption tax is to impose a tax on receipts from a sale of monetized goods and services. However, there is a limited barter exception to this rule. A typical taxable barter transaction is the one-to-one exchange of goods or services without use of a monetary medium that would otherwise go untaxed. Examples include auto repair services exchanged for cleaning services, landscaping swapped for house painting, or agricultural crops exchanged for machine tools. In each of these circumstances, assuming the goods or services would otherwise be included in the sales tax base if sold directly to a consumer, the barter transaction avoids sales (and income) tax unless both sides of the transaction are included in the tax base.<sup>42</sup>

However, these taxable barter arrangements are fundamentally different from social media or digital marketplace transactions. First, the digital platform transactions are not “one-to-one” but rather “one-to-many” exchanges (for example, the platform interacting with millions of consumers), which are infinitely more complex and less conformable to the traditional barter model. A key feature of a one-to-one barter arrangement is the ability of both parties to determine the value of the transaction and use it for sales and income tax reporting purposes. By contrast, the valuation of non-monetized transactions between a digital platform and individual consumer-users is impeded by the absence of a direct link between the services provided and consideration

received.<sup>43</sup> The valuation is not only highly uncertain but varies infinitely depending on the scope of free internet services or other functionality provided/used, the quantity of personal data aggregated/provided, and the number of digital advertisements posted/viewed.<sup>44</sup>

Second, digital platform transactions, unlike one-to-one barter arrangements, are intermediate and not final transactions. If a one-to-one barter exchange is not treated as taxable, no tax monetization event occurs. Digital platform exchanges, by contrast, are part of a stream of related transactions whereby a sales tax can generally be imposed at a later monetized retail stage. Even if we agree that the exchange of free internet services and other website functionality for consumer data and viewed advertisements has the appearance of a non-monetized barter transaction, it is not a final “retail” transaction. This is evident whether the barter transaction precedes (and enhances) a B-to-C sale on the digital platform itself or paves the way for a targeted digital advertisement, which then is followed by a “downstream” purchase by a consumer of the advertised good or service.

The significant divergence of digital platforms from the traditional taxable barter model underscores the impracticality and impropriety of trying to shoehorn the two together. It also explains why, to date, no U.S. taxing authority has applied taxable barter transaction rules to digital platforms. To make the analogy work necessitates imposing sales and income tax rules on both sides of the transaction and devising methods for

<sup>43</sup> In 2018 the European Commission’s Value Added Tax Committee, a high-level advisory group established to promote the uniform application of the European Union’s VAT, analyzed the digital platform barter model and concluded that the non-monetized transactions should not be included in the consumption tax base because of the absence of a direct link between the services provided and the consideration received: “The provision of an IT service without a monetary consideration, which allows the supplier to use the personal data of his customer, does not constitute a taxable transaction for VAT purposes as there is no direct link between the services provided and the consideration received. The data for which use is granted varies in quantity and quality from one user to the other. . . . For that reason, it is not possible to establish such a direct link, which is a condition for the transaction to be regarded as taxable.” European Commission, Value Added Tax Committee, “Conditions for There Being a Taxable Transaction When Internet Services Are Provided in Exchange for User Data,” Working Paper No. 958 (Oct. 30, 2018).

<sup>44</sup> See Adam B. Thimmesch, “Transacting in Data: Tax, Privacy, and the New Economy,” 91 *Denver L. Rev.* 145, at 174-177 (2016).

<sup>41</sup> Kim and Shanske, *supra* note 6, at 741-42.

<sup>42</sup> A Washington state publication, “Bartering Transactions Are Taxable,” gives an example of the retail sales tax implications of a barter transaction involving the trade of accounting services for plumbing services. We focus here on the sales tax implications of barter transactions. But there are also similar income tax consequences of a non-monetized exchange of goods or services. See generally IRS, “Taxable and Nontaxable Income,” Publication 525, at 20-21.

valuing the barter arrangements. The former is politically unviable, as no taxing jurisdiction is likely to require a digital platform to charge consumers a sales tax for free internet services nor require an individual consumer to charge a sales tax (or pay an income tax) on the imputed receipts from selling data to a digital platform. The latter is highly capricious, imprecise, and unworkable because of the absence of a direct one-to-one link between the platform and individual consumers. Importantly, for sales tax purposes, no such manipulation is necessary because there is a future monetization event that can be included in the tax base — the downstream retail sale of the B-to-C good or service.<sup>45</sup>

### The Fallacy of ‘Untaxed’ Transactions

The range of proponents’ explanations and justifications for DSTs should not obscure the final outcome: that the tax base in the Maryland DST and other state DST (or sales tax equivalent) proposals exclusively targets business inputs, such as digital advertising and data mining. DST proponents use slightly different descriptive language but share a belief that social media and digital platform non-monetized barter transactions and monetized digital advertisements result in “untaxed” transactions and a “consumption tax gap.” Kim and Shanske note: “But the barter transactions are not recognized or taxed in any state, resulting in a large and growing gap in the sales (consumption) tax.”<sup>46</sup> Agrawal and Fox conclude: “Failure to tax social media appropriately runs the risk of continued erosion of the sales tax base.”<sup>47</sup> Plattner states: “The failure to capture sales tax on these barter arrangements leaves what should be a

major contributor of revenue out of the sales tax base.”<sup>48</sup> Appleby observes: “One could also make the less precise, but colorable, argument that imposing a new tax somewhere in the transaction chain is appropriate because there is so much value inuring to large digital advertisers that is going untaxed under existing tax regimes.”<sup>49</sup>

The fundamental flaw of the consumption tax gap thesis, however, is that non-monetized data mining and monetized digital advertising are untaxed because in a retail sales tax system, intermediate inputs are supposed to be untaxed. The appropriate stage to impose a tax is at the retail level, when the consumer purchases a good or service either directly from a digital platform or later after viewing the digital advertisement. The digital platform transactions are untaxed intentionally, not inadvertently, to avoid the pyramiding of tax on both intermediate and retail stage transactions. Ironically, if the proponents succeed in persuading more states to enact DSTs, the result would not fix untaxed transactions but would create “double taxed” transactions at both the intermediate and retail consumer levels.

The fallacy of the consumption tax gap is clear when its application is extended to other untaxed intermediate business input transactions. In the sales tax context, many transactions are exempt, such as sales of equipment used in manufacturing; raw materials and component parts incorporated into finished goods; sales of equipment used in providing telecommunications services; and sales for resale. These business inputs are all part of a related stream of transactions in which the final good or service is subject to tax. And yet no new tax is imposed on the intermediate transactions under the theory that they are untaxed.

In a broader sense, these transactions are untaxed only if the subsequent retail sales that are included (or could be included) in the sales tax base are ignored. Only if an “upstream” business input transaction is viewed in isolation, ignoring downstream retail sales, does an intermediate transaction appear untaxed. Otherwise, all sales tax exemptions for production equipment or sales

<sup>45</sup> For an excellent description of the difficulty of taxing non-monetized data transactions, from a law professor sympathetic to doing so, see Thimmesch’s overview: “This Section, however, focuses on some of the major obstacles and policy considerations that apply specifically to implementing a tax on data transactions. Some of those apply equally to the imposition of tax on data aggregators and on data providers, while others apply more clearly only to the latter. In total, these include (1) seemingly insurmountable valuation problems; (2) the difficulties of line drawing; (3) the distribution of the resulting tax burden; (4) the anonymous Internet; and (5) the lack of political will. These factors collectively undermine the ability of a tax on personal-data transactions to meet the equity, efficiency, and administrability goals that are the hallmarks of tax-policy analyses.” *Id.* at 174; and *see generally id.*, Part II.

<sup>46</sup> Kim and Shanske, *supra* note 6, at 746.

<sup>47</sup> Agrawal and Fox, *supra* note 6, at 290.

<sup>48</sup> Plattner, *supra* note 6, at 956 (fn. 3).

<sup>49</sup> Appleby, *supra* note 5, at 16.

for resale would be pejoratively labeled “untaxed.”

It should be obvious that non-monetized transactions in a supply chain eventually result in monetized transactions. For-profit businesses are not organized to lose money or engage solely in public charity. In the case of digital platforms that earn income from user-advertisers, the significant investments made to provide free internet services to attract consumers who share their data and watch the platforms’ advertisements increase the value of the digital advertising sales. The user-advertisers then use the targeted digital advertising to enhance the value of their B-to-C sales to customers. In the case of digital platforms that make most of their income from their own B-to-C sales or those of hosted third-party sellers, the non-monetized barter transactions with user-consumers are monetized primarily through increasing the value and volume of their own sales or those of the third-party sellers (who pay a commission or some other revenue split with the platform).<sup>50</sup>

Although a digital platform exchange of free internet content for consumer personal information and viewed advertisements constitutes a novel non-monetized transaction, it still essentially creates an intermediate “business input” (consumer data aggregation) that either facilitates digital advertising or enhances the subsequent sale of a monetized B-to-C good or service. The same is true of monetized advertising on a digital platform that is followed by a subsequent sale of the advertised good or service. To the extent a state doesn’t tax the retail B-to-C transaction, it is a function of the breadth of its sales tax base and not because there is no potential for a monetized transaction. To avoid a multistage sales tax that pyramids the tax inappropriately to multiple levels of the supply chain, the intermediate transactions, whether monetized or

not, should be exempt. Otherwise, the DST or sales tax equivalent violates one of the core principles and a defining characteristic of an effective consumption tax.<sup>51</sup>

This is not a new issue. A similar issue, to a lesser extent, has always existed with television, radio, and print advertising. This earlier generation of mass media also provided viewers/readers with free or heavily subsidized content in exchange for a consumer’s willingness to view advertisements (albeit there is typically no additional provision of individualized consumer data). These earlier barter transactions were similarly untaxed because subsequent transactions (that is, the purchase of the advertised goods or services by the end-use consumer) were (or could be) included in the sales tax base.

### Rationalizing the ‘Business Inputs’ Problem

The avoidance of sales tax pyramiding is one of the core principles of a well-designed consumption tax. For decades, the leading U.S. academic sales tax experts, including John Due, John Mikesell, Walter Hellerstein, Charles McLure, and Richard Pomp, have all ascribed to

<sup>51</sup> Retail sales taxes and value added taxes are designed differently to avoid pyramiding. A VAT is designed to tax commerce at one level. A tax is imposed at each level, and then an “input” VAT credit is provided if the VAT is imposed at the next level. If no tax is imposed at the next level, the VAT imposed at the intermediate level is not credited back. A retail sales tax is different. In an optimal sales tax, the tax is imposed at the retail level or not at all. There is no sales tax at the intermediate level. If a state decides to exempt the retail sales tax on a good or service, for social, administrative, or economic reasons, then no tax is imposed at any level. OECD, Part 1, *supra* note 9. “Unlike VAT where the tax is collected at each stage of the value chain under a staged payment system . . . sales taxes are collected only at the very last stage i.e. on the sale by the retailer to the final consumer.” *Id.* at 23.

This difference is clear in the design of exemptions like the manufacturing equipment exemption. The exemption is typically worded as exempting equipment “used directly and exclusively in manufacturing tangible property to be sold.” There is no additional requirement that the sold property be subject to sales tax. It is impractical to do otherwise, given that in a multiple transaction supply chain, it frequently is impossible to know whether the final retail sale is subject to tax. For instance, the Massachusetts sales tax exemption for equipment used in manufacturing exempts “Sales of machinery, or replacement parts thereof, used directly and exclusively in . . . an industrial plant in the actual manufacture of tangible property to be sold.” M.G.L. c. 64H, sec. 6 (s).

<sup>50</sup> For more information on the impact of digital advertising in enhancing B-to-C sales of goods and services, see Basis Technologies, “U.S. Digital Ad Spending by Industry 2021,” *eMarketer* (2022); IHS Markit, “The Economic Impact of Advertising on the U.S. Economy: 2018-2026,” prepared for the Advertising Coalition (Nov. 2021).

the view that an optimal sales tax is imposed at the retail level on household consumption and not at intermediate levels on business inputs.<sup>52</sup> Indeed, the general consumption tax used in almost every nation other than the United States — a value added tax — builds the exclusion of business inputs from the tax base into its structural design.<sup>53</sup>

The anti-pyramiding principle associated with an efficient and effective consumption tax is so widely accepted that even leading DST proponents accept its vitality. For instance, Kim and Shanske acknowledge that a DST that imposes an excise tax on digital advertising (as a proxy for barter transactions and data mining) involves some tax pyramiding:

To be sure, digital ads are a business input and so there would be some pyramiding if the costs are shifted back to the advertising businesses. But our point is that as a tax only on one later stage of production, it should not cause great pyramiding and it is unfair to compare its economic effects to broad-based turnover taxes.<sup>54</sup>

Thus, Kim and Shanske excuse the inefficient pyramiding of a DST because it applies to only one additional level, making it more benign than

a traditional gross receipts tax that taxes multiple stages of a supply chain. Several problems are implicated, however, by this defense of limited pyramiding. First, the one extra layer of pyramiding they reference — the DST imposed on digital advertising (or data mining as advocated by others) — is quite significant. The recognition by DST proponents that a DST could bring in substantial and potentially “too much revenue” proves this point.

As Appleby observes: “Possibly a stronger motivating factor, digital advertising taxes are enormous revenue sources at a time when many state and local governments are facing shortfalls. . . . If every state adopted a digital advertising tax, the aggregate annual state tax revenue could approach \$14 billion.”<sup>55</sup> According to law professors Kim, Reuven Avi-Yonah, and Karen Sam: “Despite the many positive features [of the N.Y. data mining proposal], there are a few drawbacks. First, given the tax’s extreme effectiveness at raising revenue, businesses facing exorbitant tax bills may withdraw from jurisdictions or pass portions of the tax burden onto customers.”<sup>56</sup>

It is precisely because of the DST’s revenue-raising potential that this tax policy option is so attractive to its proponents. In sum, this one additional level of pyramiding of tax, especially as it affects the entire fast-growing digital marketplace, is quite substantial. If state DSTs proliferate, the revenue potential could grow enormously with base broadening (possible inclusion of other forms of non-digital advertising and data mining by non-digital industries); scope broadening (lowered revenue thresholds for

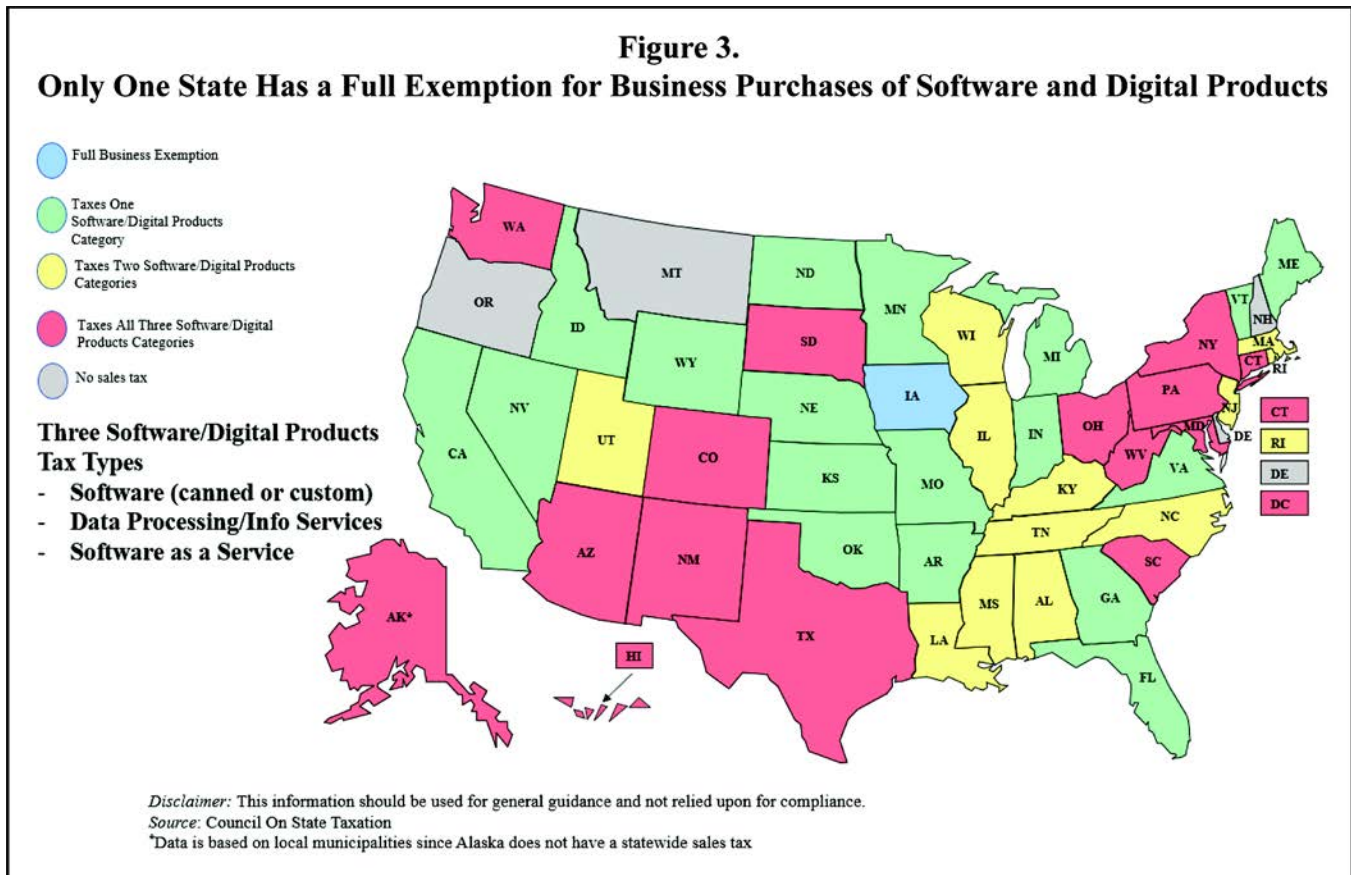
<sup>52</sup> John F. Due and John L. Mikesell, *Sales Taxation: State and Local Structure and Administration*, at 15-16 (1994); Hellerstein, Hellerstein, and Swain, *State Taxation*, Ch. 12, para. 12.01, at 1; Hellerstein and Charles E. McLure Jr., “John Due’s Wisdom Only Ripens With Age,” *Tax Notes State*, Mar. 15, 2021, p. 1161; McLure, “Coordinating State Sales Taxes With a Federal VAT: Opportunities, Risks, and Challenges,” *State Tax Notes*, Oct. 3, 2005, p. 35; and Richard D. Pomp, “Resisting the Siren Song of Gross Receipts Taxes: From the Middle Ages to Maryland’s Tax on Digital Advertising,” *State Tax Research Institute*, July 2022, at 11, 27.

<sup>53</sup> The VAT replaced earlier generations of gross receipts and sales taxes as the primary general consumption tax in other nations. The VAT is designed as a multiple-stage tax that operates effectively as a single-stage tax because of a system of input VAT credits at each level.

<sup>54</sup> Kim and Shanske, *supra* note 6, at 801. See also Kim, *supra* note 6, at 172. While minimizing the impact of pyramiding in this instance, Shanske is consistent in recognizing that taxing business inputs is a deviation from retail sales tax principles. As Shanske said in testimony to the California Assembly Revenue and Taxation Committee relating to sales tax expenditures: “Based on how I think about tax expenditures, not all tax expenditures on these various lists, which again are terrific, are really tax expenditures. So, for example, the Department of Finance and the California Department of Tax and Fee Administration considers a manufacturing and research and development equipment exemption to be a sales tax expenditure because people are paying less sales tax for these purchases. I would not consider that a sales tax expenditure because a sales tax is meant to tax only final consumption, not intermediate purchases of business assets, and so that is actually tax that is appropriate under sales tax principles.” See Shanske testimony on Feb. 22, 2023 (at 1:22.30).

<sup>55</sup> Appleby, *supra* note 5, at 7. Appleby also commented on the large revenue potential of the New York data mining proposal: “Although those revenue projections may appeal to states initially, they may be so severe that they elicit meaningful negative responses from businesses that rely on data collection and otherwise benefit those jurisdictions.” Appleby, at 24.

<sup>56</sup> Kim, Reuven S. Avi-Yonah, and Karen Sam, “A New Framework for Digital Taxation,” 63 *Harv. Int’l L.J.*, 273, 336 (2022).



companies subject to the tax); and rate increases (the Maryland DST tops out at 10 percent compared with the state sales tax rate of 6 percent).<sup>57</sup>

Further, Kim and Shanske's assertion that one additional level of pyramiding is relatively harmless ignores the excessive cascading of sales tax already overwhelming state sales tax systems. A single-stage DST on digital advertising or data mining can't be viewed in isolation; its cumulative impact must be measured in conjunction with the existing retail sales tax. When viewed as part of a larger consumption tax system, a DST moves the retail sales tax even further away from a single-

stage consumption tax and more toward the historically repudiated multistage turnover tax.<sup>58</sup>

This point is amplified by looking closely at the level of pyramiding already rampant in the digital marketplace that DST proponents seek to increase. The only industries in the United States favored by robust business input exemptions are manufacturing and agriculture. Commercial, retail, service-oriented, and digital businesses have very few built-in sales tax exemptions for business inputs other than the sale-for-resale exemption. For instance, two of the key levels of the digital marketplace supply chain — digital platforms and retailers — are already subject to a sales tax on a significant share of their business inputs. Most states offer no commercial sales tax exemption for purchases of computer hardware, computer software, electric and gas services, telecommunications services, and tangible property supplies — all inputs that are used

<sup>57</sup> Indeed, some proponents of taxes on digital advertising or data mining are suggesting consideration of much broader tax bases than are included in the Maryland DST or the proposed New York data mining legislation. See Omri Marian, "Taxing Data," 47 *BYU L. Rev.* 551 (2022); Kim, *supra* note 6, at 140-41. The overall digital and non-digital advertising market in the United States is the largest in the world, totaling \$285 billion in 2021, or about two-fifths of the world market. Digital advertising is the largest component of the U.S. market, accounting for over three-fifths of all U.S. advertising. Brad Adgate, "Agencies Agree; 2021 Was a Record Year for Ad Spending, With More Growth Expected in 2022," *Forbes*, Dec. 8, 2021.

<sup>58</sup> See Pomp, *supra* note 52.



extensively by digital businesses and retailers.<sup>59</sup> As we document in a recent study, among the 45 states (plus the District of Columbia and Alaska municipalities) that include some portion of software and digital products in the sales tax base, only one state (Iowa) allows a broad exemption for business inputs (see Figure 3).<sup>60</sup>

Other DST proponents, recognizing the tax policy objection to taxing business inputs, attempt to invoke an “invisibility cloak” around the business inputs of digital advertising and data mining by somehow transforming them into B-to-C transactions. According to Appleby:

In the case of digital advertising, imposing sales tax is also arguably justified. As discussed above, in the prevailing business model, a digital service provider offers a service — such as email, a search engine, or social media — to end users and collects their personal data. The company provides the service either free or for a vastly subsidized price. The company then monetizes the user data to sell targeted advertisements to businesses, with these advertisements often disseminated through the free or subsidized service to end users. If the company charged end users a market price for the service and a state imposed a sales tax on that charge, there would be no pyramiding problem. Here, the advertisers are effectively paying the end users’ service fees. Thus, imposing sales tax on the amount effectively paid for the end user service — even though it is paid by the advertiser and not the end user —

<sup>59</sup>Frieden, Fred Nicely, and Priya D. Nair, “The Best and Worst of State Sales Tax Systems,” COST, pp. 7-14 (Dec. 2022), and state-by-state charts (beginning on page 41). To illustrate their point about the DST’s “single” level of pyramiding, Kim and Shanske assert: “Maryland’s DST is not imposed on the user-advertisers, user-consumers, or any of the four key services involved in the digital advertising supply chain . . . the DST is also not imposed on all of the other goods (e.g., computers) and services (e.g., IT support) that went into allowing these various firms to operate.” Kim and Shanske, *supra*, note 6, at 801. This conclusion is completely misleading as it views only one narrow segment of the digital advertising supply chain in isolation (in the context of the DST) and does not take into account the extensive pyramiding that typically takes place in the broader supply chain within state sales tax systems.

<sup>60</sup>Frieden, Nicely, and Nair, “Down the Rabbit Hole: Sales Taxation of Digital Business Inputs,” *Tax Notes State*, July 18, 2022, p. 271-275; Frieden, Nicely, and Nair, *supra* note 59. In addition to Iowa’s broad exemption for digital business inputs, New Jersey and Washington offer partial exemptions, and Connecticut imposes a reduced rate. *Id.*

functions as a consumption tax and not a tax on business inputs.<sup>61</sup>

By arguing that advertisers are “effectively” paying end-users’ service fees, Appleby constructs a stand-alone “monetized” B-to-C transaction where none exists. This convoluted reasoning depends on a number of questionable steps:

- the unsubstantiated equating of advertising revenue with the value of free internet services;
- the virtual disappearance of the business inputs of digital advertising and data mining from the digital supply chain; and
- the lack of recognition of tax pyramiding if the downstream sales of goods or services to the ultimate consumer are also included in the sales tax base.

The cherry-picking and re-engineering of the digital platform model serve only to confirm the conclusion reached earlier: that the non-monetized transactions between the digital platform (data aggregator) and consumer-users (data providers) when there is no direct link between the service provided and the consideration received do not fit neatly or at all into the traditional taxable barter transaction model.<sup>62</sup>

### Why Does the Consumption Tax Gap Not Apply to VAT Systems?

The fallacy of the proponents’ theory that non-monetized data mining or monetized digital advertising are untaxed consumption is laid bare when the discussion is broadened from U.S. state sales taxes to other nations’ VATs. To legitimize the consumption tax gap justification for a DST, it would logically have to apply not just to state

<sup>61</sup>Appleby, *supra* note 5, at 16. Other DST proponents adopt a similar analysis. See Agrawal and Fox, *supra* note 6, at 292-93. The attempt to monetize “free Internet services” and equate the value with digital advertising ignores the infinite variety and quantity of services provided to user/consumers and how many digital platforms are based not on digital advertising but on enhancing online retail commerce or other ancillary business operations. Indeed, Plattner attempts to monetize “free Internet services” not with the value of digital advertising, but with an imputed value for data mining. Plattner, *supra* note 6, at 960 (fn. 21).

<sup>62</sup>See the Part 2 section on “Not a Traditional Taxable Barter Transaction.”

sales taxes but also to other general consumption taxes (VATs).

The inapplicability of a DST as a supplement to a VAT is confirmed both from a practical and administrative perspective. First, there is an absence of interest in the EU countries or other advanced nations in using a DST to fill a consumption tax gap in their VATs. With the popularity of DSTs in many European and Asian nations, if it were possible to justify these new taxes as a permanent addition to a VAT, rather than a temporary supplement to an outdated national corporate income tax, then nations could be expected to jump on board with the “consumption tax” approach.

The reason for the disinterest, however, is obvious. Non-monetized data mining and monetized digital advertising sales do not create a gap in the VAT base. First, if non-monetized data mining is added to the VAT base, it would constitute just another business input transaction that would result in an input VAT credit to the extent a subsequent stage in the supply chain (the sale of a good or service to the ultimate consumer) is subject to VAT. Thus, there would be no additional net VAT collected on the “intermediate” business input.

Second, in a multistage VAT system, unlike a U.S. state sales tax system, monetized digital advertising is already subject to the VAT. When a digital platform sells advertising to one of its business customers, it is subject to VAT. However, when the business customer that purchases the digital advertising later sells the advertised product or service to a retail consumer (in a transaction subject to VAT), then the VAT paid on the digital advertising is credited back to the business customer. This is exactly what would occur if non-monetized data mining were added to the VAT base — except that it would occur one stage earlier. Under a well-designed sales and use tax, a similar outcome occurs, except that intermediate business inputs are exempted initially since the sales tax does not use a credit mechanism to avoid pyramiding like a VAT.<sup>63</sup>

<sup>63</sup> On VAT design, see generally Alan Schenk and Oliver Oldman, *Value Added Tax: A Comparative Approach* (2007). On retail sales tax design, see Due and Mikesell, *supra* note 52.

### Part 3: The Wrong Approach: Doubling Down on Consumption Tax Pyramiding

In Part 1, we explained how state-level DSTs (or their sales tax equivalents) are best understood as a form of a consumption tax. In Part 2, we articulated how a DST imposed on digital advertising or data mining does not rectify untaxed consumption but contrarily results in double-taxed consumption by pyramiding the sales tax on both business inputs and retail consumer sales. In Part 3, we highlight how the adoption of state-level DSTs is not just a bad idea but also can cause significant harm to both state and national tax policy.

#### Why States Like to Pyramid Sales Taxes

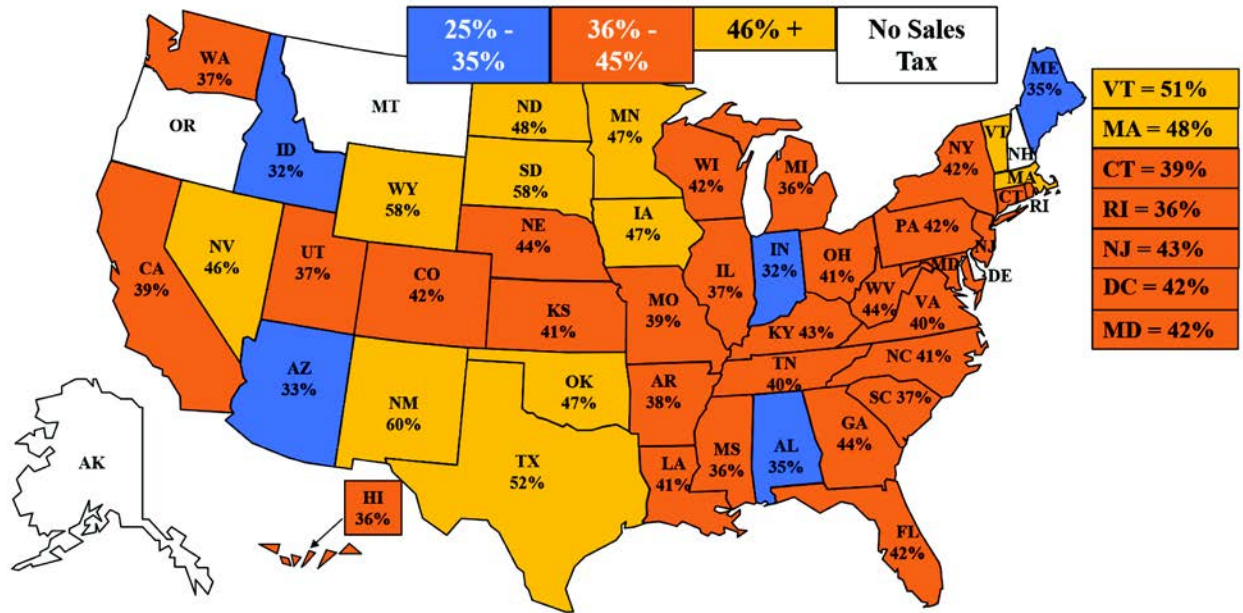
It is certainly understandable why states impose sales taxes on business inputs. Taxing intermediate levels of transactions, particularly if multiple stages are taxed, can raise significant amounts of revenue. In the absence of any structural mechanism in state sales tax systems that precludes pyramiding, the temptation is frequently irresistible to impose additional sales tax on businesses rather than on individual households (that is, voters). Indeed, in fiscal 2021 state and local governments collected \$194.5 billion in revenue from sales taxes on business inputs.<sup>64</sup> All states participated in this revenue “grab,” with the lowest business inputs share of sales tax at 32 percent (Indiana and Idaho) and the highest over 50 percent (New Mexico, South Dakota, Texas, Vermont, and Wyoming) (see Figure 4).<sup>65</sup>

What is different and troubling about DSTs is that they represent an atypical base expansion that *exclusively* targets business inputs, including digital advertising, data mining, and other digital infrastructure receipts. Historically, the sales taxation of business inputs occurs less overtly, as both B-to-C and B-to-B transactions are included in the sales tax base without an exemption for the business inputs. With DSTs or their sales tax

<sup>64</sup> EY, COST, and the State Tax Research Institute, “Total State and Local Business Taxes: State-by-State Estimates for FY21,” at 5 (Dec. 2022).

<sup>65</sup> Andrew Phillips and Muath Ibaid, “The Impact of Imposing Sales Taxes on Business Inputs,” study prepared by EY for the State Tax Research Institute and COST, at 8-9 (May 2019); Frieden, Nicely, and Nair, *supra* note 59, at 8.

**Figure 4.**  
**Business Inputs Make Up 42% of All State and Local Sales Taxes**  
**Business Inputs Share of Total Sales Tax Collected**



“The Impact of Imposing Sales Taxes on Business Inputs,” study prepared by EY for the State Tax Research Institute and COST (May 2019)

equivalents, this process is turned upside down by adding only business purchases to the sales tax base. Indeed, the debate over DSTs is replete with rhetoric from proponents on the need to increase the consumption tax burden on profitable digital platforms. The rationale rests on a perspective that the DST tax burden should fall entirely on “companies at the top of the food chain” earning “supranormal” profits.<sup>66</sup>

To be sure, the design of a sustainable national and subnational tax system reflects a balance between equity and efficiency principles.

Traditionally, “equity” is reflected by “ability to pay” concepts used to differing degrees in graduated-rate income taxes, social insurance taxes, estate taxes, and property taxes. The concept of “efficiency” is embedded in a well-designed general consumption tax, capable of raising significant tax revenue with a minimal negative impact on capital investment and economic growth. Both principles are valid in a balanced tax system.

A problem arises, however, when the equity principle is injected inappropriately into a tax based on efficiency. In that case, the mix of the two tax principles threatens to undermine both goals and leads to suboptimal results.<sup>67</sup> This is exactly what occurs when the equity principle in the form of taxing business inputs overwhelms state sales tax systems, resulting in extensive pyramiding of taxes that undermines the efficiency of the U.S.

<sup>66</sup> Kim and Shanske, *supra* note 6, at 768: “The combination of negligible marginal cost on the supply-side and mutually reinforcing network effects on the demand-side provides the foundation for digital platforms to grow into monopolies and monopolies can earn economic rents or supranormal returns.” Plattner, *supra* note 6, at 957: “The crux of the issue is that in recent years internet companies at the top of the food chain have been amassing more and more data, which in turn has resulted in the accumulation of enormous wealth and the ongoing concentration of economic power.” The proponents implicitly acknowledge the DST tax base targets exclusively business inputs by treating B-to-C purchases of monetized digital products as a separate category for consideration under more traditional sales tax principles. Agrawal and Fox, *supra* note 6, at 284-89 (“This section focuses on digital goods and services . . . and not on digital transaction platforms used to obtain goods and services.” *Id.* at 285); Kim and Shanske, *supra* note 6, at 763-64.

<sup>67</sup> There are certainly examples of consumption taxes focused on “luxury” items, but in that context, the sales/excise tax is imposed on B-to-C and not B-to-B consumption. Similarly, many state sales tax systems exempt food from the sales tax base for social equity purposes. But again, that exemption applies typically to B-to-C transactions.

consumption tax system. A well-designed consumption tax system works precisely because it does not arbitrarily penalize multiple levels of a supply chain. In an optimal system, the tax is imposed at only one stage, and the pyramiding of tax is avoided. In the retail sales tax, that stage is designated as the retail sales tax level.<sup>68</sup>

### U.S. Consumption Taxes at a Critical Crossroads

Why should we be so concerned about the latest effort, in a long historical pattern, to expand the U.S. sales (or other consumption) tax base to include more business inputs? There are two compelling reasons: (1) a short-term concern pertaining to the widening conversation in state tax circles about broadening the sales tax base to include more digital products; and (2) a long-term concern relating to the potential future need for a consumption tax at the national level to help pay down the record level of federal debt and, correspondingly, provide the opportunity for a harmonized and non-pyramiding federal/state consumption tax model like the one in Canada. Any shift toward state adoption of DSTs (or their sales tax equivalents) on digital advertising or data mining would send exactly the wrong policy signal, veering the nation toward an even more suboptimal and pyramiding consumption tax at the precise moment when an improvement — not a deterioration — in consumption tax design is required.<sup>69</sup>

<sup>68</sup> With a VAT, a system of business tax credits at intermediate stages of the supply chain allows the consumption tax to be effectively imposed at only one level.

<sup>69</sup> The focus in this article is on general consumption taxes based on the “efficiency” principle — and how to improve, or at least not worsen, their efficiency (in avoiding tax pyramiding) and effectiveness (in raising sufficient revenues to finance government). We are not suggesting, however, that income, social insurance, and other taxes based on the “equity” principle are without need for improvement in their fairness and revenue-raising capabilities. Any long-term solution to the federal debt crisis is likely to involve a blend of budget solutions and tax revenue-raising measures based on both equity and efficiency principles. Indeed, the two are interconnected as equity measures are likely politically necessary to ameliorate the regressivity of an expanded use of consumption taxes. The final composition of budget and tax solutions will coalesce over time in the political arena.

### Expanding the Sales Tax Base on Digital Products

One of the highest-profile state tax issues in 2023 is how states approach the sales tax base inclusion of digital B-to-C products. Currently, states cover the gamut with narrow, medium, and broad inclusion of digital products in the sales tax base. The debate is accelerating in the post-*Wayfair* era as thousands of remote sellers and digital marketplaces have acquired sales tax collection responsibilities without the requirement for physical presence in the customer state. In furtherance of this trend, the Multistate Tax Commission has embarked on a highly publicized project to write a white paper on the sales tax on digital products that includes consideration of best practices across a range of tax base, sourcing, and definitional issues.<sup>70</sup>

What is troubling about the states’ approach, to date, to expanding the sales tax base to digital products is that it is exacerbating, and not diminishing, the pyramiding problem associated with the sales taxation of business inputs. As previously noted, only three states among the 45 (plus the District of Columbia and the Alaska municipalities) that include some portion of software and digital products in the sales tax base allow any type of a business exemption. And only one (Iowa) provides a broad exemption that applies to most digital commerce.<sup>71</sup>

Our concern is not that states are broadening their sales tax bases to include B-to-C purchases of software and digital products, but that they are doing so without exempting B-to-B purchases. If more states adopt DSTs or their sales tax equivalents to expand the consumption tax base to include additional digital business inputs, the sales tax will depart even more from the norms of an optimal sales tax. Indeed, if pyramiding is deemed acceptable in connection with the

<sup>70</sup> MTC, Sales Tax on Digital Products (last reviewed Mar. 10, 2023).

<sup>71</sup> Frieden, Nicely, and Nair *supra* note 60, Part 2. Washington and New Jersey have limited exemptions for digital business inputs, and Connecticut has a reduced rate. *Id.* From a policy perspective, it is the sales taxation of business purchases of software and digital products, not of household purchases, that violates the norms of a well-designed consumption tax. The sales taxation of B-to-C purchases of software and digital products is appropriate as long as it is accomplished by clear legislative authority, without discrimination, and provides an exemption for B-to-B purchases. *See* Frieden, Nicely and Nair, *supra* note 59, at 12-14.

taxation of business inputs, such as digital advertising or data mining, it will eviscerate the motivation for any state to provide exemptions for additional B-to-B digital products while widening the sales tax base to additional B-to-C digital products.

The imposition of sales taxes on additional digital business inputs is problematic not only from a policy perspective but also from an administrative standpoint. Many of the most difficult problems with defining and sourcing the digital sales tax base are associated not with digital B-to-C commerce but with B-to-B commerce for which digital products are ill-defined and can be “consumed” simultaneously in multiple jurisdictions or nations.<sup>72</sup> The controversy over the Maryland DST, both from a legal and administrative complexity viewpoint, illustrates that DSTs will replicate and even aggravate this worrisome trend.<sup>73</sup>

Further, DSTs imposed on non-monetized data mining could present the greatest regulatory challenge of all, given the need to first determine the taxable value of the transaction (for example, by number of users, volume, weight, data quality, or a proxy such as digital advertising receipts). The complexity is magnified by the large potential tax base attributable to data collection for multiple purposes, including enhancing digital advertising, facilitating more retail sales, and improving consumer information used for administrative and compliance purposes by financial and other businesses.<sup>74</sup>

### The Implications of Escalating Federal Debt

The state DST controversy also foreshadows an even more consequential future debate over the design and use of consumption taxes in this country. The United States is confronting an

unparalleled peacetime fiscal crisis as it grapples with what the Congressional Budget Office has labeled “unsustainable” high levels of federal debt and a growing gap between federal revenue and federal spending (the federal deficit).<sup>75</sup>

The fiscal crisis has two components. First, federal debt is at a record \$31.5 trillion. Federal debt skyrocketed from 35 percent of gross domestic product in 2007, before the start of the 2008-2010 recession, to 97 percent of GDP in 2022. The federal debt is projected to pass the World War II-era record U.S. debt of 108 percent of GDP in 2030 and reach 118 percent of GDP in 2033.<sup>76</sup> Even without additional government programs, the aging of the U.S. population (increasing Social Security and Medicare costs) and interest payments due on current debt will push the federal debt by 2053 to an estimated 195 percent of GDP (see Figure 5).<sup>77</sup>

Second, the systemic mismatch between federal spending and revenue (the federal deficit) continues to worsen. Over the last 50 years, the federal deficit averaged about 3.5 percent of GDP. However, the CBO estimates an upward trajectory of the average federal deficit to 7.3 percent of GDP in 2033 — the highest ever aside from a national emergency. Moreover, the federal deficit, if amelioration measures are not taken, is projected to reach 11.1 percent of GDP by 2053. To put that in perspective, the CBO predicts that federal government spending will total 30.2 percent of GDP compared to federal revenue of 19.1 percent of GDP in 2053.<sup>78</sup>

The spiraling federal debt is clearly a ticking fiscal time bomb. Three factors that will accelerate the need for serious federal deficit reduction

<sup>75</sup> CBO Director Phillip Swagel quoted in: Fatima Hussein, Josh Boak, and Kevin Freking, “CBO Projects Higher Unemployment, Slow Exit From Inflation,” *AP Top News*, Feb. 15, 2023.

<sup>76</sup> CBO, “The Budget and Economic Outlook: 2023 to 2033” (Feb. 2023); Committee for a Responsible Federal Budget, “Analysis of CBO’s February 2023 Budget and Economic Outlook” (Feb. 15, 2023); CBO, “The 2022 Long-Term Budget Outlook” (July 2022); Committee for a Responsible Federal Budget, “Analysis of CBO’s July 2022 Long-Term Budget Outlook” (July 27, 2022). In just two decades, the United States added \$25 trillion of federal debt. This increase was attributable to a number of factors, including federal relief to minimize the impact of the 2008-2009 recession and the 2020-2022 pandemic health crisis, large federal tax cuts in the TCJA and other federal legislation, and accruing interest.

<sup>77</sup> CBO, “The Budget and Economic Outlook: 2023 to 2033,” *supra* note 76.

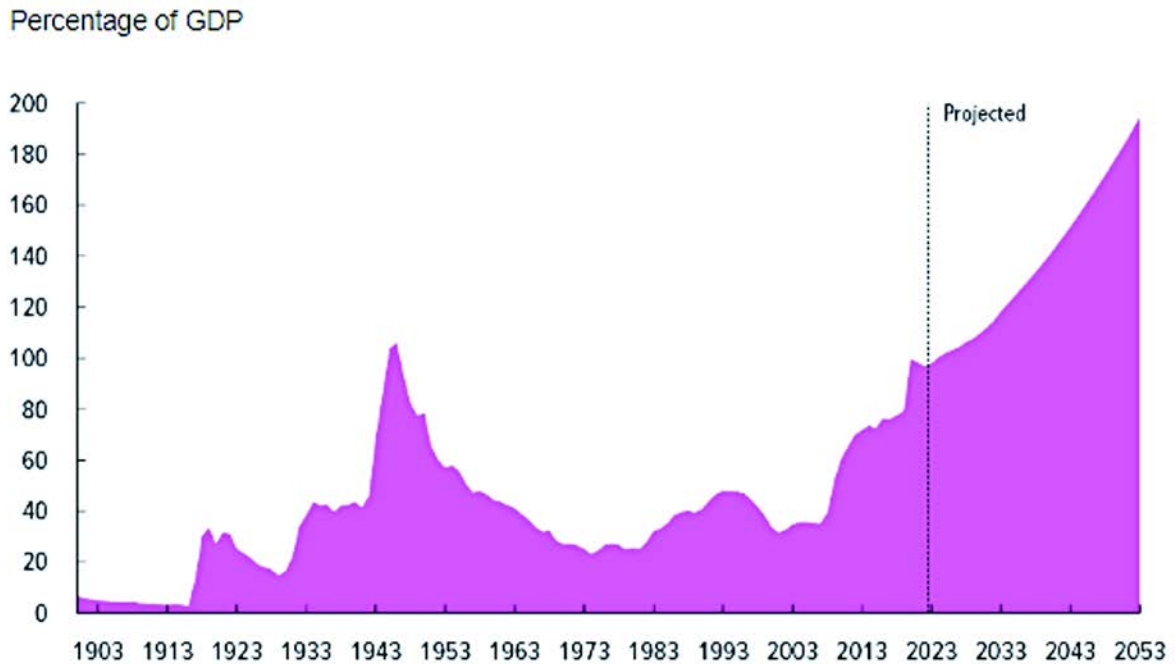
<sup>78</sup> *Id.*

<sup>72</sup> For problems with sourcing B-to-B purchases generally, see Phillips and Ibaïd, *supra* note 65.

<sup>73</sup> See Pomp, *supra* note 52, at section 7F; Jennifer W. Karpchuk and Alissa Gipson, “The (Problematic) Road to Taxing Digital Advertising,” *Tax Notes State*, Feb. 22, 2021, p. 807.

<sup>74</sup> On some of the administrative problems associated with imposing a tax on data mining, see Joe Crosby et al., “Served Up on a Platter: A Response to Big Data Tax Proposals,” *Tax Notes State*, May 24, 2021, p. 817; Kim and Shanske, *supra* note 6, at 798-800; Avi-Yonah, Kim, and Sam, “A New Framework for Digital Taxation,” University of Michigan Law School, Law & Economics Working Papers, at 335-340 (Mar. 25, 2022). On the administrative problems of “monetizing” non-monetized barter transactions, see Thimmesch, *supra* note 44.

**Figure 5.**  
**Federal Debt Held by the Public, 1900 to 2053**



Source: Congressional Budget Office

proposals are the projected insolvency dates of the Highway Trust Fund (2028), the Medicare program (2033), and the Social Security program (2033). For instance, if insolvency occurs, the CBO projects the need for mandatory cuts in Social Security benefits of about one-quarter.<sup>79</sup>

This is where state and national tax policy come into play. Clearly, a range of both budget and tax solutions are required to close the gap between federal spending and revenue; stave off Medicare and Social Security insolvency; reduce historic federal debt levels; and address any future economic, climate, or health-related crises.<sup>80</sup> However, on the tax side of the equation, the United States approaches this long-term challenge with a unique handicap. The United States is the only advanced nation in the world without a general consumption tax at the national

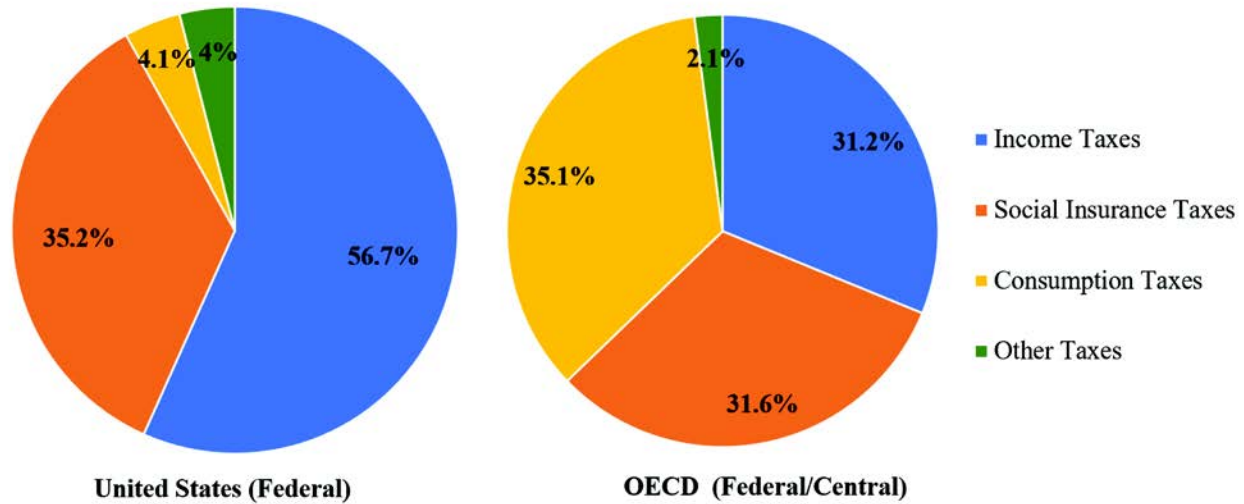
level. This means that satisfying the “tax” component of any long-term deficit and debt reduction plan will fall almost entirely on a two-legged stool (income and social insurance taxes) rather than the three-legged stool (income, social insurance, and consumption taxes) available to other nations. Consumption taxes make up about 4 percent of federal revenue in the United States, compared with about 35 percent in the OECD nations (see Figure 6).<sup>81</sup>

<sup>79</sup> Committee for a Responsible Federal Budget, “Analysis of CBO’s February 2023 Budget and Economic Outlook,” at 1, 5 (Feb. 15, 2023).

<sup>80</sup> See generally CBO, “Options for Reducing the Deficit, 2023 to 2032: Volume 1: Larger Reductions” (Dec. 2022); Committee for a Responsible Federal Budget, “Fix the Debt,” Fixthedeat.org (last visited Mar. 20, 2023).

<sup>81</sup> Frieden and Douglas L. Lindholm, “A Global Perspective on U.S. State Sales Tax Systems as a Revenue Source: Inefficient, Ineffective, and Obsolete,” State Tax Research Institute, at 19 (Nov. 2021). The comparative consumption tax data is from 2018, but more recent U.S. data for 2022 is nearly identical for the share of consumption taxes at the federal level. CBO, “The Budget and Economic Outlook: 2023 to 2033,” *supra* note 76, at 23. The United States is close to world averages among advanced nations in total income and social insurance tax revenues as a share of GDP but far behind in consumption taxes. In 2021 the U.S. total income and social insurance tax revenues was 19.1 percent of GDP compared with an OECD average of 20.5 percent of GDP. By contrast, general consumption taxes in the United States raise less than one-third as much as other OECD nations as a share of GDP (2 percent vs. 7.3 percent). Total consumption taxes as a share of all taxes in the United States is the lowest of all advanced nations in the world, about one-half of the OECD average (16.6 percent vs. 32.1 percent). Frieden and Lindholm, at 15; with updated data from OECD, “Revenue Statistics — OECD Countries Comparative Tables.”

**Figure 6.**  
**The U.S. Two-Legged Stool vs. the OECD Three-Legged Stool:**  
**Sources of Taxes at the Federal/Central Government Level**



The seriousness of the U.S. debt crisis will eventually elicit numerous potential solutions. With consumption taxes far below international norms, both as a share of federal taxes and total U.S. taxes, one obvious tax policy option is the adoption of a national consumption tax to help balance the composition of federal taxes and contribute to the tax “component” of any long-term federal debt solutions.<sup>82</sup> The consumption tax option is likely to receive renewed attention, not as a “replacement” tax for income or social insurance taxes, but as a “supplementary” tax that

adds to national revenue.<sup>83</sup> If the federal government eventually adopts a consumption tax, it should also be designed with the express goal of addressing our inefficient state sales tax

<sup>83</sup>We made these same points in our 2021 study on comparative consumption tax systems, and they were misconstrued by several commentators. We did not say then and are not saying now that a better-designed consumption tax should be used as a replacement tax for income or other taxes. Nor did we say that the efficiency principle (as represented by a broad, non-pyramiding consumption tax) should be reflexively favored over the equity principle. What we did say (and validate) was (1) U.S. state sales tax systems are among the most inefficient consumption tax systems in the world (as measured by a narrow B-to-C and broad B-to-B tax base); (2) the suboptimal design of the state retail sales tax systems contributes to their ineffectiveness in raising revenues comparable to levels raised by consumption taxes in the vast majority of other advanced nations (both in a relative and absolute sense); (3) state sales tax systems are unlikely to fix their overreliance on sales tax pyramiding through their own unilateral measures; (4) the best option for fixing subnational U.S. consumption taxes is the adoption of a hybrid national/state consumption tax system similar to the one adopted over time in Canada; (5) this hybrid model is unlikely to develop unless an independent need for a general consumption tax exists at the federal government level; (6) the unprecedented federal debt and deficit crisis will likely create momentum to explore new revenue sources, including a national consumption tax as part of a balanced and sustainable national tax system; (7) a national consumption tax, as in the Canadian model, may be used to encourage adoption of a harmonized, non-pyramiding and more efficient state-level consumption tax; and (8) any expansion of consumption taxes would likely need to be coupled with “equity” measures to offset or mitigate regressivity impacts.

All those points are consistent with our analysis in this article. See Frieden and Lindholm, *supra* note 81. For the off-target critiques of the Frieden-Lindholm paper, see Bucks et al., “Critical Reflections on COST’s Sales Tax Study,” *Tax Notes State*, Feb. 21, 2022, p. 859; and Don Griswold, “Efficiency vs. Equity in COST’s Consumption Tax Study,” *Tax Notes State*, Apr. 22, 2022, p. 425.

<sup>82</sup>On the historical development of consumption taxes at the state and federal levels in the United States, see Frieden and Lindholm, *supra* note 81, at Appendix, Part C.

systems by creating a hybrid federal/state consumption tax similar to the Canadian national/provincial model that encourages state conformity to a harmonized, non-pyramiding consumption tax system.<sup>84</sup>

From this perspective, the debate over state DSTs and the inclusion in the consumption tax base of even more business inputs take on a larger and more symbolic context. The only general consumption tax used in the United States is at the state and local levels. The way we manage, administer, and design the state sales and use tax has broader implications for the country's fiscal future at all levels of government. Our state and local sales tax system is already one of the most flawed general consumption tax systems in the world — virtually the only such system that lacks a built-in anti-pyramiding mechanism that effectively excludes the taxation of business inputs.<sup>85</sup>

If state-level DSTs (or sales tax equivalents) proliferate and succeed in expanding the consumption tax base to digital advertising, data mining, and other B-to-B intermediate consumption, the spillover effect will further erode confidence in our ability to construct an efficient and effective consumption tax. State DSTs not only exacerbate existing high levels of sales tax pyramiding but do so with a tax that is exclusively on business inputs and directly contradictory to U.S. federal government policies against national DSTs. A modern consumption tax designed to apply broadly at only a single stage of a goods or services supply chain is vitally needed at the subnational and (potentially) national levels to take its place alongside income and social insurance taxes to form the three pillars of a balanced and sustainable national tax system.

## Conclusion

Our argument is straightforward. DSTs are best characterized as inefficient (pyramiding) consumption taxes on monetized digital advertising, non-monetized data mining or other digital platform business inputs. Based on this framework, it is clear there is no consumption tax gap to justify the adoption of state DSTs (or sales tax equivalents). On the contrary, if state DSTs proliferate, they will add another layer of pyramiding and double taxation to a sales tax system that already depends on taxing business inputs for over two-fifths of all state and local sales tax revenue.

Enactment of state DSTs would send exactly the wrong message to tax policymakers. At a time when we critically need to improve the efficiency and effectiveness of U.S. state sales tax systems, DSTs would take us another step backward, pushing state tax systems further from international norms of a well-designed consumption tax. The expansion of the sales tax base to include more, not fewer, business inputs would raise serious doubts about our ability to modernize the U.S. consumption tax system. And it would do so at a historic moment fraught with challenges as we adapt to the fast-growing digital economy and cope with the grave risks of historic levels of federal deficits and debt. Many novel and traditional state and federal tax reforms, reflecting both efficiency and equity principles, will undoubtedly emerge in the coming years. But we should eliminate the state DST from the list of options under consideration. ■

<sup>84</sup> As stated in our earlier study, “The cornerstone of the Canadian model is the creation of a national consumption tax, not to replace state sales and use taxes, but to coexist with the subnational system and encourage states to harmonize with a national tax base and uniform administrative rules. States that choose to conform to the national model would maintain their own tax rates and revenue stream but would avoid the costs of administering their own sales and use tax systems. . . . The national consumption tax rate could be kept low by international standards, like Canada’s rate, and supplemented by the state tax rate and revenue stream.” Frieden and Lindholm, *supra* note 81, at 77-78.

<sup>85</sup> See Frieden and Lindholm, *supra* note 81, at section 2.