



Reconsidering the Optional Single Sales Factor

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AN LAO REPORT

EXECUTIVE SUMMARY

The February 2009 state budget agreement changed the apportionment formula used to determine California taxable income for firms that also operate in other states. While the current formula considers the location of firms' sales, property, and payroll, starting in 2011 firms will have the option to consider only their sales. This policy is intended to encourage firms to produce in California and sell into other states.

In this report, we examine the rationales for different approaches to apportionment and evidence from California and other states on how changes to apportionment laws affect both economic activity and tax revenue.

Our findings indicate that:

- A formula with a higher weight on sales and lower weights on property and payroll promotes job growth to some extent.
- With most states' formulas now based only on sales, the old formula that used property and payroll could put some California producers at a competitive disadvantage.
- Allowing firms to choose their formula every year arbitrarily favors some firms over others.

We recommend that the state require all firms to use the single sales factor, which would help the state's competitiveness while limiting the cost to the budget.

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INTRODUCTION

The February 2009 state budget agreement changed the apportionment formula used to determine California taxable income for firms that also operate in other states. While the current formula considers the location of firms' sales, property, and payroll, starting in 2011 firms will have the option to consider only their sales ("single sales").

In this report, we examine the rationales for different approaches to apportionment and evidence from California and other states on how changes to apportionment laws affect both economic activity and tax revenue. We then compare the state's new law to other states' laws and recommend some changes.

FEATURES OF STATE APPORTIONMENT FORMULAS

Firms report profits only at the national level as opposed to the state level, so states have devised a process known as "apportionment" to determine what fraction of a multistate firm's profits they can tax. The term implies that the states in which a firm operates divide its profits up so that the sum of the taxable profits claimed by each state is equal to the firm's total. However, the reality is that each state in which the firm operates performs its own calculation using its own method. In all 45 states that levy a corporate income tax, taxable profits at the state level are based on the percentages of the firm's national property, payroll, and/or sales located in that state. States set their own relative weights on property, payroll, and sales. A firm that operates in states that use different formulas may find that the sum of its taxable profits in the states it operates is higher or lower than its overall national profits. In response to differing state formulas, firms have an incentive to use tax planning to minimize their overall state tax bill.

The three-factor apportionment framework comes from the Uniform Division of Income for Tax Purposes Act (UDITPA) that most states adopted following a 1957 meeting of the National Conference of Commissioners on Uniform

State Laws. Despite the name, UDITPA has never been a federal law. Its policy rationale was that income should be apportioned based on the factors of production (property representing capital and payroll representing labor) and a sales factor to represent market presence. (Sales are counted in the state where a product is consumed, not produced.) Under UDITPA, each factor had a weight of one-third. California adopted UDITPA in 1966.

In 1993, California modified its formula by adopting a "double-weighted" sales factor. That is, the weights on both property and payroll are 25 percent, but the weight on sales is 50 percent. Many other states similarly reduced the weights on payroll and property and increased the weight on sales in the 1980s and 1990s. The rationale for this policy was to induce mobile firms that can produce in one state but sell into others (typically manufacturers) to locate facilities and employees in the state.

Alternatives to Apportionment. The only feasible alternative to an apportionment method is called separate accounting, which is used by the federal government. At the state level, it would mean that a firm would have to establish a California affiliate for tax purposes, and its

state taxable profits would be defined as receipts earned by its California affiliate (including “sales” to its own operations in other states) minus deductible expenses incurred in California. No state uses this method, as it would require much more bookkeeping than the current system and would encourage firms to game the system by putting unrealistic “prices” on their internal transactions so that their receipts are disproportionately booked in jurisdictions with the lowest tax rates.

Nexus. While there are no federal laws governing most aspects of state apportionment, federal case law prevents states from levying corporate income taxes on firms with no “nexus” (basically, physical presence) in the state. As a result, firms with minimal facilities in a state but significant sales may have an incentive to avoid any tax liability by reducing their presence in the state to the point where they no longer have nexus.

Throwback Rules. California is one of several states with a throwback rule, which means that

sales shipped from California into states where the shipping firm has no nexus are “thrown back” and counted as California sales for corporate tax purposes. Because the throwback rule pertains to sales, it is more significant the higher the state’s sales factor is relative to the other two factors. If a state has a throwback rule, firms that ship from that state will not have the incentive described above to avoid establishing nexus in states that they ship into. For example, under current law if a court rules that a firm that ships from California into Utah has no nexus in Utah, then Utah will not be able to impose its corporate tax on the firm. Instead, California will be able to count the firm’s Utah sales as California sales for tax purposes. As an alternative example, if the firm initially had nexus in Utah, it could in some cases lower its overall tax bill by closing its Utah facilities and eliminating this nexus. This would likely be the case if Utah had a higher tax rate than California.

HOW APPORTIONMENT AFFECTS REVENUES AND INCENTIVES: A SIMPLE EXAMPLE

Apportionment’s impact on a firm’s tax bill depends on the distribution of its sales, property, and payroll among the states it operates in. For example, a hypothetical firm with \$10 million of total profits operates in just two states: Alabama and Georgia. Its property, sales, and payroll are split as shown in Figure 1.

Alabama’s apportionment formula puts equal weights of one-third on each of the three factors. In contrast, Georgia’s formula uses only the sales factor and puts weights of zero on property and payroll. Figure 2 shows how the two states would compute the firm’s taxable profits.

The firm has taxable profits of \$8 million in Alabama and \$4 million in Georgia for a total

Figure 1
Hypothetical Two-State Firm:
Factor Allocation

(Dollars in Millions)

	Alabama		Georgia	
	Amount	Share of Total	Amount	Share of Total
Payroll	\$45	90%	\$5	10%
Property	360	90	40	10
Sales	60	60	40	40

of \$12 million, yet its national profit is just \$10 million. This arises because the firm’s facilities are disproportionately in Alabama where the formula uses property and payroll, and its sales are disproportionately in Georgia where the formula uses only sales.

Switching the factor percentages from Figure 1 so that 90 percent of the firm’s payroll and property and 60 percent of its sales are in Georgia instead of Alabama leads to a very different result. As shown in Figure 3, the firm’s taxable profits at the state level add up to *less* than its national profits.

When states use different formulas (all else equal), firms have an incentive to locate their facilities in states that put more weight on sales and sell into states that put more weight on property and payroll. In this example, the firm’s tax bill is

lower if its facilities are concentrated in Georgia, which creates a policy problem for Alabama.

Figure 2
Hypothetical Two-State Firm:
Taxable Profits Exceed Total

(Dollars in Millions)

	Alabama <i>1/3 Payroll, 1/3 Property, 1/3 Sales</i>			Georgia <i>100% Sales</i>		
	Share	Weight	Subtotals	Share	Weight	Subtotals
Payroll	90%	33%	30%	10%	—	—
Property	90	33	30	10	—	—
Sales	60	33	20	40	100%	40%
Apportionment ratio			80%			40%
Share of \$10 million in profits			\$8			\$4
Taxable Profits—Both States Total			\$12			

Figure 3
Hypothetical Two-State Firm:
Taxable Profits Less Than Total

(Dollars in Millions)

	Alabama <i>1/3 Payroll, 1/3 Property, 1/3 Sales</i>			Georgia <i>100% Sales</i>		
	Share	Weight	Subtotals	Share	Weight	Subtotals
Payroll	10%	33%	3.3%	90%	—	—
Property	10	33	3.3	90	—	—
Sales	40	33	13.3	60	100%	60%
Apportionment ratio			20%			60%
Share of taxable profits			\$2			\$6
Taxable Profits—Both States Total			\$8			

THEORY AND EVIDENCE ON APPORTIONMENT

Theory Is Inconclusive, Evidence Links Profits to Sales. There is no consensus among economists or other policy experts as to the theoretically appropriate factors or weights on each factor. As such, the assignment of equal weights under UDITPA was somewhat arbitrary. There is, however, some empirical evidence on the statistical relationship of profits to the three factors. A recent study of 11,000 European firms for which 2004 data on profits, property, payroll, and sales were all available concluded that the apportionment formula that best fit the data would use weights of 27.5 percent on property, 7 percent on payroll, and 65.5 percent on sales. A similar calculation for a smaller sample of U.S. firms suggests weights of roughly 45 percent on property, 5 percent on payroll, and 50 percent on sales.

Evidence Links Higher Sales Factor With Job Growth. In general, the evidence suggests that increasing the weight of the sales factor produces a small but noticeable increase in economic activity. Several academic studies which have covered all states over a decade or more and controlled for other factors that affect economic activity besides corporate taxes have found that a higher sales factor (all else equal) is associated with more economic development. For example, one used data for all states from 1978 to 1994 and found that on average, switching from a double-weighted sales factor to a single sales factor would increase a state's manufacturing

jobs by about 3.3 percent. Another used data from 1978 to 1999 and accounted for some additional factors such as sales and property taxes, and reached a similar conclusion. A third, using data from 1987 to 1996 and accounting for some additional factors such as special tax incentives and public spending, found that a higher sales factor increases the amount of spending on business facilities and equipment. In addition to these studies, a number of other studies using data for either just one state or just one year have produced mostly similar results.

Results of a 2005 simulation using the California-specific Dynamic Revenue Analysis Model (DRAM) suggest that a mandatory single sales factor would create jobs on net—roughly one job for each \$17,400 (in 2001 dollars) of initial revenue loss. (The simulation also accounted for the impact of state spending cuts that would be needed to offset the revenue loss.) This figure suggests that mandatory single sales could produce an eventual net gain of about 40,000 jobs based on the Franchise Tax Board's (FTB's) latest cost estimates. The DRAM estimate of the state and local revenue feedback effect from increased sales, property, and income taxes stemming from the job gains was about 14 percent of the initial revenue loss, which is consistent with the general empirical evidence on these effects. These estimates should be interpreted with caution as they are based on the 2001 state economy and incorporate a lot of assumptions, but we believe that they are reasonable ballpark figures.

STATE'S FORMULA WILL CHANGE IN 2011

Optional Single Sales Factor. As part of the February 2009 budget agreement, starting with the 2011 tax year, firms will be able to choose between the current double-weighted sales formula and a new formula that uses the single sales factor, ignoring the property and payroll factors. (The new law does not apply to banks and agricultural or mining firms. These firms will continue to use the UDITPA equal-weighted formula as they do under current law.) Firms will be able to decide each year which of the two formulas they want to use for that year.

Other Apportionment Changes. The state also modified some other provisions of the apportionment law to partially offset the cost of the formula change. It clarified the definitions of nexus and gross receipts, broadened the definition of sales attributable to "unitary" groups of affiliated businesses, and changed the treatment of sales of services.

Impact of 2009 Policy Change

Below, we discuss the likely effects of last year's policy change to give businesses a choice between the two formulas.

Some Firms Will Benefit From New Formula. Consider the choice between double-weighted sales and single sales for a hypothetical firm with \$10 million of national profits that sells nationwide but has most of its operations in California (see Figure 4). The state has 80 percent

each of the firm's property and payroll but just 20 percent of its sales.

The figure shows that a California-based firm would be able to reduce its tax bill by 60 percent by switching from the current double-weighted sales factor formula to the new single sales factor.

In contrast, Figure 5 (see next page) shows the same calculation for an out-of-state firm that has relatively high sales in California (14 percent) compared to its shares of property and payroll (4 percent each). This firm would save \$44,200 under the current formula with double-weighted sales, so it will elect not to use the new formula.

Optional Formulas Will Favor Some Firms Without a Clear Rationale. Firms will benefit from being able to switch from one formula to the other depending on whether they are having a good year or a bad year. Consider what would happen if a firm records a \$10 million loss instead of a \$10 million profit. Now it wants to maximize the taxable loss, which can be deducted against its taxable income for prior years or future years. Figure 6 (see next page) shows this calculation for the two firms from the previ-

Figure 4

Single Sales Versus Double-Weighted Sales: California-Based Firm

	Double-Weighted	Single Sales
Payroll	80%	80%
Property	80	80
Sales	20	20
California apportionment ratio	50%	20%
× Total U.S. profits (millions)	\$10.0	\$10.0
= California taxable profits (millions)	5.0	2.0
California Tax Payment at 8.84 Percent	\$442,000	\$176,800

ous examples and a third firm that has balanced factors: 16 percent each of its property, payroll, and sales in California.

The California-based firm will now switch to double-weighted sales to maximize its loss, and the out-of-state firm will likewise switch to single sales. In contrast, the “balanced” firm records the same taxable loss under either formula and thus does not benefit at all from being able to choose. Similarly, a firm that operates only in California cannot benefit from choosing its formula because it does not use the apportionment method in the first place. In other words, the optional single sales factor gives a bigger benefit to out-of-state firms than to balanced multistate firms or California-only firms.

Revenue Impact. The FTB estimates that the switch from mandatory double-weighted sales

to the current optional formula will reduce state revenues by \$900 million annually by 2012-13 when it is completely phased in. (This includes the definitional changes, which would be expected to raise revenue on their own.) The estimated revenue loss would be somewhat lower—\$50 million to \$100 million annually—if all firms were required to use the single sales factor instead of retaining the option to stick with double-weighted sales. The FTB used its database of corporate returns from 2006 to construct these

Figure 5

Single Sales Versus Double-Weighted Sales: Out-of-State Firm

	Double-Weighted	Single Sales
Payroll	4%	4%
Property	4	4
Sales	14	14
California apportionment ratio	9%	14%
× Total U.S. profits (millions)	\$10.0	\$10.0
= California taxable profits (millions)	0.9	1.4
California Tax Payment at 8.84 Percent	\$79,560	\$123,760

Figure 6

Single Sales Versus Double-Weighted Sales: Money-Losing Firms

	California-Based Firm		Out-of-State Firm		“Balanced” Firm	
	Double-Weighted	Single	Double-Weighted	Single	Double-Weighted	Single
Payroll	80%	80%	4%	4%	16%	16%
Property	80	80	4	4	16	16
Sales	20	20	14	14	16	16
California (CA) apportionment ratio	50%	20%	9%	14%	16%	16%
× Total U.S. loss (millions)	\$10.0	\$10.0	\$10.0	\$10.0	\$10.0	\$10.0
= CA loss (millions)	\$5.0	\$2.0	\$0.9	\$1.4	\$1.6	\$1.6
California tax savings	\$442,000	\$176,800	\$79,560	\$123,760	\$141,440	\$141,440
Difference	\$265,200		\$44,200		\$0	

estimates, and its assumptions about profit growth until 2012-13 are consistent with the forecasts used to develop the state's 2010-11 budget.

Other States' Use of Optional Formulas

State tax systems that allow firms to choose their apportionment methods are not common, and little evidence is available on the impact of allowing firms to choose. Four states currently have optional formulas of some type in place.

- **Missouri** is the only state currently that allows an annual election between single sales and the traditional three-factor formula. The state has not conducted a study on the impact of this policy that was adopted in 1973.
- **Utah** changed its law in 2005 to allow firms to choose between the traditional three-factor formula and a double-weighted sales factor for five years at a time. The law has not been in effect long enough for them to draw conclusions about its impact.
- **New Mexico** currently requires the traditional equal-weighted three-factor formula but is going to give manufacturers

an option to go with a double-weighted sales factor starting in 2011. Firms will be required to use the double-weighted formula for at least three years before switching back to the equal-weight formula.

- **South Carolina** allows firms to petition the state's revenue agency to use an alternate formula if the firm believes that the state's prescribed formula (double-weighted sales through 2010, single sales for 2011 and beyond) does not fairly represent the firm's income. It appears that the department typically approves these requests. The state has conducted no studies on the effects of allowing this option.

Colorado had a longstanding policy of allowing firms to choose annually between double-weighted sales and equal weights, but replaced this system with mandatory single sales in 2008.

Alternatives to Optional Formulas. A few states use different mandatory formulas for different sectors, usually by mandating a higher sales factor for sectors that typically sell into other states. An example of this is Maryland, which uses a single sales factor for manufacturers but double-weighted sales for all other firms.

RECOMMENDATIONS

California has been criticized at times for having high costs of doing business. The single sales factor would reduce those costs for mobile firms who sell into national or world markets and are more of a flight risk than firms who sell only into the California market. The results of the DRAM simulations and other empirical evidence suggest that a higher sales factor (all else equal) generates some employment growth. The tradeoff is that it reduces revenue and

forces the state to either raise other taxes or cut spending on public services. In view of this, we discuss below the merits of mandatory versus optional formulas, the single sales factor versus the double-weighted sales factor, and the timing of the implementation of any changes.

Choice of Apportionment Formula. Allowing a choice between single sales and double-weighted sales arbitrarily favors firms with disproportionately high or low California sales relative

to property and payroll. These firms will benefit most from switching their formulas around from year to year depending on whether they report a net profit or a loss, and will thus pay a lower tax rate over the business cycle than multistate firms with more evenly distributed factors or firms that operate only in California. Given these concerns, we recommend that firms be required to stick to a single formula.

Single Sales or Double-Weighted Sales? The strongest case for single sales concerns conformity to other states' policies. If all states impose a corporate income tax with a single sales factor and a throwback rule, then a multistate firm's total taxable income at the state level will be equal to its total nationwide income. As such, the playing field between multistate firms and California-only firms will be level. The same would also be true if all states used the double-weighted formula or the equal-weight three-factor formula. However, the dominant formula now among the large states is single sales: Texas, New York, Virginia, Georgia, Massachusetts, Illinois, Michigan, and Ohio all use single sales while only Florida, New Jersey, and North Carolina still use the traditional or double-weighted formulas. Pennsylvania is in between, with a 75 percent weight on its sales factor.

Conformity with other states would prevent California firms from being placed at a competitive disadvantage. Under mandatory double-weighted sales, a California producer that sells into states with single sales could well have total

taxable profits in excess of its actual profits. For this and the reasons noted above, we recommend that the state use a single sales factor. We also recommend that the state keep the throwback rule to avoid the economic distortions discussed earlier.

Timing. Given the state's ongoing budget shortfall, we have recommended that the Legislature consider delaying the implementation of a number of tax policy changes that reduce state revenues enacted as part of the last two years' budgets. The state currently faces a nearly \$20 billion budget shortfall for 2010-11. The following budget in 2011-12 will be challenging as well given the expiration of billions of dollars in temporary taxes. Consequently, we recommend that the Legislature delay any changes in apportionment policies for two years.

Overall Approach

In 2009, the Legislature signaled its intent to follow other states in switching to a single sales factor. While there is a good case for a mandatory single sales approach, providing it as an option creates clear disparities among businesses. We recommend that the state replace the optional single sales factor with a mandatory single sales factor beginning in 2013. This would increase state General Fund revenues by about \$215 million in 2010-11 and about \$700 million in 2011-12 and 2012-13 (due to the delay in implementation). Thereafter, our recommendation would increase revenues by up to \$100 million each year.

LAO Publications

This report was prepared by Justin Garosi, and reviewed by Michael Cohen. The Legislative Analyst's Office (LAO) is a nonpartisan office which provides fiscal and policy information and advice to the Legislature.

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