The Empirical Economics Letters

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Economic Impact of Property Tax Cut with and without Changing Sales Tax

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Abstract: In this study, we evaluate the economic impact of two primary scenarios across the Florida economy; first, by solely adjusting property tax rates from a "rollback" perspective that examined both property tax reductions to residential and commercial sectors of the economy. The second scenario involved adjusting the property tax rate (homestead exemption) and corresponding sales tax rate or "tax swap." This study clearly indicates that a reduction in property tax with no change in sales tax will boost the economy by increasing Gross Regional Product (GRP) and disposable personal income without creating a significant number of job losses. In contrast, a property tax/sales tax swap will result in a loss in GRP and disposable personal income. The magnitude of annual job losses over time will be much higher for property tax/sales tax scenarios compared to property tax cut scenarios.

Keywords: Property Tax, Florida Economy, and Gross Regional Product.

1. Introduction

In this study, we evaluate the economic impact of two primary scenarios across the Florida economy; first, by solely adjusting property tax rates from a "rollback" perspective that examined both property tax reductions to residential and commercial sectors of the economy. The second scenario involved adjusting the property tax rate (homestead exemption) and corresponding sales tax rate or "tax swap." The second scenario represented a revenue "neutral" approach.

2. Tax Policy Will Affect Consumer and Producer Behaviors

It is important to remember that any change in tax policy will have impacts on the state economy by affecting consumer and producer behaviors in several predictable ways.

- A reduction in property tax will result in higher demand for housing at the consumer level and an increase in capital-intensive investment at the producer level (Milton, 2004). In the REMI modeling, we assume that the property tax

- reduction reduces the cost of housing for individuals and cost of production for business.
- The sales tax increase will result in higher personal taxes for taxable consumer goods and higher business taxes for intermediate goods. We expect that a property tax/sales tax swap will affect businesses by causing businesses to shift to less taxable inputs.
- Any tax changes that cause investors to pay higher taxes, will reduce production in the economy.
- When there is a reduction in property tax, consumers are likely to shift their demand from consumer goods to housing to maximize their satisfaction.
- It is also important for Florida to take into account any impact of a sales tax increase on the tourism sector. We expect that a 10% sales tax might hurt Florida tourism by portraying Florida as the most expensive tourism destination in the eyes of potential visitors.

3. Research Methodology, Data and Result Discussion

We used the Regional Economic Model, Inc. (REMI)[1], a dynamic input-output model, to measure changes in consumer and producer behaviors and their impacts on the state Gross Regional Products, real disposable personal income, employment, population growth, relative cost of production, and a few other economic indicators. The model measures both short-term (one year) and long-term (five year) effects of changes in property and/or sales tax under different scenarios.

As a part of our modeling strategy, we examined both the total tax collections provided by both the Florida Department of Revenue (DOR) and the Legislature's Office of Economic and Demographic Research (EDR). The DOR data (sales tax) was provided by business sector termed in-kind codes, whereas the EDR data categorized the tax collections into six categories (non-durables, tourism and recreation, autos and accessories, other durables, building investment, and business investment). There were no data projections available from the DOR, so we translated the EDR forecasted data (2007-2011) into in-kind codes.

3.1. The REMI Model's Limitations

The Florida REMI econometric model used in this study has three important limitations when trying to capture the full impacts of a tax policy change. Readers should take the followings limitations into consideration while assessing the findings of this study.
First, the model does not capture all changes in interstate and Internet commerce due to proposed tax relief. It is important to note that any change in tax policy will have dynamic

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[1] For more information about the model see the REMI company website: www.remi.com.

effects on the highly competitive state economy. For instance, if we have a relatively high sales tax rate, some consumers will try to avoid it by out of state buying and through Internet trading. If the cost of production goes up due to an increase in sales tax on intermediate goods, this may force investors to move to other states.

Second, the model does not capture the full impact of sales loss due to any change in market share for in-state business. The net direct change in the cost of production leads to a loss of market share for in-state businesses because of a decrease in competitiveness. The portion of the lost market share caused by the perception that locally produced products are more expensive than imported products must be offset, since the imported products will be taxed to the same extent as those produced locally. The result is an estimate of the effect on Florida market shares due to the direct price change passed onto those Florida businesses that import goods from the rest of the nation. This number, multiplied by the amount of imports from the baseline forecast of the REMI model, provides an estimate of the amount of sales lost to Florida businesses caused by the perceived price differential; this loss of sales must be adjusted for.

Third, any property tax/sales tax swap is likely to change the relative tax burden of individuals and businesses. This study does not include any shift in tax burden for individuals and businesses.

3.2. Positive Economic Impact Predicted from a Property Tax Cut Without Any Change in Sales Tax

The property tax or "roll back" scenarios include both the residential and commercial/business sectors. The breakout of taxable values of residential and commercial properties is the following:[2] Non-Residential/Commercial: 32.4%, Residential Homeowners: 32.2% and Residential Non-Homeowners: 35.4%. The analysis was modeled by corresponding residential and commercial sectors . Consumer pricing on housing represents the property tax accruing to residential homeowners, and capital costs represent the property tax accruing to businesses across 169 sectors of the economy. With a reduction in property taxes, one would expect a corresponding reduction in government spending. We modeled the reduction in government spending by separating the government spending reduction to state and local, and to exogenous final demand.[3]

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[2] Florida's Property Tax Study Interim Report, Legislative Office of Economic and Demographic Research, February 15, 2007.

[3] It is more realistic to assume that a reduction in government spending would result in a mix of a 1) reduction in outside contracts and programs and then; 2) government employment. Typically, when a government is having budget problems they are more likely to cut product and services spending rather than laying off personnel.

3.3. Property Tax Reduction Scenarios Explored

<u>Scenario</u>

1. Cut property tax by $1 billion without any change in sales tax.
2. Cut property tax by $2 billion without any change in sales tax.
3. Cut property tax by $3 billion without any change in sales tax.
4. Cut property tax by $4 billion without any change in sales tax.
5. Cut property tax by $5.5 billion without any change in sales tax.

3.4. GRP and Real Disposable Personal Income Will Increase With Any Property Tax Reduction

The short and long term impacts of the scenarios above on the state Gross Regional Products (see Figure 1) and real disposable personal income are as follows (see Figure 2):

<u>The short-term (one-year) effect of property tax reduction</u>:

- A gain of $230 million (scenario 1) to $1.41 billion (scenario 5) in Gross Regional Products.
- A gain of $840 million (scenario 1) to $4.77 billion (scenario 5) in real disposable personal income.

<u>The long-term (five year) effect of property tax reduction</u>:

- A gain of $1.89 billion (scenario 1) to $11.12 billion (scenario 5) in GRP.
- A gain of $4.32 million (scenario 1) to $24.42 billion (scenario 5) in real disposable personal income.

There are several reasons for the projected positive economic impacts of any reduction in property tax. First, reductions will decrease relative labor intensity in production because producers will increase capital-intensive inputs. With a reduction in property tax, the cost of capital (structures and inventories) will be lower for producers. Therefore, they will increase their capital-intensive production while decreasing labor-intensive production.

Second, the model also indicates that labor productivity will go up with lower property tax payments. Since output per employee is greater for capital-intensive production and higher labor productivity, holding everything else constant, projected output and GRP growth will be positive.

Third, the model estimates an annual increase in population growth ranging from 6,700 (scenario 1) to 38,390 (scenario 5) with a lower property tax. This will result in higher demand and consumption within Florida's economy.

Figure 1: Property Tax Relief Will Increase Florida GRP by $Billions Indicated
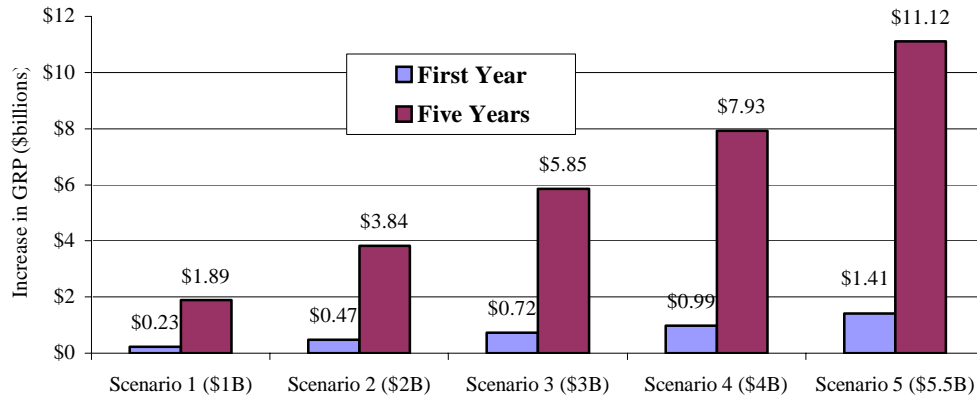
Figure 2: Property Tax Relief Will Increase Real Disposable Personal Income by $Billions Indicated
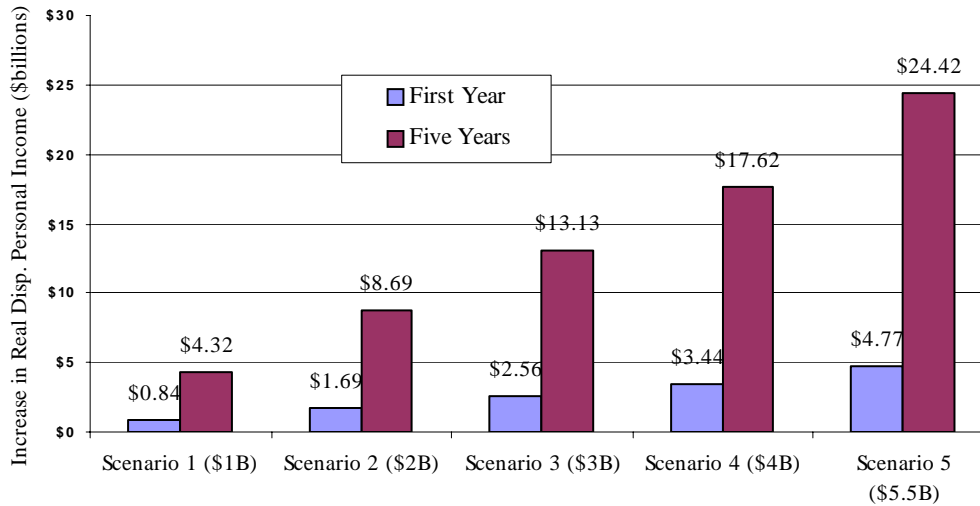
3.5. A Property Tax Reduction Will Result in Job Losses

As seen in Figure 3, the REMI model estimates that there will be a loss of 3,530 (scenario 1) to 17,950 (scenario 5) jobs depending on the size of property tax reduction. The total job losses for five years will range from 9,740 to 46,990. Considering around 23,000 jobs, which are being created statewide every month, the estimated job losses are modest

impacts. The job losses will be due to a reduction in local government spending. Therefore, most of these losses would be in local government sectors and firms contracting with local governments. The model indicates that there would be an increase in high paying jobs in capital intensive industries and a decrease in low paying jobs in labor intensive industries. And labor productivity will rise. Therefore, despite a significant increase in GRP and output, there would be overall job loss in the economy, holding everything constant. However, the magnitude of forecasted annual job losses will diminish over time.

Figure 3: A Property Tax Relief Will Result in Job Losses
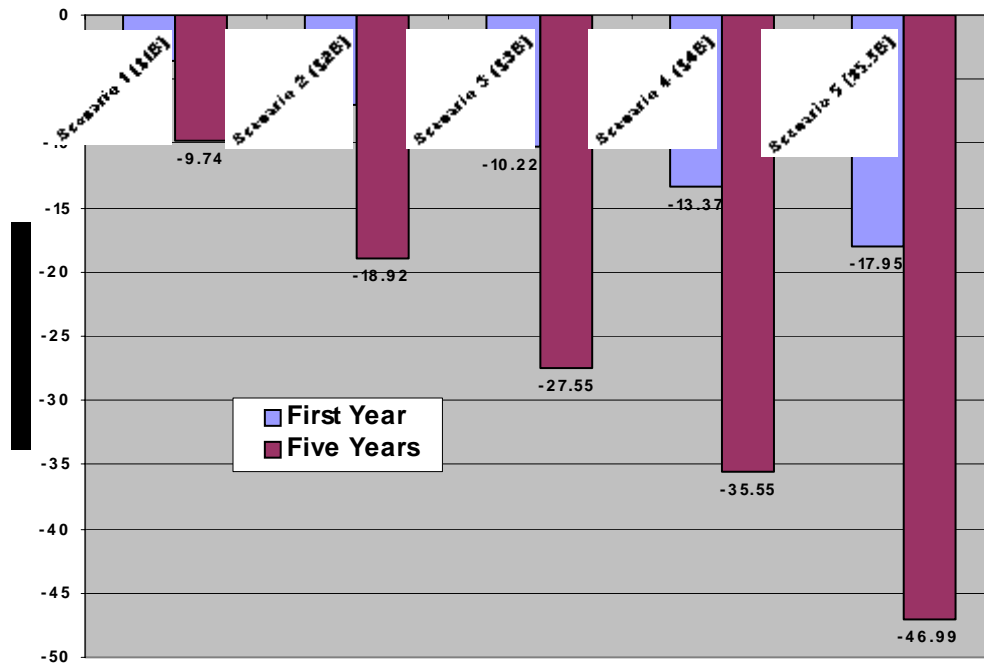
3.6. Negative Economic Impact Predicted From Property Tax/Sales Tax Swap

The current state sales tax rate in Florida is six percent. In our modeling, we applied an initial rise in sales tax over the existing average level. The tax rate per county in Florida is variable; however, the economic analysis for this study was state-specific. The following scenarios were examined using REMI.

3.7. Property Tax/Sales Tax Swap Scenarios

1. Reduce homestead property tax by $1.56 billion and increase sales tax by $1.56 billion (equivalent of 0.5% sales tax increase).
2. Reduce homestead property tax by $3.11 billion and increase sales tax by $3.11 billion (equivalent of 1% sales tax increase).
3. Reduce homestead property tax by $4.67 billion and increase sales tax by $4.67 billion (equivalent of 1.5% sales tax increase).
4. Reduce homestead property tax by $6.22 billion and increase sales tax by $6.22 billion (equivalent of 2% sales tax increase).
5. Completely eliminate homestead property tax $7.78 billion and increase sales tax by $7.78 billion (equivalent of 2.5% sales tax increase).

According to a recent study conducted by (Neubig et. al, 2007), the total state and local sales tax on business input in Florida was $7.7 billion in 2006. The denominator is total state ($21.7 billion) and local sales ($1.9 billion) tax in 2006. Thus, the business sector paid 32.6 percent of the total sales tax. In our modeling, we separated sales tax into consumer and business sectors.

3.8. GRP and Real Disposable Personal Income Will Decrease With Any Property Tax/Sales Tax Swap

The short and long term impacts of the five scenarios above on the state Gross Regional Products (see Figure 4) and real disposable personal income are as follows (see Figure 5):

The short-term (one-year) effect of property tax/sales tax swap:

- A loss of $480 million (scenario 1) to $2.14 billion (scenario 5) in GRP.
- A loss of $80 million (scenario 1) to $220 million (scenario 5) in real disposable personal income.

The long-term (five-year) effect of property tax/sales tax swap:

- A loss of $3.81 billion (scenario 1) to $16.98 billion (scenario 5) in GRP.
- A loss of $850 million (scenario 1) to $3.27 billion (scenario 5) in real disposable personal income.

The results above might seem to go against common sense on the impact of a tax swap on the economy. The expectation is that a tax swap will be neutral for economy because there will be no change in aggregate spending. This is assuming that behavioral reactions by consumers and investors to property tax and sales tax are similar. Whenever there is a change in tax policy, consumers and producers respond it to minimize their tax burden. Our model indicates that although a property tax cut will be expansionary, sales tax increase

will be contractionary. Therefore, in case of property tax/sales tax swap, the economy will experience expansionary effect due to a property tax cut and contractionary effect due to a sales tax increase.

As outlined above, REMI estimates that property tax/sales tax swap will result in losses in Gross Regional Product and real disposable personal income. There are several reasons for such negative impacts. First, a property tax/sales tax swap will be contractionary because of consumer savings, interstate and Internet trading. This will result in lower demand and output in economy. Second, labor productivity will go down and relative cost of production will go up because of an increase in labor-intensive inputs and inflation rate. Third, an increase in sales tax will create additional, up to 1.4% in inflation, which in turns lowers real disposable income and consumption. Fourth, the model estimates a decrease in population growth due to a higher sales tax rate, which again results in lower demand and consumption in economy.

Figure 4: Property Tax/Sales Tax Swap Will Reduce Florida GRP by $Billion Indicated
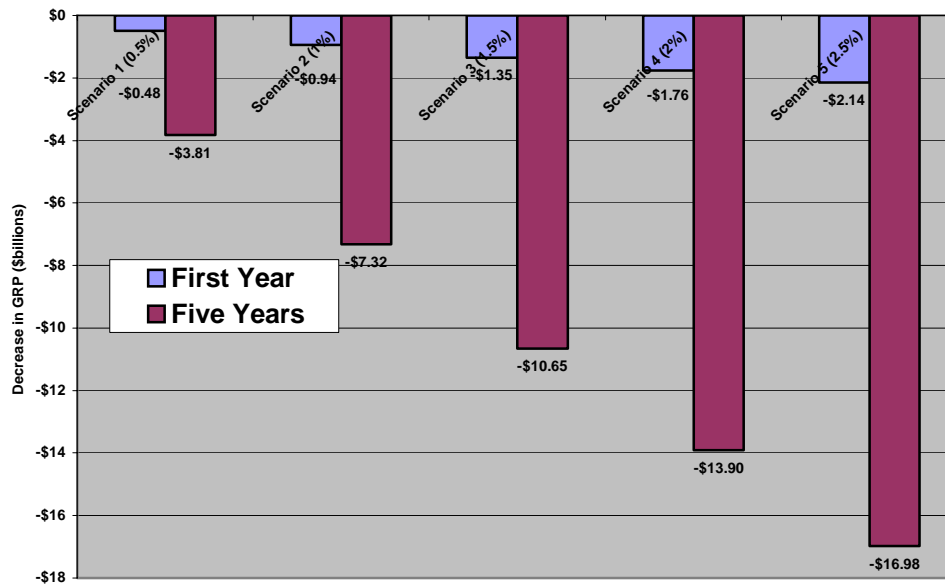
Figure 5:   Property Tax/Sales Tax Swap Will Reduce Real Disposable Personal Income by $Billion
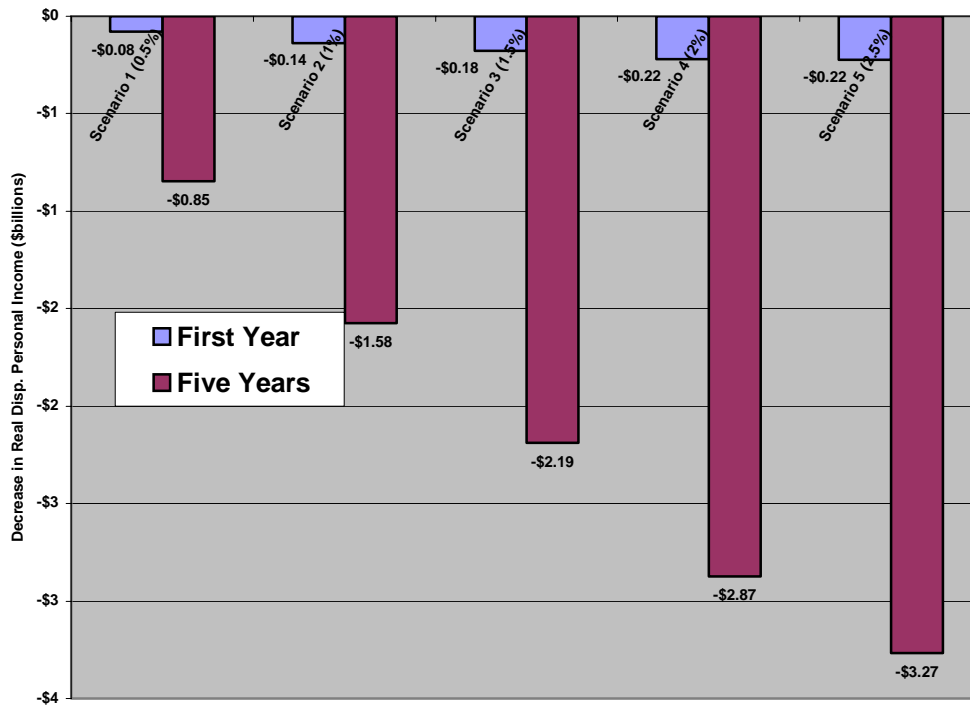
3.9. A Property Tax/Sales Tax Swap Might Result In A Hundred Thousand Job Losses In Five Years

As seen in Figure 6, the REMI model estimates that there will be a loss of 4,600 (scenario 1) to 19,230 (scenario 5) jobs depending on the size of property tax/sales tax swap. The total job losses for five years will range from 34,410 to 147,170. The job losses will be due to a reduction in local government spending and overall decrease in GRP as discussed above. The magnitude of annual job losses will increase over time.

Figure 6: Sales Tax Increase Will Cost Jobs
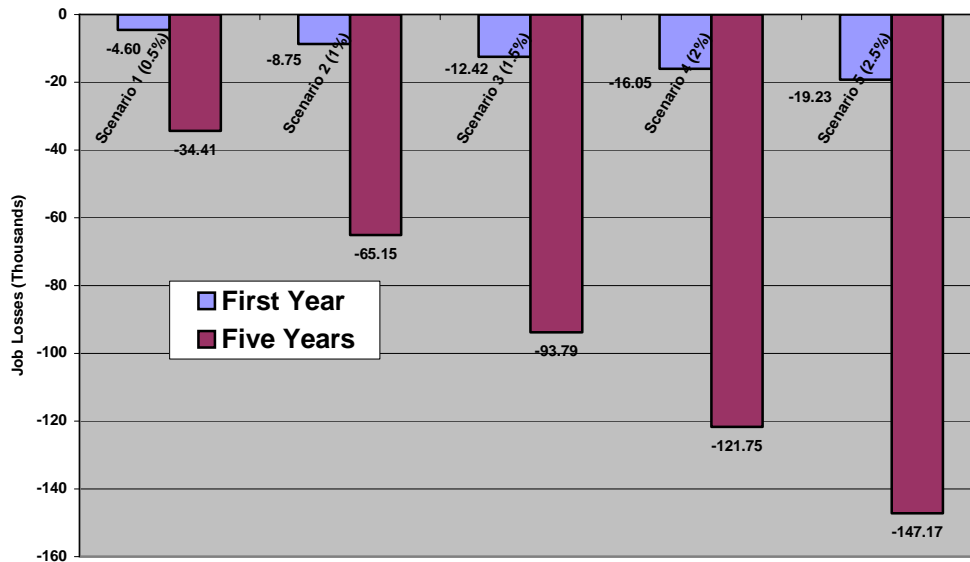
4. Conclusions

This study clearly indicates that a reduction in property tax with no change in sales tax will boost the economy by increasing GRP and disposable personal income without creating a significant number of job losses. For instance, property tax relief worth $2 billion with no change in sales tax will add $470 million to GRP and $1.69 billion to real disposable personal income in the first year. In contrast, a property tax/sales tax swap will result in a loss in GRP and disposal personal income. Additionally, depending on different scenarios, a property tax relief will result in a loss of 9,740 to 46,990 jobs in five years, while a property tax/sales tax swap will cost 34,410 to 147,170 jobs during the same period. The magnitude of annual job losses over time will be much higher for property tax/sales tax scenarios compared to property tax cut scenarios. Finally, a property tax cut will attract more people to Florida and increase demand and output in the economy, while a sales tax hike will decrease population growth and result in a corresponding reduction in demand and output.

Reference

Holloway, M., An Economic Analysis of Property Tax Relief Funded by a Sales Tax Increase, Texas Public Policy Foundation, April 2004.

Cline, R., T. Neubig, A.Philips, and Ernts & Young LLP: *Total State and Local Business Taxes,* February 2007.

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