

**FLORIDA PRIME'S NET ASSET VALUE AND THE
TAXABLE VALUE OF REAL PROPERTY IN FLORIDA:
An Empirical Investigation**

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INTRODUCTION

This paper presents the results of an effort to model the relationship between the net asset value (NAV) of Florida PRIME and the taxable value of real property in the state of Florida.

DATA ON FLORIDA PRIME AND TAXABLE VALUE

Chart 1 below shows the month-end NAV of Florida PRIME from January 2000 to June 2012. The chart displays a clear seasonal pattern with month-end NAV's peaking at or near the turn of the year. This pattern is a byproduct of the property-tax payment cycle whereby property owners receive assessments toward year-end, with many then paying their taxes in full shortly thereafter in order to receive a discount. A large portion of those payments are then deposited in Florida PRIME and drawn down over the following year to accommodate local government spending. The chart also shows the massive decline in Florida PRIME that occurred during the financial meltdown of 2007 and 2008 as numerous participants left and withdrew their entire balances.

Chart 2 on the next page shows the total taxable value of Florida real property by year. The data are actual figures through 2011 and estimates generated by the Florida Ad Valorem Estimating Conference thereafter. Property values in Florida rose sharply during the period 2000 to 2007, but when the housing bubble burst, they fell substantially. That rate of decline has slowed in the last couple of years and taxable value is projected to recover gradually going forward.

CHART 1

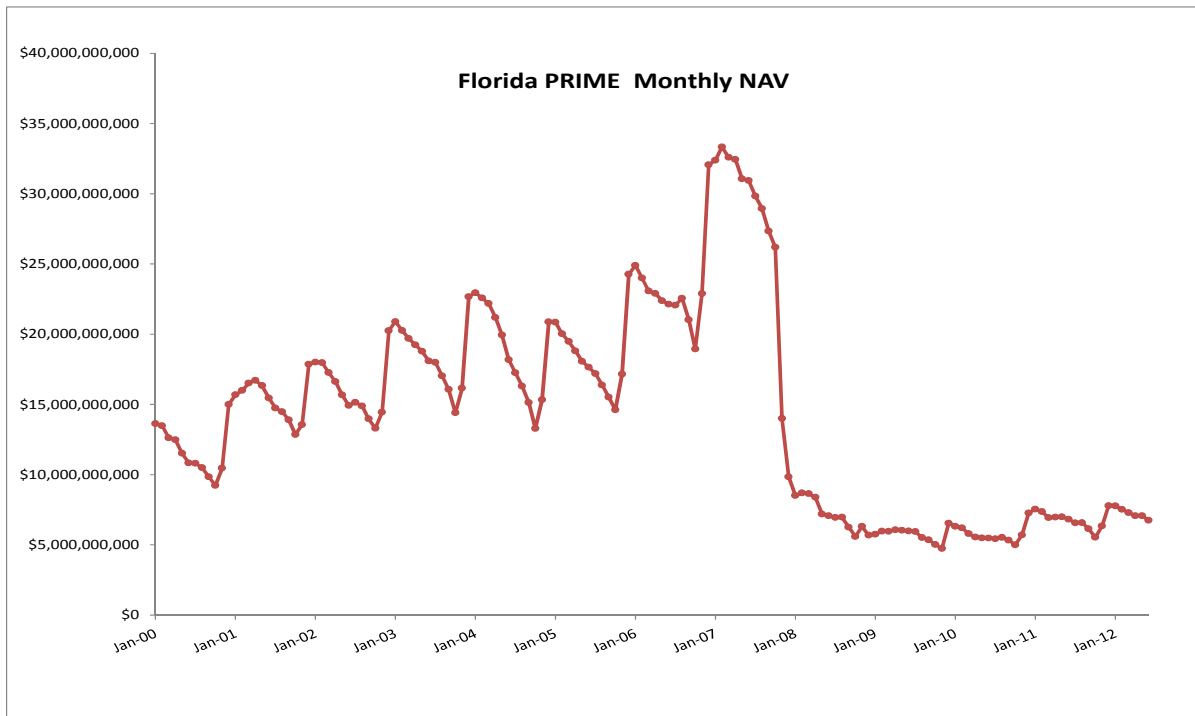
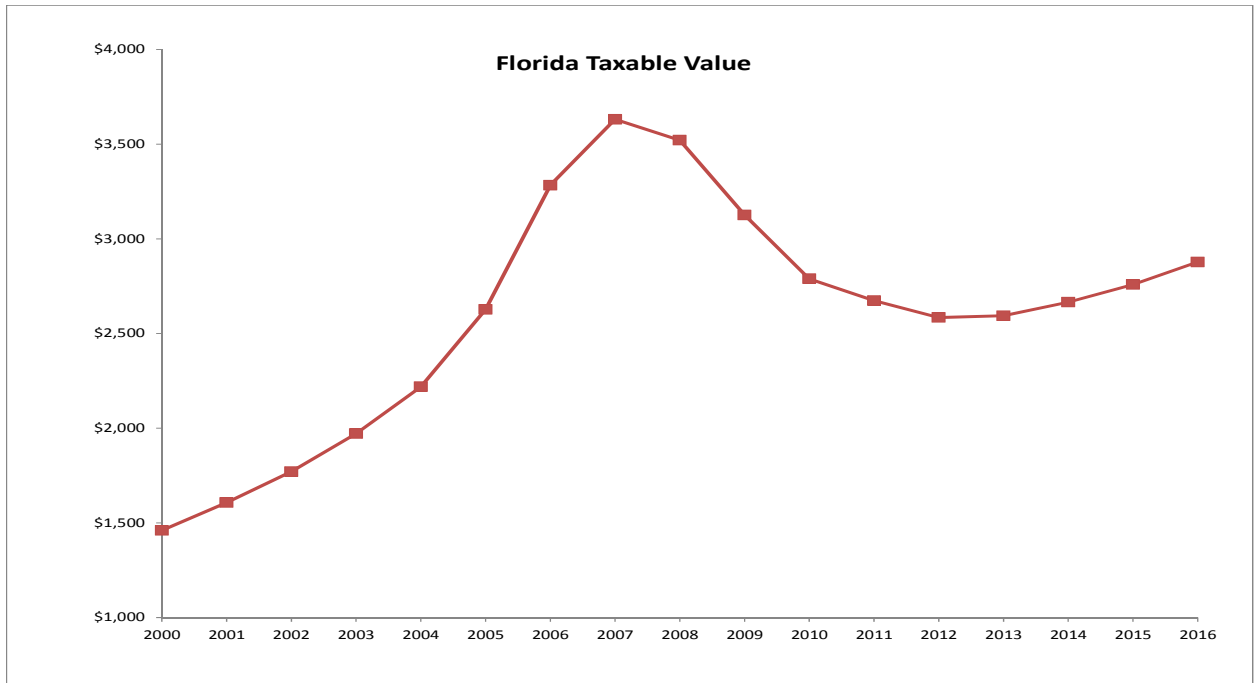


CHART 2

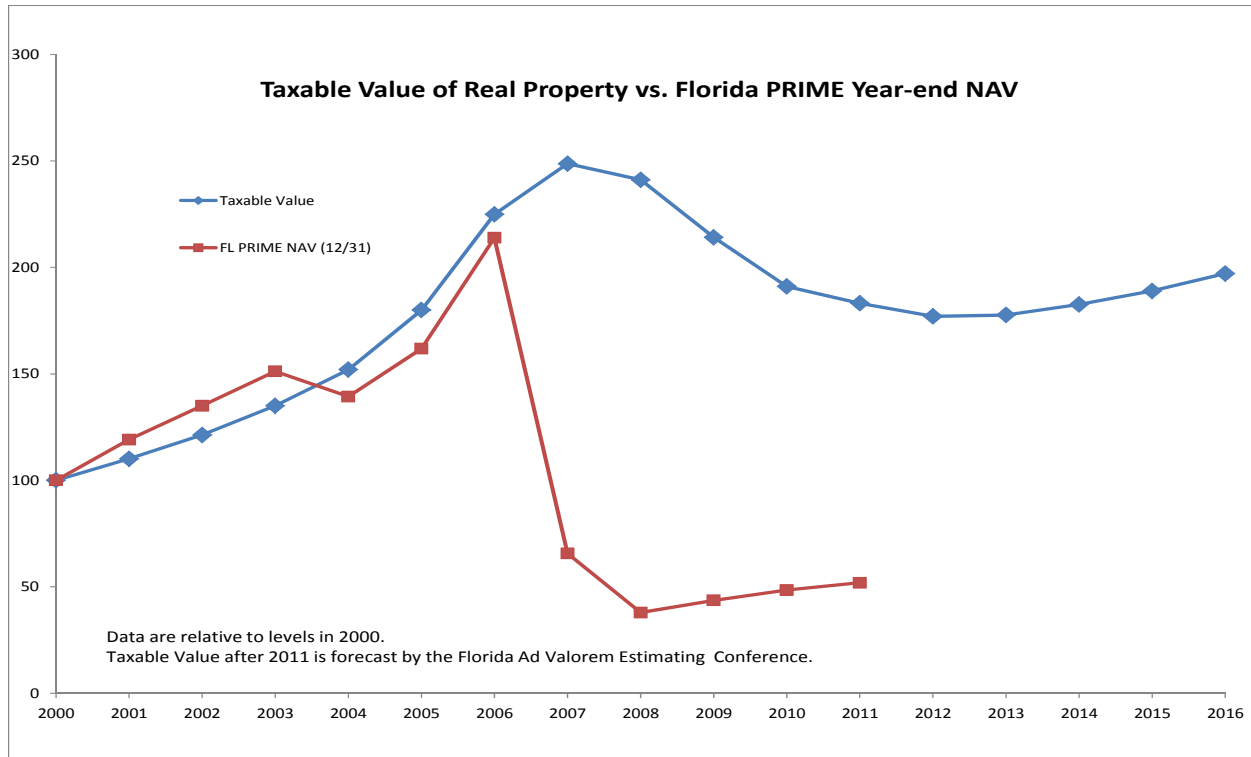


In comparing Chart 1 and Chart 2, a relationship between Florida PRIME’s NAV and taxable value is not readily apparent for at least two reasons. First, the NAV data are monthly and the seasonal pattern tends to mask any correspondence to the annual movement in taxable value. Also, the huge downdraft in Florida PRIME’s NAV in 2008 clouds things.

To view the relationship more clearly, the annual taxable value data were compared to the year-end NAV of Florida PRIME. This handles the monthly data versus annual data problem by removing seasonality in the NAV series. Also, to permit the use of a single vertical axis, both series were indexed to their levels in 2000, which are arbitrarily assigned values of 100.

Chart 3 on the following page shows this comparison, and a relationship is evident. From 2000 to 2006, the indexed values of Florida PRIME’s year-end NAV and Florida taxable value track each other closely, supporting the fact that rising property values, resulting in higher property tax receipts, were helping to drive growth in the fund. The fund’s year-end NAV fell precipitously in 2007, primarily because of lost participants. It also fell in 2008 due to declining property values. Over the last three years the year-end NAV has risen gradually even though statewide taxable value continued to fall (albeit modestly). This could reflect returning participants offsetting any decline from lower taxable value. It is also possible that taxable values in localities participating in the fund behaved differently than statewide taxable value over the last three years. Regardless, it does seem clear from the chart that, given a stable participant base, rising property values result in an increase in the year-end NAV of Florida PRIME. With taxable value projected to trend higher in the future, it is logical to expect Florida PRIME’s year-end NAV to grow.

CHART 3



PROJECTIONS OF FLORIDA PRIME

To attempt to quantify the relationship between Florida PRIME’s year-end NAV and taxable value, a regression analysis was performed. Of course, the massive discontinuity in the former would make a bivariate regression unlikely to detect any statistical significance. A simple technique used when a series changes abruptly is to include a ‘dummy’ variable in the regression. Conventionally, the dummy takes a value of 0 before the change and 1 after it. The results of the regression were –

$$NAV = 54.47 + .62 TV - 139.63 DUMMY$$

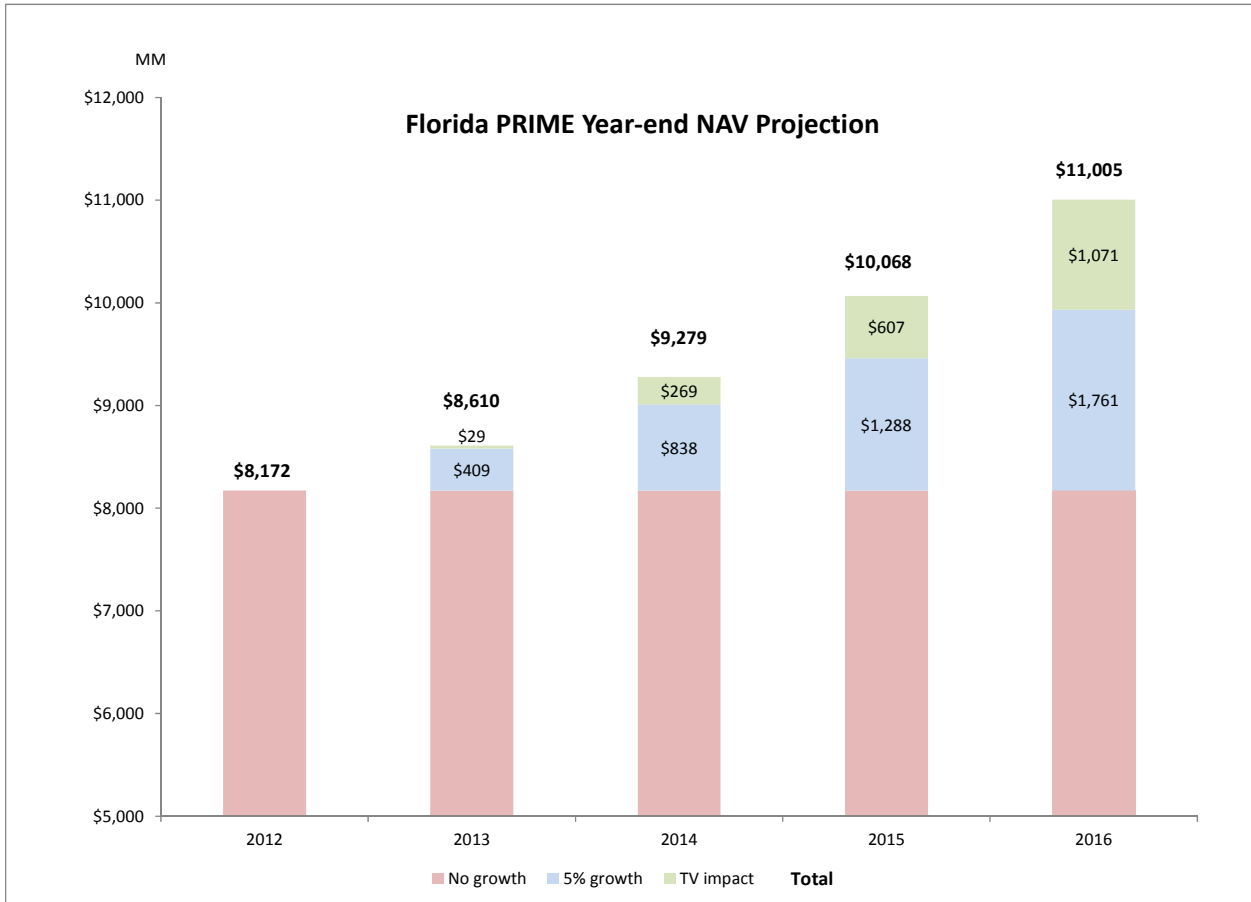
t-statistics (2.61) (4.59) (13.56) multiple R = .964

The multiple R of .964 indicates that the regression explains 96.4% of the variance in year-end NAV over the time period analyzed (2000 to 2011) – a strong result. The t-statistics measure the statistical significance of the constant term and the two explanatory variables (TV & DUMMY). All three are significant. The coefficient of .62 on the taxable value term (TV) indicates that a 1% rise in taxable value would generate a 0.62% increase in the year-end NAV of Florida PRIME.

This relationship can be used to aid in projecting forward-looking values of year-end NAV’s for Florida PRIME. Of course, increases in taxable value are not the only thing that has or will contribute to growth in Florida PRIME, so some estimate must also be made of growth that would otherwise occur. A very simple approach is to extrapolate from recent trends. As noted above, Florida PRIME has grown for the past 3 years despite a drop in statewide taxable value. Those growth rates have averaged roughly 11% but

they have shown a downward trend from 15% in 2009 to 11% in 2010 to 7% in 2011. In the interest of conservatism we will assume a trend of 5% annual growth in 2012 through 2016. To that trend growth we add an annual increment from expected growth in taxable value. The results are shown in Chart 4. Assuming that Florida PRIME ends this year at 5% above year-end 2011 would put it at \$8,172MM as of December 31, 2012. The chart shows the growth increments over the next 4 years that would arise from the 5% trend and expected growth in taxable value. Note that each year's figures for the growth increments are cumulative.

CHART 4



CONCLUSION

This paper has analyzed data on the net asset value of Florida PRIME and the taxable value of real property in the state of Florida and found evidence of a statistical relationship between the two. An expected recovery in the value of taxable real property in the state of Florida over the next several years could cause growth in Florida PRIME of over \$1.0 billion by 2016. If other sources of growth in the fund add 5% per year to the taxable value impact, Florida PRIME would reach a level just over \$11.0 billion by 2016.