County Net Revenue of Tysons Development

Report FAC/FCA-063

Frederick A. Costello
September 10, 2011

Introduction: In 2009, MuniCap, Inc., computed the County's net revenue increase due to the planned development of Tysons Corner (http://www.fairfaxcounty.gov/planning/tysons_docs/fiscalimpactanalysis.pdf). The purpose of this report is to check some of the values in the MuniCap report as well as to test its conclusions. We check and test only Scenario B (GMU high) of the MuniCap analysis.

Summary: MuniCap over-estimates the net gain to the County. It neglected the cost of transportation, a feeder-bus system, water lines, power lines, sewer lines, stormwater lines, and the circulator bus. MuniCap also omitted the costs to the County pertaining to the 56,576 new residences that must be built for the new workers who will not be living in Tysons and omitted the current per capita cost of capital.

When the transportation and housing costs are added, the County loses money on Tysons such that County taxpayers will be paying more than they currently do. The Net Present Value of the net increase in revenue up to year 2050, based on the MuniCap analysis, is $1.8B if the discount rate is the County's recent 4.5% bond rate. Roads and other infrastructure costs are estimated by Fairfax County as $1.7B. Because the present cost of serving each existing household exceeds the real-estate taxes by approximately $3000 per household, the NPV of the cost to the County of housing the workers living outside of Tysons would be $1.5B; therefore, there is a net loss to the County of $1.4B (Exhibit 1), or approximately $2800 per household in the County. The net loss is even greater, $1.6B, if the horizon extends only 20 years, to 2030. Proffers are needed from the developers to offset this cost to the County taxpayers or the taxpayers will be paying, on average, $126 per year more than they currently do.

Discussion: The MuniCap report includes an outline of the sources of the numbers it used. In many cases, the values were set by the County, although tax rates, etc., were based on historical values. We have accepted these values in our analysis. MuniCap revenue estimates are close to estimates based on our rules of thumb (Report -014, which has only real-estate, personal property and BPOL). MuniCap considered additional sources of income (sales tax, hotel-lodging tax, recordation tax, consumers utility tax, permits, intergovernmental fees, charges for services, fines, etc.). The MuniCap itemization implies that our rules of thumb would cover 78% of the revenue, although Exhibit 1 indicates 90%.

The MuniCap values for Scenario B (GMU 2050 high) indicate that commuter traffic will increase to 1.74 times what it is today and that 56,576 new dwelling units will be needed in areas outside of Tysons to house new workers by 2050 (Exhibit 1). If 30% of the current traffic is through traffic, then the total traffic will increase by a factor of (1-0.3)*1.74+0.3 = 1.52. At the September 1, 2011, meeting on Tysons, a County representative stated that the road design will have as a target the Level of Service (LOS) of E; however, the design will be considered acceptable at a LOS of F.

The 56,676 new dwelling units that will be needed outside of Tysons to house those commuting into Tysons will cost the County a NPV of $1.5B over the 40 years from 2010 to 2050. We used a discount rate of 4.5%, which is approximately the County's bond rate. To arrive at the $1.5B, we used the 2009 budget, which lists the County services, almost all of which serve the residential sector. The schools alone account for more than 52%. We estimated that only 2% serves the commercial sector. Therefore, we multiplied the $3.3B budget by 98% and divided by 394,556 dwelling units. We then multiplied this unit cost by the number of new units, which is a function of year as shown in Exhibit 1. Some might argue that the new commuters will not live in Fairfax County so the cost will not be borne by the County; however, we hope that such a selfish attitude is not in keeping with the County's policy.

Exhibit 1: Impact of Tysons Development (Scenario B: GMU high)					
Year	**2010**	**2020**	**2030**	**2040**	**2050**
	Square feet of development from the MuniCap report				
Office	27,400,000	36,200,000	44,900,000	52,600,000	60,200,000
Hotel	2,400,000	3,000,000	3,700,000	4,300,000	4,900,000
Retail	6,200,000	6,600,000	7,200,000	7,300,000	7,400,000
Total commercial	36,000,000	45,800,000	55,800,000	64,200,000	72,500,000
Residential	11,160,000	18,840,000	26,640,000	38,400,000	51,480,000
	Also from the MuniCap report				
Jobs	136,682	175,894	215,105	248,034	280,963
New Tysons households	9,300	15,700	22,200	32,000	42,900
Annual revenue, in $1000	327,034	430,071	538,123	651,992	771,823
Annual expenditures, in $1000	50,223	75,781	101,800	135,647	172,754
Annualized capital costs, in $1000	0	13,495	31,037	37,389	44,055
Net annualized income, in $1000	276,811	340,796	405,287	478,957	555,014
	Households based on		1200	sf/residence per report	
	Derived from the MuniCap report				
Workers living in Tysons	14,880	25,120	35,520	51,200	68,640
Workers living outside Tysons	121,802	150,774	179,585	196,834	212,323
Residences outside Tysons	76,126	94,233	112,241	123,021	132,702
New residences outside Tysons	-	18,107	36,114	46,895	56,576
Commuter ratio	1.00	1.24	1.47	1.62	1.74
	Number of residences based on			1.6	workers/hh
	Compared to FAC Rules of Thumb (Report 014)				
Jobs	136,682	173,890	211,857	243,750	275,262
Annual revenue, in $1000	304,290	399,890	497,340	593,520	692,570
	263	sf/job from 2010 values			
	$ 7.60	Total business tax per sq.ft. of office space			
	$ 2.75	Residential tax per GFA sq.ft.			
Cost of serving commuters, $1000	-	59,249	118,171	153,447	185,123
NPV of cost of serving commuters, $1000			697,023		1,502,774
NPV of building roads, $1000			1,700,000		1,700,000
NPV of net income, in $1000 (from above)			754,990		1,810,339
Net gain to County, $1000			(1,642,033)		(1,392,435)
	Cost of serving commuters is based on:				
		$3,330,427	budget, $1000		
		98%	residential		
		394.556	1000 dwelling units		
		$8,272.13	cost to county per dwelling unit		
		$5,000	real-estate tax for median dwelling unit		
		$3,272.13	net cost to County per dwelling unit		
	NPV is based on 4.5% discount rate for 40 years				
	NPV's of housing costs and net income are based on the				
		development rate given above.			