An Analysis of a Consumption Tax for California

Fred E. Foldvary, Colleen E. Haight, and Annette Nellen[1]

The authors conducted this study at the request of the California Senate Office of Research (SOR). This report presents the authors' opinions and findings, which are not necessarily endorsed by the SOR.

[1] Dr. Fred E. Foldvary, Lecturer, Economics Department, San Jose State University, fred.foldvary@sjsu.edu; Dr. Colleen E. Haight, Associate Professor and Chair, Economics Department, San Jose State University, colleen.haight@sjsu.edu; Dr. Annette Nellen, Professor, Lucas College of Business, San Jose State University, Annette.nellen@sjsu.edu. The authors wish to thank the Center for California Studies at California State University, Sacramento for their funding.fred.foldvary@sjsu.edu; Dr. Colleen E. Haight, Associate Professor and Chair, Economics Department, San Jose State University, colleen.haight@sjsu.edu; Dr. Annette Nellen, Professor, Lucas College of Business, San Jose State University, Annette.nellen@sjsu.edu. The authors wish to thank the Center for California Studies at California State University, Sacramento for their funding.

Executive Summary

This study attempts to answer the question: should California broaden its use of a consumption tax, and if so, how? In considering this question, we must also consider the ultimate purpose of a system of taxation: namely to raise sufficient revenues to support the spending goals of the state in the most efficient manner. Recent tax reform proposals in California have included a business net receipts tax (BNRT), as well as a more comprehensive sales tax. However, though the timing is right, given the increasingly global and digital nature of California's economy, the recent 2008 recession tabled the discussion in favor of more urgent matters. This study revisits the idea of tax reform specifically considering the role of consumption taxes, both in their traditional forms (such as a sales tax) a well as alternative forms (including formula approaches and Pigouvian taxes).

After much consideration, we recommend that California not attempt to generate more revenue from consumption taxes and less from the income tax as it would make the overall system more regressive. Additionally, we recommend the implementation of a revenue-neutral modernization of the base of the existing sales tax with a rate reduction to improve equity and efficiency. Finally, we recommend that California look beyond the conventional forms of consumption tax now in place and include those that address negative externalities, such as pollution and consumption of environmental resources.

Notwithstanding the above, should the legislature wish to move to a greater use of a consumption tax, we recommend California do so through the modification of the existing tax structure. A relatively simple restructuring of the current system would include the addition of savings incentives to the personal income tax. If a more comprehensive approach is desired, we suggest a shift from our current sales tax to a formula approach consumption tax (income less savings). This would allow for progressive rates and would also reduce the losses from non-compliance that can occur with higher sales tax rates and the hard-to-collect use tax. The formula approach would operate side-by-side with the current income tax. These recommendations are discussed in more detail in this paper.

Section I of the report provides a brief overview of our recommendations. Section II specifically addresses questions posed in the original request for proposal. Section III discusses our recommendations for maintaining the current tax system as well as the recommendations for a modernized sales tax and consumption taxes aimed at addressing negative environmental externalities. Section IV reviews the recommended restructuring of the current tax system, should a more comprehensive consumption tax be desired. Section V summarizes our conclusions.

In addition to the recommendations, we include several appendices to assist in framing the recommendations and to provide a more detailed discussion of consumption taxes in general.

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I. Introduction to Our Recommendations

Should California broaden its use of consumption taxes? This is a challenging question due to (a) the range of types of consumption taxes that exist and their varying economic effects, (b) the reality that California already has a sales tax generating almost one-fourth of the state's revenue (despite its "old economy" design), and (c) the growing competitiveness concerns of the broader impact of a state's tax system in attracting and retaining businesses.

We recommend the following:

1. California should not make a significant change in revenue generation from an income tax to a consumption tax that would make the overall tax system more regressive.
2. California should implement a revenue-neutral modernization of the base of the existing sales tax, with a rate reduction, to improve equity and efficiency.
3. California should consider forms of taxation beyond conventional consumption taxes, to include ones that address negative externalities, such as pollution and consumption of environmental resources.
4. If there is a desire for greater use of a consumption tax (despite recommendation #1), California should do so through the income tax structure. This can be achieved relatively easily by adding savings incentives to the income tax system. It can also be done more comprehensively by shifting to a formula approach to a consumption tax using "income less savings" as the tax base. Such a system allows for progressive rates and reduces non-compliance that can occur with a sales tax with a high rate sales tax and hard-to-collect use tax.

II. Answers to Key Questions

The request for proposal (RFP) sought answers to the questions listed below. They are answered below, and most are addressed in more depth in this report and its appendices.

1. Will a consumption tax work on a state level?

   Yes. California already has a consumption tax in the form of the sales and use tax, also used by 46 states. In addition, various excise taxes, such as on tobacco, are consumption taxes. Approximately 22% of California's tax revenue is generated from the sales and use tax.[2]

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[2] California State Controller's website on state taxes, http://www.sco.ca.gov/state_finances_101_state_taxes.html.

2. What form should this consumption tax take: Should it be the traditionally debated value-added tax or an individual tax on income minus savings?

   We do not believe a shift to greater use of consumption taxes is advisable due to the regressive nature of these taxes. We do recommend that the existing sales tax base be modernized in a revenue-neutral manner (with a rate reduction) to make this key, longstanding state consumption tax more equitable and efficient. Alternatively, should lawmakers determine they prefer greater revenue generation from a consumption tax, then savings incentives should be added to the existing income tax (such as by exempting all or a portion of investment income). This is preferable to generating revenue from an even higher sales tax rate on a narrow base. Should a shift to even greater use of a consumption tax be desired, use of a formula approach (consumption = income less savings), is recommended as it allows for a progressive rate structure.

   The ideal consumption tax would fall on the spatial and locational services provided by land, since the tax would not diminish the land, nor would it affect the rent paid by tenants. After the transition, landowners would bear no burden, since by reducing the price of land, the tax would replace the same amount of mortgage interest. However, we recognize that a tax on the consumption of spatial services would clash with the property tax of Proposition 13, and thus is politically infeasible.

3. What are the best ways to phase in a consumption tax?

   If our suggestion for a modernized sales tax with a broader base and lower rate is accepted, implementation should include a phased-in approach to allow the Board of Equalization and sellers newly subject to the tax to adopt software and recordkeeping to collect the tax. In addition, an income tax credit should be used to offset the implementation costs for affected businesses.

   If a formula approach to a consumption tax is used, such as to replace the personal and/or corporate income tax (or a portion thereof), implementation can be phased in by gradually adding the elements of consumption. This should also help in determining what the revenue neutral rates should be. In addition, transition rules should be considered, such as a specific period in which to expense the adjusted basis of depreciable assets at date of enactment.

4. Who will ultimately bear the burden of the tax?

   Ultimately, all taxes are borne by individuals both directly and indirectly. Indirectly, individuals pay some portion of business taxes via lower wages, lower return on investment or higher prices of goods and services. Consumption taxes tend to be regressive in that lower income individuals use a greater portion of their income for consumption than do higher income individuals.

   Given the global economy and the mobility of financial capital, as after-tax returns on asset values tend to equalize relative to risk, the ultimate incidence or burden of higher consumption taxes in California would be on consumers *paying higher after- tax prices, workers obtaining lower net wages from reduced productivity, and landowners obtaining lower land rent (including the imputed rental of owner-occupied land) from lower bids due to lower profits. The lower rentals paid by tenants would be offset by lower profits from enterprise and lower wages by households.*

5. If a consumption tax were added while one or more of the current three major taxes were reduced or eliminated could the overall progressivity of the tax system be maintained?

   It depends. If a consumption tax, such as a formula approach discussed in this report, replaced the income tax while keeping the sales tax, the system would become more regressive (much less progressive). If a consumption tax is added, we recommend the formula approach because it allows for progressive rates. However, given large income gaps in our population and the reality that high-income individuals do not consume a significant portion of their income (even assuming that housing would be exempt), the revenue generation potential is not as large as it is for a progressive income tax. Thus, even with the formula approach to a consumption tax, it would not be as progressive as the current personal income tax and likely could not generate as much revenue as the income tax.

   Our suggestion for consideration of a consumption tax that addresses environmental externalities would also be regressive, although certain forms of such a tax could be imposed on higher income individuals.[3]

6. If a consumption tax were added while one or more of the current three major taxes were reduced or eliminated could the excess burden (deadweight loss) of the tax system be reduced? In other words, would the allocation of economic resources be less distorted?[4]

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[3] For example, the sales tax could be expanded to include residential utility costs that exceed what is expected for a specified size home, such as 1.400 square feet.

[4] The "deadweight loss" and "excess burden" of taxation mean the same thing. The excess burden of taxation is the burden on the economy and society, beyond the burden on the taxpayers. By raising the after-tax of goods and labor, the deadweight loss reduces the "social surplus" of the economy, the net gains from production and consumption. Consumers have less gain because the higher price reduces quantities purchased, and the net benefit to buyers is less. Suppliers have less gain to the extent that the after-tax price received by producers is reduced, and the highest-cost producers leave the industry. The deadweight loss is a misallocation and waste of resources, a loss not offset by any benefit. The excess burden includes the administrative costs of tax compliance for both government and taxpayers, and the shift of economic activity from production to leisure or idleness, the reduction in entrepreneurship, the increase in inefficient tax evasion, and the reduction of investment and thus also of economic growth. The excess burden of taxation increases by the square of the size of the tax, so that if the tax rate doubles, the excess burden quadruples. (That is why a broader sales tax with a lower tax rate reduces the deadweight loss.) The deadweight loss also depends on the elasticity or responsiveness of quantity to a change in the price, so that goods with a large reduction of quantity have a greater deadweight loss than goods with a small reduction in the quantity. Therefore, the deadweight loss is minimized by taxing resources whose supply is little affected by the tax, since there are moral reasons for not taxing inelastic demands such as for life-saving medicine.

The excess burden of California's tax system would be reduced the most by, 1) higher user fees that replace taxes; 2) a tax on emissions that replaces regulations (e.g. smog tests) and cap-and-trade; 3) a tax on spatial services based on the market rent of land.

A broader sales tax, applied to services and digital goods, as well as tangible goods, would lower the excess burden by reducing the tax rate for the same amount of revenue. The excess burden increases by the square of the size of the tax, so reducing the sales tax rate from 8% to 4%, thus cutting the rate in half, would reduce the deadweight loss by one-fourth. This would to some extent be offset by a greater administrative cost for sellers of services, as their sales are currently not subject to sales tax.

A revenue-neutral deduction of savings from taxable income would reduce the deadweight loss of investing, but it would be offset by a greater deadweight loss from taxing consumption from borrowed funds, and a higher tax rate to make up for the revenue loss. The exemption of income from savings would reduce the deadweight loss of investing, but increase the deadweight loss of labor as income tax rates increase to make up for the loss of revenue from not taxing interest, dividends, and capital gains. As noted elsewhere, the exemption of interest while taxing wages more, raises substantial equity issues.

7. Would a revenue-neutral and progressivity-neutral substitution of a consumption tax increase or decrease the cost of administering and complying with the tax system?

Any shift to greater use of consumption taxes would increase administrative and compliance costs. A broader sales tax means that more types of consumption (such as personal services, entertainment, and digital goods) are subject to tax. Today, most sellers of these items do not collect sales tax (unless they also sell tangible goods). Collection of sales tax by these sellers and administration by the Board of Equalization represent new costs. Effective use of technology though, should result in reduced costs than was true in the past.

Use of a formula approach to a consumption tax requires taxpayers to track and compute annually their net increase in wealth. For individuals who have most of their assets in a single account and do not borrow, the measurement may be relatively simple. However, for many individuals, the computation will be complex and costly due to the likely need to seek professional assistance with the calculation. The use of this tax (such as based on the USA tax summarized in Appendix VIII) by businesses should not pose much difference in compliance costs relative to the current business income tax.

If a tax, such as the USA tax, replaced California's income tax, costs would also be higher because this tax would not match the federal income tax. Additional records and calculations would be required of individuals and businesses.

8. Would such a substitution generate a more stable revenue stream?

    Our recommendation for a modernized sales tax with a lower rate can improve stability of the tax base due to the lower rate. A broader base though, can increase the use tax gap. Use of a consumption tax built into the existing income tax by excluding all or a portion of investment income will reduce the volatility of the personal income tax as capital gains are a volatile income source.

    Our additional suggestion to consider a consumption tax to address negative environmental externalities might help stabilize the revenue stream if the taxes generated replaced a portion of the personal income tax.

9. If California adopts a consumption tax while neighboring states do not, will it work? Put another way, the inability of states to tax purchases from some out-of-state sellers will mean that some value added won't be taxed, and sales made to other states will create the same problem?

    The reference in this question to California's ability to make out-of-state sellers collect tax, refers to the current state of the sales tax in the U.S. Yes, a broadened sales tax base will exacerbate this problem as some elements of the broadened sales tax base can be purchased from out of state. However, personal services, such as a haircut or veterinary services, will be in-state consumption. The state can work with other states to encourage Congress to enact "marketplace fairness" legislation that would allow the state to collect from non-de minimis out-of-state sellers.[5]

10. Are there legal barriers to implementing a consumption tax?

    Changing a tax base, even if revenue neutral in the aggregate, requires a two-thirds vote of the legislature. If there is a desire to expand the sales tax base to include food, a change to the constitution is needed (Article 13, Sec. 34).

III. Why California should not shift from an income tax to a consumption tax

California should not make a significant change in revenue generation from an income tax to a consumption tax that would make the overall tax system more regressive.

Our current system, though flawed, does have some advantages. First, it is important to recognize that we currently have a mixed taxation system that already includes some consumption taxes as a part of the greater system. This greater system relies heavily on incomes taxes. Income taxes have the benefit of allowing for a progressive rate structure which can achieve better vertical equity. Additionally, an income tax system can be used to administer welfare benefits based on income, such as the refundable earned income tax credit for low-wage workers. Relying

[5] Such proposals have been considered by Congress for many years. See for example, S. 698 (114th Congr.) , Marketplace Fairness Act of 2015.

solely on a consumption tax would impose a greater tax on consumption from borrowing, putting young families and people starting out in their careers at a distinct disadvantage, as these groups typically borrow to purchase cars, houses, major appliances and furniture. A replacement of state income taxes with higher sales taxes (or other form of consumption tax) would make this expense that much higher. Additionally, California has a substantial number of high-income individuals. Because these individuals do not spend all their income, the annual tax base for a consumption tax will be too small to generate as much revenue as is possible with an income tax. Furthermore, a broader consumption tax would likely reduce retail-spending resulting in the loss of jobs.[6]

Consumptions taxes come in a variety of forms (see Appendices III to IX). The current California system makes use of sales and taxes, with significant exemptions) as well as excise taxes. While our recommendation is to not shift away from an income tax to rely more on consumption taxes, we do believe our current consumption tax configuration can be significantly improved, as described below.

a. Revenue-neutral modernization of the sales tax base

California should implement a revenue-neutral modernization of the base of the existing sales tax with a rate reduction, to improve equity and efficiency.

Explanation:

California's sales and use tax base should be modernized (broadened) to address today's types of consumption that covers far more than tangible personal property. A broader base will allow for a lower rate and make the tax more equitable and efficient. The broadened base should not cover business purchases in order to prevent greater pyramiding in this tax.

Rationale:

California's sales tax, created in 1933, is imposed on tangible personal property. California Revenue & Taxation Section 6016 defines "tangible personal property" as "personal property which may be seen, weighed, measured, felt, or touched, or which is in any other manner perceptible to the senses." In 1933, the tax rate was 2.5% whereas today, it is 7.5%.[7] Revenue generated by the state sales and use tax today is about $25 billion annually.[8]

Many exemptions are provided by law such that some items of tangible personal property are not subject to the sales tax. The Board of Equalization lists

[6] See Robert Carroll, et al, Ernst & Young, *The Macroeconomic Effects of an Add-on Value Added Tax*, Oct 2010; https://nrf.com/sites/default/files/Documents/nrf_ey_vat_executive_summary_2010_10_07.pdf.

[77] California Legislative Analyst's Office, Understanding California's Sales Tax, May 2015, page 6; http://www.lao.ca.gov/reports/2015/finance/sales-tax/understanding-sales-tax-050615.pdf.

[8] California Legislative Analyst's Office, The 2016-17 Budget: Overview of the Governor's Budget, Jan. 11, 2016, page 6; http://www.lao.ca.gov/reports/2016/3324/budget-overview-011116.pdf.

over 100 such exemptions in Publication 61 along with the estimated revenue lost due to each exemption. The California Department of Revenue also measures the "cost" of these exemptions in its annual tax expenditures report. For fiscal year 2016-17, it estimates a cost of about $10 billion for the sales tax exemptions.[9] This does not include the amount of sales tax not generated due to the tax base only covering tangible personal property.

Despite being a consumption tax, a good portion of household consumption is not subject to the sales tax. The base has declined in terms of household spending. This is partly due to a decline in the price of many goods and an increase in the cost and use of services.[10] In addition, in today's digital economy, some tangible goods, such as books and music CDs, have been converted to a non-taxable intangible form. Thus, the sales tax base is eroding.

The California Legislative Analyst's Office illustrates this as follows:[11]

[9] California Dept. of Finance, Tax Expenditure Report 2016-17, page 3; http://www.dof.ca.gov/Forecasting/Economics/Tax_Expenditure_Reports/documents/Tax_ExpenditureReport_2016-17.pdf.

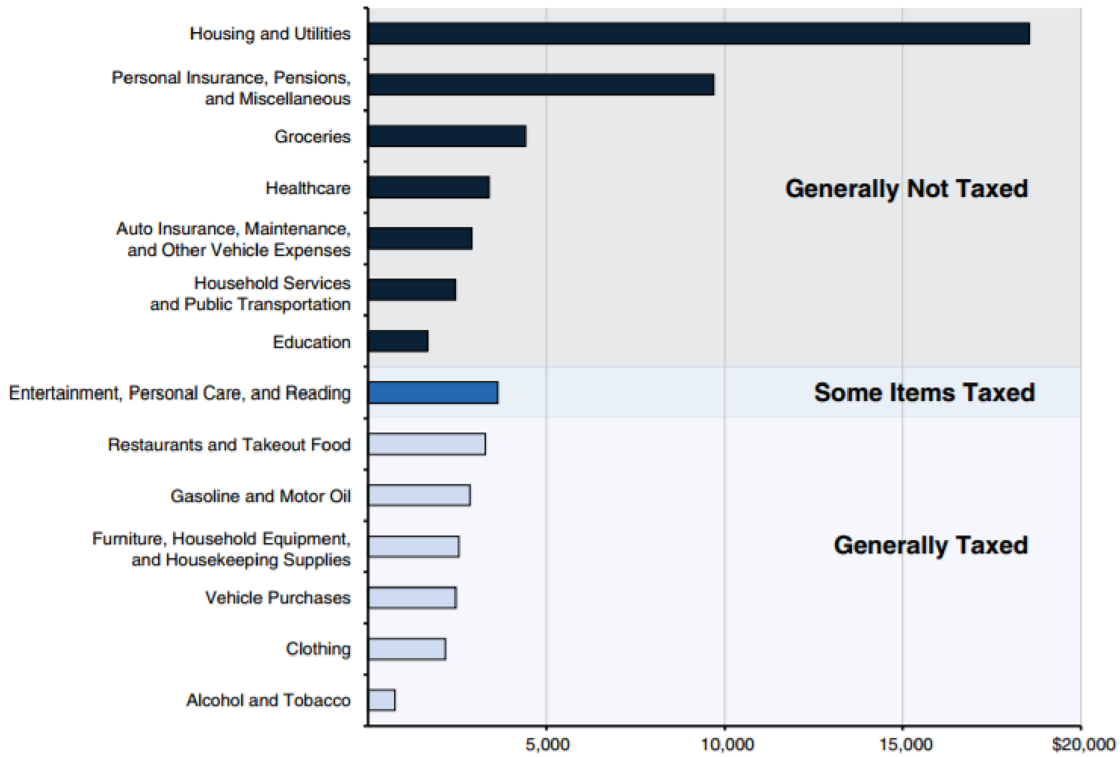
[10] California Legislative Analyst's Office, Understanding California's Sales Tax, May 2015, page 21; http://www.lao.ca.gov/reports/2015/finance/sales-tax/understanding-sales-tax-050615.pdf.

[11] California Legislative Analyst's Office, Understanding California's Sales Tax, May 2015, page 9; http://www.lao.ca.gov/reports/2015/finance/sales-tax/understanding-sales-tax-050615.pdf.

Figure 5

Most Household Spending Is Not Subject to the Sales Tax

Dollars Spent Per Household Per Year in California's Three Largest Metro Areas, 2012-2013



A 2015 report by the Board of Equalization on the revenue potential if a wide range of services were subject to tax concluded that using a combined state and local average tax rate of 8.46%, approximately $122.6 billion of revenue could be generated annually.[12] Converting this to a revenue estimate using a state rate of 6.25%, indicates state tax potential of roughly $90.6 billion. Combined with the $10 billion "cost" of sales tax expenditures, the revenue potential of untaxed consumption is significant, particularly when compared to the roughly $25 billion collected from the state sales tax today.

Of course, the entire range of consumption should not be subject to sales tax due to the burden on necessities, such as food and health care, as well as complexity that might exist in taxing some items such as certain housing services. In addition, to avoid pyramiding of the tax, generally, business purchases should not be subject to the expanded sales tax.

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[12] California State Board of Equalization, Estimate of Potential Revenue to be Derived from Taxation of Currently Non-taxable Services, April 14, 2015; https://www.boe.ca.gov/legdiv/pdf/ServicesRevEstimate.pdf.

Also, we do not recommend that the broadened base be used for revenue generation, but instead to lower the sales tax rate. Also, we do not recommend that a less transparent, alternative to a broadened sales tax be used. For example, the 2009 final report of the California Commission on the 21st Century Economy (COTCE) suggested a new form of consumption tax, labeled as a business net receipts tax (BNRT) that would tax services and replace the corporate income tax. The BNRT is similar to a gross receipts tax but reduces the pyramiding effect of the tax by allowing businesses to subtract cost of sales. However, this tax can have distortionary effects and as a new tax, adds complexities. In addition, it can encourage greater vertical integration which can affect the revenue potential. (See Appendix VI for more information on the BNRT.)

Use of a broader base for the sales tax might raise questions of whether a value-added tax should be used instead. A credit invoice VAT, used by most countries, will generate as much revenue as a sales tax. The key difference is that the VAT is imposed at every stage of the production of goods and services, rather than only at the point of final consumption. While such an approach could be used, because it is not used by other states, it may create some complexity for businesses dealing with the "normal" sales tax. (See Appendix VII for more information on the VAT.)

Basically, the rationale for an expanded sales tax base to include more types of personal consumption is to enable the high rate to be lowered and to make the tax more equitable and efficient, without creating a new tax.

Evaluation of the recommendation against principles of good tax policy:

<u>Equity and fairness:</u>

The narrow base of the sales tax base has resulted in a gradual increase in the tax rate to help maintain revenue. This makes the tax increasingly regressive as the high rate applies to standard consumption of clothing and household items and exempts a lot of high-end consumption such as entertainment and personal services. A broadened base and lower rate should reduce the regressivity of this tax. Continued exemption for items that constitute a high percentage of the spending of low to medium income households, such as food, and health and housing services, will also help reduce the natural regressivity of a consumption tax.

<u>Economic efficiency:</u>

A broader sales tax base will reduce the inefficiency of how the current system applies to similar items. For example, a tangible book is subject to sales tax, but its digital equivalent is not.

Administrability:

A broader sales tax base does raise some administration issues because more businesses would be subject to sales tax collection. Also, a broader base means that more items purchased from out of state are subject to the hard-to-collect use tax. These issues are addressed below in the implementation suggestions, in terms of how to lessen the adverse effect on tax administration and compliance. A lower rate should reduce evasion and avoidance that exists with a high tax rate.

Volatility and reliability:

A broader tax base and lower tax rate should reduce volatility of the tax by spreading the effect of changes in the economy over a wider number of consumables subject to the tax.

Effect on local governments:

A broader sales tax base and lower state rate will be beneficial to local governments. Today, local governments rely heavily on the sales tax and must continue to use the outdated state tax base. While the state can address an eroding sale tax base with increased personal income taxes, local governments do not have this option. Local governments factor sales tax into some land use decisions because of the need for revenue. For example, a big-box retailer within a city's borders will generate significant sales tax revenue. In contrast, a software developer or web-based business that does not sell any tangible personal property will not generate sales tax revenue for the city (other than the possible increased purchases of employees working in the city).

Implementation:

Listed below are some recommendations for implementing changes to the sales and use tax base.[13]

1. *Public education:* Find ways to increase understanding of the sales and use tax among California taxpayers. Information provided should cover the nature of the tax (a consumption tax), its role in providing state and local revenues, what it applies to and what is exempt, the cost of exemptions and exclusions, the significant tax savings enjoyed by higher income individuals who enjoy significant sales tax breaks today, and the adverse effects to the tax and budget systems of not updating the base. In addition, information about changes in consumption patterns over the past few decades should be provided.
2. *Lower the rate:* Be sure that base broadening is accompanied by a tax rate reduction. The key reason for broadening the sales tax base should be to

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[13] These implementation criteria were previously published at the California tax reform website of the 21st Century Taxation website maintained by Annette Nellen (http://www.21stcenturytaxation.com/california-tax-reform.html).

make it more fair and stable, not to raise revenue. Base modernization, even with a rate reduction, will generate revenue beyond what is currently collected because it will end base erosion (such as would be caused by more types of tangible goods shifting to digital or service form (such as streaming)).

3. *Transition in the changes:* Do not make all changes at once. The base should be broadened over a period of years to provide an opportunity for taxpayers to adjust to the changes and for the Board of Equalization to provide the necessary assistance to businesses that become subject to sales tax collection and filing responsibilities. However, for transparency and to avoid spreading the need for legislation over multiple years, the broadening plan should be enacted at once, but with effective dates that span a period of one to three years. Sufficient lead time must be provided to enable businesses that become subject to sales tax collection to have time to implement the necessary systems and train employees.

4. *Start with items people are used to paying tax on:* Start with areas where consumers are already used to paying sales tax, such as on digital items that are the equivalent of the tangible item. Purchases of digital items by businesses should be exempted in order that our current pyramiding problem is not made worse. In broadening the sales tax to include more services, start with those provided by businesses that also sell tangible personal property and thus already collect sales tax and file sales tax returns. For example, veterinary clinics collect sales tax on products they sell, as do many repair businesses and hair salons.[14]

5. *Avoid consumption by businesses:* To broaden the coverage of services, start with ones that are primarily used by consumers rather than also businesses. This will lessen the pyramiding problem that already exists in our sales tax system. In addition, these types of services are ones that are unlikely to pose use tax collection problems because they are obtained from California-based providers. Examples of personal services include shoe repair, car washes, hair styling, diaper service, health clubs, personal trainers, dry cleaning, parking, bowling alleys, admission charges to entertainment events, self-storage fees, personal instruction, and veterinary and pet services. To avoid exacerbating the pyramiding problem that already exists in the California sales tax system, purchases of services and digital items by businesses should be exempt (even if not for resale). Eventually, California should work towards eliminating pyramiding in the sales tax system.

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[14] Such a proposal was included in Governor Schwarzenegger's budget proposal for 2009-10 (see "Revenue Estimates," page 64; http://www.ebudget.ca.gov/2009-10-EN/pdf/BudgetSummary/RevenueEstimates.pdf). The sales and use tax was proposed to be extended to the repair of appliances, furniture and vehicles, as well as veterinarian services. It was also proposed to be expanded to "amusement parks, sporting events, and golf." The report noted the "ease of implementation as these services are generally provided by entities that already have a relationship with the Board of equalization."

6. *Avoid definitional exemptions whenever possible*: The "all or nothing" approach is the simplest way to define a tax base. California learned this lesson in the 1990s when it expanded the sales tax to snack foods. Because non-snack food was exempt, it was necessary to define snack food, which proved too difficult, making the tax unworkable. If California had instead applied tax to all food (or no food), there would be no need for special definitions that lead to added compliance costs and errors. For example, if the sales tax is expanded to cover veterinary services, the tax should apply to all charges by veterinarians (the tax already applies to tangible personal property sold by a veterinarian). Should the state not want to apply the tax to the cost of getting a rabies shot, for example, relief should instead be provided outside of the tax system to avoid the need to complicate the law by having to define, for example, "services related to a rabies vaccination."
7. *Avoid complexities and inefficiencies by using a single rate and not exempting any sellers*: In expanding the sales tax base, there can be a desire (and requests) to provide relief to small businesses or newly taxed services, such as by exempting small business and imposing a lower tax rate on service than on goods. This should be avoided as it makes the system more complicated, inequitable and inefficient. For example, if a lower tax rate applied to services, there would be a need to have rules and special enforcement to ensure that businesses that sell both goods and services are charging appropriately for each item. Imposing a single tax rate to all sales subject to the sales tax will avoid this problem.[15]
8. *Include any necessary relief for low-income individuals:* If consumption items added to the base are ones likely to impact low-income taxpayers, also enact a refundable income tax credit (or similar type relief) for such taxpayers.[16] That is, provide *targeted* relief. Such a credit can be added to the state's earned income tax credit (EITC) to help working families; other types of relief are needed for low-income individuals who do not work, such as senior citizens (which could be provided through a refundable income tax credit based on age and income).
9. *Use new simplified compliance measures:* Simplified compliance techniques can be developed, particularly for small businesses of under a certain amount of gross receipts (such as $1 million). For example, instead of quarterly filing, consider annual filing and provide paper and online recordkeeping tools to

[15] SB 8 (12/1/14) proposes to modernize the sales tax base to have a "tax system that is based on this real economy of the 21st century." It suggests that a rate other than the existing sales tax rate be used for services, and that business with under $100,000 of gross sales be exempt from sales on services (even though small businesses today that sell tangible goods are not exempt from sales tax collection). To avoid economic distortion and inequities among sellers, there should be no exemption for small sellers. If relief for compliance costs is warranted, it should be provided via a refundable income or sales tax credit. Also see companion bill SB 1445 (2/19/16).

[16] This suggestion is also included in SB 1445 (2/19/16) which proposes to modernize the sales tax by expanding it to cover services.

businesses. Allow small businesses to remit the sales tax on their income tax form and estimated tax payments (a concept similar to how the federal government allows individuals with household employees to pay employment taxes on their income tax forms). The use of technology should be included in the compliance and administration of the broadened sales tax to improve compliance and reduce vendor costs.[17]

10. *Compensate vendors:* Base expansion will cause more businesses to be subject to sales tax compliance. California could provide a refundable tax credit to alleviate start-up costs for these businesses and ideally, provide compensation for all businesses that collect sales tax.
11. *Perform necessary legal analysis beforehand:* Federal and state rulings should be reviewed for help in properly defining the expanded tax base. A 1987 Florida ruling provides insights on reducing the likelihood of legal challenges. Among other findings, the court noted that imposition of sales tax on legal services was permissible. Per the court, states have flexibility and discretion in selecting items to be taxed "provided that the classification is reasonable, nonarbitrary, and rests on some ground of difference having a fair and substantial relation to the object of the legislation."[18]

    Case law should also be reviewed to aid in drafting rules on nexus and determining the tax on services performed and/or delivered to more than one state. This issue can be lessened though by exempting business purchases from the expanded sales tax base.
12. *Learn from other states*: Other states have already broadened their sales tax base, such as Minnesota and New Jersey, and California can learn from their experiences. In addition, most states tax off-the-shelf software regardless of the delivery mode and lessons can be learned from these states as well.
13. *Don't create or exacerbate tax and budget system problems:* Avoid creating or exacerbating other weaknesses in the tax system. For example, the revenues should not be earmarked for special purposes. Also, pyramiding should be avoided by only taxing services used personally (not by businesses) or exempting businesses from the broadened tax.[19] In addition, given the

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[17] For example, the BOE could give online vendors the option of including a payment link on their website that would enable the credit card of California buyers to be charged by the seller for the cost of the item and by the BOE for the associated sales tax. This would eliminate the vendor's compliance obligations and reduce costs for vendors because they would not bear the costs incurred through additional credit card fees for the assessed sales tax. Such a system might only be appropriate for small online vendors.

[18] *In re Advisory Opinion to the Governor*, 509 So 2d 292, 303 (FL 1987).

[19] For example, AB 9 (2005-2006) proposed to broaden the sales tax to include "specialized services" that included marina services, custom computer software, charter of a plane or limousine, accounting and bookkeeping services, legal services, security and detective services, and various consulting services. Challenges with this bill included that it primarily covered services used by businesses as well as individuals so it expanded the pyramiding problem. In addition, revenues were earmarked for a specific purpose which harms budgeting. The assembly analysis (4/22/05) to AB 9 noted: "This bill does not require service providers with a business presence in California to collect sales or use tax on any sales made to California, as

importance of sales and use tax to local governments, the state legislature should work with local governments in broadening the base.

b. Addressing negative externalities:

California could look beyond conventional forms of consumption tax to include ones that address negative externalities, such as pollution and consumption of environmental resources, thereby creatively aligning revenue generation with other state goals.

Explanation and Rationale:

Many different types of negative externalities exist (as well as positive externalities), some of which may warrant government intervention and some of which may not. In this study, we confine ourselves to environmental issues only, recognizing California's aggressive goals for reducing greenhouse gas emissions represented by AB 32, the California Global Warming Solutions Act of 2006. Negative externalities arise when the choices made by individuals or organizations impose consequential costs on others. To address these negative externalities, a type of tax is often referred to as a "Pigouvian Tax" is used.[20] Examples include taxes on emissions (if measurable) and taxes on the use of resources that cause pollution or are wasting natural resources. . Such taxes currently in place in California include the excise taxes on gasoline. High taxes not only help generate revenue for the provision of road maintenance and transportation services, but also discourage the over-use of gasoline where other options are present. There are numerous types of Pigouvian taxes that could be used with revenue used to reduce other taxes while also benefitting California's environmental goals.

Evaluation of the recommendation against principles of good tax policy:

<u>Equity and fairness:</u>

As with all types of taxes, care must be taken to ensure such taxes are equitable for all segments of our society. In the gasoline example, high taxes may fall more heavily on rural populations with poor public transportation options who must travel greater distances for work and school.

<u>Economic efficiency:</u>

Economic efficiency is also at stake here: consider a polluting business. If the business is producing a life-saving medication, then a reduction in output and an increase in price may be more harmful to society than the emissions caused by

retailers of goods are required to under the current SUTL. This may compel service providers to divert their service transactions with California clients through out-of-state offices in order to avoid the tax."

20 Also known as "Pigovian," after Arthur C. Pigou, a renowned English economist from the early 20th century. See Appendix III for more information on different types of taxes.

production. In this case, social welfare concerns may make it vitally important that the business not cut back production despite the additional pollution produced.

Administrability:

Administration of these types of taxes, of course, will vary greatly depending on the resource to be preserved and the vehicle that is chosen to carry the taxation. For example, excessive park visitors degrade the park environment. A sufficiently high tax (in the form of an admission fee or higher admission fee) would certainly reduce the number of visitors, but, in order to resolve the equity issues, a program might also require coupons for low-income households as well as a way to evaluate which households qualify, a process for evaluation and people to make that evaluation.

Volatility and reliability:

Because the main point of a Pigouvian tax is to alter behavior, there are fewer concerns regarding the volatility or reliability of the revenue stream that might be generated.

Effect on local governments:

Local governments may be impacted by any tax on a resource of importance to the economy in the local area.

Implementation:

Implementation concerns will vary greatly from one tax plan to another based on the complexity needed to address the issues mentioned above. Providing public education campaigns ahead of tax changes may help individuals and businesses anticipate higher costs and adjust accordingly, but may also be instrumental in easing the transition by explaining the environmental rationale. As with all tax plans, care must be taken to ensure the taxes do not create a disproportionally large burden for low-income individuals.

IV. Addressing consumption through formula approaches

Notwithstanding our suggestion to not shift revenues from income to consumption taxes, if there is a desire for greater use of a consumption tax, California could do so through the income tax structure. This can be achieved relatively simply by adding savings incentives to the income tax system, while retaining the sales tax system (although we still suggest modernizing it as explained earlier). It can also be done by shifting to a formula approach to a consumption tax using “income less savings” as the tax base. Such a system allows for progressive rates and reduces non-compliance that can occur, for example, with a high rate sales tax and hard-to-collect use tax. Under this approach, the current sales and use tax would be replaced by a formula consumption tax. The current income tax would be retained. These options are explained below.

a. Savings Incentives

Explanation:

California's personal and business income tax systems tax investment income and labor/business income similarly. That is, the same rate structure applies. Also, there is no exclusion for any portion of capital gain or other investment income.

As with the federal income tax that the California system mostly conforms to, there are some savings incentives in the form of retirement plan tax rules (that allow for deferral of retirement plan savings).

The federal income tax imposes a lower rate for net capital gains of individuals (not of corporations). It also applies the capital gain rate structure to qualified dividends. The lower dividend rate is intended to alleviate part of the double-taxation of corporate earnings rather than to add a consumption tax element to the income tax.

One of the marks of a consumption tax is that it exempts savings from the base. One way of doing this is to exempt investment income from the tax base. [21] To lessen the revenue loss, a partial exemption could be used, such as through a lower rate structure for investment income or a partial exclusion.

Rationale:

If greater use of consumption taxes is desired, with the least amount of administrative and compliance disruption, adding some consumption tax elements to the existing personal (and perhaps corporate) income tax system would be simplest. There would be a need though to increase or create other taxes to make this a revenue neutral proposal. Given that personal income tax rates are already high relative to most other states, other taxes should be considered, such as our suggestion for a tax on negative environmental externalities or a broadened sales tax where only high-end consumption is added to the base (to lessen the regressivity effect).

Evaluation of the recommendation against principles of good tax policy:

<u>Equity and fairness:</u>

Reducing income taxation of investment income would make the income tax less progressive because this income represents a greater portion of the tax base of higher income individuals. Providing retirement plan savings incentives or subsidies to lower-income individuals would help to offset some of the adverse effect.

[21] Note, for businesses, this exemption also means that capital investment (equipment and other assets) are expensed rather than depreciated.

Economic efficiency:

Exempting some portion of investment income could encourage greater investment to promote economic growth.

Administrability:

Exempting some portion of investment income from the personal income tax would be simple to implement. An exclusion approach would be simpler than an additional rate structure for investment income.

Volatility and reliability:

Investment income, particularly capital gains, are a volatile income source relative to wages and other types of investment income. Exempting some portion of capital gain income would reduce the volatility of the personal income tax.

Effect on local governments:

Because local governments do not share in the state income tax, there would be no direct impact to them. If the added savings incentives encouraged greater investment in the state, local governments would benefit indirectly.

Implementation:

Should there be a desire to add savings incentives to the personal income tax in order to rely more on consumption taxes, an exclusion would be simpler than an alternative rate structure. The change could be transitioned in to help address revenue estimating concerns. For example, the first year, 10% of investment income would be excluded, the next year, 20%, etc. until the desired exemption amount is reached.

Due to equity issues of this consumption tax approach, consideration should be given to find ways to provide benefits to lower-income individuals. Savings incentives or subsidies could be given to help fund retirement accounts. This would also benefit individuals and the state in the long-run as more individuals would have more assets in retirement.

b. The Formula Approach

Explanation:

If a more efficient consumption tax is desired as a replacement to the current sales and use tax, a formula approach to a consumption tax could be used.

In economics, the meaning of “income” is consumption plus a change in net worth. This concept was developed mostly by the economists Robert Haig and Henry Simons, and is called “Haig-Simons income.” The annual change in net worth can be calculated as the value of assets minus debts (or liabilities) at the beginning of a year, minus that calculation at the close of the year. Income that does not go to an increase in net worth can be considered as spent for household goods, i.e. consumption. Therefore, instead of taxing goods when they are purchased, a consumption tax can tax income minus saving. If the change in net worth for the year is negative, due to borrowing, then consumption is greater than income, and taxed accordingly.

An advantage of taxing expenditures indirectly via an adjusted income tax is that the income tax can be differentiated among circumstances such as family structure. To fully tax spending, the current income-tax deductions, exemptions, and tax credits would be eliminated or greatly curtailed. For example, an exemption of some income, such as interest from municipal bonds, would reduce measured spending. The payment of taxes could well be subtracted from the spending amount, since the tax payment is not for personal consumption. Charitable spending could also be deducted, as consumption for others. Thus, the calculation of taxed spending would be:

spending = income - donations - taxes paid - change in net worth.

The Kaldor Method:

Nicholas Kaldor proposed the following method:[22]

1) Obtain the value of bank balances and cash at the beginning of the year.
2) Add the receipts of income, including gifts.
3) Include money borrowed and funds received in repayment of loans.
4) Add in the proceeds of sales of investments.
5) Subtract money lent or paid in repayment of previous borrowing.
6) Subtract the purchase of investments (including real estate).
7) Subtract the bank balance and cash at the end of the year to obtain gross expenditure.
8) Subtract exempted expenditure [such as donations and taxes paid].
9) Subtract an allowance for the spreading of expenditure on durable goods.
10) Add the proportion of expenditure on durable goods incurred in previous years and chargeable to the current year.

The result of this calculation is “chargeable expenditure” (the tax base).

Versions of the formula approach consumption tax exist. A few of these are summarized in this paper:

Universal Savings Allowance (USA tax) Appendix VIII

[22] Kaldor 1955, p. 192.

Flat Tax	Appendix IX
Frank Tax	Appendix V

Rationale:

Almost all states use a sales tax. Thus, we are familiar with it. Yet, it has several weaknesses that warrant consideration of an alternative consumption tax base if doing so would overcome such weaknesses without creating new complexities, inequities or inefficiencies. Sales tax weaknesses include:

- The use tax is difficult to collect.
- It imposes collection costs on businesses.
- The current system involves a lot of pyramiding in that businesses pay sales tax other than on sales for resale and specially exempted items (such as manufacturing equipment, which today only has an exemption for the state level sales tax).
- It operates as a turnover tax in that it is imposed on the sale of both new and used items.
- While the base can be broadened, as described earlier, it can be difficult to convince the public of the importance of doing this for the efficiency of the tax, even with a rate reduction.

The formula approach to taxing consumption avoids the above sales tax weaknesses, making it a more efficient tax. Yet, it is not a perfect replacement, explained further below. We want to stress four challenges of moving from a sales tax to a formula approach consumption tax.

1. The calculation of "savings" in the formula "consumption = income less savings" can be complex for many individuals.
2. There could be some confusion among individuals in a system with both an income tax and a formula approach consumption tax, due to some similarities in calculation.
3. Local governments would lose their sales tax base and there would need to be transfers of the new consumption tax revenues to local jurisdictions.
4. It will be challenging to figure out what the revenue-neutral base and rate structure should be, as well as predicting the effect of shifts in tax incidence. For example, out-of-state visitors would no longer directly contribute revenues to the state through their purchases.

Savings are important, because financial investments, such as stocks and bonds, and the physical investments they represent in capital goods (buildings, machines, and inventory) and human capital (education), come from savings. The taxation of the income reduces the incentive to invest, which reduces production, employment, and economic growth. That is the impetus for shifting taxation from income to consumption. The method of taxing income minus savings has a deadweight loss or excess burden. There is, however, one tax base that can be taxed without a deadweight loss: the services provided by land. Housing services includes the residential services of buildings and the spatial and locational services of sites. That applies also for commercial real estate. The consumption of land services is measured by the market rent. While the rentals paid by tenants to landlords is tapped by the income tax, the implicit rental of owner-occupied housing is not taxed, even though owners deduct property taxes and mortgage interest as though the rental income were taxed. However, we recognize that the policy is now to tax owner-occupied real estate via property taxes, and that it is politically infeasible for either income or consumption taxes to be more fully applied to land.

Evaluation of the recommendation against principles of good tax policy:

Equity and fairness:

Taxes on both general income and general consumption have inequities. Since leisure is left untaxed, these taxes induce a shift from the production and consumption of goods, to the consumption of leisure. Another equity issue is that public goods - when paid for by taxing labor and investment gains and goods - make many locations more attractive and productive, raising their rent and land values, and therefore in effect providing those landowners with implicit subsidies. Public transit, for example, becomes capitalized into higher land values. This effect is similar to hotels being able to charge higher prices due to better amenities.

However, in comparing the various consumption taxes, a tax on income minus savings provides greater horizontal equity, as most income and spending are treated alike, and it provides greater vertical equity and progressivity from the graduated tax rates on income. The formula approach also enables the system to adjust for dependents and family size, special exemptions, and a progressive rate structure.

Economic efficiency:

The most efficient sources of public revenue are voluntary user fees, levies on emissions, tolls on congestion, and taxes on a resource that does not hide, shrink, or flee when taxed, namely land rent. Thus, any tax on consumption other than on spatial consumption reduces productivity and growth. However, given the policy of taxing consumption, the tax base of income minus savings is more neutral than the taxation of purchases, induces less tax evasion, and imposes a lower deadweight loss by being more comprehensive and therefore needing a lower tax rate than a more selective and evadable tax. The current income tax enables retirement savings to be exempt, but taxes other interest, and so a tax base that excludes all additions to savings would be even more efficient regarding savings and investment.

The current California sales tax is a turnover tax, taxing a good such as a car each time it is sold, thus multiplying the excess burden. A tax on income minus savings would avoid taxing turnovers.

Shifting from the sales tax form of consumption tax to the formula approach would remove the sales tax for businesses. This would likely make the state more attractive for businesses. Also, the burden of compliance for the formula approach falls upon individuals, not businesses, thus reducing costs for businesses.

Administrability:

Accounts in financial institutions provide data on the beginning and ending amounts, and can track the net savings as well as borrowing. The change in net worth due to the prices of real estate and tangible goods could be considered as savings. This tax base would have less evasion than the current use tax.

We note that there is complexity in measuring the “savings” part of the formula (consumption = income less savings). Where individuals have multiple savings accounts and debts, the calculation is more complex. Where assets are not easy to value (they are not publicly-traded stocks, for example), additional complexity exists in measuring any appreciation of the asset during the year.

To ensure the state receives tax revenues regularly, as it does with today’s sales tax, the formula approach consumption tax would need to be paid regularly through estimated tax payments and increased withholding for employees. Some individuals who do not currently work or pay estimated tax payments would have to start doing so. This will likely be viewed unfavorably by the public unless they appreciate that they are no longer paying sales tax both directly and through increased prices when businesses pass along their sales tax to customers.

Removal of the sales tax and replacing it with the formula approach consumption tax eliminates the need for the existing sales tax administration and compliance system. The work of the Board of Equalization would shift to primarily dealing with property tax matters, assuming the Franchise Tax Board would handle the formula approach. The compliance system for the current income tax and formula approach consumption tax could be on a single tax form. These changes would likely make it possible to merge tax agencies into a single tax agency.

Volatility and reliability:

The state income tax is volatile, as there are substantial capital gains during economic booms, and losses during recessions, especially with much of the tax paid by high-income payers. There is some volatility in sales taxes on durables such as cars and furniture. The tax base of income less consumption is somewhat more volatile, and thus less reliable, than a broad-based sales tax. However, since the savings portion of income is what is volatile, income minus savings would not be that much more volatile than sales.

Effect on local governments:

California's current sales tax induces local governments to favor retail sales, especially of cars, to obtain tax revenues. A tax on income less savings would not have such a bias, and therefore not penalize non-retail enterprise such as manufacturing. However, if local governments do not share in the revenues from a formula consumption tax (which would be the case if it replaced the sales tax), local governments would derive no direct benefits from the tax. A system would be needed to transfer a portion of the formula approach consumption tax to local governments.

Implementation:

Listed below are some recommendations for implementing a consumption tax using the formula consumption equals income less savings.

1. *Public education:* Find ways to help the public understand why the sales tax was replaced with a different version of a consumption tax and the advantages expected to the state and its residents.
2. *Allow simplified methods for low to middle income taxpayers:* A complexity of the formula approach to taxing consumption is the need to measure net increase to savings during the year. An approach can be used to allow individuals to use a table based on their income to obtain an estimate if they prefer not to track actual net savings. This approach can also help reduce the tax base to further aid in reducing the regressivity of this tax (the progressive rate structure also helps).
3. *Provide tools to aid in compliance:* Software tools can be created to help individuals track their net savings.

V. Conclusion

California does face certain challenges with its current tax system. Our sales tax rate (7.5% state rate) is the highest, and our personal income tax rate (12.5%) is among the highest, in the country. Additionally, while our sales tax rate is high, it applies only to tangible goods and not to services, digital goods or entertainment. For this reason, the tax is levied somewhat disproportionally on lower-income groups raising questions of equity and fairness. Further questions of equity and fairness are raised by the system of deductions, exemptions and tax credits built into the California tax code. Like most tax systems, California is not always transparent because taxation at one point in the production process tends to materialize in the ultimate price paid by customers, even if the end product does not bear a sales tax. E-commerce continues to be an area of concern because our tax code was not designed with these technologies in mind. External factors complicate matters. Some taxes, like the Use Tax, are not easy to collect. Personal income, as demonstrated by our recent recession, tends to be somewhat volatile – making revenues based on that income equally volatile.

While reformation of our tax system is desperately needed, we do not recommend that the current system of mixed income and consumption taxes be completely shifted to a new system relying solely on consumption taxes. Instead, we recommend modifying our current system by simply modifying the part of our tax system currently dedicated to consumption taxes while leaving the income tax system in place. Those modifications would both broaden the sales tax base while lowering the overall sales tax rates, and would be modernized to reflect today's service-oriented economy. At the same time, these modifications would retain important elements of equity and fairness. However, should our legislature instead wish to transition to a system dominated by a consumption tax, we then strongly recommend doing so through a formula approach (either adding some consumption tax elements to the current income tax, or replacing our sales tax with a formula approach consumption tax) in order to improve efficiency of the tax without increasing regressivity.

Appendix I

Evaluation Criteria

An ideal tax system should:

- generate sufficient revenue;
- support the economic, societal and environmental goals of the state;
- track with and support economic growth;
- be administrable; and
- make the state competitive in attracting and retaining business activity and good jobs in the state.

Principles of Good Tax Policy

Principles of good tax policy have been a focal point in tax system design and reform for centuries – at least dating back to the maxims of Adam Smith in the late 1700's.

A few organizations and government agencies have articulated and used various formulation of principles of good tax policy. These formulations share many comment elements. Two formulations are listed below with further explanation provided. In addition, another important element – consideration of the jurisdiction's legal constraints is explained.

Two sets of tax principles illustrate consensus in how to evaluate a tax system and proposed changes:[23] the National Conference of State Legislatures (NCSL) uses a set of nine principles developed and assembled in 1991 by a bipartisan group of legislators, staff and individuals from the private and public sectors; the American Institute of CPAs, acting in 2001, issued a tax policy report laying out ten principles of good tax policy. Though the NCSL principles are focused on state and local tax considerations, these principles of good tax policy apply to all types of taxes.

[23] For a comparison of the AICPA and NCSL principles to those used by the Government Accountability Office (GAO) and some state tax commissions, see Nellen, Policy Approach to Analyzing State Tax Systems; http://www.sjsu.edu/people/annette.nellen/website/PolicyApproachAnalyzingTaxSystems.pdf.

AICPA[24]	**NCSL**[25]
Equity and fairness - Similarly situated taxpayers should be taxed similarly.	(4) Treat individuals equitably; minimizes regressivity and taxes on low-income individuals
Certainty - The tax rules should clearly specify when the tax is to be paid, how it is to be paid, and how the amount to be paid is to be determined.	(2) Certainty; number and types of changes kept to minimum.
Convenience of payment - A tax should be due at a time or in a manner that is most likely to be convenient for the taxpayer.	
Economy in collection - The costs to collect a tax should be kept to a minimum for both the government and taxpayers.	(6) Promotes fair, efficient and effective and professional administration
Simplicity - The tax law should be simple so that taxpayers can understand the rules and comply with them correctly and in a cost-efficient manner.	(5) Easy to understand and minimizes compliance costs
Neutrality - The effect of the tax law on a taxpayer's decisions as to how to carry out a particular transaction or whether to engage in a transaction should be kept to a minimum.	(8) Minimizes effect on spending decisions; any influences are explicit
Economic growth and efficiency - The tax system should not impede or reduce the productive capacity of the economy.	(7) Responsive to interstate and international competition

24 AICPA, Tax Policy Concept Statement 1 – *Guiding Principles of Good Tax Policy: A Framework for Evaluating Tax Proposals, 2001;* http://tinyurl.com/jax2dg7. Note: Annette Nellen, co-author of this report was the principal author of this AICPA report. This set of principles was used by the California Commission on Tax Policy in the New Economy (final report issued in December 2003) (http://www.library.ca.gov/crb/catax/).

25 NCSL, Principles of a High-Quality State Revenue System, 4th Ed, June 2001, updated June 2007; http://www.ncsl.org/research/fiscal-policy/principles-of-a-high-quality-state-revenue-system.aspx. The nine principles listed in this report are taken verbatim from the NCSL report. The number in the chart refers to the number listing used by the NCSL for its nine principles.

	(3) Broad bases and balanced variety (mix) of revenue sources to improve competitive relative to other states
Transparency and visibility - Taxpayers should know that a tax exists and how and when it is imposed upon them and others.	(9) Accountable to taxpayers; information on proposals publicized and debated.
Minimum tax gap - Taxes should be structured to minimize non-compliance.	
Appropriate government revenues – The tax system should enable the government to determine how much tax revenue will likely be collected and when.	(2) (3) Stability of revenues with mix of taxes. (2) Sufficiency so budget is balanced. (1) Complementary elements including finances of both state and local governments

It is important in applying these principles that consideration be given both to the particular rule under analysis, as well as to its place in a specific tax system (such as an exemption that is part of the sales tax system), as well as to the entire tax system of the jurisdiction. For example, efforts to make one tax equitable will not necessarily make the jurisdiction's tax system equitable if inequities exist in other systems. Also, solutions to making a tax system more equitable might at times be found in other taxes. For example, the principle of simplicity is more likely to be met when there are no exceptions to the tax base, such as the exemption for food in the California sales tax. While this exemption helps the sales tax to be more equitable for low-income individuals, it adds to complexity due to the need to define food. Also, the exemption does not make the system more vertically equitable because all purchasers of food receive the exemption regardless of income level. Examining the tax system holistically broadens the opportunity to find ways to make the system more equitable, such as by allowing a refundable income tax credit to address the added tax burden on low-income individuals of applying a sales tax to food.

Additional Details on Key Principles of Good Tax Policy

Further explanation of some of these principles follows.[26]

[26] Also, see (Ross, 2014; Mikesell 2013; Stiglitz 2015).

Simplicity:

A simple tax can help the tax meet a few other principles of good tax policy such as transparency, certainty and minimum tax gap. A complex tax can lead to unintentional errors and disrespect for the system. Also, taxpayers may not be aware of the effect of the tax on transactions because the rules of too difficult to understand. A complex tax also increases compliance costs for taxpayers. It also increases costs for tax agencies in that more time is needed to write regulations and conduct examinations.

Equity and Fairness:

Equity concerns also need to be considered in the implementation of a tax. Two types of concerns arise: horizontal equity (do two equivalent taxpayers have equivalent tax burdens?) and vertical equity (does the tax bill rise with the ability to pay?). Income taxes offer a great deal of flexibility in this area. Many states (including California) have progressive tax brackets which address vertical equity issues, while horizontal equity can be addressed through deductions and credits. However, recent studies have indicated that progressive taxation has little effect on reducing income inequality.[27] With consumption taxes, vertical equity is of little concern because consumption taxes depend on expenditures, which reveal willingness to pay. Horizontal equity can be address through exemptions of 'necessities'. For example, food is often not taxed. However, some types of consumption taxes can be more problematic. For example, gross receipts taxes typically favor vertically integrated firms and can therefore influence corporate structure. Property taxes also have issues because of the difficulty in assessing value consistently. Corporate taxes are often thought to be progressive because individuals tend to own more stock as income rises. However, this may not be so depending upon the extent that taxes increase production costs (and lower the amount available to pay labor) or increase costs to consumers.

Transparency:

Transparency is an important element to consider when evaluating taxes, as clearly calculable and predictable taxes are correlated with sound and fair government. Income taxes have very little transparency due to the high number of possible exemptions, deductions and credits available, as well as due to use of an alternative minimum tax (AMT). As far as consumption taxes go, VAT and retail sales taxes are more transparent than gross receipts taxes (such as due to reduced pyramiding). Property taxes are by far the most transparent. Corporate taxes, like income taxes, offer little transparency as there are many deductions, exemptions and credits that can be applied, as well as preferential treatment afforded by the

[27] Leigh, 2008.

state. In addition, the corporate tax is ultimately borne by individuals in their capacity as employees, investors or customers. The specific burden is not obvious.

Economic efficiency:

When looking at economic efficiency, economists seek to find methods of taxation which least distort the choices made by and least alter the behavior of individuals and firms within society. Income taxes, for example, tend to distort individuals' decisions regarding employment. Some individuals, for example, may choose to work less to avoid moving into a higher income tax bracket, while others may have to work more to obtain the desired level of after-tax income. Additionally, individuals may choose to live and work in those jurisdictions with lower levels of taxation. Consumption taxes might encourage cross-border shopping or production. Additionally, a gross receipts form of consumption tax can lead to double taxation as the tax is added during production, and is then added again at retail, a phenomenon known as "tax pyramiding."[28]

Property taxes on businesses can alter where businesses operate, and to the extent they are expressed through product prices, may change consumer behavior. Corporate taxes have many efficiency issues.[29] High corporate taxes encourage a shift towards non-corporate business structures and reduce new business formation. In addition, capital formation through savings and investment is discouraged in favor of debt financing (and the subsequent tax breaks).

Minimum tax gap:

The more complex the tax system, the greater the compliance issues will be. With income tax, because most of the tax is collected through employer withholdings, compliance tends to be quite high. To the extent it is not, the three main problems are underreporting of income, underpaying of tax, and non-filing. Typically, with consumption taxes, the vendor has responsibility for tax collection and payment. Enforcement issues occur in cases of unregistered vendors or inappropriate claims for exemption. Property taxes, likewise, are highly collectable as they attach themselves to the title of the property.

Revenue collection is a critical goal of taxation. For the purposes of this paper, the authors assume that taxes aimed at behavior modification are not at issue. While income tax is rather simple to collect, there are limits to how much income tax individuals are willing to pay. Economists generally agree that at some given tax rate, a tax rate increase will decrease the tax revenues collected due to tax evasion and the shifting of income generating activities to non-taxable areas.[30] There is, however, some disagreement about the rate at which this turning point

[28] Chamberlain and Fleenor, 2007.

[29] Ross 2014.

[30] Pecorino 1995.

occurs. It has also been suggested that the tax rate may differ for individuals at different levels of income. For example, high-income individuals may respond more to an increase in tax rates than lower income individuals.[31] Therefore, while income tax is easily collected, increasing taxes on the wealthy in a progressive tax system may yield smaller and smaller returns. An additional consideration is that income rises and falls with the economic health of the state. For this reason, we can see revenues from income taxes decline during economic downturns when those revenues are most needed. Consumption tax revenues are far less volatile. On average, states collect about 30% of their revenues through various consumption taxes.[32] However, at the same time, many states have been narrowing the tax base from which these taxes are collected, lowering revenues.[33] Property taxes are generally the largest source of local tax revenues, but rarely does the state share in those revenues. Additionally, many states have placed limits on the property taxes that can be collected. A good example of this is California's "Prop 13." Corporate taxes, in general, yield only about 5% of a state's tax revenues. The revenues are also trending down as firms create pass-through entities to avoid double taxation.[34]

An Additional Principle – Legal Constraints

Design of a tax must also consider legal principles. For example, the constitution and other governing laws of a jurisdiction may prevent use of a particular tax or provide restrictions in how it is used or imposed. For example, "Prop 13" added constitutional requirements on both the rate and base for California's property tax system. Also, the Bradley-Burns Uniform Local Sales and Use Tax law in California mandates a uniform sales tax base for the state and local governments among other restrictions. Of course, proposals to reform a tax system can include constitutional changes.

Federal laws may also impose restrictions on the design of subnational taxes. Unlike a state tax constrained by the state constitution that the state and its voters may be able to change, federal constraints are harder to change in that they may not be favored by Congress and the majority of states. One example of a federal law constraint relevant to California's net income tax is Public Law 86-272 enacted in 1959 that addresses when a business has nexus in a state. It generally provides that a state may not impose an income tax on a business if its only connection with the state are employees who solicit orders for tangible personal property that are approved and filled from outside of the state. Another federal legal constraint is the Internet Tax Freedom Act which prohibits state and local governments from imposing a tax on Internet access fees and any discriminatory tax on e-commerce.

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[31] Gruber and Saez, 2002.

[32] Ross 2014.

[33] Ring, Jr., 1999.

[34] Brunori, 2005.

Thus, in any design or modification of taxes, consideration must be given to any laws that may restrict certain changes (or include modification to such laws if possible). In addition, consideration must be given to possible federal changes that might impact the state's tax base. For example, P.L. 86-272 currently only applies to net income taxes and businesses that sell tangible personal property. When P.L. 86-272 does not apply (such as because the business sells other than tangible personal property or the tax is a gross receipts tax), most states use the broader "economic nexus" rule to find that a business has tax obligations in the state if it is generating a sufficient amount of sales in the state. Proposals to change or update this 1959 law include expanding it to cover more than income taxes and to possibly require a physical presence before a state could impose the taxes on a business. For example, H.R. 2584 (114th Cong.) proposes to modify P.L. 86-272 to apply to "any tax in the nature of a net income tax or tax measured by the amount of, or economic results of, business or related activity conducted in the State." This bill also calls for a physical presence for state taxation (nexus). Thus, if enacted, it would apply not only to a net income tax, but also a gross receipts tax or business net receipts tax (BNRT). The possibility of congressional action to restrict the reach of state taxes must be considered in any state tax reform in order to note shift from a collectable tax to one that the state is forbidden from imposing.

Appendix II

California's Tax Problems

Like many states, California faces tax problems that result in challenges of generating sufficient revenue in a system that supports economic growth and desired living conditions. The purpose of this report is to consider a consumption tax for California. To help understand this question and the recommendations, a summary of California's key tax problems, as identified by the authors, is provided here.[35] Any tax reform should be evaluated on how it can alleviate one or more of these problems.

High tax rates:

The state sales tax rate of 7.5% is the highest in the U.S. The local sales tax rates are even higher (for example, the rate is 8.75% in Santa Clara County as of October 2016). The top personal income tax rate is the highest among the states at 12.3% (13.3% if income exceeds $1 million). The state with the next highest individual income tax rate is Minnesota at 9.85%. Seven states have no personal income tax rate and several have a top rate between 5% and 6%.[36]

Equity and fairness often missing:

The sales tax applies only to tangible goods; other consumption items such as digital goods, entertainment and services are tax-free. A consumer must pay tax on a lawn mower, but not on lawn care services. Consumers pay tax on music CDs, but not on songs purchased from online stores or tickets to a concert. Much of the untaxed consumption is "high-end" such as services of a personal trainer and season tickets to a professional sports team.

Some tax preferences do not meet the equity principle and are costly:

Most special deductions, exemptions and tax credits represent subsidies for certain activities or transactions. It is not necessary in all cases for the state to provide a subsidy when the federal government already provides one or in some cases, there is no need to provide as large a subsidy as provided by at the federal level. For example, federal and state law allows for mortgage interest to be deducted on two homes and on up to $1.1 million of debt. While there are reasons why the government would want to encourage ownership of a principal residence, there are no policy reasons to also support an interest deduction for a mortgage on a second home or on up to $1.1 million of debt. Other preferences exist only at the state level, such as the sales tax exemption for residential utilities and food. These exemptions

[35] The problems listed are based on those provided on the California tax reform website of Professor Nellen; http://www.21stcenturytaxation.com/california-tax-reform.html.

[36] Federation of Tax Administrators, Tax Rates/Surveys – Tax Rates (as of January 2016); http://www.taxadmin.org/current-tax-rates.

are justified on the basis that these expenditures are a necessity of life. However, they provide the biggest benefit to higher income individuals as they spend more on utilities (such as due to home size) and food.

Lack of transparency:

While the law says that food (except when eaten outside of the home) is exempt from sales tax, there is sales tax included in the price because the grocery store, distributors and growers/manufacturers all pay sales tax and pass it along to buyers. This is due to the pyramiding nature of the California sales tax. That is, businesses pay sales tax on taxable items (unless purchased for resale). The sales tax paid by businesses is added to the cost of the goods they sell and subject to taxation at the consumer level – thus, there is a tax on a tax. This means that the taxes are higher than stated and that items that are theoretically tax exempt, such as food, have some sales tax hidden in their price because the seller has paid sales tax on its taxable purchases (such as shelving and other store fixtures).

Tax expenditures tend to be overlooked in budgets and spending cuts:

Special deductions, exemptions and credits represent a form of spending referred to as "tax expenditures." For example, instead of providing a mortgage interest deduction or research tax credit, which reduces the claimant's tax liability, the state could instead write a check for the amount of the tax savings to the taxpayer. The effect to the taxpayer and the government under either approach is the same. Tax expenditures tend to be enacted permanently and thus, need not be regularly reviewed or be subject to the annual budget process. Also, there are typically no spending caps placed on these expenditures. That is, if more individuals obtain home mortgages, the state would collect less tax revenues and have no control over that reduction.

New economy issues:

Most of our tax rules and systems today were not designed with the electronic-commerce model in mind. E-commerce raises tax issues not adequately addressed by existing rules and presents some possible technological simplifications for tax administration. Issues include how to source the income from goods transferred electronically and for use in more than one jurisdiction, as well as determining if nexus exists for income and sales tax purposes. For example, is nexus created when a small amount of inventory is maintained in the state by a fulfillment center selling the taxpayer’s goods? Does a taxpayer have income tax nexus in the state if funds are generated through a crowdfunding website operated by a company located in the state?

Uncollected taxes:

Every year, about over $1 billion of use tax owed to California goes uncollected.[37] Also, like the federal income tax gap, California also has an income tax gap.

Personal income tax is unstable:

The largest source of state revenue - the personal income tax, is volatile.[38] The state is dependent on a small number of high-income individuals continuing to earn high wages, stock options and capital gains so state revenues do not drop.[39] While a benefit is that tax revenues will track the economy, the problem is that a small number of individuals with volatile incomes contribute a significant amount of the tax base, which is risky for revenue stability.

Tax administration:

Administration of California's tax system is spread over three separate agencies – the Franchise Tax Board, the State Board of Equalization and the Employment Development Department. Most states have one tax agency, typically named the Department of Revenue. The existence of three separate agencies can increase costs and overlook opportunities for streamlining tax administration.

Strategy unclear:

It is not clear from looking at California's tax system and budget what California's goals are. For example, in February 2009, the budget act included a single sales factor for income apportionment purposes to incentivize businesses to locate here, but also increased the sales tax rate by one percentage point making it costlier to purchase equipment in the state. Also, despite aggressive goals for reducing GHG emissions, the budget excluded a proposed 12-cent gasoline excise tax increase. Today, the state has aggressive greenhouse gas emission reduction targets, but has not vigorously considered increased gasoline excise taxes or other means to ensure that the tax system supports these environmental goals.

City and state conflicts:

Cities do not share in the state income tax and are dependent on sales tax revenues. Thus, cities tend to want big box retailers that generate sales tax while the state would prefer employers with a high-paid workforce. While the state can generate income tax revenues from new economy businesses such as those based on digital goods or web-based applications, local governments generate no income or

[37] California State Board of Equalization, *Addressing the Tax Gap*, 2011, page 5; https://www.boe.ca.gov/meetings/pdf/P5_3_082311_Tax_Gap_2_Report.pdf.

[38] California Legislative Analyst's Office, Personal Income Tax Much More Volatile Than Economy, Dec. 8. 2014; http://www.lao.ca.gov/LAOEconTax/Article/Detail/8.

[39] California Legislative Analyst's Office, California's Major Revenue Sources and Tax Agencies, Feb. 23, 2015; http://www.lao.ca.gov/handouts/localgov/2015/Major-Rev-Sources-Tax-Agencies-022315.pdf.

sales tax from them. Also, much of the local revenues are controlled in some manner at the state level. Property taxes are allocated per state rules and the base of the sales tax is controlled by state law as is the maximum rate that can be imposed by local governments.

Tax reform challenges:

Tax reform can lead to winners and losers. It can also involve significant change. Thus, it is not an easy task. Also, significant changes can pose challenges in estimating revenues making it unclear if the new system will generate sufficient revenue. In recent years, ballot propositions have enabled tax reform to be postponed. Most recently, passage of Prop 55 in November 2016, allows the temporary increase in the top personal income tax rates to continue for thirteen more years. This is expected to address budget problems for many years, reducing the perception of the need for tax reform.

Many of the above problems are due to an outdated tax structure, as also noted by others. For example, in a June 2016 tax reform report, California State Controller Betty T. Yee observes:[40]

"Designed during the Great Depression, California's tax structure is outdated, unfair, and unreliable. It reflects economic patterns and demographics of the past. Newer economic sectors escape tax obligations because the structure was created for an industrial manufacturing base. Upper-income earners pay a substantially higher rate on personal income—a progressivity that, depending on the analysis, either helps counter growing income inequality, distributes the tax burden too unevenly, or produces unpredictability with episodic cuts to vital programs."

[40] California State Controller Betty T. Yee & the Controller's council of Economic Advisors on Tax Reform, Comprehensive Tax Reform in California: A Contextual Framework, June 2016, page i; http://www.sco.ca.gov/Files-EO/Comprehensive_Tax_Reform_in_California_A_Contextual_Framework_06_16.pdf.

Appendix III
Types of Taxes

While the purpose of this study is focused on consumption taxes, we provide in this section a review of the broad categories of taxes to provide sufficient background for comparison of possible alternatives. Following this introduction, consumption taxes are explained in more detail in the following two sections.

Forms of taxation can be viewed as falling into one of six categories: income taxes, consumption taxes, wealth/valuation taxes, Pigouvian taxes, severance taxes, and head taxes.

Income Taxes:

An income tax base includes income generated from capital and labor. Generally, any accession to wealth is includable in the base. Various issues can arise in defining the base, such as whether inflationary gains and the imputed value of owner-occupied housing should be included. The treatment of net losses can also be an issue as to whether they should be carried back or forward to offset income of other years or not used at all. Another issue with income taxes involves how they apply to corporations. The current federal and California corporate income (franchise) tax results in double taxation in that the income to the corporation is taxed when earned and then taxed again when shareholders are paid a dividend.

Income taxes generally refer to net income taxes. That is, businesses are allowed to subtract expenses and depreciation from their gross income (gross receipts less cost of sales). A gross receipts tax might also be viewed as an income tax despite no reduction for expenses or cost of sales. Variations, such as a business net receipts tax that allows for reduction of cost of sales and perhaps other expenses might also be viewed as an income tax. Alternatively, a gross receipts tax might instead be considered a consumption tax, such as if it is intended to tax the purchase of the goods or services by customers of the business. (see later discussion on the economics of consumption taxes).

Income taxes can be challenging in that various administrative issues exist in determining the sourcing and apportionment for multistate income. However, income taxes easily allow for a progressive (graduated) rate structure, enabling it to meet the principle of vertical equity. An income tax can also be used to administer welfare benefits based on income. A common example at the federal and California level is the refundable earned income tax credit for low-income workers.

Seven U.S. states currently do not have an income tax: Alaska, Florida, Nevada, South Dakota, Texas, Washington and Wyoming. Residents of New Hampshire and Tennessee pay taxes on dividends and income from investments.

Consumption Taxes:

A consumption tax is imposed on the act of consuming a good or service. There are numerous variations of this type of tax in use in California and the rest of the world. These include: a retail sales and use tax, a value-added tax, an excise tax, a gross or net receipts tax. Consumption taxes are more thoroughly explained in appendices III through VIII.

Retail sales taxes and value added taxes are quite similar, differing only in the way they are assessed and collected. A retail sales tax is assessed on the final product and collected at time of sale. A value-added tax is assessed at each step in the production process and is paid by the producer and built into the final price observed by the consumer. These two taxes, for most purposes, are arithmetically equivalent, differing only in the collection process.

The gross receipts tax does include business-to-business transactions along with purchases of final household goods. The administration of these taxes can encourage firms to consolidate vertically to avoid the taxation indicated by outside purchases.

The most common excise taxes imposed at both the federal and state level are those on alcohol and tobacco. These taxes also serve to effect behavior, such as making it difficult for young people to purchase these products.

Five states do not have statewide sales taxes: Alaska, Delaware, Montana, New Hampshire, and Oregon. Of these, Alaska and Montana allow localities to charge local sales taxes. Consumers also face local-level sales taxes in 38 states. California has the highest state-level sales tax rate at 7.5 percent. The combined state and average local sales tax rate in California is 8.48%. Hawaii has the broadest sales tax in the United State (Tax Foundation, 2016).

Wealth/Valuation Taxes:

A wealth or valuation tax uses the value of particular types of assets as the base. The rate structure can be progressive. Common examples of taxes in this category are property taxes and estate and gift taxes. The rationale for imposing tax on these items is that if the property resides in the jurisdiction, the owner is receiving benefits from the jurisdiction in protecting such assets and supporting their growth and value.

In the case of property taxes, the benefits from government's public goods are capitalized the most on land values, because the supply of land is fixed. If wages increase due to governmental works, the higher wages in that jurisdiction attracts entry into the labor market, and the increase in labor supply brings wages back down. But there is no entry to expand the amount of land. Therefore, a tax on land values pays back the rent and land value generated by the public goods, preventing what would otherwise be an implicit subsidy to landowners.

Issues with real property taxes include how to measure the base and how often to assess and levy the tax. By state law, unless the tax is bundled with a mortgage, California levies the property tax twice a year, even though for most property owners it would be more convenient to pay the tax monthly, especially if the funds are deducted from financial accounts. As property owners and lawmakers learned in California in the 1970s when real property values increased rapidly, property owners might find they can no longer afford the property tax payments owed on the increasing current value of their property. Additional property tax laws can help mitigate such problems through annual limits on tax increases, and the deferment of tax payments.

Personal property taxes raise issues of locating the property and generally are only imposed on businesses (other than on vehicles which can be found due to their registration for other purposes).

Estate and gift taxes are also referred to as transfer taxes in that they are imposed when property is transferred to another person. But, since the tax base is the value of the property at the transfer date, they are considered wealth taxes for our purposes here. Issues with these taxes include valuation and appropriate rate structure. In addition, for simplicity purposes, they tend to have a high exemption level before imposition. The amount of the exemption is also a policy issue for the design of these taxes.

Pigouvian Taxes:

Some taxes might be imposed primarily to change behavior or to address the costs of certain activities. For example, a tax might be imposed on the sale of batteries or plastic items due to the negative externalities associated with these items in terms of pollution and clean-up costs.

Severance Taxes:

These are imposed on extraction of natural resources, such as oil drilling or mining silver. Many states impose these types of taxes. California does not have any severance taxes although there have been proposals to add one or more.

Head Taxes:

A head tax is imposed on a person because they exist. While this type of tax can be difficult to avoid,[41] they are rarely used. However, a version of one was recommended by the Commission on the 21st Century Economy (COTCE) in their 2009 final report. This report included a recommendation that all adults and businesses pay a minimum tax equal to the lesser of one percent of their adjusted gross income or $100.[42] Head taxes are less efficient in terms of collection than

[41] Arye L. Hillman, Public Finance and Public Policy: Responsibilities and Limitations of Government, 2003, p. 509.

[42] COTCE, Final Report, Appendix G, supra.

other taxes; and the amount of revenue generated is limited as low-income taxpayers cannot afford the same head tax as higher income taxpayers.

Appendix IV
The Economics of a Consumption Tax

As usually presented, the two alternatives of taxing expenditures or else income does not consider other options. One option is to distinguish between earned income (wages and yields from saved wages) and unearned income (e.g. net land rent).

Another option is to tax either income or consumption according to the economic effects, such as the deadweight loss (loss of social well-being or social surplus) caused by the tax. In public finance, the Ramsey principle of optimal taxation is the “inverse-elasticity rule,” which states that, to minimize the deadweight loss, tax rates should be inversely related to their elasticity of supply and demand. Thus, to minimize the economic impact, taxes should fall as much as possible on inelastic items, for which the quantity supplied or demanded responds very little to the price change caused by the tax.

However, policy needs to be based on ethics as well economics. As economist Nicholas Kaldor wrote, “The choice of the principle on which the burden of taxation can most fairly be allocated between persons is ultimately a moral and not an economic one.”[43]

Since most people would regard the heavy taxation of life-saving medicine as morally improper, the Ramsey principle is best applied to fixed supplies rather than fixed demands.

Ethics can also be applied to the links between taxation and benefits. Because the supply of labor and capital goods are variable and are paid their marginal rather than average products, the provision of public goods by government does not generally increase wages or investment yields. But since spatial land has a fixed supply, the provision of wanted public goods makes locations more attractive and productive, which increases land rent and land value.

The taxation of wages and capital yields, or of goods, to provide public goods, generates a redistribution of wealth from workers and investors to landowners, constituting an implicit subsidy. Thus, the ethics of taxation needs to consider that if landowners do not pay back value received, workers who are also renters get double billed, paying both higher rend and taxes, while landowners obtain an implicit subsidy. Moreover, recent landowners do not even benefit from this subsidy, as they paid for it in higher land value, and the gainers were those who sold after the subsidy became priced into the rent and land value.

Arguments for and against taxing expenditures

[43] Kaldor 1955, p. 25.

The tax base that best fits the Ramsey criterion is on land value, as a completely inelastic resource. The amount of land rent in the USA has been estimated at 20% of total income,[44] although a more thorough study in Australia[45] calculates land rent there as a third of its national income, and since the US has ten times the density, land rent in the USA is probably at least as great. Moreover, land rent would be much greater if taxes were shifted out of production and goods.[46] Given a California GDP of $2.4 trillion, a third of California's income is about $800 billion, which is more than sufficient to pay the state's $500 billion in government spending.

Since there exists the option of taxation which incurs no deadweight loss, there is no good economic reason to tax expenditures, which does incur a loss of social well-being. There is also no good economic reason for taxing wages and investment yields and gains, or for taxing produced wealth. However, it is instructive to examine some arguments put forth in favor of taxing expenditures.

Thomas Hobbes wrote, "the equality of imposition consisteth rather in the equality of that which is consumed, than of the riches of the persons that consume the same. For what reason is there that he which laboureth much and, sparing the fruits of his labour, consumeth little should be more charged than he that, living idly, getteth little and spendeth all he gets; seeing the one hath no more protection from the Commonwealth than the other? But when the impositions are laid upon those things which men consume, every man payeth equally for what he useth; nor is the Commonwealth defrauded by the luxurious waste of private men."[47] Hobbes argued that the criterion of equal treatment should be based on consumption rather than on income or wealth. However, one could also argue that the wealthy have more to protect and service than the poor.

Nicholas Kaldor, in his book *An Expenditure Tax*, wrote that nontaxable sources of spending power are 'closely linked with the ownership of capital."[48] Therefore, "taxation according to 'income' introduces a bias in favor of property owners whose taxable capacity is underrated relative to those who derive their income from work. Moreover, since taxable income from property can be converted into capital gains in numerous ways, 'income' is not only a defective measure of taxable capacity but one whose relation to taxable capacity can be manipulated by certain classes of taxpayers." As a remedy, he wrote, "It is possible to improve the equity of the tax system by a comprehensive tax on income and "by an annual tax assessed on property." Again, "In the case of a dwelling house bought for owner-occupation the obvious course under an expenditure tax would be to exempt the

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[44] Cord, 1991.

[45] Dwyer, 2003.

[46] Foldvary, 2012.

[47] Hobbes 1651, chapter 30.

[48] Kaldor 1955, p. 14.

expenditure on purchase and to impose an annual charge on the value of benefits derived from possession."[49]

However, a tax on produced property, such as a building or an automobile, imposes a deadweight loss, and, by increasing the cost and reducing the yield, a tax on produced property results in less investment and less growth. However, a tax on non-produced, natural property, i.e. land value, does not have such a negative effect. Thus, Kaldor's objections could be satisfied by a tax only on landed property.

Another argument put forth by Kaldor is that "It is only by spending, not by earning or saving, that an individual imposes a burden on the rest of the community in attaining his own ends."[50] This evidently means that there is some amount of rival goods in the economy, which are considered to be society's goods, and a buyer or consumer takes from this collective stock, and deprives everyone else of these goods. And so, that consumer deserves to be tax-punished. That proposition may well be true for governmentally provided rival goods, but for privately produced goods, generally a person consumes what he produces, and thus as both producer and consumer, he does not burden society.

The most common and most compelling reason provided for taxing expenditures (or consumption) is that the income tax reduces the propensity to save. However, to conclude that taxes should therefore be on sales is to commit the fallacy of ignoring other alternatives. Savings are today protected from taxation with shelters such as retirement accounts. The tax disincentives to savings and investment can be eliminated by completely exempting yields from savings and investments from taxation. However, there is then the ethical objection that it is unjust to tax wages and not tax income from interest and dividends. The alternative that avoids taxing savings and wages is a tax on land value. Therefore, the argument against taxing savings does not imply taxing consumption, unless there is some economic or ethical reason for not taxing land.

As stated by Kaldor, "an ideal tax is one that does not interfere with the economic conduct of taxpayers." Also, "An ideal tax ... is one which succeeds in reducing a person's spending power but without leading him to behave any differently from the way in which he would have behaved if he had not been taxed at all, but his spending power had been correspondingly smaller."[51]

Considerations of tax shifts

Per Eleniewski et al, several states are considering shifting taxation from income to consumption.[52] These include Georgia, Kansas, Oklahoma, Ohio, and

[49] Kaldor 1955 p. 196.

[50] Kaldor 1955, p. 53.

[51] Kaldor 1955, p. 23 and p. 81.

[52] Eleniewski et al, 2014, p. 25.

North Carolina. In Georgia, for example, the Fair Taxation Act would replace income taxes with a sales tax expanded to include services. The sales tax rate would rise to 14.5% and increase the burden on households earning less than $85,000 per year.

Arguments for and against taxing expenditures

A problem with the state's graduated income tax is revenue instability, as a great reliance on taxing those with higher income is that there is less income and tax revenue during recessions, when the welfare costs are rising. The state could add to reserves during prosperous times and tap the reserves for revenues when the economy is depressed, but the buildup of reserves is politically difficult. A broader sales tax would provide more revenue stability, but there is also revenue fluctuation from sales as, when the economy is depressed, people postpone the purchase of automobiles and durable goods. The greater revenue stability is offset by the sales tax being more regressive, as it taxes those of lower income even when they are dipping into savings or selling off assets when the economy is in recession.

While the sales tax appears to provide less reliance on production, the portion collected by local government discourages production which does not pay sales taxes and encourages retail sales which do generate tax revenue. Moreover, a tax on sales is equivalent to a tax on gross receipts, which imposes a tax cost on firms without considering their economic costs.

As real estate prices fluctuate in a boom-bust cycle, the portion that fluctuates is land value, since building values are based on the cost of construction, less depreciation. However, if most of the land rent or land value is taxed, there would no longer be the excessive speculation that occurs during a real estate boom. As a tax on land reduces the purchase price without affecting the market rent, a land-value tax in California would fluctuate much less than it has in the past, and the diminution of a land-value boom would also dampen the general economic boom-bust sequence. Of course, a nation-wide or world-wide depression would affect California, but if the state were tax-free other than on land value, the comparative advantage would be most likely be such that enterprise would flourish even when the other states were suffering a downturn.

As Boadway and Wildasin state, "In utilitarian terms, the notion is that one's well-being is determined by consumption rather than by income." However, he states, "Given that neither tax base includes leisure, it is not obvious whether consumption is a better indicator of utility than is income."[53]

The most common and most compelling reason provided for taxing expenditures (or consumption) is that the income tax reduces the propensity to save. However, to conclude that taxes should therefore be on sales is to commit the fallacy of ignoring other alternatives. Savings are today protected from taxation with

[53] Boadway and Wildasin 1995, p. 58.

shelters such as retirement accounts. The tax disincentives to savings and investment can be eliminated by completely exempting yields from savings and investments from taxation. However, there is then the ethical objection that it is unjust to tax wages and not tax income from interest and dividends. The alternative that avoids taxing savings and wages is a tax on land value. Therefore, the argument against taxing savings does not imply taxing consumption, unless there is some economic or ethical reason for not taxing land.

Sales and excise taxes have historically been applied to tangible property, but now, digital flows exert a larger impact on GDP growth than the trade in tangible goods.[54] Such flows pose a challenge for taxes on transactions, as many transactions are free. How, for example, would the consumption of tweets, Facebook postings, and photo-sharing be taxed? Sales taxes are not well suited to 21st-century e-commerce and other digital transactions.

However, in the case of negative externalities, an ideal tax should change conduct, towards less of the external effect such as pollution. For acts which do not negatively affect others, such an ideal tax would not be on expenditures. A tax on spending increases the cost of borrowing, since one has to borrow more to pay the tax, and then pay extra interest. Thus, an expenditure tax reduces the demand for loanable funds, including a reduction in economic investments, to the extent that business purchases are also subject to taxes on spending.

Moreover, an expenditure tax, as a gross receipts tax, affects sellers of goods with high turnover more than of goods of low turnover. The goods with a short period of production have greater transaction tax costs, inducing relatively greater sales of goods of longer duration.

A local sales tax also affects the local policies, as it induces local governments to favor, by zoning, retail sales over manufacturing.

A tax even on all expenditures also fails that test, as since it is an indirect tax on wages (taxing purchases paid from wages), it induces a shift towards leisure. The tax which interferes least with conduct is one which does not affect supply or demand, and does not affect the prices of goods: land value taxation. A tax on land value or rent does not affect the rent, and the only price changed is that the price of land falls. After the transition, the fall in the price of land does no damage; indeed, a lower purchase price of real estate can be beneficial in enabling lower income persons with uncertain credit to purchase a house.

Curtis Dubay of the Heritage Foundation argues that "A Flat Consumption Tax Would Be Fair and Efficient."[55] But his claim that a "flat consumption tax is the least economically destructive tax system" is contradicted by public finance theory.

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[54] Manyika, 2016.

[55] Dubay 2015.

As argued here, the least destructive taxes are on and on land value. Dubay commits the fallacy of ignoring other options in comparing only taxes on income and goods.

Dubay and Burton advocate consumption taxes in their 2016 "tax reform primer."[56] Their principles for tax reform include:

a) (1a) Apply the least economically destructive forms of taxation. But that is a tax on land value, not spending.
b) (1b) Have low tax rates, on a broad tax base. A broader base does reduce the deadweight loss, since the tax per unit is lower. However, this criterion is not universally desirable. A tax on pollution should be based on the damage; as a tax on a bad activity, it should concentrate on the negative externality. Secondly, tax-base concentration is warranted for a tax without a deadweight loss, namely on land value.

Thus, the best taxes are those which reduce an unwanted tax base, such as pollution, and taxes which do not affect a tax base, such as land rent. Both a general income and sales tax reduce beneficial tax bases.

Their other criteria similarly fit land-value taxation better than a consumption tax, but the authors ignore that option.

An argument against sales taxation is what Mason Gaffney labels the "Mill effect," based on the explanation by John Stuart Mill:

> "… if there were a tax on all commodities, exactly proportioned to their value, there would ... be a 'disturbance' of values,… owing to … the different durability of the capital employed in different occupations. … In two different occupations, … if a greater proportion of one than of the other is fixed capital, or if that fixed capital is more durable, there will be a less consumption of capital in the year, and less will be required to replace it, so that the profit, if absolutely the same, will form a greater proportion of the annual returns."[57]

The sales tax gathers more from businesses with high turnover, and so its capital investment is taxed that much more often. The ratio of taxes to investment is thus higher. Thus, sales taxes penalize high-volume low-markup sales relative to low-volume high-markup sales. A sales tax also favors high-value locations relative to marginal locations. Gaffney notes also that "New businesses with high startup costs can deduct them from taxable income, but not from gross sales."[58] The basic effect is that sales taxes "depress turnover heavily, and so depress demand for labor – both the number of jobs and their pay rates".[59]

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[56] Dubay and Burton 2016.

[57] Mill 1848, Book V, Chapter IV, pp. 504-05.

[58] Gaffney 2011, p. 5-6.

[59] Gaffney, 2011, p. 10.

Another argument against a consumption tax is that policy makers usually seek to stimulate the economy by increasing aggregate demand. A sales tax reduces purchases and thus also aggregate demand.

Griffen argues that the "major argument against the expenditure basis of taxation on equity grounds is that the tax would discriminate in favor of the rich since they tend to spend a relatively small proportion of their income.[60] Thus, the person with $100,000 in income who saves $20,000 would be taxed on a smaller proportion of his true ability than would the person with an income of $10,000 who cannot save that large a proportion of his income."

Global sales-tax history

Gaffney's history of sales taxation is not encouraging to those favoring the tax.[61] The French king Louis XVI was pressured by the nobility to reject Turgot's proposal to do away with taxes on goods and their passage. There followed the revolution of 1789. In Great Britain, Charles I lost his head in 1649 after pushing sales taxes on his subjects without permission of Parliament. King George III lost the American colonies after imposing "intolerable" taxes on imports, including sugar and tea.

Adam Smith asked why Spain, with all that gold taken from the New World, lagged in economic progress. He blamed Spanish *alcabala* and *cientos* - heavy sales taxes.

In the USA, in 1794 farmers of western Pennsylvania rebelled against a whisky tax on their corn. During the Civil War, Jefferson Davis financed secession with excise taxes. "The C.S.A. repudiated its bonds and currency, and lost the war catastrophically."[62]

In Cuba, Spain imposed high excise taxes on farming and mining, and tariffs favoring Spain. "In Russia, Czar Nicholas II lost a war he could not finance from excise taxes. In 1919 he was shot, with his entire family, and his Romanov dynasty terminated."[63]

"In 1932, Herbert Hoover proposed a national sales tax. By now his Treasury Secretary was Ogden Mills, friend and ally of Professor Richard T. Ely, another sales-taxer.... Mellon, Mills and Ely helped make Herbert Hoover the most beatable president in U.S. history."[64]

60 Griffen 1974, p. 12.

61 Gaffney 2005.

62 Gaffney 2005 p. 2.

63 Gaffney 2005 p. 3.

64 Gaffney 2005 p. 4.

"In 1930 Gandhi led his march to the sea in India, protesting a British salt tax. In 1947 the Brits finally pulled out. They had beaten Germany, Italy and Japan, but lost to unarmed Indians, led by a scrawny half-naked pacifist and Luddite protesting a sales tax on salt."[65]

"In 1948, Chiang Kai-shek and his Kuomintang were driven from China by Communists under Mao Tse-tung. Chiang had tried to finance his government with excise taxes and inflation."[66] "From 1960-65, the Government of South Viet Nam doubled its sales tax from 10% to 20%, under prodding from U.S. 'experts.' ... Thus they ruined their nation's commerce, while big landowners were untaxed. The V.C. lined up against them and won peasant support."

"In 1993 Canada, PM Brian Mulroney punched through a national sales tax. Mulroney had held power for nine years, but in May, 1993, polls showed him to be the most unpopular Prime Minister in Canadian history."[67]

Thus, this history does not seem to favor either the economic or political case for high sales tax.

The economic meaning of consumption

Many terms have an economic meaning and an ordinary or accounting meaning. For example, economists distinguish between accounting and economic profit, the latter being revenue minus both explicit and implicit costs. Economists distinguish between nominal and real GDP and interest rates, the latter adjusted for inflation. The term "economic" is often used to refer to implicit reality in contrast to explicit transactions (paid to others), accounting conventions, or ordinary meanings. Thus, we can distinguish between the economic meaning of consumption and the accounting meaning.

The economic meaning of "consumption" is the using up of economic value.[68] Consider the purchase of a building, excluding the land. The asset is an investment which yields housing service and its financial counterpart, a rental income. Over time, if not well maintained, the building loses value from wear and tear, and from obsolescence. The loss of value is called "depreciation," and it is also called "capital consumption." Likewise, a car's loss of market value over time is its depreciation and capital consumption. The market value of the capital good gets used up.

"Investment" too has a financial meaning and a separate economic meaning. In finance, an investment can be any asset that has a yield, such as stocks that pay dividends, or land that pays a rent. In economics, however, an investment is an

[65] Gaffney 2005 p. 4.

[66] Gaffney 2005 p. 4.

[67] Gaffney 2005 p. 5.

[68] Dictionary.com, 2015.

increase in the stock of capital goods and human capital. Production creates economic value, while consumption reduces it.

There is no significant economic difference between a good owned by a business and a good owned by a household. Both are capital goods: items which have been produced but not yet consumed. A house owned by a landlord and leased to another person, the tenant, is a capital good. The same house owned by an occupant provides the same housing service, and too is a capital good. In effect, the title-holder in the role of owner rents the house to himself in the role of tenant; the tenant in effect or implicitly pays rent to himself as the owner. Indeed, economics and national accounting recognize this as an imputed rental.

Likewise, a car owned by household is as much a capital good as a car owned by a business. All goods owned by a household are capital goods, just as much as the inventory, tools, and buildings owned by an enterprise. There is, in economic theory, no significant distinction between household "consumer" goods and business-owned capital goods.

In ordinary English and accounting, a "consumer" is an owner of household goods. It is possible for a good, such as a hammer, to get used without getting used up, at that time, and, in the economic sense, it is more accurate to speak of the user rather than the consumer.

Besides capital goods, other input factors too get consumed. Human capital is the value of labor as an asset, including the knowledge, skills, talents, and the personal connections and relationships of the worker. The asset value of human capital is the present value of its future net earnings. As physical bodies get older and less strong, they depreciate, and skills as well as knowledge can become reduced if a person does not invest in keeping his human capital current.

The land factor consists of natural resources such as materials (water, oil, minerals, wildlife), the electro-magnetic spectrum, and the space surrounding the earth. When natural materials are extracted, they become capital goods. The extraction itself does not necessarily imply a loss of value, and so the material natural resources get depleted rather than depreciate. Spatial lands, as well as the usable spectrum frequencies, generate a continuous value measured and paid as rent. Like services, the land rent is a service flow that is simultaneously generated and consumed. If the spatial service is not used productively, it is then consumed as a wasted resource.

The accounting meaning

The accounting meaning of "consumption" is the purchase of normal household goods, such as food, water, clothing, medical services, and transportation. In national income accounting, consumption includes educational services. This accounting meaning has no bright line. For example, is a car an item of consumption? It is arbitrary whether such a purpose is included in an account of purchases by buyers or "consumers."

Consumption and income are not separate activities. The economic meaning of income is consumption plus the change in net worth. In public finance, this is labeled "Haig-Simons" income. Since consumption is essentially income, the taxation of consumption is tantamount to the taxation of income, aside from changes in net worth.

Consider the purchase of a haircut for $15. The spending by the buyer is the income of the seller. A $5 tax on the purchase is equivalent to a tax on the receipts of the barber. The incidence of the tax, as to who bears the ultimate burden, depends on the responsiveness of the buyer and seller to a change in price. If the customer is willing to pay $20, then either a sales tax or a gross receipts tax will be passed on to the buyer. If the customer refuses to pay more than $15 and the barber is willing to accept $10, then the burden is on the provider.

Therefore, a shift of taxation from income to sales does not change the economic impact other than to impose a tax on an increase in net worth via an income tax and to impose a tax on borrowing via a sales tax.

In practice, the tax bases of income versus sales differ because of exemptions. If all transactions were taxed, then a sales tax would be applied to the sale of labor by a worker; but such transactions are exempt from the sales-tax base. The purchase of real estate too is exempt from the California sales tax. The state income tax is imposed on income from services, but the equivalent purchase by a customer is exempt.

Another connection is that production includes trading. The exchange of goods results in an increase in marginal utility, as the item received has more subjective value than the item traded away. Thus, trade is just as productive as physical construction or cultivation or manufacturing. If I grow carrots, my production is not finished until I have exchanged the carrots for money. Therefore, to tax an exchange is to tax production. Thus, the sales tax, which seems like a tax on consumption, is also a tax on production.

In economics, savings is defined as income minus consumption. Economic savings is therefore consumption plus the change in net worth minus consumption, hence just the change in net worth.

Taxing economic consumption: capital goods

A tax on economic consumption is a levy on the using up of economic value. Thus, for example, there would be a tax proportional to the depreciation of goods. If a car depreciates in value by 10 percent during a year, the consumption tax rate could be, say, half of the depreciation rate. For example, if a car starts the year worth $20,000, and depreciates by $2000, the consumption tax would be $1000. Likewise, if a machine in a factory has the same data, the factor owners would pay an extra $1000 on $2000 of depreciation.

In contrast, with an income tax, depreciation is an expense subtracted from taxable income. The consumption tax imposes a cost regardless of the profit of the firm, so that if it had a profit of zero, the tax would turn it into a loss. The consumption tax would induce investments into goods which depreciate more slowly. If tools which wear out more rapidly were optimal without a tax, perhaps because they are less expensive, the tax would push the firm into a longer-lasting but less efficient set of tools. Firms with goods that are subject to substantial spoilage, such as food, would suffer a continuous extra expense.

With a sales tax of 10%, a household which owned a car costing $20,000 would pay a $2000 tax. The buyer pays the tax prior to the economic consumption of the car's $20,000 value. In contrast, if there is a 10% tax on depreciation, then if the depreciation in the first year is $2000, the tax paid is $200. With a linear depreciation, the owner would pay $200 per year until the car's value gets depreciated to zero. Thus, a tax on the economic consumption of durable goods is paid more gradually than a tax on accounting consumption.

For goods which are quickly consumed, such as food, a tax on economic consumption is equivalent to a tax on the purchase. Applied strictly, goods such as canned food would not be taxed until the can is opened and the contents consumed. It would, of course, be impractical to apply a tax on economic consumption for goods of medium duration, such as frozen or canned food.

We can divide economic consumption into two categories: First is utility-enhancing consumption. We consume water or food because they enhance our utility or happiness, or prevent us from having disutility (unhappiness). Second is utility-reducing consumption from wasted resources. When goods are bought for utility-enhancing consumption but, through neglect or accident, they spoil, rot, or get rusted, the potential utility value is wasted.

The only economic rationale for levying a tax on utility-enhancing economic consumption would be to obtain governmental revenue. The using up of economic value is a cost, and there is no economic reason to add to the economic cost by imposing an added cost. A tax on economic consumption is a decrease in the economic value of the taxpayer's assets, and thus amounts of additional personal consumption.

A consumption tax imposes a cost to the economy, discussed further below: the excess burden or deadweight loss of the tax. The deadweight loss is the reduction of consumer and producer surplus. The consumer surplus is reduced both from a reduction in quantity bought, due to the higher price caused by the tax, and the reduction in the gain to those who still buy the good. The reduction of the producer surplus is cause by the elimination of some producers and sellers due to the lower after-tax price, and by the reduction in the economic profit obtained by the firms which still sell the good.

In highly competitive industries, the long-run economic profit of the firms is zero (i.e. the gain beyond all costs, including normal returns on asset value), and the producer surplus flows down to the input providers. The amount of deadweight loss depends on the size of the tax, and the elasticity of the supply and demand, i.e. the responsiveness of quantities to the change in price.

By reducing the economic value without any offsetting gain, the deadweight loss constitutes additional implicit consumption relative to the absence of such tax. The tax wastefully uses up value that would have been there without the tax.

Quantifying the deadweight loss

As to the magnitude of deadweight losses, Tideman and Plassmann calculated the losses of the developed countries.[69] "We estimate that the G7 economies had levels of output in1993 that were only 52 percent to 77 percent of what they could have been if they had followed such policies [taxation that has no deadweight loss], while continuing to have public sectors of the sizes that they had." This deadweight loss stems from countries with income taxes as well as value-added taxes.

Tideman and Plassman list their calculations for the seven countries.[70] For the USA, net domestic product (NDP) is calculated as 77% of its potential. We can contrast this number with the calculations of European countries that have VAT. France, Germany, Italy, and the U.K. had actual NDP as a percentage of the potential NDP of 52, 54, 53, and 55 percent. Thus, the economies with VAT had deadweight losses of about 45% of GDP, in contrast to the USA, which had a deadweight loss of 23% of GDP. Taxing expenditure at the point of sale would have an effect similar to VAT rather than income. The greater deadweight loss also is due to Europe having a greater public sector relative to GDP, but large difference indicates that VAT does not have a lower deadweight loss than income taxation.

Tideman and Plassman identify the "public collection of rent" as the tax that avoids a deadweight loss. Income taxes have a lower deadweight loss because it falls on rent more than does VAT, and the income tax on enterprise is net of expenses.[71]

The model by Tideman and Plassman use an aggregate production function with constant elasticity of substitution. They use an elasticity of 1.5. They estimate that land rent is 10% of NDP, while recognizing that if taxes on labor and goods were eliminated, the rent would rise substantially, as much of the incidence of income and sales taxes are on land rent, either taxes paid from rent income, or taxes

[69] Tideman and Plassmann 1998, p. 146.

[70] Tideman and Plassman 1998, p. 147.

[71] Tideman and Plassman 1998, p. 147.

that, by reducing the producer surplus, are at the expense of rent. Based on empirical studies, Tideman and Plassman put the elasticity of labor supply as 1 (one), but they conservatively use .75. They use an elasticity of savings with respect to one plus the rate of interest is 10 (if the interest rate rises by 1%, the quantity of savings rises by10%). Over time, the elimination of deadweight loss creates a greater rate of growth, and per capital output becomes a multiple of what it is with deadweight loses.

Taxing economic consumption: human capital

Physical human capital depreciates due to disease and aging. Mental human capital need not get reduced if a worker actively uses it; indeed, experience can make human capital more valuable. No government, to our knowledge, taxes the reduction of human capital, as most people would consider it heartless to impose a tax cost on top of the loss or earning power.

The economic consumption of land

Adam Smith (1776) proposed four criteria or canons of taxation:

1) The canon of equity, that the burden is applied equally to those of equal circumstance, and in proportion to benefits.
2) The canon of certainty, that a taxpayer knows in advance the tax burden.
3) The canon of convenience, that the payment have a low transaction cost.
4) The canon of economy, that the cost of collection be as light as possible.

The consumption tax that best fits Smith's criteria is on that of spatial services. A tax on spatial services also best applies the Ramsey rule of taxing inelastic items.

Space does not get used up, but space generates a flow of site services over time that do get used up, and is measured as the implicit market rent. For example, suppose the rental of a house includes a back yard. The yard offers a continuous flow of service as a place to enjoy the outdoors. The user consumes that flow over time. Though the space remains, every hour of yard service is an hour of spatial service that is gone as soon as that time passes. As a flow, the spatial service is simultaneously generated and consumed.

It has been well known by economists since the classical economics of Ricardo that the taxation of land rent does not affect the economic rent. Since the supply of land, within some jurisdiction, is fixed, a tax on land rent does not alter the amount of land. Since a tenant does not care who gets the rent, the tax on land rent does not change the demand, i.e. the quantity of land demanded at various amounts of rent.

Therefore, a tax on land rent reduces the purchase price, since the title-holder does not keep as much rent, but does not affect the implicit market rent. Since the supply or demand for land are not affected, a tax on the consumption of spatial services does not create a deadweight loss. If one of the goals of tax policy is to minimize the deadweight loss, a tax on the land rent would have a high priority among the items subject to the taxation of consumption.

The taxation of sales or purchases

Current tax policy does is not based on economic consumption, but on the sale or purchase of assets. Thus, the sales tax is on future rather than current economic consumption. The California transactions tax rate is currently 6.5% plus a mandatory local rate of 1% for a total state transactions tax base of 7.5%. Local governments may add an extra levy, which in some municipalities raises the total tax rate to as high as 10%.

Because the U.S. Constitution empowers the federal government, and not the states, to regulate commerce among the states, state taxes on goods have been divided between taxes on goods sold within the state and taxes on goods imported into the state from firms having no physical presence within the state.

The physical presence of an enterprise, sufficient to enable the state to apply its jurisdiction, is referred to as a “nexus.” A nexus is typically created if the company maintains a presence of affiliated people or property. The presence can be temporary, such as with agents visiting to call on customers, trade show attendance, or inventory in warehouses. These rules are set by the California Franchise Tax Board.[72]

As stated by explanation of the "Sales and Use Tax Law" by the California Board of Equalization, the “sales tax is imposed on retailers for the privilege of selling tangible personal property at retail.”[73] The legal authority to tax the sale of goods is due to the transaction legally being a government-granted privilege rather than a common-law or natural right. Although it is a common practice for buyers to pay the tax to the seller, California law does not require the buyer to pay a sales tax.

In contrast, the “use tax is imposed upon the storage, use or other consumption in this state of tangible personal property purchased from a retailer. The use tax, except as to leases, is not imposed on gross receipts from the sale of property which were included in the measure of the sales tax. The use tax rather than the sales tax applies to purchases shipped from an out-of-state point to a California consumer. The obligation to pay use tax is on the consumer. However, if an out-of-state retailer is engaged in business in this state, it is required to collect the use tax from the consumer at the time of making the sale.”

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72 https://www.ftb.ca.gov/businesses/New_Rules_for_Doing_Business_in_California.shtml.

73 California State Board of Equalization, 2016.

Buying and Selling as "Privileges"

When a person has a legal right to do something, the Supreme Court has ruled that such right may not be taxed, since the right becomes restricted by an imposition of a government-mandated cost. In Murdock v. Pennsylvania, 319 U.S. 105 (1943), the Supreme Court stated that a law requiring solicitors to purchase a license was an unconstitutional tax on the Jehovah's Witnesses' right to freely exercise their religion. The Court ruled that "The state cannot and does not have the power to license, nor tax, a Right guaranteed to the people," and "No state shall convert a liberty into a license, and charge a fee therefore." In another case, the Court ruled similarly, that "If the State converts a right (liberty) into a privilege, the citizen can ignore the license and fee and engage in the right (liberty) with impunity."[74]

That the use of goods is legally a privilege in California is indicated by the statement regarding leases: a "'Lease' does not include a use of tangible personal property for a period of less than one day for a charge of less than twenty dollars ($20) when the privilege to use the property is restricted to use thereof on the premises or at a business location of the grantor of the privilege." Engaging in business is explicitly called a "privilege" in Alabama, which levies a "business privilege tax." Arizona has a "transaction privilege tax." Diane Yetter states that when a transaction tax is imposed on the buyer, as it is generally in consumer tax states, "The tax is generally imposed on the privilege of using or consuming the products or services purchased."[75]

Taxes on privileges are excise taxes. The federal corporate income tax, for example, was enacted in 1909, prior to the adoption of the 16th Amendment, because it is an excise tax on the privilege of operating as a corporation, the tax amount measured by the gain from the privilege. Corporations, as statutory legal fictions, need to obtain a charter from a government, and people do not have a legal or constitutional right to create a corporation as a property-owing legal entity.

California law does not explain why or how the purchase or sale of goods constitutes a privilege. The law of Minnesota provides more clarity. Minnesota imposes its sales tax on the gross receipts from retail sales … in this state by a person who is required to have or voluntarily obtains a permit." The issue then turns on the definition of a "person."

In United States code 26 USC §7343, "The term ''person'' as used in this chapter includes an officer or employee of a corporation, or a member or employee of a partnership, who as such officer, employee, or member is under a duty to perform the act in respect of which the violation occurs."[76] Applying this meaning to

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[74] Shuttlesworth v. City of Birmingham, Alabama, 373 U.S. 262.

[75] Yetter 2016.

[76] Legal Information Institute, 2016.

transaction taxes, it would be a legal privilege to buy or sell goods if the activity were done by a person who voluntarily obtains a permit (when not legally required), or by a person acting in the capacity of an officer of a corporation or other artificial or legal-fiction entity.

California Revenue and Taxation Code, §6091 states, "For the purpose of the proper administration of this part and to prevent evasion of the sales tax it shall be presumed that all gross receipts are subject to the tax until the contrary is established." Thus, evidently, the sales and use taxes are levied under the presumption that the persons taxed are benefitting from some privilege.

A Taxonomy of Taxes on Transactions

Taxes on transfers

The California sales and use tax is complex. Basically, the tax is on movable tangible property intended for human use, other than unheated food sold in grocery stores. Real estate is thus exempt from the sales tax, although some local governments levy a tax on real estate transfers. Services are exempt from the transfer taxes. Food and drinks sold in restaurants are taxed, as are some grocery goods that are presumably considered luxuries. For example, plain bottled water is not sales taxed, while carbonated water is taxed.

The sales tax is based on turnover rather than only on a first-time sale, thus if a used car is sold, the car is subject to another sales tax. If the tax were on economic consumption, then the sale of a used car would not add to the tax, since the seller would only be taxed for the consumption under his title.

The sales or use tax is levied on the final sale or purchase of a good, and not on intermediate transactions. Thus, a retail bookstore does not pay a sales tax on the books it buys from publishers, but only on the sale to the customer.

Sales taxes are considered to be regressive, as lower income people spend more on taxable goods than wealthier people. A relatively high tax rate on only a subset of goods induces a shift of spending into items that are not sales taxed. If a sales and use tax is broadened to apply to all goods and services, the greater tax base can serve a lower tax rate and a lower deadweight loss. One way to make the tax less regressive is with a "prebate," as proposed for a national sales tax (such as H.R. 25 (114th Congr), by which all persons would have a tax credit for some initial amount of spending. A tax on all spending would have a lower deadweight loss as total spending is more inelastic than a subset of spending.

Taxes on gross receipts

Gross receipts are the funds obtained from sales and other sources, without subtracting any expenses. For a retail seller, a tax on gross receipts is the same as a tax on the sales. But a tax on all gross receipts applies also to intermediate firms that sell to retailers. A publisher selling to a bookstore would pay a tax on its revenues, and then the book store pays a tax on its revenues, making the taxes greater than a sales tax on final sales.

Value added tax

A value-added tax (VAT) is applied to the difference in value between the goods sold by a firm and the cost of the inputs. The cumulative effect is similar to a tax on the final sales, except that VAT is not a turnover tax, as it is not applied to used goods. The value added in the course of production is not consumption. For example, if a company buys grains and mills them into flour, the added value is from production, not consumption. The value-added tax is on consumption only after the final sale of the good, implicitly taxing the future consumption of the good, as does a sales tax.

An advantage of VAT relative to an income tax is that the VAT can be subtracted from price of exported goods. That could apply to a VAT levied by California. The sales tax too does not apply to goods exported from California. WTO rules prevent the USA from deducting the amount of income taxes from the sale of goods. The WTO could change its rules to permit the deduction of income tax costs, but evidently there is no movement to do this.[77]

Two tax bases

There are basically two bases for the taxation of consumption: potential and kinetic consumption. Kinetic accounting consumption is the purchase of goods, and kinetic economic consumption is the decrease in the value of goods (including the immediate using up of the value of services). Potential consumption is the capacity to consume regardless of actual consumption. Taxes on sales, gross receipts, and value added are based potential consumption, thus on the future kinetic consumption.

An example of a tax on the potential consumption, or capacity for consumption, is the real property tax. An unoccupied house is taxed the same as a tax on an occupied property. An idle factory is taxed the same as one in which the facilities are employed. The property tax induces a fuller use of the property, otherwise the owner is paying a tax for no benefit.

The American colonies prior to independence levied a "faculty tax" on the capacity of a worker to produce. "The Plymouth colonists supplemented the property tax with a 'faculty' tax in 1643 that was later adopted by most of the other colonies.[78] Generally, a fixed rate applied to the estimated earnings (i.e. wages, profits, and other income) of all members of a particular profession.[79] Connecticut, Massachusetts, and South Carolina especially derived significant revenues from its

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77 See Appendix VII for further discussion of a VAT.

78 Kinsman 1902, pg. 2.

79 Kinsman 1903, pg. 16.

use. Although the faculty tax was crudely applied, it recognized that compensations received outside of property holdings also represented tax-paying ability."[80]

Thus, for example, if a doctor had the capacity to earn $200,000 per year, but instead indulged in leisure and only earned $50,000, a kinetic income tax is based on the $50,000 income, while a faculty tax, on the potential income, would be based on the $200,000 capacity. The tax on potential income is a lump-sum tax that induces more labor and less leisure in order to pay the tax.

While a "faculty" or capacity tax on capital goods induces a more intensive use, with capital goods the tax results in less production of capital goods, because the producer and user know in advance that the cost of owning the capital good will be that much higher. Therefore, the inducement to use of existing goods is offset by the reduction of the production of additional goods.

Likewise, with human capital, a tax on potential income induces a more intensive kinetic use of existing human capital, but deters investment in human capital.

A faculty tax works best on a resource that is not produced, namely, land. Spatial land has an implicit market rent apart from the actual rental paid, and apart from actual use. For example, a parking lot next to a tall building has the same land value and land rent. A tax on the rent, as a capacity to yield spatial services, induces the optimal intensity of the use of the plot. Unlike a faculty tax on capital goods or human capital, there is no disincentive to produce land, since by definition, land is what exists prior to and apart from human action. Any investment in the site, such as draining or leveling, is a capital good, not land. Any financial service such as title insurance is a capital good, not land. Any human services such as seeking tenants is labor, not land rent. Thus, there is no offsetting disincentive to the use-inducement of a tax on land rent.

The deadweight loss of the taxation of receipts

In conventional economic analysis, the deadweight loss of taxation is a function of the size of the tax and the elasticity of what is being taxed. A sales tax, for example, has two effects. First, the purchase price is increased, in effect adding to the cost of production. Applying the law of demand, the higher purchase price results in the second effect, a reduction in the quantity demanded.

In textbooks, the effect is most simply graphically depicted with linear supply and demand curves, and the deadweight loss is a triangle. One side of the triangle is the size of the tax per item, also called the "tax wedge," and the reduction in quantity is the horizontal distance from the tax wedge to the pre-tax equilibrium quantity. Just as the area of a square is quadrupled when the size of the sides is doubled, so

[80] Howe and Reeb 1994, p. 5.

too the area of a triangle inside the square quadruples. Thus the deadweight loss increases by the square of the size of the tax.

Regarding the elasticity, the greater the responsiveness of quantity to a change in price, the greater the deadweight loss. A completely inelastic supply or demand, i.e. a fixed supply or demand, has no deadweight loss. A completely elastic demand will eliminate the purchase of the good.

In the US economy, for small reductions in current taxes, the net gain per dollar of tax reduction, or else a shift to a tax base with a zero marginal tax rate, has been calculated as between $1.25 and $1.75. The gain in output after 40 years is 27 percent, and the increase in savings is over 100%.[81]

There is another effect beyond this conventional analysis, which can make the deadweight loss substantially greater. Mason Gaffney provides the following example:[82]

Given the cost (C) and gross revenue (G), compare two rival uses, A and B, for the same plot of land. Net revenue is N = G - C. T is the tax amount. NAT is net after tax, N - T. Levy a tax of 10% on G or N. The table below shows the effects of taxing the gross versus the net revenue.

Land use	**G**	**C**	**N**	**G/N**	**T**	**NAT**	**TAX/N**
	($k)	($k)	($k)		($k)	($k)	(%)
A	100	90	10	10	01	0	100
B	20	15	5	4	2	3	40

The higher use, A, produces five times more goods, generates more jobs, and yield more net product (10 versus 5): it is clearly the higher use. The tax on G, however, turns A into a lower use than B, in the eyes of the owner, since NAT is zero. A 10% tax on G is a 100% tax on N from use A, eliminating the incentive to put land to use A. It is a 40% tax on the N from use B, leaving 60% of the net product for the

[81] Tideman et al, 2002.

[82] Gaffney 1999.

owner. A landowner would choose use A either in the absence of taxes or with a tax on N. The tax on G makes him choose use B, which is socially inferior.

This result illustrates the damage done by imposing taxes on bases other than N, the net revenue of land. The tax lowers output, employment, and investment opportunities for capital. Taxing G also lowers tax revenues well below their maximum possible level of $10k, the net revenue from use A.

Taxes on sales and value added have a similar effect to taxing gross receipts, because these taxes, especially on gross revenue, do not consider the costs of doing business. An income tax does subtracts costs from revenues, although it too can cause firms to shut down if they are earning normal profits (normal returns on asset value) and cannot pass on their taxes to consumers due to competitive pressure.

Taxing gross receipts thus causes, in Gaffney's terms, a "quantum leap" down of production, reducing even the taxes that can be obtained. The amount of excess burden due to quantum leaps down is unknowable, but possibly a multiple of what conventional analysis suggests.

The main way to tax only N, with no reduction in output, is with a tax on the economic rent of land, because land has no economic cost. Taxes on production and the consumption of goods have some degree of reductions in production, exchange, and consumption.

Appendix V
The Frank Tax

Another progressive expenditure tax has been proposed by economist Robert Frank (2011). His concern is income inequality. Frank believes that income inequality comes from advancing technology and global competition. He does not discuss the capture of economic gains by higher rent and land value.

He proposes a "steeply progressive tax on each household's consumption," by which he means expenditure. His formula is taxable income minus savings, minus a large standard deduction, such as $30,000 for a family of four. His proposal is more tax-progressive due to rates rising more steeply than in the current tax structure. Frank claims that while high marginal tax rates on income discourage production and investment, high marginal tax rates on expenditure do not. They reduce spending by the rich, who instead save more of their income.

Frank provides an odd example of the "benefit" of his consumption tax. A wealthy family plans a $2 million addition to its mansion, which with a marginal "consumption" tax rate of 100% would incur a $2 million tax. "So the tax would be a powerful incentive for this family to scale back its plans." This example is puzzling, because the construction would be an investment, not economic consumption, and that investment would generate employment.

The Frank tax would generally reduce spending on luxuries. "The amounts spent on multimillion-dollar coming-of-age parties would grow less quickly, as would the amounts spent on weddings, yachts, jewelry, and other items." He does not discuss the possibility of wealthy persons going abroad for their expensive weddings and jewelry. He also does not acknowledge the history of taxing yachts. In 1991, Congress levied a 10% luxury tax on yachts. The tax reduced the purchase of yachts, and generated so little revenue that the tax was repealed in 1993. The impact of the tax fell to a great extent on the lost employment of workers who built yachts.

A progressive expenditure tax creates an incentive to even out spending over time, when a lumpier pattern would have been preferred (Meade, 1978, p. 38). A buyer may be able to reduce his tax by paying by installment or by leasing rather than buying. Frank acknowledges that his consumption tax along would not reduce the inequality of wealth. "Because the wealthy would die with larger estates than before, it would be important to maintain a strong estate tax as part of the system." But estate taxes have their own problems, including avoidance by shifting wealth into tax shelters, and a disincentive to create and maintain enterprises that are passed on to their children.

Frank's proposal is an example of schemes which treat symptoms rather than causes. An important origin of income inequality is that wages have been suppressed while housing costs, essentially the rent and price of land, have risen. Government could tackle inequality at its source by replacing taxes on wages with taxes on land value. Taxing the expenditures of the rich would reduce investment, employment, and production, while inducing much tax avoidance.

Other tax-reform proposals are summarized in the Congressional research overview by Sherloc and Keightley.[83]

[83] Sherloc and Keightley, 2016.

Appendix VI
Business Net Receipts Tax (BNRT)

The California Commission on the 21st Century Economy (COTCE) suggested a new form of consumption tax, labeled as a business net receipts tax (BNRT) that would tax services and replace the corporate income tax.[84] The BNRT is similar to a gross receipts tax but reduces the pyramiding effect of the tax by allowing businesses to subtract cost of sales.

Because the BNRT applies to firms selling services, intangibles and tangible personal property, it has a broader reach than the CA sales tax which today only applies to a subset of tangible personal property (for example, food is exempt).

Application of nexus, and unitary and apportionment rules will cause the BNRT to have some different effects than the existing California sales tax.

Nexus*:*

The Commission's BNRT proposal calls for a factor presence nexus standard (per R&T §23101(b), this will be the standard in California after 2010 if Public Law 86-272 does not apply to the business). In contrast, the nexus standard for sales tax is a physical presence. (For income tax nexus for businesses that sell tangible personal property, the standard is that of Public Law 86-272.)

Example: AB Corporation has sales of $7,000,000 to California customers, but has no physical presence in California. AB would be liable for the BNRT, but today it is not liable to collect CA sales tax on sales to California customers (the customers are required though to self-report use tax on these purchases).

Example: CD Corporation has $30,000 of property in California which represents less than 25% of its total property. CD has no employees in California and its sales in California are less than $500,000 and 25% of its total sales. CD is liable to collect sales tax in California (or it could voluntarily choose to collect sales tax) but would not be required to pay BNRT. [Note: The AB example would be far more common than the CD example.]

Unitary and apportionment*:*

If a unitary business only has sales and operations in California, the BNRT base will be similar to the sales tax base. However, many businesses have operations and sales in more than one state. For a business with sales within and without California, they would be subject to apportionment to determine their California BNRT base. The Commission's BNRT proposal would apportion using only

[84] The final report, which included a few proposals, was released in 2009; http://www.cotce.ca.gov/. The BNRT summary here is from a blog post of July 17, 2009 of Annette Nellen at http://21stcenturytaxation.blogspot.com/2009/07/proposal-for-net-receipts-tax-for.html.

a sales factor. The numerator of the sales factor would be gross receipts in California (presumably sales where the destination was California) and the denominator would be gross receipts everywhere.

If the BNRT were instead a gross receipts tax (GRT), unitary reporting and apportionment should not be needed because it would be relatively easy to determine the sales with a destination in California and the broadened nexus standard would make most businesses with California customers subject to tax in California. However, because there are deductions from gross receipts for the BNRT, there is a need to determine what expenses are attributable to California versus other states. Generally, a separate accounting method will not work because of the challenges of allocating many types of expenses among operations in multiple states. Thus, the question becomes, what is the best approach for determining how much of the combined group's BNRT base represents sales in California. The Commission proposes to use just a sales factor (percent of sales everywhere that are California sales). That appears to be a logical approach because if payroll and/or property were factored in, it would likely be distortive because the location of sales is not solely dependent on where a firm's property and payroll are located.

However, it only seems logical if one is trying to equate the BNRT to a sales tax. The BNRT, designed as a subtraction method VAT, should be taxing value added by a firm. The value a firm adds to the inputs it buys from other firms, is primarily labor. So, why isn't payroll factored into the formula to determine how much value a firm added in California? A possible rationale is that the BNRT is intended to use the BNRT as a sales and use tax substitute.

Example: X Corporation has operations in California and 3 other states. X computes its total net receipts tax base and multiplies it by a fraction where the numerator is its sales to California and the denominator is sales everywhere. The result is X's California BNRT base. The BNRT should be the same whether X has most of its labor in California or a different state.

The BNRT will apply to almost all types of businesses (some financial services firms and insurance companies are excluded) while today's California sales tax only applies to a subset of tangible personal property.

A sales tax is a very visible tax because it is added to a customer's bill at the time of sale. A BNRT would not be included on a customer's bill, although some portion of it would likely be included in the price charged. If a credit method VAT were used instead, it would be noted on invoices.

Is the BNRT an income tax?

No. The BNRT is a consumption tax. While the formula for a subtraction method VAT looks like an income tax (except there is no deduction for labor costs, depreciation or interest expense, and fixed assets are expensed), it is not an income tax because it is not based on net income and it exempts savings from tax.

Because it is not an income tax, businesses selling tangible personal property do not get the nexus protections (clarifications) of PL 86-272. The nexus standard for the BNRT must meet constitutional requirements (of the due process and commerce clauses), which might be an economic presence (making a market in the state). Thus, more businesses will be subject to the California BNRT than are subject to the California corporate or personal income tax.

However, if the current congressional proposal to modernize PL 86-272 were ever enacted, businesses would only be subject to a business activity tax (such as perhaps, the BNRT) if they were present in the state for at least 15 days during the year.[85] Under that version of PL 86-272, far fewer businesses would have BNRT obligations in California and the desired revenue goals would not be achieved.

Some questions and observations about the proposed BNRT and its formula:

- Instead of expensing assets when acquired, an accelerated depreciation system is used in the Commission proposal. This is contrary to a consumption tax. If this adjustment is made due to the desire to raise a certain amount of revenue, it would be better to raise the tax rate rather than make the BNRT a combination of an income and consumption tax.
- The Commission calls for the *Finnigan* rule to be used to source sales of the combined/unitary group. This likely has little impact given that the nexus standard is broadened for the BNRT making it more likely that any firm with sales in California will have nexus in the state and its sales would go into the California sales factor numerator anyway. However, the *Finnigan* throwback approach should reduce the throwback sales that are included in the California sales factor numerator making that a more attractive approach than the *Joyce* rule.
- Will any credits be usable against the BNRT?
- What happens to NOL and credit carryovers that corporations have from the corporate income tax?
- With a single sales factor apportionment (after 2010) and various tax credits, such as for research, today's California corporate income tax has significant economic development elements to it. The current system should encourage businesses to locate payroll and property in California and sell to people outside of the state. Without the credits, it is not clear if California would be a desirable place to locate unless you have lots of sales outside of California and California 's BNRT is lower than what the business would pay in other states. If the BNRT is enacted along with

[85] See, for example, H.R. 1083 (111th Congr.), H.R. 1439 (112th Congr.), H.R. 2992 (113rd Congr.) and H.R. 2584 (114th Congr).

repeal of both the corporate income tax and the state-level general sales tax, California should become more attractive to capital-intensive firms such as manufacturers (although many states already exempt manufacturing equipment from sales tax). The state might not be as attractive for labor-intensive firms who already pay little sales tax, but have significant labor costs which do not reduce the BNRT base. However, the labor-intensive firm would gain little from moving its labor force outside of the state because, having California sales, it would still be subject to the BNRT. Also, because payroll is not used to apportion the combined/unitary BNRT base, there should be no change in its California BNRT.

- Could the BNRT be viewed as a sales tax rather than a business tax? If yes, then a physical presence nexus standard would apply. Also, the tax might not be applicable to food under the California constitution. When Ohio enacted its gross receipts tax (called a Commercial Activity Tax) years ago, food vendors were successful at the trial court level in holding that the tax was really a transaction tax which under Ohio law cannot be imposed on food. California's constitutional restriction is narrow prohibiting only a sales and use tax: Article XIII, Section 34 of the California Constitution reads: "Neither the State of California nor any of its political subdivisions shall levy or collect a sales or use tax on the sale of, or the storage, use or other consumption in this State of food products for human consumption except as provided by statute as of the effective date of this section." Could the NRT be viewed as a sales tax?

What might businesses do to reduce their BNRT liability?

Businesses can increase sales to other states and countries, as well as the ability to hire contractors rather than employees. Both strategies would allow them to deduct those labor costs (wages and payroll taxes do not reduce the BNRT base).

Appendix VII
Value Added Tax (VAT)[86]

There are three main forms of VAT: a credit invoice VAT, a subtraction method VAT, and an addition method VAT.

Credit invoice VAT:

This type of VAT is computed by charging VAT on all taxable purchases by businesses and consumers. A company's recordkeeping is relatively straightforward because it must just institute a procedure whereby it keeps track of sales invoices showing VAT collected and purchase invoices from other businesses showing VAT paid. At the end of the reporting period, a company merely totals each set of invoices and submits to the government, the excess of VAT collected over VAT paid. Or, if VAT paid exceeds VAT collected, the company would request a refund of the difference from the government. From the government's perspective, the audit trail is also straightforward because it consists of two types of records: sales invoices and purchase invoices. Under credit invoice systems, sellers are generally required to state the VAT charged on the face of the invoice.

Subtraction method VAT:

Instead of tracking VAT paid and collected on a sale-by-sale and purchase-by-purchase basis, all sales are aggregated and reduced by the aggregate of taxable purchases for the period. The result is the amount of value added by the business on which is pays VAT. A subtraction VAT form looks very much like an income tax return except that no wage deduction is allowed (wages are value added). Also, interest income and expense are not reported and most taxes are not deducted.

Addition method VAT:

This VAT adds up the value added by a business, such as wages paid and certain taxes paid, plus owner profit and multiples this by the VAT rate. It is the reverse of the subtraction method VAT in that instead of taxable sales less taxable purchases equals VAT base, the elements of the VAT base are added together.

How does the VAT differ from a retail sales tax?

If a retail sales tax were used instead of a VAT, the tax would just be collected by the retailer (most prior purchases would be exempt under a resale exception). When a VAT has no special rates or exemptions, it can raise the same amount of tax as a retail sales tax that is just imposed on the final retail sale.

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[86] This content is drawn from Annette Nellen, *Tax Reform in the United States*, a paper presented in Montegridolfo, Italy, June 26, 1999;http://www.sjsu.edu/people/annette.nellen/website/TAXREF~1.PDF.

Commonly cited benefits of a VAT over an RST include an improved chance of collection because the VAT is collected at each stage of production and distribution, rather than just at the final sale to the retail consumer. Also, under a credit invoice VAT, each purchaser is likely to demand an invoice from a seller in order to claim a credit for the VAT paid. This mechanism can be a self-regulating feature of a credit invoice VAT that is not present with an RST. Additionally, the VAT eliminates the cascading effect of an RST caused by businesses paying the RST on items, such as manufacturing equipment, that are not held for resale.[87] Tax authorities and businesses would no longer need to deal with sales tax exemptions that only apply to specific types of items. Furthermore, the VAT eliminates the seller's burden to determine and document whether a buyer is exempt from sales tax. Under a VAT, unless the item transferred is zero-rated or the seller is exempt, VAT is charged on the sale of the good or service; it is up to the buyer to obtain a credit if they are entitled to one. Thus, a VAT can be an easier system for removing the tax on producer goods. The above advantages of a VAT may make it a better vehicle than the RST for taxing services.

Advantages of the credit invoice VAT over a subtraction VAT:

With a credit invoice VAT, multiple rates and exemptions are made easier, and it is known to be GATT compatible (not clear for a subtraction VAT).[88] It is not a hidden tax, particularly if the tax is separately stated on invoices provided to the final consumer, and provides for separate recordkeeping and an audit trail of sales and purchases invoices all showing the VAT collected or paid. It is a simpler mechanism for implementing a destination principle because it is easier to identify export transactions (invoices) and to rebate the tax on them.[89] Additionally, because it is more widely used today than the subtraction VAT, arguably, it would be the more appropriate VAT to adopt when considering what is appropriate for businesses operating in a global economy. The tax can more easily be collected closer in time to the transaction. And, for people most familiar with an income tax, the credit invoice method may be easier to understand than the subtraction method because they are

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[87] While many states provide sales tax exemption for items used in manufacturing, not all states do so. In addition, non-manufacturing businesses usually have no exemptions available to them for sales taxes on their purchases, unless they are for resale.

[88] See Joint Committee on Taxation, Factors Affecting The International Competitiveness of the United States (JCS-6-91) at 304 ("there is considerable uncertainty as to whether a subtraction-method VAT would be legal under GATT.") The concern is that a subtraction VAT may not be viewed as an indirect tax in that it more closely resembles a corporate income tax than a sales tax.

[89] Gary Hufbauer and Carol Gabyzon, *Fundamental Tax Reform and Border Tax Adjustments*, Institute for International Economics, 1996, pages 19 - 20.

less likely to raise the objections that typical income tax deductions, such as wages and interest expense, are eliminated.[90]

Advantages of a subtraction VAT over a credit invoice VAT:

A subtraction VAT has an advantage in that it uses records already maintained for income tax and financial reporting purposes, and would be more compatible with existing income tax recordkeeping, forms and filing procedures. It is less likely to cause direct interference with a state's RST because of how this VAT is calculated and assessed. Furthermore, it would enable states to increase the RST collected because purchases would likely include the subtraction VAT.[91] Compliance and administrative costs would likely be lower because there is no need for collection of VAT that will ultimately be refunded, as under the credit invoice VAT. Finally, it is typically viewed as less susceptible to the addition of special rates and exemptions.[92]

[90] Because the subtraction VAT calculation looks so much like the taxable income formula, except that certain deductions are missing, commentators tend to focus on the subtraction VAT as unfavorable because it taxes labor and interest expense. However, this is the purpose of a VAT - to tax value-added, such as wages and interest expense and owner profit. Such criticisms are rarely heard with respect to the credit invoice method because the form of the calculation looks more like a non-cascading sales tax rather than an income tax.

[91] Alan Schenk, Choosing the Form of a Federal Value-Added Tax: Implications For State and Local Retail Sales Taxes, 22 Cap. Univ. Law Rev. 291 (1993) at 311-12. Professor Schenk notes that it may be "politically difficult" to impose the RST on VAT-inclusive prices under a credit invoice VAT.

[92] A subtraction VAT is capable, though, of allowing for exempt businesses. In fact, the business activities tax (BAT), a subtraction VAT introduced by Senators Boren and Danforth in 1994, specifically exempts small businesses (those with $100,000 or less of gross receipts). S. 2160, 103d Cong., 2d Sess.

Appendix VIII
Unlimited Savings Allowance (USA) Tax[93]

The Unlimited Savings Allowance tax imposes a subtraction method VAT on businesses and a consumed income tax on individuals.

Nunn-Domenici Plan - S. 722, 104th Congress - the USA Tax Act of 1995

Overview

Senators Nunn, Domenici and Kerrey introduced this proposal in April 1995. This proposal received a lot of attention because it provided complete legislation, making it possible to fully analyze. While the sponsors have not reintroduced this legislation, Congressman English introduced H.R. 134 (106th Congress) which is a simplified USA tax. Because so much attention has been given to the original USA tax proposal in the tax reform debate, it is described here, followed by a summary of how the English bill modified it. The USA tax is a consumption-based tax that would exclude savings and investments from tax, that is, it is a formula approach (consumption = income less savings).

Individual tax system - Taxable Income:

The formula for the USA tax for individuals was proposed as follows:

Gross Income (all income from whatever source derived including compensation for services, fringe benefits, distributions from business entities, interest, rents, royalties, alimony, child support, pensions, includible social security benefits, income from discharge of debt, and gains from sale of assets (other than savings assets); exclusions exist including, tax-exempt bond interest, some social security benefits, amounts received under accident or health benefit plans, gifts, inheritances)

plus Deferred income (income attributable to withdrawals of previously saved/deferred gross income; referred to as *net includible withdrawal income*)

less Alimony and child support deductions

less Unlimited Savings Allowance (see explanation below)

Equals Adjusted gross income

less Personal and Dependency deduction of $2,550 each

[93] This section draws heavily from Annette Nellen, *Tax Reform in the United States*, a paper presented in Montegridolfo, Italy, June 26, 1999;http://www.sjsu.edu/people/annette.nellen/website/TAXREF~1.PDF.

less Family Living Allowance (for example, $7,400 for married filing joint)

less Homeowner deduction (on up to $1,000,000 of acquisition indebtedness, no home equity interest deduction allowed)

less Education deduction (up to $2,000/person for taxpayer, spouse and two dependents; limited to $8,000 deduction per tax year, generally for higher education tuition and fees)

less Philanthropic transfer deduction (rules similar to current law)

less Transition basis deduction (optional deduction for taxpayers with aggregate basis in qualified savings assets at 1/1/96[94] of $50,000 or less; purpose is to prevent later taxation of pre-USA tax system savings when they are later withdrawn and not reinvested; individuals with over $50,000 of qualified savings assets at 1/1/96 will have to follow special rules on tracking basis to avoid later taxation on this pre-USA tax system savings) `

Equals Taxable Income

The USA tax provides a graduated structure for individuals with the lowest rate at 8% and the highest at 40% (when fully-phased in after four years); the 40% rate begins at $24,000 of taxable income for married taxpayers filing jointly and at $14,400 for single taxpayers. Individuals get a refundable tax credit for the FICA/HI withheld from their wages, limited to the FICA wage base (thus, if individual's wages exceed the FICA wage base (for example, $118,500 for 2016), Medicare taxes paid beyond that wage base are not creditable). For self-employed individuals, refundable payroll tax credit equals one-half of the basic SECA tax payable for the tax year. The refundable earned income tax credit would continue with modifications.

Individuals are also entitled to foreign tax credit (similar to current law) with respect to foreign taxes paid on amounts included in individual's gross income. The 'Kiddie' tax remains under which the unearned income of children under age 14 is taxed at the parent's marginal tax rate (the kiddie tax is broader today than when the USA was first proposed).

Individual tax system - Unlimited Savings Allowance:

The Unlimited Savings Allowance is similar in concept to Individual Retirement Accounts (IRAs) under current law. [An IRA is a retirement plan that

[94] Because the 1/1/96 effective date for the USA tax is extremely unlikely, the effective date is also referred to as the transition date in the above discussion, although the bill language says 1/1/96.

individuals may establish on their own (rather than through an employer). Low-income taxpayers and those without an employer-provided retirement plan may contribute up to $2,000 annually to their IRA and deduct the contribution from their taxable income. Distributions are taxable when withdrawn at retirement age.] It "reflects the amount of current-year gross income that is deferred because it has been placed in the national pool of savings. The Unlimited Savings Allowance is intended to reflect the amount of net new savings other than new savings attributable to borrowing or to tax-exempt interest." (proposed §50(a)).

Definitions and calculations:

Unlimited Savings Allowance - Net savings in the tax year (excess, if any, of additions to savings in the tax year over taxable withdrawals from savings in the tax year) *less* Net non-exempt borrowing in the tax year (home mortgage debt and car loans are examples of exempt indebtedness) *less* Interest received on tax-exempt bonds less Basis of savings withdrawn in the tax year

<u>Addition to savings</u> - acquisition of savings assets *plus* net additions to savings, money market, checking, credit union, brokerage and other similar accounts during the tax year *plus* payments of premiums on life insurance policies *plus* contributions to retirement accounts.

<u>Savings assets</u> - stocks, bonds, securities, CDs, investment in partnerships and proprietorships, shares of mutual funds, life insurance policies, annuities, and other similar savings or investment assets. Does NOT include investment in land, cash on hand, collectibles (such as art or coins), investment in any business entity if its purpose is to hold collectibles for appreciation.

<u>Taxable withdrawals</u> - portion of a withdrawal in excess of the basis of the savings withdrawn; special rules apply to losses (§78).

<u>Withdrawal</u> - sale, exchange or other disposition of a savings asset *plus* net amount withdrawn from each savings, money market, etc. account during the tax year *plus* amounts paid to the taxpayer under life insurance or annuity policies *plus* amounts withdrawn from retirement accounts and amounts paid pursuant to defined contribution plans.

<u>Basis of savings withdrawn</u> - per proposed §54(c): "The basis of savings withdrawn shall take into account any basis that the taxpayer may have in an asset or account by reason of its acquisition prior to January 1, 1996, or its acquisition by gift or inheritance. Under regulations prescribed by the Secretary, rules similar to the rules under section 72 of the Internal Revenue code of 1986 shall apply for purposes of determining the basis of assets withdrawn in the case of payments under annuities, retirement plans, life insurance contracts, and any other arrangements for which the taxpayer

acquired rights in part by payment of amounts that were included in income and not deducted when paid."

Net includible withdrawal income (deferred income includible in taxable income (see earlier formula for taxable income)) - the excess, if any, of the net withdrawal in the tax year over the balance in the taxpayer's general basis account.

Net withdrawal - the excess, if any, of taxable withdrawals from savings in the tax year over additions to savings in the tax year. (Opposite of net savings.)

General basis account - allows a taxpayer to track pre-USA savings and amounts for which no savings deduction was allowed because the savings were treated as made with either borrowed funds, tax-exempt income or from withdrawals of previously taxed savings. Generally, this account starts with a $0 balance which is then increased by the lesser of the taxpayer's net savings or nontaxable sources of funds (when a taxpayer has net savings during the tax year). If instead, the taxpayer has net withdrawals for the tax year, the account is decreased as of the end of the tax year, but not below $0, by the amount of the net withdrawals. If a savings asset is sold at a loss, the loss increases the account. Special rules are provided for sale of a principal residence and a special election exists for bank account balances.

Special rules and definitions exist for bank accounts (checking, savings, money market) and brokerage accounts (proposed §56(a)):

Withdrawal - excess, if any, of taxpayer withdrawals from the account over taxpayer deposits to the account for the tax year.

Additions to savings - excess, if any, of taxpayer deposits to the account over taxpayer withdrawals from the account for the tax year. Earnings on the account that are credited to the account are not included in gross income or additions to savings, unless they are withdrawn.

Basis in the account - initial basis *equals* basis at 1/1/96 (unless amortized under the transition basis deduction rule during the transition years, then basis equals $0). Basis in the account is increased by the amount of tax-exempt bond interest credited to the account and the basis in any savings assets transferred to a brokerage account. Account basis is reduced by the amount by which the withdrawal for the year (see above) exceeds the *taxable withdrawal* for the year.

Taxable withdrawals – "the basis in an account shall be allocated to the last withdrawals from a bank account or brokerage account. Accordingly, if a taxpayer has a withdrawal ... from a bank account or a brokerage account in a taxable year, the amount of such withdrawal that constitutes a taxable withdrawal equals the excess of (A) the amount of the withdrawal, over (B) the amount by which the basis of the account exceeds the value of the account as of the end of [the] taxable year."

Value of a bank account - cash held in the account as of the last day of the tax year.

Value of brokerage account - cash *plus* cost of other savings assets held in the account.

Special rules exist for basis in business entities, such as partnerships.

USA Example:

In this simple example dealing with a bank savings account, assume that this is the only investment Mr. Thrifty had at the effective date (assume 1/1/96). Income earned on the account is ignored for simplicity.

1/1/96 balance in bank account.........$120,000 (saved prior to effective date)

12/31/96 balance…………………………$140,000

Result: Mr. Thrifty has a $20,000 USA deduction for 1996.

Business tax system

For businesses, the USA tax proposes a flat tax rate for (regardless of form of operations) of 11% on its annual "gross profit" plus 11% import tax on the customs value of goods and services brought into the U.S. for consumption, use or warehousing; import tax is due and payable at the time of the import. The gross profit tax base equals the amount received from sales of goods and services minus the amount paid to other businesses for goods and services. Interest income and other financial receipts are excluded from the tax base, but so are interest expense deductions. Wages paid to employees are not deductible. Plant and equipment would not be depreciated, but would be deducted in full in year acquired, as would inventory items.

Generally, the accrual method of accounting is to be used. Businesses currently using the cash method could likely continue; the IRS is to provide regulations on methods to be used by new businesses. Long-term contract accounting rules are provided, including a 15-year carry-forward provided for business losses. New businesses are to use a calendar year or a 52-53 week year ending in December unless they can show a business purpose for a different tax year. Consolidated return rules exist and special rules are provided for insurance and financial products, financial institutions and tax-exempt organizations. "Financial intermediation businesses" are to include financial receipts, such as interest, in their taxable receipts, and may include the cost of financial instruments and payments for the use of money as business purchases. A financial intermediation business includes one providing lending or insurance services.

The USA tax is set up as a territorial tax rather than our current worldwide system, and therefore excludes exports from the business tax, but taxes imports. For example, a foreign business manufacturing outside the U.S., but selling its products in the U.S. will pay the import tax. Sourcing rules with respect to services state that a business would be treated as exporting a service if the benefit of the service will be realized outside of the U.S. and the "benefit will be realized solely in connection with the activities of the purchaser occurring outside" the U.S.. A service is imported if its benefit will be realized in the U.S. and will be realized solely in connection with the entity's U.S. business activities.[95] Businesses also receive a non-refundable tax credit for their share of FICA/HI taxes, though credit is not usable against the import tax. No loss or credit carryovers from the IRC of 1986 would be allowed; special amortization transition rules are provided for the un-depreciated basis of existing property and inventory which allow for write-offs over 3 - 40 years depending on the type of property (proposed §290).

A transition rule for businesses (§222(h)) requires all businesses to close their fiscal year on the last day of the calendar year that the income tax ends and start a new short tax year under the USA tax system on January 1 of the year the USA system becomes effective. Special rules exist for entities with a 52-53 week year ending in December.

Potential abuses that could arise - examples:

It is possible problems might arise under a system where individuals may deduct charitable contributions, but businesses may not. For example, businesses might try to funnel contributions through employees. Additionally, with businesses and individuals taxed at different rates, it is possible that taxpayers will attempt to shift income between the two types of taxpayers where possible. Lack of transitional rules for loss and credit carryovers will penalize some taxpayers and lead to planning techniques to try to utilize such attributes prior to enactment of the new tax system, such as engaging in sales-leaseback transactions that will generate sufficient gain to utilize NOL carryovers.

The bill does address some potential abuse areas. For example, §230 provides that the acquisition of unimproved land is not a deductible business purchase if it is not acquired for use in a business activity or if acquired for speculation, development, temporary leasing or other use not commensurate with its value, indefinite future use, or use in compensating employees. Thus, a business will not be able to reduce its current year's tax liability by a year end purchase of unimproved land for future development unless construction begins immediately. If no deduction is allowed upon acquisition of the land under this rule, once the land improvements are placed in service, a deduction will be allowed in that later tax year.

[95] S. 722, §267.

Regressivity observations:

Unlike a sales tax or VAT consumption tax, the USA system allows for graduated tax rates. It also retains the earned income tax credit. While it may appear to be less progressive than current system because the top tax rate kicks in at much lower income levels than under our current system (although the FICA/HI lowers the tax rate by 7.65% up to the FICA wage limit), FICA credit will provide some relief to lower income taxpayers.

Appendix IX
Flat Tax[96]

Hall-Rabushka Flat Tax

Most of the flat tax proposals are based on the proposal of Robert E. Hall and Alvin Rabushka of the Hoover Institute at Stanford University in Palo Alto. Their proposal and rationale is explained in their book, *The Flat Tax*. They propose a two-part tax system—one on businesses and one on individuals, both at a 19% rate. All income would be taxed at the source. For example, businesses would pay tax on their income, but when that income is paid to the owners, a second tax is not owed. The two-part system allows for some progressivity through a wage deduction for businesses that then requires wage income to be reported by individuals, thus allowing for an exemption. However, fringe benefits are not deductible by businesses. To prevent distortions among employees, governments and non-profit organizations would report fringe benefits (apparently including the employer's share of FICA) paid to employees as income.

Selected points made by Hall and Rabushka in *The Flat Tax*:

- Rationale for not taxing capital gains—"Capital gains are taxed under the flat tax." Proceeds from the sale of business property are included in business taxable income. Gains from sales of stocks are created from "capitalization of after-tax income." Such gains derive from growth in business earnings which are fully taxed. "Another tax on the appreciation of shares would amount to a second tax on a single stream of income." Gains from the sale of owner-occupied housing "arise from capitalization of rental values, which are heavily taxed by state and local governments." Such gains also represent the effects of inflation.
- Apparently, net operating losses (NOLs) could be acquired by another business.
- The flat tax would encourage foreign investment and raise the value of the U.S. dollar in foreign exchange markets.
- They project that the flat tax would promote growth in the economy that by the year 2002 would increase each citizen's income by about $1,900, in 1995 dollars.
- They suggest a possible transition rule for existing home mortgages to allow 90% of related interest expense to continue to be deductible (and related interest income would be taxable to the lender).

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[96] This section draws heavily from Annette Nellen, *Tax Reform in the United States*, a paper presented in Montegridolfo, Italy, June 26, 1999;http://www.sjsu.edu/people/annette.nellen/website/TAXREF~1.PDF.

H.R. 1040 - The Freedom and Fairness Restoration Act (106th Cong. 1999)[97]

History:

In June 1994, Congressman Armey first introduced legislation providing for replacement of the current federal income tax system with a 17% flat tax (20% for the first two years); H.R. 4584 (103d Cong. 1994). In July 1995, H.R. 2060 was introduced which is a modified version of the earlier legislation. Congressman Armey introduced H.R. 1040 in 1997 and 1999. The 1999 flat tax proposal is summarized below.

Individual tax system:

Under the Flat Tax, taxable income includes wages, salary and pension income earned for services performed in the U.S., unemployment compensation, and taxable income of each dependent child under age 14 (such child would have no filing obligation). Investment income and social security benefits are not taxable. Income is reduced by a standard deduction based on filing status and an additional standard deduction of $5,200 for each dependent; both deductions would be indexed for inflation. Unlike current law, no additional deduction is provided for the elderly and the blind. All tax credits, including the earned income tax credit, childcare credit, and child credit are eliminated. The Armey Flat Tax would repeal alternative minimum tax (AMT) as well as estate and gift taxes (because income is to be taxed only once). The tax rate would be 17% (19% for first two years).

Business tax system

Under the Flat Tax, all forms of businesses would be taxed in the same manner. Sales proceeds of previously expensed assets would be included in gross active income. While the legislation is not specific on this point, because the flat tax is intended to be a territorial system, allowable deductions should include only business inputs purchased in the U.S. or imported into the U.S. This is consistent with the Hall and Rabushka approach. They provide an example where a U.S. company sends parts to Mexico for assembly and brings the completed product back to the U.S. for sale. Under this example, the value of the goods is part of gross receipts upon export to Mexico and the value of the import is deductible when returned to the U.S. for sale. Costs incurred in Mexico would not be deductible. Investment income is not taxable.

The Flat Tax would allow no deductions for fringe benefits, interest expense, state and local taxes or payments made to owners. All tax credits, such as the research tax credit, are eliminated, and the alternative minimum tax (AMT) would be repealed. A business with a loss would convert it into the equivalent of a credit to

[97] Information obtained from H.R. 1040 (106th Congress). H.R. 1040 is introduced every session of Congress. Drs. Hall and Rabushka continue to promote the flat tax; see http://www.hoover.org/research/flat-tax. The explanation in this appendix is based on the flat tax proposed by Congressman Armey and Drs. Hall and Rabushka.

be used in future tax years. The excess loss is increased by an interest factor before being converted to a tax credit. The tax rate would be 17% (19% for first two years).

Benefits proposed by Congressman Armey would include simplification of the tax law, restoration of fairness by "treating everyone the same" (same tax rate applies to every taxpayer), elimination abuse by lobbyists, elimination of the current double taxation of savings, promotion of investment and job creation, elimination of the marriage penalty, and reduction of compliance costs. The Congressman also proposed the new system would increase the standard of living for citizens[98] by reducing compliance costs such as by eliminating the need for Form 1099s (for reporting interest and other types of income); allowing for more efficient use of resources by eliminating preferences; ending the bias in the current system against savings and investment by freeing up more funds for investment; encouraging work by lowering the marginal tax rates; and cutting taxes and federal spending which will "raise the level of economic growth."

Regressivity observations:

The taxing of earned income and deduction to payors enables the system to have a mechanism to remove the tax burden from low-income individuals; such a mechanism becomes much more burdensome with a value-added tax or a national sales tax. However, for many low-income taxpayers, the exemption alone is not the equivalent of today's benefit from the earned income tax credit which is a refundable credit designed to offset the impact of non-income taxes on the poor (such as Social Security and excise taxes). In addition, removal of the business deduction for fringe benefits may result in elimination of such employer-provided benefits which would have the greatest impact on low-income workers. Additionally, the large personal exemption (relative to the current tax system) adds some progressivity to the system.

Potential adverse impact on state and local governments:

Under the flat tax, governments (and tax-exempt entities) would be subject to tax at 17% (19% for the first two years) on fringe benefits provided to employees. A report by the California Franchise Tax Board concluded that the annual cost of this tax could be about $375 million for the State of California and about $2.2 billion for local governments in California.[99] Also, the National League of Cities (NLC) estimates that the removal of the exemption for interest on municipal bonds could cause an increase in capital improvement and borrowing costs of up to 30%.[100] The California Franchise Tax Board estimates that if the interest rate on municipal bonds increased by one-half of a percentage point due to removal of the federal exclusion for interest income on municipal bonds, the

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[98] From Congressman Armey's testimony before House Ways & Means Committee, March 27, 1996, 96 TNT 63-68 (March 29, 1996), Doc. 96-9502.

[99] California Franchise Tax Board - Economics and Statistical Research Bureau, *The Impact of the Flat Tax on California*, December 1995, pages 63-64; based on an assumed 22.9% tax rate.

[100] NLC, *Nation's Cities Weekly*, January 22, 1996.

increased first-year debt service cost to California state and local governments would be about $100 million.[101]

Transition considerations:

A system which continues a wage deduction for businesses may ease the potential adverse transitional impact of switching from an income tax to a consumption tax relative to other proposals that remove a deduction for wages. For example, the flat tax is less likely to lead to a one-time increase in price levels that would likely occur under a national sales tax or pure VAT.[102]

Lack of transitional relief for existing loss and credit carryovers and asset bases will be costly to many businesses and have a varying impact among businesses. Also, taxpayers and assets are not treated similarly in the transition. For example, it appears that pre-flat tax unrealized investment gains and losses will permanently escape tax. For example, if an individual holds stock with an inherent gain of $1,000,000 at the transition date, it will escape tax if it is not sold until the flat tax has replaced the income tax. On the other hand, businesses are penalized for holding assets at the transition date to the extent they receive no tax benefit for the adjusted basis of such business assets at the transition date.

Other flat tax proposals

Other proposals for a flat rate structure and changed tax base have been proposed. Most are based on the Hall-Rabushka model with minor changes. For example, some allow individuals to also deduct interest on a home mortgage, as well as limited charitable contributions. Generally, such modifications are contrary to the consumption tax approach of the tax base. For example, if it not appropriate for a consumption tax to exempt interest income, but allow an interest deduction. Instead, such deductions are left in to help make the tax more palatable to the public.

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[101] FTB Report, *supra*, page 63.

[102] For a further discussion of possible changes in prices under tax reform proposals, see CBO, *Comparing Income and Consumption Tax Bases*, July 1997, page 35.

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