THE ECONOMIC IMPACT OF HIKING TAXES TO CLOSE THE BUDGET GAP

BRIEFLY

Increasing the state sales tax rate from 6.5 percent to 7.3 percent would raise $1 billion over the final 15 months of the 2009–11 biennium. Assuming that the additional revenue is spent on health care, a sales tax increase of this magnitude would reduce 2013 statewide employment by 5,800. A B&O tax increase that raised the same amount of revenue would reduce 2013 employment by 6,100 if the money is spent on health care.

The paramount task facing legislators during the session that begins Monday is bridging the $2.6 billion dollar gap in the enacted 2009–11 budget. In December, as state law requires, Governor Chris Gregoire presented a plan that would balance the budget using existing resources. Under this proposal, the gap is bridged by a combination of $1.6 billion in spending cuts and $1.0 billion in reserve drawdowns (WRC 2009). The Governor has indicated that she will bring forward an alternate proposal later this month that pairs spending cuts with increases in revenue.

As legislators wrestle with the state' budget shortfall, it's important that they recognize the effects of tax hikes on job preservation and creation. In her December budget proposal, Governor Gregoire invited "a robust discussion about how we balance the budget." As a contribution to the discussion, we have used the WRC-REMI model to quantify the potential impacts of increases in the sales and B&O (business and occupation) tax rates on the state economy. This brief presents the results of those simulations.

FOUR SCENARIOS

Our simulations examine four tax scenarios. In the first scenario we permanently hike the state sales tax rate from 6.5 percent to 7.3 percent. This would raise an additional $1 billion over the final 15 months of the 2009–11 biennium. The second scenario raises the state sales tax to 8.6 percent, which provides $2.6 billion in additional revenue this biennium.

The third scenario imposes a B&O tax increase that generates the same revenue as increasing the sales tax to 7.3 percent, while the fourth scenario imposes a B&O hike that generates the same revenue as increasing the sales tax to 8.6 percent.

Tax increases reduce economic activity through a number of different channels: About 62 percent of sales tax revenue comes from purchases of consumer goods and services. In the short run, raising consumers' sales taxes affects the composition of purchases (the "substitution effect") while reducing the aggregate amount of consumer spending (the "income effect"). In the long run, by increasing the cost of living, higher consumer sales taxes decrease the supply of labor in the state.

The 38 percent of sales taxes paid by business and the B&O tax raise business costs. In the short run some of these costs are passed on to customers in the form of higher prices, and these higher prices reduce sales and employment. In the longer run higher business costs discourage firms from locating activity in the state.
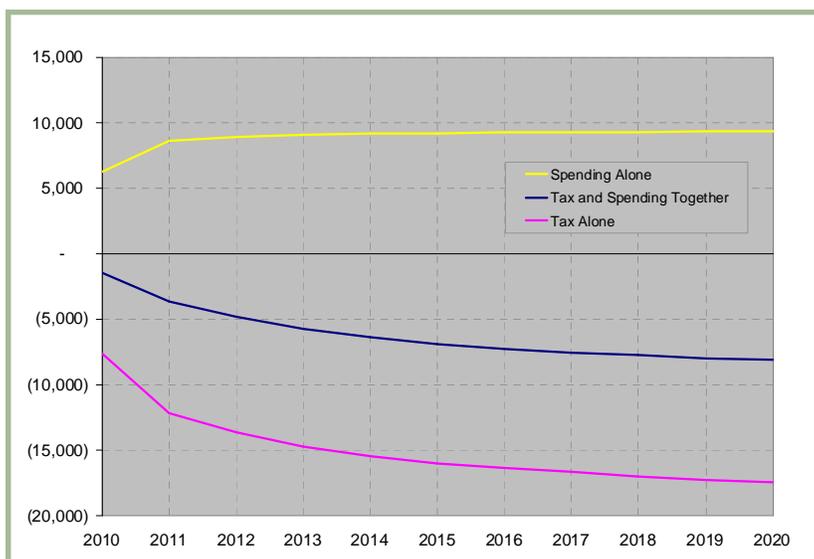
To a certain extent, the negative impact of tax hikes on economic activity will be offset by the state's spending of the tax proceeds. The magnitude of the offset will depend on how the money is spent. Our simulations assume that the tax proceeds are spent on health care (a blend of physicians' services, hospital care, nursing home care, and drugs).

In each case, the higher tax and spending rates begin in April 2010, and the simulation runs through the year 2020.

RESULTS

$1 billion sales tax hike. The first scenario we consider is an increase in the state sale rate from 6.5 percent to 7.3 percent, which would raise $1 billion over the final 15 months of the 2009–11 biennium. Chart 1 shows the impact on employment compared to baseline employment for three simulations: (a) a simulation where the sales tax is increased and the proceeds are spent on health care, (b) a simulation where the sales tax is increased but the proceeds are not spent, and (c) simulation where health care spending is increased but taxes are not. Table 1 on page 3 presents the underlying numbers. (To avoid giving an undue impression of precision, we have rounded to the nearest one-hundred.)

Chart 1: Job Impact of Sales Tax Hike Yielding $1 Billion in 2009–11 Biennium, Spent on Health Care

The sales tax increase paired with the health care spending increase decreases employment (relative to the baseline) by 1,500 in 2010 (where the increases are effective for only 9 months), 3,700 in 2011, 4,900 in 2012 and 5,800. By 2020 the job loss rises to 8,200.

With the sales tax hike, 2013 population is 9,300 less than the baseline, while 2020 population is 21,600 less. Consumer prices are 0.25 percent higher in 2013 and 0.24 percent higher in 2020, compared to the baseline; real per capita personal income is 0.21 percent lower in 2013 and 0.10 percent lower in 2020.

Modeled separately, the sales tax hike costs 14,800 jobs in 2013 and 17,500 jobs in 2020, while the health care spending increase adds 9,000 jobs in the former year and 9,200 in the later. This illustrates a general property: the negative effects of taxes on employment build over time to a greater extent than the positive effects of spending. This is because of the effects on taxes on population migration and business location that play out over the long run.

$1 billion B&O hike. The second scenario we consider hikes B&O taxes sufficiently to raise $1 billion over the final 15 months of this biennium (this implies B&O rates that equal 1.3 times the existing rates). With the proceeds spent on health care, this B&O hike decreases employment (relative to the baseline) by 200 in 2010, 2,600 in 2011, 4,600 in 2012 and 6,100. By 2020 the job loss rises to 10,700. (See Table 1.)

With the B&O tax hike, 2013 population is 5,400 less than the baseline, while 2020 population is 16,100 less. Consumer prices are 0.15 percent higher in 2013 and 0.13 percent higher in 2020, compared to the baseline, while real per capita personal income is 0.17 percent lower in 2013 and 0.11 percent lower in 2020.

Chart 2: Job Impacts of Tax Hikes
Yielding $1 Billion in 2009–11 Biennium

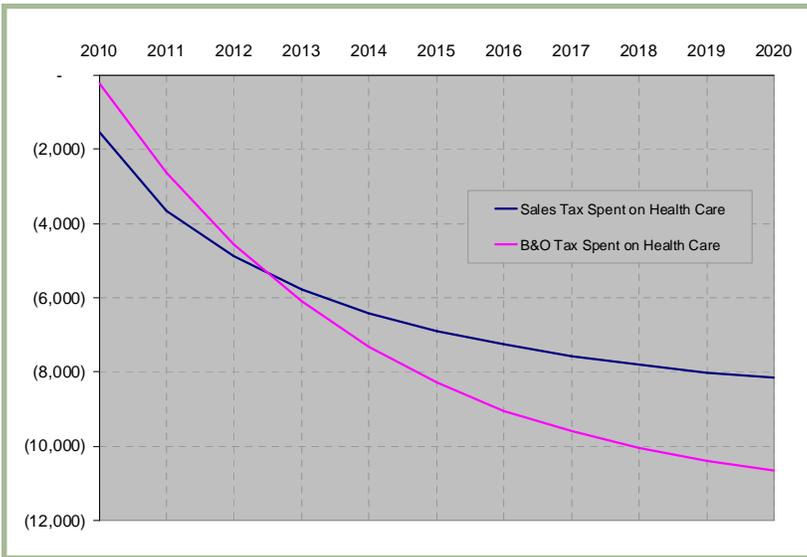Without a commensurate increase in spending, the B&O tax hike costs 15,100 jobs in 2013 and 19,900 jobs in 2020.

Chart 2 compares the job losses for the $1 billion hikes in the B&O and sales taxes, where in both cases the proceeds are spent on health care. For the first three years (2010–2012) the sales tax hike costs more jobs than the B&O hike. After three years it is the B&O tax that costs more jobs, and by 2020 the B&O hike costs 2,550 more jobs than the sales tax hike. This replicates a result from an earlier study which found that taxing business is generally more costly to the economy than taxing consumers (WRC 2004b).

When it is the sales tax that is increased rather than the B&O, job losses are relatively higher in the consumer related sectors such as retail trade, and food service and drinking places. With the sales tax hike, these sectors lose 2,300 jobs compared with the baseline, while with the B&O hike the lose 1,200.

$2.6 billion sales and B&O tax hikes. Table 1 also shows the employment impacts of sales and B&O tax hikes that would raise $2.6 billion over the final 15 months of the biennium. Such a sales tax hike, which would take the state sales tax rate from 6.5 percent to 8.6 percent, would cost 14,700 jobs in 2013 and 21,000 jobs in 2020, assuming the proceeds are spent on health care. For the B&O tax, the job losses are 15,500 and 27,500, respectively.

SUMMING UP

As legislators wrestle with the state' budget shortfall, it's important that they recognize the effects of tax hikes on job preservation and creation.

Increasing the state sales tax rate from 6.5 percent to 7.3 percent would raise $1 billion over the final 15 months of the 2009–11 biennium. Assum-

Table 1: Tax Hike Simulations — Job Losses Compared to Baseline

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Permanent Tax Hikes That Generate $1 Billion, 4/1/10-6/30/11											
Sales Tax Spent on Health Care	(1,500)	(3,700)	(4,900)	(5,800)	(6,400)	(6,900)	(7,300)	(7,600)	(7,800)	(8,000)	(8,200)
B&O Tax Spent on Health Care	(200)	(2,600)	(4,600)	(6,100)	(7,300)	(8,300)	(9,000)	(9,600)	(10,100)	(10,400)	(10,700)
Sales Tax (No Spending)	(7,700)	(12,200)	(13,700)	(14,800)	(15,500)	(16,000)	(16,400)	(16,700)	(17,000)	(17,300)	(17,500)
B&O Tax (No Spending)	(6,400)	(11,200)	(13,400)	(15,100)	(16,400)	(17,400)	(18,200)	(18,800)	(19,300)	(19,700)	(19,900)
Spending on Health Care (No Tax)	6,200	8,600	8,900	9,000	9,100	9,100	9,200	9,200	9,200	9,300	9,300
Permanent Tax Hikes That Generate $2.6 Billion, 4/1/10-6/30/11											
Sales Tax Spent on Health Care	(3,800)	(9,300)	(12,500)	(14,700)	(16,400)	(17,700)	(18,600)	(19,400)	(20,000)	(20,600)	(21,000)
B&O Tax Spent on Health Care	(600)	(6,800)	(11,700)	(15,700)	(18,900)	(21,400)	(23,400)	(24,800)	(26,000)	(26,900)	(27,500)
Sales Tax (No Spending)	(19,800)	(31,500)	(35,400)	(38,000)	(40,000)	(41,300)	(42,300)	(43,100)	(43,900)	(44,600)	(45,100)
B&O Tax (No Spending)	(16,600)	(29,000)	(34,600)	(39,000)	(42,400)	(45,000)	(47,000)	(48,500)	(49,800)	(50,800)	(51,600)
Spending on Health Care (No Tax)	16,100	22,300	23,100	23,400	23,700	23,800	23,800	23,900	24,000	24,100	24,200

ing that the additional revenue is spent on health care, a sales tax increase of this magnitude would reduce 2013 statewide employment by 5,800. The tax increase by itself would reduce 2013 employment by 14,800. Correspondingly, the spending increase by itself would raise 2013 employment by 9,000.

A B&O tax increase that raised the same amount of revenue would reduce 2013 employment by 6,100 if the money is spent on health care. By itself, the B&O increase would reduce 2013 employment by 15,100.

Looking further into the future to 2020, increasing the B&O tax is more costly, in terms of job losses, than increasing the sales tax. With the proceeds spent on healthcare, the increase from 6.5 percent to 7.3 percent in the sales tax reduces employment by 8,200. If instead, this spending increase is funded by B&O taxes, 10,700 jobs are lost.

REFERENCES

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ABOUT THE WRC-REMI MODEL

The Washington Research Council uses a model of the Washington State economy constructed especially for WRC by Regional Economic Models, Inc. Because it allows supply and demand to respond to changes in prices and wages, and permits substitution among factors of production, the WRC-REMI model is more elaborate than the standard input-output models commonly employed to estimate regional economic impacts.

The core of the standard input-output model is a catalog of interindustry purchases for the region in a base year, arrayed in an input/output matrix. The model assumes that as a specific industry's production increases or decreases, its purchases from the region's other industries will change proportionately. Likewise, the industry's employment will change by the same proportion that its output changes. Based on these assumptions, the model traces the cascading effects as one industry's increase in output stimulates an increase in the output of other industries (and its own). These effects are distilled in multipliers that measure how a change in the demand for the output of one industry will affect the total output of the local economy, or how a change in the employment of one industry will affect the total output of the local economy.

But the standard input-output model is incomplete. It fails to model the numerous capacity constraints within the economy, the processes that set prices for goods and services and the responses of consumers and producers to changes in these prices. In the input-output model, industry and labor supply are perfectly elastic—so prices and wage rates do not matter.

Prices and wages do matter in the WRC-REMI model. The model divides the state into two subregions: the four central Puget Sound counties (King, Kitsap, Pierce, and Snohomish) and the balance of the state. There are 70 industrial sectors within each subregion. Within each subregion the model tracks interindustry transactions, much as an input output model would.

Unlike an input-output model, however, the WRC-REMI model incorporates a number of significant behavioral responses to changes in prices and costs: The wage rate depends on the supply and demand for labor, migration and labor force participation rates respond to changes in wage rates, and consumer purchases of specific goods and services respond to changes in relative prices and personal income. In addition, producers substitute among production factors in response to changes in relative factor costs, market shares respond to changes in regional production costs, and investment rises in response to increases in output.

The simulations reported in this brief used version PI + 1.1.6.2011 of the WRC-REMI model.