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Consumption Tax Options for California

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SUMMARY

California's ongoing budget crises have prompted a serious evaluation of the state's revenue system. The state's revenue is more volatile than that in other states, and this volatility can be attributed, in part, to California's tax structure.

Also of considerable concern is whether the state's tax system promotes economic activity while providing a fair distribution of the tax burden. Moreover, California relies heavily on state-level tax collections to finance state and local public expenditures, and thus its tax structure plays a critical role in the functioning of the state's economy.

In the 2009–10 fiscal year, California collected roughly $27 billion in sales and use taxes for the state's general fund, $45 billion in individual income taxes, and $10 billion in corporate income taxes (Legislative Analyst's Office, 2010). These three taxes together consistently account for over 90 percent of the state's general fund revenues. As in many states, California's tax system relies heavily on taxing both personal and corporate income. However, many have suggested that a greater reliance on consumption taxes—taxes based on the consumption that occurs in California, rather than on the income earned in the state—might improve the performance of the revenue system. This report reviews concerns about the current tax system and evaluates five potential consumption-based tax reforms.

Retail sales tax (RST) reform. Much household consumption is excluded from taxation, including services and Internet sales, both of which have been growing steadily as a share of

household consumption. And a large share of the state's sales tax is derived from purchases by businesses, raising the cost of doing business in California. Reforming the retail sales tax could address both of these issues, increasing the state's revenue base while reducing the burden on businesses.

Corporate income tax reform. The California corporate income tax is a volatile source of revenue, but it can be improved. Basing its apportionment exclusively on sales could enhance the state's business climate.

Gross receipts tax (GRT). This tax, recently introduced by several other states, would apply to all business sales, including interstate sales and sales to other businesses. It would broaden the tax base and provide greater stability in state revenues. However, it would raise production costs and reduce California's competitiveness by increasing the taxes imposed on business purchases.

Value added tax (VAT). Like a retail sales tax levied only on sales to consumers, a value added tax is levied on consumption. Unlike a retail sales tax, a value added tax would impose taxes in stages, as production occurs. A value added tax might be less susceptible to tax evasion than the retail sales tax, but this potential advantage would need to be weighed against implementation costs.

Sales-apportioned tax on value added. This tax, called a "business net receipts tax" (BNRT), would be based on national value added, with California's share determined using a sales-only apportionment formula. This tax would not be as effective at promoting production within the state, but it would be easier for an individual state to implement than a state-level value added tax.

In the following pages, we discuss the advantages and disadvantages of each option in terms of revenue volatility, economic distortions, equity, and ease of implementation and administration. In the end, reform of the existing tax structure may provide the most straightforward path to reform, particularly in light of the potential difficulties of introducing an entirely new tax system.

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Introduction

California's current tax system has a number of shortcomings, most notably an approach that leads to volatile revenues and provisions that both foster an unfavorable business climate and distort consumer choice. Many have suggested that a greater reliance on consumption taxes—taxes based on the consumption that occurs in California rather than on the income earned in the state—might improve the performance of California's revenue system. Because consumption expenditures tend to be less volatile than the income sources upon which California's income tax heavily depends—in particular, capital gains and corporate income—the revenues gained from a broad-based consumption tax would likely be more stable over the economic cycle than those generated by the state's current tax system.

As a tax on the *purchases* of goods and services, rather than on their *production*, a consumption tax could encourage production in California more than does our current system, which relies heavily on taxes levied on income from production in California. This is because taxing production raises the costs of California producers relative to those in other states. Taxing consumption, rather than production, might seem to impose a higher burden on California residents (in their capacity as consumers), but California is ultimately limited in its ability to shift the burden of any of its taxes to consumers elsewhere.

Many have suggested that a greater reliance on consumption taxes might improve the performance of California's revenue system.

However, several problems stand in the way of a shift toward consumption taxation.

- The closest thing California already has to a broad-based consumption tax—its retail sales tax—fails to tax many elements of consumption while taxing many production activities. As discussed below, if the retail sales tax were to become the basis of California's move toward consumption taxation, it would first need to be reformed.
- Legal roadblocks currently hinder the state's ability to tax consumption in the form of purchases from out-of-state vendors when these vendors lack sufficient "nexus"—physical business presence—in California. The state's limited ability to tax such transactions, which are of growing economic significance, would likely influence the design of alternative consumption tax approaches.
- Many critics equate consumption taxation with regressive taxation, because the share of income consumed tends to fall as income rises. Thus, evaluation of any potential major shift in the structure of taxation needs to include an assessment of who bears the burden of the shift. This is not simply a question of who *pays* the tax but much more importantly the *incidence* of

Key definitions

Business input: A product used in the manufacture of another product—for example, sugar used to make candy.

Deadweight loss: The economic cost of distortions of taxpayer behavior; equivalent to a loss of income in excess of tax revenues collected.

Formula apportionment: A method by which a portion of a taxpayer's national tax base is apportioned to a particular state according to the location of a factor or group of factors, typically some combination of sales, payroll, and assets.

***Quill* decision:** 1992 Supreme Court decision that limited the ability of states to require that out-of-state vendors collect sales tax on remote purchases; arguably does not apply to the BNRT or the GRT.

Tax incidence: Analysis of who bears the economic burden of taxation.

Use tax: A tax imposed on purchasers in lieu of a retail sales tax on remote transactions where legal constraints limit a state's ability to impose sales tax directly on vendors.

the tax—i.e., who ultimately *bears* the tax burden, which may differ from those who pay the tax once the responses of taxpayers are taken into account. For example, the incidence of a tax levied on corporate income in California may fall partially on labor if capital moves to other states, thereby reducing the labor productivity and wages of California workers; or if the tax leads to higher prices, it may be borne in part by California consumers.

- Any major change in tax structure, including a shift toward consumption taxation, will create different groups of winners and losers, by region, industry, population, age, and so forth; however, an analysis of these issues is beyond the scope of this report.

In spite of all of these concerns, a shift toward a greater reliance on consumption taxes seems more feasible than a wholesale scrapping of the current tax system.

In the following sections, we discuss in detail some of the issues relevant to thinking about a shift toward consumption taxation at the state level. After reviewing the key characteristics of California's existing tax system that relate to consumption taxation, we present and evaluate several reforms, including changes in the retail sales tax, modification of the state corporate income tax, the introduction of a gross receipts tax, the adoption of a state-level value added tax, and the potential of a new but related tax, the business net receipts tax suggested by the Commission on the 21st Century Economy, a bipartisan commission established by the state government in 2009 to consider reform of California's tax system.

It is important to focus on economic substance (what taxes do), rather than on their form (how taxes may officially be described), when considering the effects of a particular tax system.

One key point is that it is possible to tax consumption in a variety of ways. Another is that it is important to focus on economic substance (what taxes do), rather than on their form (how taxes may officially be described), when considering the effects of a particular tax system. For example, taxes that some analysts might loosely describe as being consumption taxes may actually have different effects. As will be discussed, this is true of gross receipts taxes and, to some extent, the retail sales tax. By contrast, other taxes that have effects in some ways resembling consumption taxes may have a superficial structure that makes this resemblance less than apparent—for example, the corporate income tax apportioned based on sales location. The text box summarizes the tax policy objectives discussed below. We provide more extensive details

Objectives of tax reform

Throughout this report, several attributes will be taken as representative of a good tax system for California. As will be discussed, some of these carry over from a national perspective on tax reform whereas others are more applicable at the state level. These attributes include:

Broad-based, uniform taxation of final consumption, because consumer choice is distorted by variations in tax rates on consumption.

Taxation based on the location of consumption rather than on production, because taxes on production add to the costs of in-state businesses relative to the costs faced by businesses in other states, thereby discouraging in-state production and employment.

Revenue stability, because revenue volatility has severe effects on a state's public spending; states are restricted in their ability to borrow to reduce this volatility.

Equity, because distributional fairness of the tax burden matters; equity concerns should not be based on who pays the tax but on its *incidence*—that is, on who ultimately bears the burden of the tax, taking into account the responses of taxpayers to a new tax system.

Ease of administration, taking into account federal and state legal and constitutional restrictions that might apply.

and methodological explanations in a technical appendix, which is available on the PPIC website (www.ppic.org/content/pubs/other/611AAR_appendix.pdf).

Why Shift Toward Consumption Taxation in California?

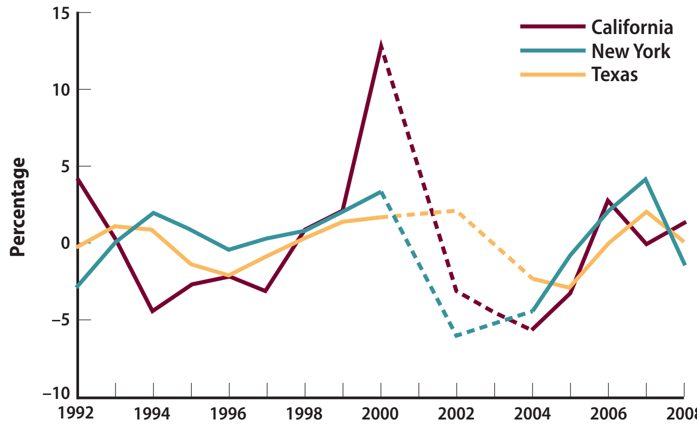
From the perspective of California, the attractiveness of a consumption tax lies in its ability to reduce revenue volatility and increase the competitiveness of California companies relative to that of other states and countries.

Why is revenue volatility a problem? Most states, including California, face constitutional restraints on their ability to engage in long-term general fund borrowing. Although accumulation of substantial rainy day funds in good times might serve, in principle, to cushion swings in revenue without requiring that a state borrow to supplement sudden declines in its tax revenue, accumulation of rainy day funds adequate for this purpose has not been a politically viable alternative. Thus, limits on borrowing mean that revenue volatility translates into a continual need to adjust spending programs or the tax structure to achieve a balanced budget, which, as Californians have observed, can be a politically difficult and economically painful process.

As illustrated in Figure 1,[1] the problem of volatility is particularly severe in California, which relies more strongly than many states on the individual income tax—a relatively unstable source of revenue, since income fluctuates more than sales or property assessments during a typical business cycle (Auerbach, 2010). Moreover, California's income tax tends to be more volatile than the income taxes in other states, because it relies heavily on sources of income subject to large swings, including capital gains. Absent any prospect of significant increases in property tax collections, a stronger reliance on consumption taxes would be the most obvious path to greater revenue stability, because consumption tends to fluctuate less than income.

As for competitiveness, the benefit of relying more heavily on consumption taxes is that they increase the cost of purchasing consumer goods and services, rather than the cost of producing them. Thus, a shift from taxing income to taxing consumption would lower production costs in California relative to those in other states, making California a more attractive place for businesses to locate their productive assets and to employ workers. Although this might seem to shift the burden of taxation from residents of other states to Californians as consumers, the mobility of capital among states means that California

Figure 1. State and local tax revenues are particularly volatile in California



SOURCE: Adapted from Auerbach (2010).
NOTE: No data for 2001 and 2003 (per dotted lines).

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Revenue volatility forces California to make frequent budgetary adjustments.

ultimately has little ability to shift taxes to the residents of other states, anyway, through lower rates of return on their investments in California. Rather than accepting lower rates of return, investors can locate their business operations elsewhere.

One important factor confronting California and other states as they contemplate taxing consumption is that the ability of states to tax purchases from out-of-state vendors remains very much in doubt. Under evolving case law, most importantly the 1992 Supreme Court decision in *Quill Corp. v. North Dakota* (which dealt with mail-order sales), states may not require out-of-state vendors to collect sales tax on purchases by state residents unless the vendors have sufficient nexus within the state. This ruling has been interpreted as prohibiting the taxation of Internet sales by companies whose only connection to the state is through remote sales. One consequence has been that states such as

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Legal and administrative barriers make it difficult to collect taxes on Internet sales.

California that impose a retail sales tax on other purchases must instead attempt to collect a *use tax* from Internet buyers (i.e., a tax imposed on purchasers in lieu of the sales tax)—an approach that has met with very little success to date. Although the decision in *Quill* indicated that congressional legislation could relax this restriction, no serious consideration of such national legislation has been undertaken. Some states, beginning with New York, have recently attempted to sidestep this restriction on their own (requiring that companies such as Amazon.com collect sales tax on Internet sales) by broadening their interpretation of nexus to include close business relationships with in-state companies.[2] Although there has been some judicial success to date in state courts with regard to taxing Internet sales (e.g., *Amazon.com LLC v. New York State Department of Taxation and Finance*, 2009), the Supreme Court has yet to determine the viability of such recent initiatives. Moreover, such legislation, even if successful, might cover only a small fraction of Internet sales.

In thinking about the type of consumption tax California might wish to impose, one issue to consider is the ease of its administration and enforcement, in particular whether it might be better to work within the existing sales tax system or to implement an alternative system. In response to a recent movement to replace the U.S. federal tax system with a national retail sales tax, some analysis has suggested that such a tax would be more susceptible to tax evasion than a value added tax, because of the manner in which the value added tax is collected—from producers at all stages of production, rather than just at the retail level.[3] The problem of tax evasion is less severe at the state level, because state sales tax rates are much lower than federal rates but the information-gathering ability of the federal government is greater than that of individual states. This means that adoption of a particular type of consumption tax at the state level might meet with more administrative success if such a tax were also adopted at the federal level. This would be true for a retail sales tax, were the federal government to adopt one, and also for a value added tax. As discussed below, an excellent model for this type of coordinated reform would be the recent Canadian adoption of a national VAT with the gradual harmonization of taxes on the same base at the provincial level.

Much of the recent discussion of consumption taxation in the United States has focused on the national level. In that discussion, some proponents have viewed a consumption tax as a substitute for one or more existing taxes, whereas others have seen it as an additional source of revenue to help address the very large federal budget deficit. It is worth noting that some of the arguments that may be familiar regarding consumption taxation at the national level carry over to the state level, but some do not. It is also worth noting that some state-level issues may be less relevant at the national level:

- A shift toward consumption taxation would likely reduce the volatility of tax revenues at both the federal and state levels, but revenue volatility is a more significant concern at the state level, because of the borrowing restrictions that states face.
- A consumption tax at the national level would not be subject to the legal restraints imposed on individual states in the taxation of remote sales.
- At the national level, taxing consumption, rather than production (through income taxes), would not spur U.S. domestic production with respect to trade with other countries, because any apparent increase in U.S. competitiveness would be countered through movements in the exchange rate. That is, a policy of reducing the tax on U.S. production and increasing the tax on U.S. consumption would cause the dollar to appreciate relative to other currencies, and this would offset the apparent increase in international competitiveness arising from reduced production costs.[4] At the state level, consumption taxes would promote competitiveness with respect to other states, because no offsetting exchange rate movements are possible: the states share a fixed exchange rate via their common currency, the dollar.
- One argument for a national consumption tax is that it would encourage capital accumulation (and therefore spur productivity growth and higher incomes) by reducing the tax burden on savings and investments. For an individual state acting on its own, even one as large as California, this potential economic benefit would be smaller, because the tax policies in other states would remain the same and would continue to affect the saving and investment decisions of Californians. Thus, promotion of capital accumulation is a stronger argument for consumption taxes adopted at the national level. Taxes on savings and investments may also be less attractive policies at the state level, because the interstate mobility of capital makes investment location sensitive to a given state's capital income taxes. This sensitivity of investment to state capital income taxes increases the attractiveness to states of consumption taxes, because consumers are less mobile across state boundaries.
- Finally, taxes adopted at the state and federal levels differ in their short-run macroeconomic consequences. Therefore, macroeconomic considerations should be of less concern at the state level. Although a perceived benefit of consumption taxes is their encouragement of saving, rather than current consumption, discouraging consumption may be a drawback in periods of recession, when the government might seek strong consumer demand to help spur economic recovery. However, because many of the goods and services purchased in one state are produced elsewhere, the effect of one state's consumption tax on its own local employment will be considerably attenuated by interstate spillovers. That is, although a single state's tax policy may affect consumption purchases and employment nationwide, only a fraction of this effect will occur within the state's borders. Thus, from the state's perspective, the macroeconomic effects are small. On the other hand, at the federal level, most of the effects on consumption purchases and employment of a nationwide consumption tax will remain within national borders. As a result, the

Revenue volatility is a more significant concern at the state level, because of the borrowing restrictions that states face.

short-run macroeconomic consequences of tax policy would represent a more important issue for the country as a whole than for an individual state.

In sum, for California, the attractiveness of a consumption tax lies in its ability to reduce revenue volatility and increase competitiveness. Federal action could ease the challenges of adopting a consumption tax by permitting the taxation of sales by out-of-state vendors or by establishing an administrative infrastructure for tax collection and enforcement through the adoption of a national-level consumption tax. However, one cannot assume that federal action will occur, so one should consider the viability of different alternatives in its absence.

California's Retail Sales Tax: The Need for Reform

In the 2009–10 fiscal year, California collected roughly $27 billion in sales and use taxes for the state's general fund, $45 billion in individual income taxes, and $10 billion in corporate income taxes (Legislative Analyst's Office, 2010). These three taxes together consistently account for over 90 percent of the state's general fund revenues. Taking into account local as well as state government finances, California relies more on each of these taxes and less on the one remaining major state and local tax—the property tax—than does the typical state. Thus, although property taxes are the primary direct source of tax revenue for local governments, California raises a larger share of its taxes at the state level. Both of these patterns are directly attributable to property tax limits imposed in the late 1970s with the passage of Proposition 13.

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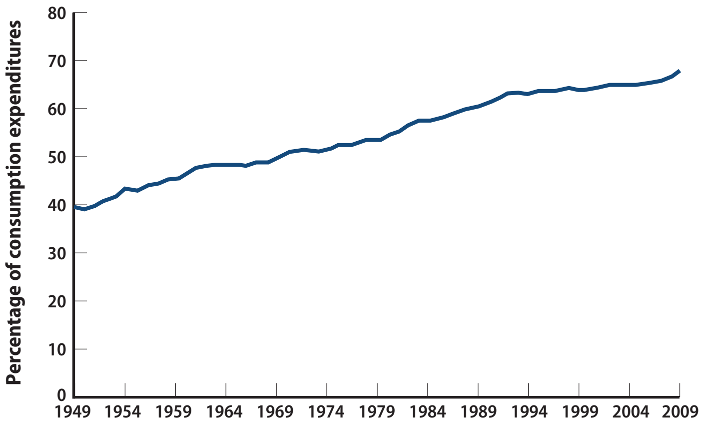
California forgoes billions in revenue each year by exempting many household purchases (including medication) from its sales tax.

The simplest approach to accomplishing a shift away from the volatile income tax would be to increase the state's retail sales tax rate. However, at its current 8.25 percent rate (including a base rate of 1 percent distributed to local governments), California's state sales tax rate is already the highest in the country (Tax Policy Center, 2011).[5] Thus, alternatives to a rate increase merit more serious consideration.

A retail sales tax is generally considered a consumption tax, because its base includes household retail consumption expenditures. However, in California and elsewhere, there are two key differences between consumption and the basics of the sales tax. First, the tax base excludes many elements of household consumption. In some cases, these exclusions are aimed at encouraging the exempt activity (such as education) or at lessening expenses for lower-income individuals or those facing large medical purchases (e.g., prescription drugs). In other cases, including Internet and mail-order sales by out-of-state vendors without sufficient nexus, legal or administrative barriers make it difficult to collect sales taxes. In still other cases, the traditionally limited application of the sales tax to purchases of tangible goods has hindered the extension of the tax to cover services.

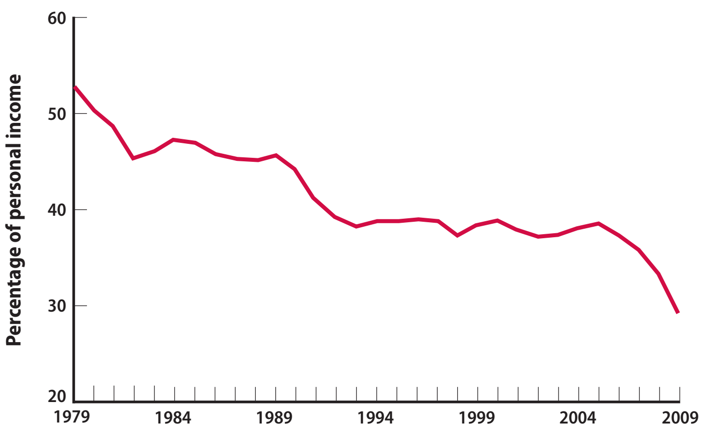
As shown in Figure 2, services have been growing steadily as a share of overall household consumption in the United States over the past 60 years, from less than two-fifths of household consumption in 1949 to roughly two-thirds today. And thus, predictably, taxable sales in California (which taxes relatively fewer services than most other states) have fallen steadily relative to personal income, from 53 percent in 1979 to just 29 percent three decades later, in 2009 (Figure 3). More than 80 percent of

Figure 2. Nationally, services as a share of household consumption have grown steadily



SOURCE: Bureau of Economic Analysis.

Figure 3. In California, increased spending on services has added to a sharp decline in taxable sales



SOURCES: Bureau of Economic Analysis and California State Board of Equalization.

personal income was spent on consumption nationally in 2009, with a presumably similar percentage in California; this means that California's retail sales base is less than half as large as total consumption. This is a *lot* of consumption excluded from taxation, whether by design or legal restriction. However, the share of consumption being taxed is even smaller than this, because a large share of what is included in the retail sales tax base is not consumption but purchases by businesses. One estimate is that roughly 45 percent of California sales tax revenues in 2003 came from taxes on business purchases (Council on State Taxation, 2005). Taken together, these statistics suggest that perhaps only one-fifth of California consumption is directly subject to the retail sales tax.[6]

Thus, the sales tax in California, as in other states, fails to tax a large share of consumption, and a large share of its base (business purchases) does not involve consumption. Each of these deviations from a consumption tax makes the retail sales tax less attractive as a revenue source. The *exclusion* of a large share of consumption expenditures distorts the purchasing decisions that households make, notably encouraging purchases of untaxed services relative to taxed goods. The *inclusion* of many business purchases in the tax base amounts to a tax on production in California, because a business must pay the tax regardless of how its products are used or where they are sold. This tax on production raises the cost of doing business in California relative to other states. Furthermore, to the extent that the tax

The *exclusion* of a large share of consumption expenditures distorts the purchasing decisions that households make.

on business inputs can ultimately be passed on to consumers, it may further distort consumer choice in California by severely raising the price of consumer goods involving several stages of production. This is because, with business inputs taxed at each stage of production, a cascade of taxes will result, and the total effective tax rate on final sales to consumers may end up being substantially higher than the sales tax rate itself. For example, suppose that a farmer sells cotton to a shirt manufacturer for $30, the manufacturer sells the shirt produced with this cotton to a retailer for $60, and the retailer sells the shirt to a consumer for $90. The total tax base if each sale is subject to tax is $180, double the final price of the shirt sold to the consumer. Hence, a sales tax of 10 percent on each sale will collect the same revenue as a 20 percent tax on consumption.

In sum, the sales tax in California provides a stable source of revenue but one that is not growing as fast as household income and expenditures, because of the ongoing shift toward purchases of untaxed services, which are also encouraged, because of their favorable tax treatment. At the same time, much of what is taxed under the rubric of a sales tax does not involve consumption, and the taxation of business purchases weakens the competitiveness of California businesses relative to that of other states and may further distort household consumption choices through the cumulative effect of several layers of tax on the prices of some consumer goods. Because the effects of any tax on the decisions of households and businesses increase in strength as the tax rate rises, these shortcomings would be aggravated by an increase in the rate of the sales tax. Thus, any move to increase the importance of the retail sales tax as a revenue source should include reforms focusing on the tax itself.

The sales tax in California provides a stable source of revenue but one that is not growing as fast as household income and expenditures.

Potential Consumption Tax Reforms

A number of options are available, should California choose to shift its focus toward consumption taxation. Five possibilities include: reforming the retail sales tax, to include more service expenditures and fewer business inputs; modifying the corporate income tax, to include more businesses and make it more closely resemble a tax on consumption; adopting a gross receipts tax; adopting a state-level value added tax; and adopting a business net receipts tax.

The first two reforms would involve modifications of existing taxes, the third would introduce a tax that would be new to California, and the last two would introduce taxes that do not yet exist in any state. Table 1 provides a brief summary of how each of these taxes operates.

Reforming the Retail Sales Tax

The possibility of modifying the retail sales tax in California has received considerable attention over the years, with three potential reforms most frequently discussed: (1) finding a way to tax more Internet sales and other sales by out-of-state vendors, (2) extending the tax to cover a greater share of services, and (3) reducing or eliminating the tax on goods and services purchased by businesses.

The first of these reforms depends on congressional (or possibly judicial) action, which limits the usefulness of an in-depth discussion here. However, it is worth noting that such a reform would be desirable if it were legally feasible. Except for the difficulties of tax administration,

Table 1. Alternative tax systems

Tax system	Tax base	Tax base determination
Retail sales tax	Retail sales in California, including some sales to businesses	Directly based on sales in California, subject to limits on Internet and mail-order sales
Corporate income tax	Income of corporations	National income, apportioned; currently based either on sales or on a combination of sales, payroll, and assets
Gross receipts tax	Gross receipts	Directly based on gross receipts
Value added tax	Value added, equal to business income plus wages and salaries	Directly based on California value added, equal to gross receipts less the cost of business inputs; subject to limit on remote sales
Business net receipts tax	Value added, equal to business income plus wages and salaries	National value added apportioned on the basis of sales

there is no coherent argument for favoring sales through one channel over sales of the same or similar items through another, and there is a considerable amount of money at stake. According to one recent projection (Bruce and Fox, 2004, Table 5), the state lost between $2.3 billion and $3.6 billion of retail sales tax collections on electronic commerce sales in 2008. However, the authors estimate that some of this revenue would not have been collected even if e-commerce were taxable, and it appears from the same estimates that about three-quarters of this loss was attributable to business-to-business sales, which we will argue should probably not be taxed.[7] Even so, a potential revenue gain in the hundreds of millions of dollars a year would be involved, at the current tax rate.

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A more comprehensive tax on final sales would make it possible to reduce or eliminate taxes on business inputs.

Moving toward more comprehensive taxation of final sales would strengthen the case for reducing or eliminating the tax on business inputs.

The other two potential modifications cut in opposite directions in terms of revenue, with increased coverage of services raising revenue and excluding business inputs from tax reducing revenue. There are good arguments for considering these two changes together, rather than piecemeal, because these reforms tend by their structure to be complementary in their effects. One argument in favor of maintaining a tax on business inputs is that it may be difficult for some producers to distinguish between sales to consumers and sales to other producers. Another is that many of the inputs are purchased by businesses that provide untaxed services to consumers, as in the case, for example, of the products used by a hair salon or the pencils and paper used by a law office. Thus, it is not obvious that simply removing *all* taxes on business inputs would be a step in the right direction, given its revenue cost. Nonetheless, a tax on business inputs is a poor substitute for a tax on final sales to consumers, because it discourages the use of taxed inputs, rather than other inputs (such as labor), imposes a lower effective tax rate than a tax on final sales by taxing only some inputs, and taxes input purchases by producers whose sales are already subject to tax on final sales. Thus, moving toward more comprehensive taxation of final sales would strengthen the case for reducing or eliminating the tax on business inputs, to the extent that this elimination would be practical.

However, in considering a move toward more inclusive taxation of services, one should remember that many services are provided to other businesses. Like existing taxation of business inputs, taxation of services purchased by businesses would be generally undesirable and inconsistent with the aim of taxing final consumption. Thus, if the taxation of services were extended without distinguishing the identity of the purchaser (i.e., final consumer versus business), it would make sense to focus on services primarily purchased by consumers, such as medical services, amusements and recreation, education services, personal services, and automobile repairs (Council on State Taxation, 2005), while exempting services in such areas as advertising and engineering, which are purchased almost entirely by businesses.

Beyond the three reforms already mentioned, there is a fourth that receives less attention than it deserves: the tax exemption for a range of significant purchases of tangible items by households of limited means. The Legislative Analyst's Office estimated that in the 2008–09 fiscal year, the three largest such exemptions—for food products; gas, electricity, water, and steam; and prescription medications—accounted for a loss of $7.8 billion from the state general fund, or nearly one-tenth of the entire general fund budget. About half of this loss is due to the first exemption, for food products (Legislative Analyst's Office, 2008).[8]

In the 2008–09 fiscal year, exemptions for food products; gas, electricity, water, and steam; and prescription medications accounted for a loss of $7.8 billion from the state general fund.

The logic for exempting these items is clear—to reduce the tax burden on the purchase of necessities by people of limited means, because of low income or high medical expenses. However, exemption of all purchases in these categories is a costly and inefficient way to reduce the tax burden of the needy, because most of the purchases in these categories are *not* made by the target group. That is, although the poor may spend a disproportionate share of their income on food, most food is not purchased by the poor. Other approaches to addressing the distributional effects of taxation, such as the provision of food stamps or other low-income supplements, can achieve the same objective at a fraction of the revenue cost and would also eliminate the current tax system's encouragement to purchase exempt commodities over taxed ones.

California is like many other states in providing these exemptions from sales tax, but a number of states do not provide such exemptions. According to the Tax Policy Center (2011), seven states fully taxed food in 2010 (Alabama, Hawaii, Idaho, Kansas, Mississippi, Oklahoma, and South Dakota) with most providing a rebate or income tax credit to compensate low-income households. Another seven states (Arkansas, Illinois, Missouri, Tennessee, Utah, Virginia, and West Virginia) imposed some sales tax on food, although at a lower rate than on other goods.

In sum, California could increase sales tax revenues while reducing the economic distortions of the tax by expanding its coverage to more services and currently exempt commodities, using some of the added revenue to reduce the tax on business inputs and providing assistance to offset the adverse effects on low-income households. (As shown in the appendix, a move away from the taxation of business inputs may, in itself, contribute to a progressive shift in the tax burden, from labor to capital.) An additional benefit would come from extending coverage to remote sales by out-of-state vendors currently subject only to use tax, if this were to prove feasible. All of these changes would be relatively straightforward to implement.

Modification of the Corporate Income Tax

Although a corporate income tax appears to be a tax on corporate income, the manner in which it is imposed, with the share of a company's national income that is taxed in California determined by a so-called apportionment formula, may cause it to more closely resemble a tax on consumption. Hence, modification of the corporate income tax may serve to shift the tax base toward consumption. This point is developed more fully below.

Like most states, California imposes a separate income tax on corporations operating within the state. But a complication arises in determining the tax liability for California corporations that operate in other states as well. As in other states, a corporation's California tax base is determined not by how much income the corporation earns in California but rather by an apportionment formula that determines the share of the corporation's U.S. income that is attributed to California. The primary reason for using an apportionment formula is to avoid the need for companies to account separately for profits earned in each state in which they operate. Instead, national profits are allocated among states based on relatively observable measures of a firm's economic activities in each state.

States rely on three factors to determine the apportionment of corporate income—assets, payroll, and sales—commonly assigning an equal weight to each factor in the formula. For example, a corporation with 15 percent of its assets, 20 percent of its payroll, and 10 percent of its sales located in California would be subject to California tax on 15 percent ($\frac{1}{3} \times 15 + \frac{1}{3} \times 20 + \frac{1}{3} \times 10$) of its U.S. income. Over the years, many states have moved to apply more weight to the location of sales than to the other factors. As of 2010, for example, California and several other states applied a double-weight to sales (giving one-half the weight to sales and one-quarter the weight each to assets and payroll), and a number of other states relied only on sales to determine corporate income. Furthermore, legislation passed in February 2009 allows corporate taxpayers (as of January 1, 2011) the option to annually choose to use *only* the sales factor in determing the apportionment of their corporate income, rather than continuing to use the three-factor formula with sales double-weighted.[9]

A corporate income tax is, of course, not a tax on consumption, and so it has one characteristic that a consumption tax does not—volatility. Regardless of how a corporation's income is apportioned by states, the income itself is very volatile—more volatile than income in the economy overall—and so will be any particular state's share of this income based on its apportionment formula and its tax rate. Thus, heavier reliance on the corporate income tax is likely to increase revenue volatility. In other respects, though, a corporate income tax can resemble a consumption tax in its effect, in particular with respect to a focus on consumption purchases, rather than production, in California.

A shift in formula apportionment toward sales would indeed represent a step in this direction. As emphasized in the economics literature (see, e.g., McLure, 1980), a state's corporate income tax, although formally a tax on corporate income, can resemble, in its effect, a tax on the measure used for apportionment. For example, a tax apportionment based on the location of assets can resemble a property tax, because it raises the cost of having property in the state; following similar logic, a tax apportionment based on payroll can resemble a payroll tax, and a tax apportionment based on sales can resemble a sales tax. Thus, the California corporate income tax based on all three factors would have effects simulating all three taxes, whereas a formula based only on sales would resemble a sales tax. Empirical evidence is consistent with this reasoning, showing that a shift in apportionment weights from payroll and assets to sales has been associated with increases in in-state employment. For example, Goolsbee and Maydew (2000) found, in a study of the effects of changes in state apportionment formulas over the period 1978–1994, that a switch from equal three-factor weighting to double sales weighting increased in-state manufacturing employment by approximately 1.1 percent on average.

Given that sales-only apportionment is now available to corporate taxpayers in California, there remain three important issues to address. First, allowing a corporate taxpayer to choose between the traditional three-factor apportionment formula and sales-only apportionment will lead to a considerable loss in tax revenue (relative to the mandatory use of either apportionment formula), because a taxpayer will choose the option that offers lower tax liability. Also, this provision introduces variation in the effective tax rate on sales, depending on where production occurs. Consider, for example, two corporations. The first generates its product in California and sells it nationally (including in California), and the second generates its

> Allowing a corporate taxpayer to choose between the traditional three-factor apportionment formula and sales-only apportionment will lead to a considerable loss in tax revenue.

product outside California and sells it nationally (including in California). The corporation generating the first product will opt for sales-only weighting, which will minimize its California tax payment, because most of its sales occur elsewhere, even though its assets and payroll are located in California. The corporation generating the second product will opt for the three-factor formula, since with its payroll and assets outside California, its California tax payment will be reduced by including these in the calculation. The corporate tax will work much more like a consumption tax in the case of the first company, increasing the cost of selling to California consumers. As a consequence, California purchasers will face a higher effective sales tax rate on the first product than on the second, because the burden faced by consumers will be the same as if the added cost of sales were formally imposed on them, as is the case with sales taxes, rather than on producers. As already discussed in the context of California's existing retail sales tax, such variation in tax rates distorts consumer choice and is therefore undesirable. Thus, a mandatory sales-only formula would be preferable to one that provides a choice.

Second, the California corporate income tax, like the U.S. federal corporate income tax, applies only to corporations, thereby giving rise to a large distortion between corporate and noncorporate producers. Aside from issues of tax administration and compliance, there is no coherent argument for treating corporate and noncorporate production distinctly. Given that a growing share of business activity in the United States occurs outside the business model subject to regular corporate taxation—including S corporations, partnerships, limited liability companies, and sole proprietorships[10]—the economic significance of this distinction has grown. If a sales-apportioned corporate income tax simulates the effect of a tax on sales by corporations, it does not do so for the sales by noncorporate producers, thus distorting consumer choice between corporate and noncorporate products. Hence, a reform of the corporate income tax laws to allow similar treatment of corporate and noncorporate taxpayers would lead to a more uniform effective taxation of sales. A simple approach in this direction would be to extend the corporate income tax to large (as measured by assets or income) noncorporate entities (with adjustments to the overall tax rate possible if an increase in revenue was not the aim).

A reform of the corporate income tax laws to allow similar treatment of corporate and noncorporate taxpayers would lead to a more uniform effective taxation of sales.

Third, as already discussed in relation to the retail sales tax, a tax on sales is not the same as a consumption tax to the extent that it includes intermediate sales to other producers. Taxing intermediate sales distorts business organization and consumer choice, discouraging production in vertical chains and the consumption of goods that are produced in this manner. Logically, if a sales-weighted corporate income tax resembles a state tax on corporate sales, then one would expect from it the same distortions of consumer choice and business organization. Indeed, as discussed in the technical appendix, this is what economic analysis predicts. A sales-weighted corporate income tax will discourage the sale of business inputs in the state in much the same way that a tax on all sales (including intermediate sales) would, because such sales increase the apportionment weight applied to the company's profits. However, from the standpoint of encouraging economic activity, weighting only by sales would still represent an improvement over a system that includes assets in the apportionment formula, because inclusion of a factor based on assets exerts a strong incentive for mobile capital to leave the state. Also, apportionment based (in whole or in part) on sales is subject to strategic behavior on the part of companies, which can reduce their tax liability in California simply by engaging in low-profit-margin business in other states, essentially buying and then reselling items elsewhere.

Both of these problems—the implicit tax on intermediate sales to businesses and the incentive to develop low-margin activities in other states—relate not just to California's tax system but to the tax systems of other states as well, because if other states have similar tax rates and tax provisions, there will be no reduction in taxes from shifting activities elsewhere. However, as a state with tax rates higher than most other states, California faces these problems even when one takes into account the tax systems of other states. One might see a possible solution to these problems in basing apportionment only on final sales rather than on intermediate sales, but this approach would give rise to another avenue for strategic tax avoidance: a company could simply move its production operations out of state and establish an independent low-margin retail entity in California to which it would make intermediate sales.

Also, perhaps contrary to intuition (and as discussed further in the technical appendix), a sales-apportioned capital income tax, such as a corporate income tax, would actually fall more heavily on in-state capital and less heavily on in-state labor than a capital income tax based on the three-factor apportionment. This is because the other two factors (payroll and assets) both weigh more heavily than sales on labor income—the first directly as a tax on labor and the second because the mobility of capital means that taxes on capital cause capital to flee the state; the reduced amount of capital in the state leaves labor less productive and hence lowers the wages that labor can earn in competitive labor markets where wages depend on labor productivity.

In sum, adapting the state corporate income tax to make it take on more of the beneficial attributes of a broad-based consumption tax would involve extending its reach beyond the corporate business sector and adopting a mandatory sales-only apportionment formula. The resulting system, although improved, would still fall short of a true consumption tax in its effects, because of the underlying volatility of the tax base, relative to consumption, and the implicit taxation of intermediate sales, because such sales are included when determining a company's tax liability in California and the strategic tax avoidance opportunities inherent in the sales-apportionment method, because companies can reduce their California tax liability by increasing low-margin sales activity in other states.

BLOOMBERG VIA GETTY IMAGES

Value added taxes are common around the world, but not in the United States.

Introducing a Gross Receipts Tax

A gross receipts tax is, as the name suggests, a tax on the gross receipts of a business. In some respects, it resembles the retail sales tax and the value added tax, so it may be perceived as providing one particular way of implementing a tax on consumption. In fact, it is not.

Unlike the retail sales tax, a gross receipts tax applies to receipts from all sales, including all sales to other businesses. Unlike a value added tax, it does not provide credits to businesses for taxes already paid on purchased inputs. One consequence of these features is that a gross receipts tax has a very broad base, so that it can generate a lot of revenue at a relatively low tax rate. In addition, this tax is relatively simple to implement, since doing so does not require that the government determine whether sales are to households or businesses (since all sales are taxable) or keep track of taxes paid by businesses on their purchased inputs (since these taxes are not deductible from a company's own tax liability). Finally, as with the retail sales tax, the gross receipts tax provides a relatively stable source of revenue.

Perhaps in part because of these features—breadth of the tax base, simplicity of implementation, and stability of revenue—gross receipts taxes have enjoyed a recent renewal of popularity. For many decades, this tax existed as a vestige of rudimentary, early 20th century tax policy still in place in a few states that had not gotten around to replacing it with a superior, more modern alternative. However, several states have recently introduced the gross receipts tax, either as a stand-alone tax or as an option under a broader tax. These states include Ohio (2005), Kentucky (2007), Michigan (2008), and Texas (2008).

Unfortunately, the gross receipts tax has a serious flaw that is inherent in its structure and not easily addressed through modification. Like taxation of business inputs under the retail sales tax, the gross receipts tax causes a cascade of taxes in the case of any goods or services produced by a sequence of businesses, rather than just a single business. This feature distorts the organization of production toward vertical integration (to reduce tax liabilities) and discourages demand for products that are difficult to produce within a single, vertically integrated business. Although taxation of business inputs is incomplete under the retail sales tax and might, as discussed, be reduced through reform, this feature is essentially the defining characteristic of the gross receipts tax. Thus, adoption of a gross receipts tax would worsen the taxation of business inputs relative to the current retail sales tax and certainly relative to a reformed sales tax. Aside from its simplicity, the only potential argument in favor of the gross receipts tax is that, as a tax on business receipts, rather than sales, it is arguably not subject to the legal restrictions on the taxation of remote sales in the state. That is, it appears possible to tax a remote seller's gross receipts on its in-state sales, even if these sales cannot be taxed under a retail sales tax system.[11]

Introducing a Value Added Tax

Like retail sales taxes based only on sales to consumers, a value added tax can be used to implement a broad-based tax on consumption. However, unlike the sales tax, which taxes only final sales, a value added tax imposes tax in stages, as production occurs. Although a producer at each stage is formally liable for the tax on its entire sales, it receives credits for taxes paid on previously produced inputs to avoid the cascading effect of intermediate goods taxation. Also, the value added tax provides a tax rebate to *purchasers* for final sales other than for domestic consumption (e.g., for investment or export), and this ensures that only consumption remains in the tax base.

Although value added taxes are common around the world, there is no federal value added tax in the United States. An individual state acting on its own could, in principle, introduce a value added tax, but this would involve imposing a tax on imports from out of state, whether by businesses or individuals, an approach that would likely face the same legal obstacles as the retail sales tax in imposing a tax on out-of-state vendors without sufficient nexus.

Were the United States to adopt a national value added tax, the potential advantages of a similar state-level tax would increase.

Were the United States to adopt a national value added tax, the potential advantages of a similar state-level tax would increase, particularly if such national taxation brought with it a relaxation of the restrictions on the application of state value added taxes to out-of-state vendors. In that case, not only would the legal path to adoption of a true state-level VAT be clear, but national adoption would also facilitate enforcement and collection of such a tax by states through the coordinated activities of federal and state governments. A model for this coordination, described in the text box below, is the Canadian Goods and Services Tax (GST), and the taxes recently adopted by several provinces in coordination with the GST, referred to as Harmonized Sales Tax (HST).[12]

In sum, a value added tax imposed at the state level would have many of the same attractions and limitations as a reformed retail sales tax. As discussed above, some have argued that the value added tax would be less susceptible to tax evasion than the retail sales tax, but one would need

Value added tax reform in Canada

Introduced in 1991, the GST is a national value added tax. Although provinces were free to maintain their own pre-existing retail sales taxes, similar in form to those used by U.S. states, they had an option of coordinating tax collection activities with the national government by adopting the HST. Under the HST, provinces conform their tax bases to the GST but have the option to choose their own tax rate. In exchange for this tax base conformance, the federal government collects tax on behalf of the province and then transfers collected revenues to it. Rebates are based on national estimates of the location of business activity, making it unnecessary to keep track of all individual taxpayer transactions.

The HST was initially adopted in 1997 by three small provinces, Newfoundland and Labrador, Nova Scotia, and New Brunswick. A provincially administered tax, the Quebec Sales Tax, had already essentially conformed to the base of the GST in 1995. In 2010, Ontario and British Columbia switched from a retail sales tax to the HST, thus bringing the bulk of Canada's overall economic activity under a conformed provincial tax system. As of 2010, the rates in these provinces fell within a relatively narrow band, from 7 to 10 percent.

Among the benefits of a switch from the retail sales tax to the HST is a shift in the focus of taxation away from business inputs, including investment goods. Consistent with this shift, Smart (2007) reports empirical estimates that provinces shifting to the HST experienced increased investment thereafter. The Canadian experience suggests that a state-level VAT would be an attractive option for California were the United States to adopt a federal VAT. Many have proposed this in recent years as one way to deal with the federal fiscal imbalance.

to weigh this potential advantage against the administrative costs of imposing a new tax that differs fundamentally from those in place in other states.

Introducing a Sales-Apportioned Tax Based on Value Added

Perhaps reflecting both the attractiveness of the value added tax as well as the challenge of adopting such a tax at the state level without national coordination, California's Commission on the 21st Century Economy proposed a modified version of the value added tax that would not be subject to the nexus issues. Under its proposed business net receipts tax, tax liability in California would be based not on California value added but rather on national value added, with sales-only formula apportionment used to determine California's share of the total. This apportioned VAT (which under the proposal would have applied to companies over a certain size threshold) would have introduced the same approach to value added taxation—sales-only apportionment based on a national tax base—that is now a taxpayer option under the state corporate income tax.

As its name suggests, the BNRT was characterized as a tax on business, but aside from its similar approach to apportionment, it differed from a sales-weighted corporate income tax in three important respects. First, it would have applied to all businesses, not just corporations. Second, it would have applied to all value added, i.e., returns to capital and labor, rather than providing a deduction for wages as under the corporate income tax. And, finally, since its national tax base would have been all value added, rather than just returns to capital, the revenues it generated would have been less volatile, like those from a consumption tax.

The first of these differences, as already discussed in relation to the corporate income tax, would represent an improvement but also one that could be accomplished by extending the coverage of the corporate income tax. The second difference, inclusion of labor as well as capital in the tax base, is of importance primarily in terms of how the burden of taxation is borne by various groups of individuals. As discussed in the appendix, and perhaps not surprisingly, the BNRT would fall more heavily on labor in California, and less heavily on capital, than would a sales-apportioned capital income tax, that is, a BNRT amended to exclude wages and salaries from the tax base being apportioned. Thus, BNRT has two potential advantages over the sales-apportioned corporate income tax. The first, primarily a political advantage, is the relative ease with which it might be applied to the noncorporate business sector. Second is the reduced volatility of its revenue base. The opportunities for strategic tax avoidance through modifications of in-state and out-of-state activities appear similar under the two systems.

A VAT imposed using sales-weighted formula apportionment would share the true VAT's administrative costs of novelty and, like the sales-apportioned corporate income tax, would not eliminate all of the economic distortions that a consumption tax would create. But, like a consumption tax, it would provide a less volatile revenue stream, and it might conceivably be more easily applied to noncorporate businesses than the existing corporate income tax.

Conclusion

Most of the options outlined in this report (the gross receipts tax being a likely exception) would promote competitiveness by shifting California's tax system toward one that assesses tax based on where products are consumed, rather than on where they are produced. The details among these options vary in terms of their advantages, disadvantages, and implementation (Table 2). All but the corporate income tax reform would provide more revenue stability than the existing California state tax system. Reform of the retail sales tax or the corporate income tax would work within the existing system, possibly making reform more straightforward. Only a reformed retail sales tax or a value added tax could effectively avoid taxation of business inputs, although both are also subject to limits on their ability to impose tax on Internet and mail-order sales. The retail sales tax is potentially more subject to evasion than the value added tax, which would make the latter an attractive option in the context of federal VAT adoption.

The systems vary in the degree to which they would share the tax burden between labor and capital, in the form of lower after-tax wages and profits, with the business net receipts tax imposing the highest burden on labor among the reformed systems and a reformed retail sales tax the least. A sales-based corporate income tax would also place a relatively low burden on labor, but for it not to distort the choices between corporate and noncorporate organizational form, it would need to be extended to cover a larger fraction of the business sector. If this were done, then, like the reformed retail sales tax, the corporate income tax would be less distortionary and more progressive than the gross receipts tax.

Of course, there are other ways to break the population into groups in thinking about winners and losers. For example, it is clear that the extension of the retail sales tax to the consumption of goods and services not currently subject to taxation would shift the burden onto individuals who are heavy purchasers of such commodities as well as on the industries that produce them. The expansion of a sales-apportioned corporate income tax to cover the activities of some large noncorporate entities would raise the prices of goods and services largely produced by them. Although a detailed analysis of the effects on specific groups and industries lies beyond the scope of this report, such gains and losses are inevitable. One obvious way to address them is through a gradual implementation of reform, which would reduce its effect and allow time to adjust.

In thinking about these options, one need not view them as mutually exclusive. In particular, it would be possible to implement reforms of the existing retail sales tax and corporate income tax together without giving up either tax system. Indeed, this might well be the simplest path to improvement, although the history of past attempts at reform reminds us of the difficulties that even such a straightforward reform would face. ●

A technical appendix to this report is available on the PPIC website:
www.ppic.org/content/pubs/other/611AAR_appendix.pdf

Table 2. Summary of options

	Tax system				
	Retail sales tax	**Corporate income tax with sales-only apportionment**	**Gross receipts tax**	**Value added tax**	**Business net receipts tax**
Changes needed	Extension of coverage to more consumer services Reduction of tax on business inputs Replacement of exemptions with targeted low-income support	Extension of coverage to large noncorporate businesses Replacement of apportionment election with mandatory sales-only formula	Enactment (new system)	Enactment (new system)	Enactment (new system)
Advantages	Revenue stability Works within existing system A pure consumption tax, to the extent that business inputs are removed from the tax base	Works within existing system Ability to tax Internet and mail-order sales	Simplicity Revenue stability Ability to tax Internet and mail-order sales	Revenue stability A pure consumption tax	Revenue stability Ability to tax Internet and mail-order sales
Disadvantages	Limited ability to tax remote sales May be particularly susceptible to tax evasion, especially at a higher tax rate	Revenue instability Implicitly taxes business inputs	Requires implementation of new system Applies to all business inputs, therefore causes more distortion than other approaches	Requires implementation of new system Limited ability to tax Internet and mail-order sales	Requires implementation of new system Implicitly taxes business inputs Less progressive than other options, as measured by share of burden borne by in-state labor

Notes

[1] The figure plots indexes of state and local tax revenues (with 1992 values equal to 1) relative to a quadratic trend, using data from the U.S. Census of Governments. Values for 2001 and 2003 are not available in these data.

[2] A bill modeled after New York's statute was introduced in the California Assembly as AB 178 in 2009.

[3] See President's Advisory Panel on Federal Tax Reform (2005), p. 205.

[4] This effect is discussed in Auerbach (1997).

[5] This rate includes the temporary surcharge of 1 percentage point currently scheduled to expire on July 1, 2011. It does not include the additional taxes that may be added by local governments, which can lead to total sales tax rates in excess of 10 percent.

[6] That is, if 45 percent of RST revenues come from taxes on business purchases, only 55 percent come from taxes on final consumption purchases by households. If the RST base is 29 percent of personal income, this split implies that 55 percent of 29 percent, or 16 percent of personal income, is accounted for by consumption. This is one-fifth of the roughly 80 percent of personal income that consumption represents.

[7] Bruce and Fox do not provide state-by-state estimates broken down by consumer and business purchases, so this estimate is based on their calculations for the United States as a whole.

[8] One should keep in mind that some of this revenue loss, in particular for gas, electricity, water, and steam, is for taxes currently collected from businesses and should not be counted as a potential revenue gain if we were to attempt to avoid imposing a tax on such sales.

[9] This provision would have been repealed by Proposition 24, a ballot initiative that was defeated by voters in November 2010. Its repeal has also been proposed by Governor Jerry Brown, who would replace it with mandatory sales-only apportionment.

[10] According to the President's Economic Recovery Advisory Board (2010, Table 8), C corporations accounted for 80 percent of U.S. business income in 1980. By 2007, the C corporation income share had fallen to 53 percent. Much of the growth outside the C corporation has occurred through S corporations, which are not subject to federal corporate income tax and are granted a very favorable tax rate in California.

[11] See the discussion of this issue in Pomp and McIntyre (2007).

[12] The following discussion relies on the discussion of the GST/HST system in Bird and Gendron (2010) and Smart (2007). I am also grateful to Richard Bird and Michael Smart for clarifying discussions regarding how the system works and has evolved.

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