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Introduction: The County bond funds, Funds 200 and 201, are usually reported in Volume 2 of the County budget (e.g., <http://www.fairfaxcounty.gov/dmb/fy2011/adopted/volume2.zip>). In November 2011, citizens will be voting on a bond referendum of approximately \$250M. A referendum is needed if the bond is to be guaranteed by a promise that real-estate taxes will be increased, if necessary, to pay back the loan. The purpose of this report is to present an analysis of the bond fund and its rationale.

Summary: Borrowing money costs money (the interest). Is the loan worth the cost? The County pays an average interest of 4.73% for its bonds¹. Other fees are also incurred², although we have not seen the amounts enumerated. The total amount the County currently owes is approximately \$2.4B

The County's reserve funds (rainy-day funds) do not realize a return on investment exceeding 4.73%; therefore, repaying the bonds should be a higher priority than building reserves. The County could pay off the debt if its operating expenses were cut 0.07% for one year and the saving used to pay the debt. The operating cost would thereby be reduced in future years because there would be no interest costs.

From a taxpayer's point of view, whether or not the bonds are beneficial depends on the individual taxpayer's financial situation. Individual taxpayers realize an economic gain from the bonds if their mortgage rate, or borrowing rate, exceeds 4.73% or their return on investments exceeds 4.73%. In these two circumstances, the taxpayer is, in effect, borrowing at the County bond rate to pay off a debt having a higher interest rate or to invest at a rate that exceeds the bond rate.

Our analysis is purely financial. We did not investigate whether the projects being funded are justifiable or whether the reprogramming of funds (switching from the voted-upon projects to other projects) is justifiable. We also did not investigate whether the amount covered by bond referendums, which averages \$275M, is justified on the basis of the refurbishing of existing County buildings. We did notice that the rate of increase in indebtedness is more than twice the rate of increase in population, County workers, and other measures of County growth.

The cost of indebtedness

Using bonds does indeed incur a cost to the County (i.e., its taxpayers) because we pay for the use of borrowed funds, in terms of interest – just as we do for home mortgages. The benefit, of course, is that we get the use of a facility that we otherwise could not purchase – just as when we incur a debt to buy the house in which we live. Buying a house usually saves money as compared to renting. (Such a saving may disappear if the home mortgage deduction is eliminated, as the Federal government is now considering.)

Allocating costs to future users

Bonds are used by the County to cover construction and re-construction costs. They are frequently justified as a means of having the future users pay part of the cost of the new facilities³. Notice that

¹ [FY 2012 Advertised Budget Plan \(Vol. 2\) - Pg 299](#)

² http://www.fairfaxcounty.gov/dmb/bonds/2010_Bond_Presentation.pdf

³ http://www.fairfaxcounty.gov/dmb/bonds/2010_Bond_Presentation.pdf

taxpayers that use the new facilities do not pay in proportion to their benefit, because all other taxpayers also pay for the new facilities, nor do they pay any part of the cost of older buildings the loans for which have been fully paid by other taxpayers. All taxpayers, not just future users, pay for the new facilities, because the taxing system makes no distinction between non-users and users. For example, the old county citizens who paid for South Lakes High School since 1979 have been paying for South County High School since 2003⁴. The new county citizens using South County do not pay for the original South Lakes, the bond for which has already been retired. (Both are paying for the \$48M South Lakes renovations performed from 2006 to 2008 – almost as much as for the new South County High School.) The bonds do spread the costs, but hardly differently from the way taxes spread the costs and certainly not in proportion to who benefits. Spreading costs over future users does not seem to be sufficient justification for the bonds.

History of County Indebtedness

The County’s indebtedness has been increasing by \$78M per year over the past 10 years (Exhibit 1 and, again, on a per-household basis in Exhibit 2). The amount of indebtedness has ranged from 0.89% to 1.45% of the \$206B assessed value of all taxable properties in the County. At present, it is 1.18%. (Your house is collateral for the County loans.)

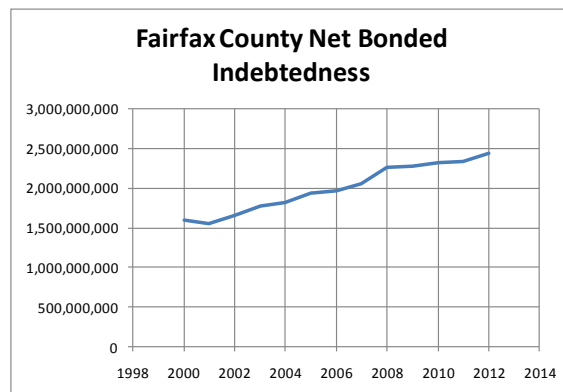


Exhibit 1: History of Fairfax County Indebtedness

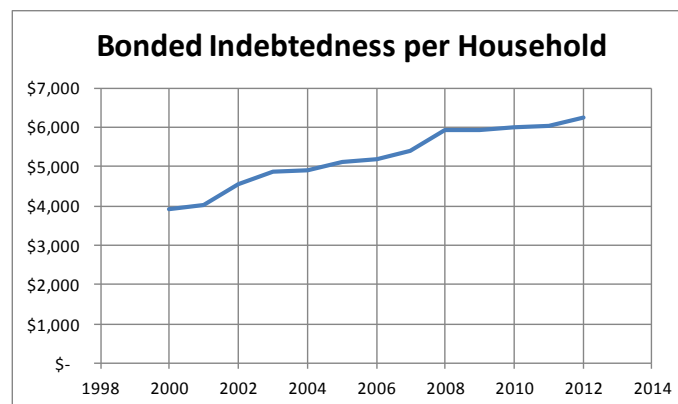


Exhibit 2: Net Bonded Indebtedness per Household

⁴ South County High School was built under a 2003 Economic Development Authority (EDA) Revenue Bond of \$55.3M, with the school system paying the EDA rent, thereby circumventing the requirement for a bond referendum.

The County limits itself to a five-year average of \$275M in bonds per year, with a maximum of \$300M in any one year. The interest rate averages 4.73% (Exhibit 3).

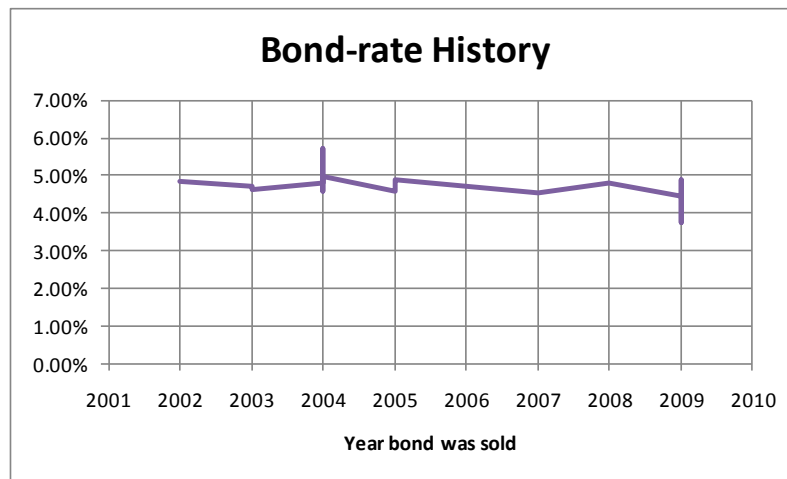


Exhibit 3: Interest Rate Being Paid by the County on Bonds

The indebtedness has increased by a factor of 1.27 since FY2000, more than any of the other measures of growth (as corrected by the Turner non-residential construction cost index, CCI, of 1.39, Exhibit 4). The number of households has increased by a factor of 1.10; the population, by 1.12; the market value of assessed properties, by 1.60 (as corrected by the Turner index); and the number of County employee positions increased by a factor of 1.085 (Exhibit 5). The corresponding CPI-U ratio is 1.28.

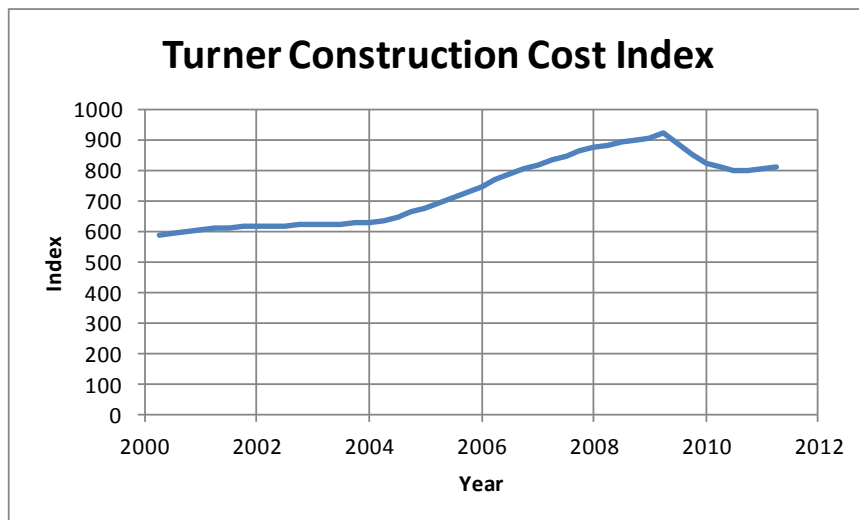


Exhibit 4: Turner Construction Cost Index

http://www.turnerconstruction.com/corporate/search_results.asp?txtSearch=cost+index

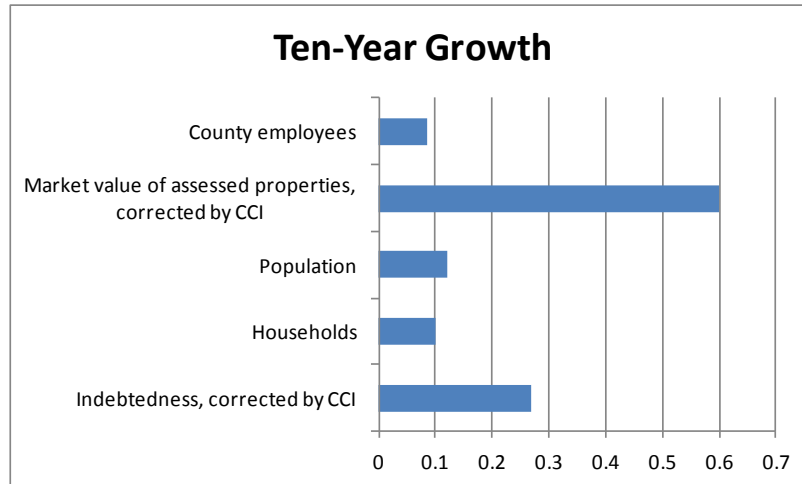


Exhibit 5: Growth from 2000 to 2012

Cost Effectiveness from the County's Point of View

Borrowing funds certainly entails an added cost; namely, the interest paid on the loan. Borrowing also involves many other costs⁵, as well as the costs of refinancing (called “refunding” in the County budget). The County could, as does the homeowner without a mortgage, pay for the capital projects from its reserve. If the County can invest the reserve at an interest rate above 4.73%, it should accumulate a reserve and pay for capital projects from the bonds. The retirement system has sometimes experienced a rate of return exceeding 4.73% (Exhibit 6 and, pictorially in Exhibit 7). However, the retirement system

PERIODS ENDING JUNE 30						
Average Annual Return on Investment (as of June 30, 2010)						
Over past:	1 year	3 years	5 years	10 years	20 years	30 years
Total VRS Fund	14.1%	-4.9%	3.1%	3.1%	8.0%	10.4%
ERFC	17.1%	-3.3%	3.4%	4.3%	8.7%	
FCERS	25.2%	-1.2%	3.8%	5.0%	8.5%	
Police	20.8%	-2.2%	3.8%	3.8%	8.0%	
Uniformed	15.5%	-3.5%	3.3%	3.8%	7.4%	
S&P 500	13.6%	-4.2%	1.0%	0.3%	7.8%	9.1%
U.S. 30-yr Treasuries	4.3%	4.2%	4.5%	4.8%	5.8%	7.2%
Inflation	1.5%	1.4%	2.2%	2.3%	2.5%	3.2%
Intermediate Benchmark	15.3%	-4.4%	2.9%	2.8%		
Long-Term Benchmark	14.2%	-4.0%	1.7%	1.6%		

Exhibit 6: Historical Returns on Investment (from Report 050)

probably takes greater risks than a capital reserve fund should, because these defined-benefit retirement funds are guaranteed, even if real-estate taxes must be increased greatly to keep the system funded. Liquidity is not an issue because the retirement funds are spent over a long time period. The returns from a more conservative capital reserve fund would be closer to the 30-year Treasuries, which is close to the 4.73%. The volatility of stocks, even the Standard and Poor's 500, is probably too great. The Revenue

⁵ http://www.fairfaxcounty.gov/dmb/bonds/2010_Bond_Presentation.pdf

Stabilization Fund (the “rainy-day” fund) realized a return on investment of only 1.2% in 2010 and, in the more favorable days of 2007, 1.9%. Because these returns are less than 4.73%, the County should use all available funds to pay off the debt – or it should put the funds into the portfolio of the FCERS (Fairfax County Employee Retirement System) (Exhibit 6). (VRS is the Virginia Retirement System and ERFC is the Education Retirement fund for Fairfax County.)

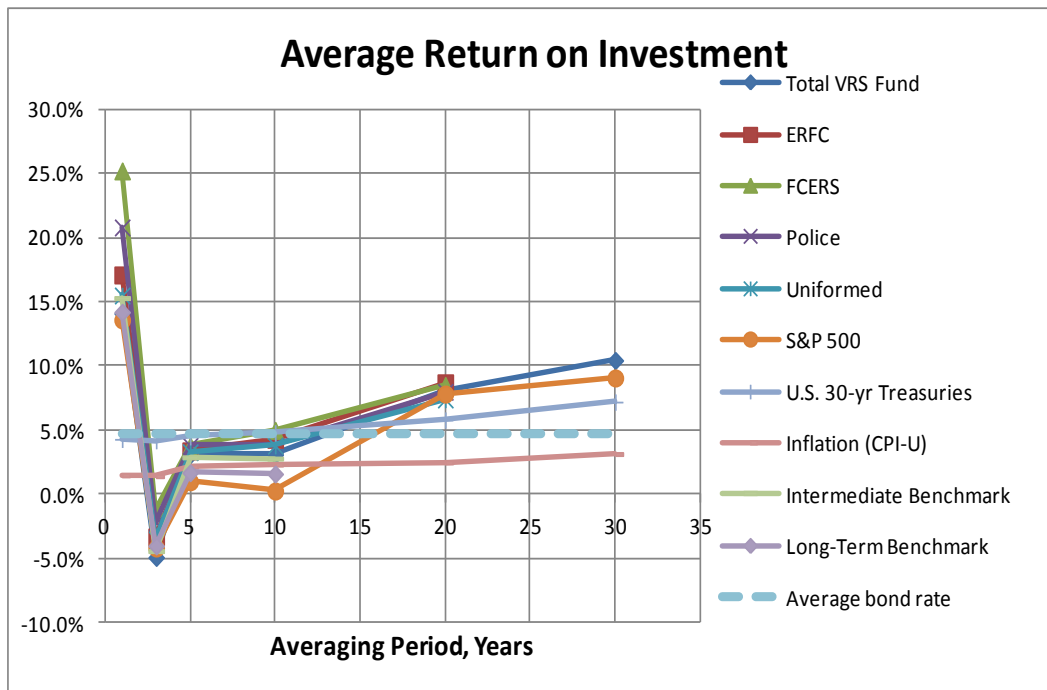


Exhibit 7: Historical Returns, illustrated

The rainy day fund, which had only \$103,827,504 at the end of 2010, is not sufficient to pay even one year’s worth of indebtedness. Rather than borrowing, the County could raise real-estate taxes to pay off the debt. The assessed value of all taxable properties is approximately \$209B². The total amount of debt is \$2.4B. All debts could be paid in ten years if the County levied a ten-year increase in the tax rate of 0.115% (\$0.115 per \$100 of assessed value), an increase of 10% in real-estate taxes. Alternatively, the County budget being approximately \$3300B, the debt could be paid off in one year with the funds coming from the existing budget alone, if operating budgets were cut 0.07% and the savings were used to pay the debt. No tax increase would be needed. After the debt is retired, the County could operate without bonds. (Bonds are essential in a new county or rapidly expanding county, when the taxable property is small but the construction needs are great. Fairfax County is quite mature, with 95% of the land already developed.)

If the County carries no debt, but needs \$275M per year for capital projects and raises these funds by increasing taxes, the real-estate tax would increase \$0.13 per 100\$ of assessed value⁶, a 12% tax increase; however, after all loans are repaid at the same rate of \$275M per year, the savings would be \$0.14 per \$100. Therefore, after the debt is repaid, taxes would be lower by \$0.01 per \$100 of assessed value.

⁶ = \$275M / (\$209B / 100)

Cost Effectiveness from the Taxpayer's Point of View

We can look at the bonds from the taxpayer's point of view. If funds are not available to meet the County's capital-construction needs, then, as in purchasing a home, loans are necessary. A 30-year, fixed rate mortgage will cost approximately 6%, including points. The county indebtedness amounts to another \$6,200 per household. Should a homeowner add this \$6,200 to the mortgage and use the borrowed amount to pay off his share of the County indebtedness? No, because through the County he is paying only 4.73% on the \$6,200, but he would be paying 6% if he added the \$6,200 to his mortgage. Renters are in a similar situation, although the interest expense is hidden in the rental rate. Homeowners who have no mortgage probably could not borrow the \$6,200 at a rate lower than 4.73%.

Homeowners with no mortgage may not need to borrow the \$6,200; they may have sufficient cash. If they are able to invest their cash at a rate exceeding 4.73%, they should do so and continue to pay for their part of the County debt. If their rate of return is less than 4.73%, they would be wise to use the cash to pay the \$6,200 – if the County would let them – and become county-debt free.

So, whether the taxpayer would benefit from the County's having no bonds, depends on the taxpayer's situation: if the interest rate on his loans is greater than 4.73% or if the rate of return on his investments is greater than 4.73%, the taxpayer gains by having the County be in debt. We would need to determine what is best for the sum of all homeowners to get an overall effect.

If all voters are informed, the vote on the bond referendum could determine what is best for the taxpayers as a whole; however, the bonds probably are a wise route from the point of view of those who must carry a mortgage.

Is the 2011 bond justifiable?

Some other questions might be raised about the bond fund.

As of November 2008, there was \$1.184B in unissued bonds – bonds authorized but not sold. These bonds are being held for future, scheduled projects⁷ (Exhibit 8). The 2009 bonds appear to be only partially sold. The 2011 bonds have not been sold⁸. The 2009 and 2011 bonds were approved by the voters on the basis of sets of capital improvements. There is some flexibility in reprogramming these funds to other capital improvements. Has reprogramming occurred or is reprogramming planned to which the voters would object?

Why has the debt, corrected by the construction-cost index, risen two times faster than the population?

Has the County chosen to set the debt at approximately 8.3% of the budget on capital projects, little enough to keep the AAA rating, so that it can spend the \$275M per year, thereby made available for capital projects, on perhaps more elaborate projects than necessary?

This report addresses only the financial aspects of the bond issue. Answering the foregoing three questions is beyond the scope of this report. Each of the questions must be answered on a case-by-base

⁷ http://www.fairfaxcounty.gov/dmb/bonds/2010_Bond_Presentation.pdf , Pg 63

⁸ FY 2012 Advertised Budget Plan (Vol. 2) - Pg 299

basis. Perhaps the voters would be happy with the reprogramming and perhaps the projects are no more elaborate than necessary.

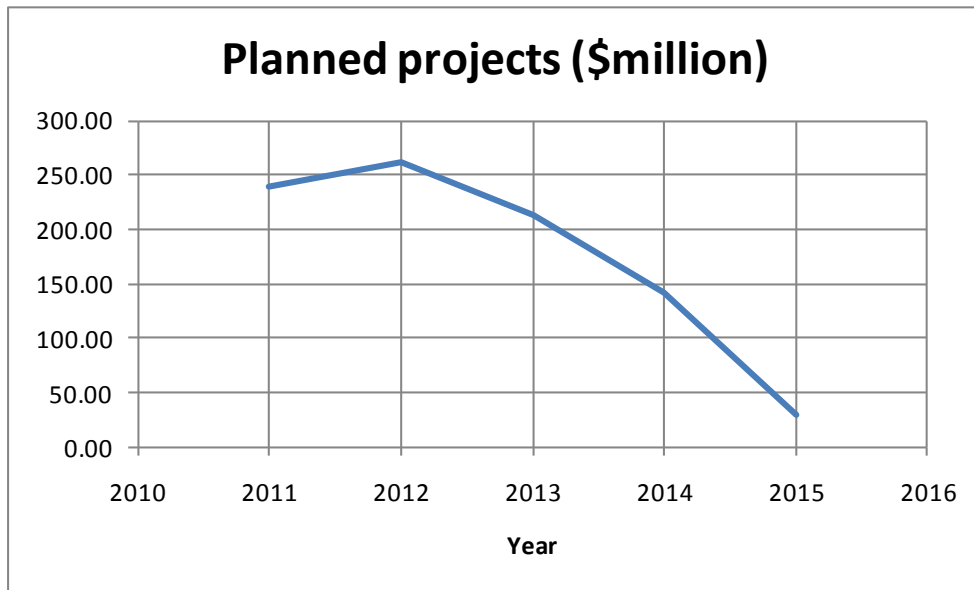


Exhibit 8: Cost per Year of Planned Projects as of Nov 2008