# An Analysis of HB1002

**Michael Pakko, PhD***

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HB1002, the “Arkansas Capital Gains Reduction act of 2011” proposes to eliminate the tax on capital gains derived from assets that are specifically located in Arkansas. It defines “Arkansas property” as consisting of physical assets that are located in Arkansas or and ownership equity in businesses with their headquarters in Arkansas. The exclusion would be limited to long-term assets (holding period one year or longer) and would only apply to assets acquired after July 1, 2011.

The Arkansas Department of Finance and Administration (DFA) has produced two estimates of the potential impact of this proposal on state revenues in the current and previous legislative sessions (DFA 2009a,b; 2011). With regard to the current proposal, DFA estimates the impact to be zero in FY2012, $44.5 million in FY2013 and $68.5 million per year thereafter.

In this report, I review those estimates and report alternative calculations based on evidence from additional data sources.

- Data on the average holding periods for capital assets suggests that the long-run impact on revenue might take several years, rather than the two years assumed in the DFA analysis.
- Data from Oklahoma on a similar in-state capital gains tax exemption provide a basis for an alternative calculation of the long run impact that is considerably lower than the DFA estimates.
- Dynamic considerations suggest that the long-run impact of the proposal include higher investment and capital accumulation in Arkansas. This effect would serve to raise productivity and income in the state, generating some additional tax revenues. The magnitude of this effect is uncertain.

## *DFA Estimates*

DFA (2009a,b) present estimates based on tax collection data from 2005 and 2006. To estimate the impact on personal income tax revenue, DFA assumes that 50% of capital gains in Arkansas are associated with the sale of “Arkansas property” as defined in HB1002. Capital gains of $3 billion were reduced by the 30% exemption on all capital gains under current law, and multiplied by the historical average effective tax rate of 4.4% to yield $92.4 million. Half of that total (50%) is $46.2 million.

The impact on corporate income tax liability was estimated using capital gains data from the IRS and DFA data on Arkansas tax liabilities. Accounting for differences among in-state, multi-state and consolidated tax filers, DFA estimated that $18.5 million would be the full long-run impact of the proposal on state tax receipts.

**Dr. Michael Pakko is Chief Economist and State Economic Forecaster at the UALR Institute for Economic Advancement.*

Adding the $46.2 million and $18.5 million and adjusting for inflation, DFA (2011) calculates the eventual long-run revenue impact to be $68.5 million per year. HB1002 would have no *direct* impact during its first year of implementation (FY 2012). DFA assumes that 65% of its long run impact would affect revenues in FY2013 ($44.5 million), with the full impact felt in FY2014 and beyond.

In its overall methodology, the DFA analysis is sound. There are, of course, important sources of uncertainty:

- Realization of positive capital gains tends to be highly cyclical – one year of data might not be representative of the long-run average.
- In practice, the effective marginal tax rate on capital gains is likely to be higher than the average effective rate used by DFA.
- The phase-in and transition effects are likely to be more drawn out and complex than envisioned in the DFA analysis.

The DFA analysis begins with a rough figure of $3 billion in total capital gains by Arkansas residents. Data provided to Representative Ed Garner (Appendix) show that total capital gains were $2.4 billion in 2006. Over the five tax years 2003-2007, this was the highest realization of total capital gains.[1] Over the five-year period, the average for positive capital gains was $1.8 billion.[2]

DFA uses the historical average effective tax rate of 4.4% to calculate the impact of the proposal. This estimate is probably too low. As cited in Huddleston (2010), most capital gains income is reported by taxpayers currently in the upper end of the income distribution. It is more likely that the relevant effective rate is closer to the maximum rate of 7%.

Using the 2003-2007 average of capital gains realizations and an effective marginal tax rate of 7% (and taking account of the 30% exemption already existing in Arkansas tax law), the long run (static) impact of HB1002 is approximately $88.2 million per year—not appreciably different from the $92.4 million estimated by DFA.

DFA goes on to assume that one half (50%) of capital gains represent gains on “Arkansas assets.” There is no evidence presented to support this figure. DFA (1009b) characterizes this as “a conservative number,” and that “several people consulted believed the number could be 70% to 80% or more.” For physical capital, the 50% figure seems reasonable. However, for corporate shareholders, such a high concentration of local assets in a portfolio seems inconsistent with sound principles of diversification. Lacking any evidence to the contrary, however, the 50% assumption will be maintained here. For the

[1] Even in 2006, net gainers were partially offset by tax filers who realized capital losses of $100 million, for a net gain of $2.3 billion. HB 1002 introduces no special treatment of capital losses, so the figure for total declared gains is closer to the relevant total.

[2] National data from the IRS shows similar variability. For the five-year period 2004-2008, total for tax returns declaring net long-term capital gains ranged between $483 billion in tax year 2004 and $875 billion in 2007 ($764 billion in 2006).

$88.2 million figure calculated above, this implies a total long-run impact on personal income tax revenue of approximately $44.1 million per year.

DFA's analysis of the impact on corporate income tax revenue is carefully considered and documented. For the purposes of this analysis, the DFA calculation is taken at face value: $18.5 billion of revenue impact (2006 dollars). Added to the total for personal income tax impact, the total long-run effect on state revenues is therefore $62.6 million. Adjusting for inflation (using the same factors as DFA) yields a total of $66.3 million.

DFA assumes a one-year transition period, with 65% of the long-run impact showing in FY 2013. However, the assumption of a single year in transition is inconsistent with data on average holding periods for capital assets. According to Coyne, et al (1989), turnover data from the New York Stock Exchange for the years 1983-87 suggests an average holding period of 4 years. According to Protopapadakis (1983), holding periods for corporate stock (weighted by reported net capital gains) is 17 years. Protopapadakis estimates the average holding for equities and physical capital to be as high as 24-31 years. In light of these estimates, a transition period of 5 to 10 years (rather than one year) seems reasonable. The impact on state revenue in 2013 and 2014 is therefore likely to be only a small fraction of the DFA estimates. If we assume that the impact is 20% of its long-run value in 2013 and 40% in 2014, this yields estimates of $13.3 million and $26.6 million for those two years, respectively.

### *Information from Oklahoma*

The state of Oklahoma passed a law similar to HB1002 in 2006. The Oklahoma law defines long-term capital gains differently than proposed for Arkansas: Real or tangible personal property must be held for five years, while stocks must be held for two years (individuals) or three years (businesses) to qualify. Otherwise, the law is very similar to that proposed for Arkansas. Taxpayers file a form along with their state income taxes that lists capital gains from qualifying "Oklahoma source" sales. These gains are then subtracted from taxable income. (Capital gains are taxed at the same rate as other income in Oklahoma.)

In 2010, the Oklahoma Tax Commission (OTC) included the Oklahoma capital gains exemption in its Tax Expenditure Report, an analysis of the revenue impact of various tax exemptions, deductions and credits. The OTC's estimate for the impact of the Oklahoma capital gains tax exemption is based on actual tax returns filed for the 2009 tax year. The OTC estimated the total cost to be $76.607 million. The Oklahoma law did not include any phase-in period: that is, capital gains could be exempted as soon as the law took effect, as long as holding-period restrictions were met. Hence, the 2009 calculation represents a long-run, fully-implemented measure of the law's revenue impact.

We can use this figure to estimate the impact of a similar law in Arkansas after adjusting for differences in the relative sizes of the Arkansas and Oklahoma economies, as well as differences in state tax rates.

The highest marginal tax rate for individuals in Oklahoma is 5.5%. The corporate tax rate is flat at 6.0%. If the entire cost of the Oklahoma capital gains exemption was attributable to income tax reductions for individuals in the highest tax bracket, the implied total for Oklahoma capital gains would be $76.6 million/0.055 = $1.393 billion. At the other extreme, if all Oklahoma capital gains were realized by corporate taxpayers, the implied total would be $1.277 billion.

Arkansas is a smaller state than Oklahoma. In 2009, Arkansas personal income totaled $93.7 billion, only 70.9% of Oklahoma's $132.1 billion. Scaling the size of the Oklahoma capital gains down to the size of Arkansas yields estimates in the range of $905 million to $988 million. For both individual and corporate taxpayers, 30% of capital gains are tax exempt in Arkansas. Therefore, the taxable portion for the gains would be in the range of $634 million to $691 million.

The top marginal tax rate for individuals in Arkansas is 7%. Applying this rate to the $691 million estimate for capital gains generates a tax impact of $48.4 million. If we were to assume that all in-state capital gains were realized by corporations, at the highest Arkansas corporate tax rate of 6.5%, the impact would be $41.2 million. The DFA estimates implicitly assume that 70.4 percent of all in-state capital gains would be realized by individuals, with 29.6 percent realized by corporations. Using these relative sizes to calculate a weighted average yields a total estimated revenue impact of $46.3 million. This long-run annual impact is about two-thirds the size of DFA's $68.5 million estimate. If 50% of this estimate were to be realized in the second tax-year of implementation, the impact on FY2013 revenue would be $23.2 million.

If only 20% of the full impact was realized in the second year and 40% in the third year, the revenue impact would be only $9.2 million for FY2013 and $18.4 million in FY2014.

### *Long-Term Growth Implications*

The revenue analyses considered here are static, not dynamic. That is, there is no attempt to evaluate the impact of changes in the behavior of investors and firms that might be induced by the new tax treatment of Arkansas assets. Conceptually, the capital gains exemption would have a positive impact on economic growth.

Consider two assets which are identical in terms of risk and pre-tax rate of return. One is located in Arkansas and the other in a nearby state. To an Arkansas investor, the expected after-tax rate of return would be lower for the Arkansas asset. On the margin, therefore, the exemption of Arkansas capital gains would tend to increase the demand for Arkansas assets, making more capital available at lower costs for business expansion and investment in Arkansas. In the long-run, economic growth is driven by the accumulation of productive capital. To the extent that the Arkansas capital gains tax exemption facilitated more rapid capital accumulation, economic growth would be enhanced. In theoretical terms, the growth impact is unquestionable. However, it is beyond the scope of this report to attempt any quantitative estimate of the effects on future income and tax revenue.

### *Conclusion*

A key lesson from this analysis is that the revenue impact of HB1002 is particularly uncertain. Capital gains are an inherently variable source of income for businesses and individuals, there is little direct evidence about the magnitude of gains from "Arkansas property" that would be realized under the act, and it is difficult to quantitatively identify the dynamic impact of the proposal.

Nevertheless, the analysis presented here suggests that the impact of HB1002 on state revenue is likely to be smaller than estimated by DFA, particularly during the early years of its implementation.

## *References:*


Coyne, Christopher, Frank J Fabozzi, and Uzi Yaari, (1989) “Taxation of Capital Gains with Deferred Realization,” National Tax Journal, 42:4, 475-85.

Department of Finance and Administration (2009a), “Revenue Impact of Exemption Capital Gains by HB 1947,” Memo from Scott Fryer, Manager, Income Tax Administration to Clarence Collins, Administrator, Income Tax Administration, June 22, 2009.

Department of Finance and Administration (2009b), “Revenue Impact of Exemption Capital Gains by HB 1947 Percentages Used,” Memo from Scott Fryer, Manager, Income Tax Administration to Clarence Collins, Administrator, Income Tax Administration, July 8, 2009.

Department of Finance and Administration (2011), “Legislative Impact Statement, Bill: HB1002, Bill Subtitle: TO CREATE THE ARKANSAS CAPITAL GAINS REDUCTION ACT OF 2011.”

Huddleston, Rich (2010), “Millionaire’s gain: The Impact of Cutting Arkansas Capital Gains Taxes,” Arkansas Advocates for Children and Families, *Paychecks and Politics* Issue 52: December 2010

Oklahoma Tax Commission (2010), “Tax Expenditure Report, 2009-2010”, Tax Policy Division.

Oklahoma Tax Commission (2011), “Oklahoma Tax Commission Rules.” http://www.tax.ok.gov/rules/rules.html

Protopapadakis, Aris, (1983) “Some Indirect Evidence on Effective Capital Gains Tax Rates,” *Journal of Business* 56, 127-138.

## Appendix: Capital Gains Data from DFA

| Tax year | Primary gains | Spouse gains | Total Gains | Primary losses | Spouse losses | Total Losses |
|---|---|---|---|---|---|---|
| 2007 | $1,571,097,118 | $658,305,213 | $2,229,402,331 | $63,400,289 | $11,908,441 | $75,308,730 |
| 2006 | $1,734,732,352 | $650,173,007 | $2,384,905,359 | $86,042,228 | $17,404,103 | $103,446,331 |
| 2005 | $1,378,998,164 | $561,501,698 | $1,940,499,862 | $96,479,793 | $18,848,348 | $115,328,141 |
| 2004 | $1,009,892,736 | $364,364,074 | $1,374,256,810 | $109,253,807 | $21,420,726 | $130,674,533 |
| 2003 | $804,056,106 | $267,993,011 | $1,072,049,117 | $128,194,105 | $25,658,159 | $153,852,264 |

| | Combined Primary | Combined Spouse | Total |
|---|---|---|---|
| 2007 | $1,507,696,829 | $646,396,772 | $2,154,093,601 |
| 2006 | $1,648,690,124 | $632,768,904 | $2,281,459,028 |
| 2005 | $1,282,518,371 | $542,653,350 | $1,825,171,721 |
| 2004 | $900,638,929 | $342,943,348 | $1,243,582,277 |
| 2003 | $675,862,001 | $242,334,852 | $918,196,853 |