State Notes

TOPICS OF LEGISLATIVE INTEREST

Spring 2010

Fuel Taxes and Michigan Transportation Funding
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Governor Granholm's fiscal year (FY) 2010-11 budget recommendation for the Michigan Department of Transportation (MDOT) includes $1.5 billion for road and bridge programs. These programs provide for the construction, reconstruction, and renovation of Michigan's streets, highways, and bridges and are funded by a combination of Federal, State, and local revenue. The FY 2010-11 recommendation includes $486.8 million of Federal funding, $894.8 million of Michigan Transportation Fund (MTF) revenue, and $23.5 million of State Trunkline Fund (STF) revenue. Federal funding is available under several provisions in Federal law and generally is based on specified match rates, until the maximum amount of revenue the Federal government makes available is exhausted. Under the recommendation, due to insufficient State funds, the FY 2010-11 budget would fail to match all of the available Federal funds, leaving approximately $475.0 million of Federal revenue unused.

Most revenue for Michigan's transportation programs (which include more than road and bridge programs) comes from two sources: 1) fuel taxes, particularly the taxes on gasoline and diesel motor fuel, and 2) vehicle registration fees. In FY 2008-09, taxes on gasoline and diesel fuel generated $964.3 million, while vehicle registration taxes totaled $842.4 million, supporting $1,806.7 million (87.5%) of the $2,065.2 million of State transportation spending in FY 2008-09. A portion of sales taxes on motor vehicle-related sales is also directed to the Comprehensive Transportation Fund (CTF) and accounted for $82.9 million (4.0%) of FY 2008-09 transportation revenue, while other licenses and permits represented an overwhelming majority of the remaining revenue.

Revenue History

The gasoline tax was initially adopted in 1925 at a rate of 2 cents per gallon. The rate was soon increased to 3 cents per gallon, in 1927. By 1984 the tax rate on gasoline had increased to 15 cents per gallon. The last increase in the tax rate occurred in 1997, when the rate was raised from 15 cents to 19 cents per gallon.

Despite the stability in the tax rate between 1984 and 1997, fuel taxes generated consistently rising revenue. With the exception of the 1979-1982 recessions, fuel taxes have exhibited stable growth since the end of World War II. Between FY 1984-85 and FY 1994-95, fuel tax revenue grew by an average of 2.8% per year. (See Table 1 and Figure 1.) Much of the growth in fuel tax revenue reflects overall economic growth in the economy, as well as increases in population and changing demographics regarding travel and the transportation of goods -- all factors that increase consumption over time. The growth in consumption has a tendency to be offset by higher fuel prices, which create an incentive to reduce consumption, and by rising fuel efficiency standards. Despite the challenges to Michigan's economy over the last 10 years, fuel tax revenue grew 0.6% per year between FY 1998-99 and FY 2002-03.

Since gas prices began to consistently break $2.00 per gallon in 2004, eventually peaking at $4.21 per gallon in July 2008, the pressures to reduce consumption have dominated fuel purchases. As a result, between FY 2002-03 and FY 2008-09, Michigan fuel tax revenue declined an average of 2.1% per year. Fiscal year 2008-09 fuel tax revenue totaled $964.3 million, down $58.6 million (5.7%) from FY 1997-98, the first full fiscal year of the current tax rates. Compared with FY 2002-03, the peak year for fuel tax revenue, FY 2008-09 revenue was down 11.8%, reflecting a decline in consumption from approximately 5.8 billion gallons per year to less than 5.1 billion gallons.

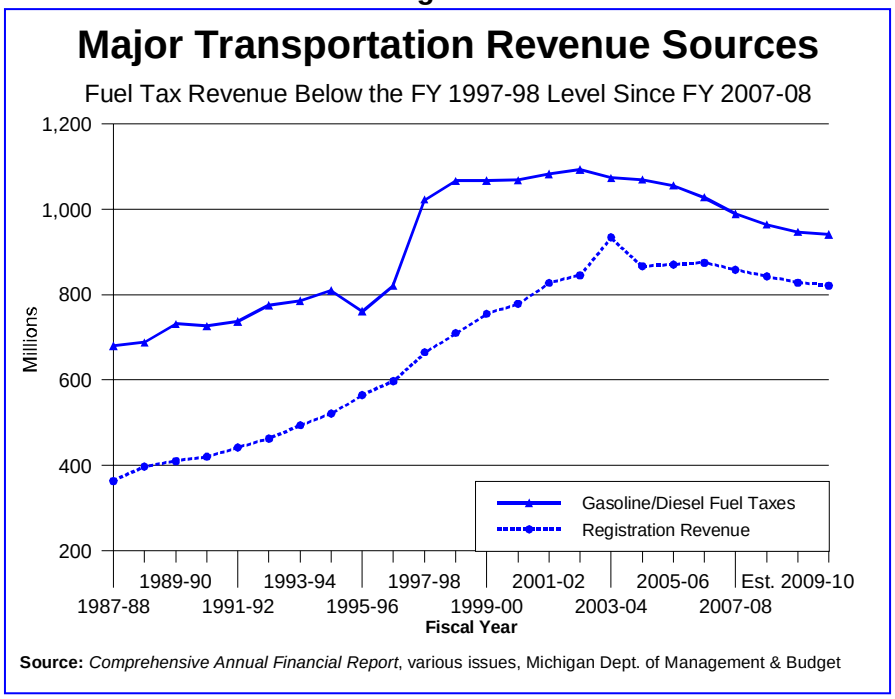
Table 1

Revenue History for Select Michigan Transportation Taxes
(dollar amounts in millions)

Fiscal Year	Gasoline Tax	Diesel Fuel Tax	Total	Percent Change	Vehicle Registration Taxes	Percent Change	Transportation Revenue	Percent Change	Total Sales Tax	Percent Change
1985	$569.7	$45.4	$615	---	$286.7	---	$901.8	---	$2,142.6	---
1986	595.8	47.9	644	4.6%	300.0	4.6%	943.7	4.6%	2,283.3	6.6%
1987	604.5	50.7	655	1.8%	315.9	5.3%	971.1	2.9%	2,348.4	2.9%
1988	628.5	52.2	681	3.9%	363.2	15.0%	1,043.9	7.5%	2,475.0	5.4%
1989	634.0	54.1	688	1.1%	397.0	9.3%	1,085.1	3.9%	2,615.2	5.7%
1990	678.4	53.3	732	6.3%	409.8	3.2%	1,141.5	5.2%	2,671.3	2.1%
1991	673.2	53.1	726	-0.7%	420.2	2.5%	1,146.4	0.4%	2,671.9	0.0%
1992	682.8	54.6	737	1.5%	441.8	5.1%	1,179.2	2.9%	2,745.1	2.7%
1993	708.3	66.7	775	5.1%	462.5	4.7%	1,237.5	4.9%	2,905.7	5.9%
1994	716.7	69.0	786	1.4%	494.3	6.9%	1,280.0	3.4%	3,776.0	30.0%
1995	736.1	73.6	810	3.1%	521.2	5.4%	1,330.9	4.0%	4,884.2	29.3%
1996	681.6	80.3	762	-5.9%	564.4	8.3%	1,326.3	-0.3%	5,171.6	5.9%
1997	737.3	83.9	821	7.8%	597.0	5.8%	1,418.3	6.9%	5,389.8	4.2%
1998	904.5	118.4	1,023	24.6%	665.3	11.4%	1,688.2	19.0%	5,617.3	4.2%
1999	931.7	134.7	1,066	4.3%	710.2	6.7%	1,776.6	5.2%	5,901.7	5.1%
2000	923.0	144.1	1,067	0.1%	755.2	6.3%	1,822.2	2.6%	6,277.5	6.4%
2001	934.4	133.7	1,068	0.1%	778.2	3.1%	1,846.3	1.3%	6,352.3	1.2%
2002	939.7	143.4	1,083	1.4%	827.7	6.4%	1,910.8	3.5%	6,441.2	1.4%
2003	936.2	157.3	1,094	1.0%	845.3	2.1%	1,938.8	1.5%	6,422.6	-0.3%
2004	932.7	140.8	1,074	-1.8%	934.3	10.5%	2,007.8	3.6%	6,473.5	0.8%
2005	922.8	146.7	1,069	-0.4%	866.3	-7.3%	1,935.7	-3.6%	6,599.1	1.9%
2006	906.7	149.0	1,056	-1.3%	870.4	0.5%	1,926.1	-0.5%	6,638.1	0.6%
2007	884.0	144.1	1,028	-2.6%	874.7	0.5%	1,902.8	-1.2%	6,552.2	-1.3%
2008	849.2	140.4	990	-3.7%	857.9	-1.9%	1,847.5	-2.9%	6,773.3	3.4%
2009	846.3	117.9	964	-2.6%	842.4	-1.8%	1,806.7	-2.2%	6,089.1	-10.1%
Jan. 2010 Consensus Revenue Forecast										
2010	$832.0	$115.0	$947.0	-1.8%	$828.0	-1.7%	$1,775.0	-1.8%	$5,894.5	-3.2%
2011	826.0	115.0	941.0	-0.6%	821.0	-0.8%	1,762.0	-0.7%	5,947.6	0.9%
Change Since FY 2002-03										
2009	-9.6%	-25.1%	-11.8%		-0.3%		-6.8%		-5.2%	
2011	-11.8%	-26.9%	-13.9%		-2.9%		-9.1%		-7.4%	
Average Growth										
1989-1997	1.9%	5.6%	2.2%		5.2%		3.4%		---	
1998-2003	0.7%	5.9%	1.3%		4.9%		2.8%		2.7%	
2003-2009	-1.7%	-4.7%	-2.1%		-0.1%		-1.2%		-0.9%	

Source: Comprehensive Annual Finance Report of the State of Michigan, various years

Figure 1



Source: *Comprehensive Annual Financial Report*, various issues, Michigan Dept. of Management & Budget

Revenue from vehicle registration taxes has been more stable than the revenue from motor fuel taxes. Between FY 1984-85 and FY 1994-95, revenue from vehicle registration increased by an average of 6.2% per year. As with motor fuel taxes, registration rates increased in 1997. Largely assisted by hefty purchase incentives offered by manufacturers, even Michigan's descent into recession in 2000 failed to slow registration revenue significantly. Between FY 1997-98 and FY 2003-04, revenue from vehicle registration grew by an average of 5.8% per year. However, as Michigan employment continued to decline, consumers came to expect (or were even fatigued by) large incentives, and fuel prices remained about $2 per gallon, while vehicle consumption patterns shifted to fewer purchases, less expensive vehicles, and/or vehicles that were more fuel efficient. As a result, between FY 2003-04 and FY 2008-09, vehicle registration revenue has declined an average of 2.0% per year. In FY 2008-09, registration revenue of $842.4 million was down $91.9 million (9.8%) from FY 2003-04.

Combined, fuel taxes and registration fees peaked in FY 2003-04 at just over $2.0 billion, after rising an average of 2.9% per year since FY 1997-98. Since FY 2003-04, revenue fell an average of 2.1% per year, to just over $1.8 billion in FY 2008-09 -- a total decline of $201.2 million (10.0%).

Sales Tax on Motor Fuels

An issue related to rising fuel prices concerns sales taxes on motor fuels, especially because Michigan earmarks a portion of the sales tax on motor fuels to the CTF. Michigan levies the sales tax on gasoline and diesel fuel sales, and includes the fuel tax as part of the sales tax base. Including the fuel tax in the sales tax base increases the price of motor fuel by approximately 1.1 cents per gallon. While the additional sales tax revenue generated by including fuel taxes in the sales tax base has fallen as gasoline consumption has declined, it has been more than offset by the increase in fuel prices. When the price of gas was $1.56 per gallon (the average price during 2003,

even though by the end of the year it was consistently above $2 per gallon), the sales tax represented about $0.25 of the price of gas. When gasoline prices peaked in 2008 at $4.21 per gallon, the sales tax represented $0.67 cents of the price. At a retail price of $2.50 per gallon, the price reflects 14.15 cents per gallon of Michigan sales tax.

When compared with other states' gasoline tax rates, Michigan's gasoline tax ranks 34th. Five of the states with lower rates also assess sales tax on gasoline purchases, while seven of the other 11 states levy various other fees or taxes on top of the gasoline tax (such as a license tax, inspection fee, environmental fee, or petroleum fee) and several charge additional taxes or higher rates to commercial or carrier vehicles or large trucks. At a price of roughly $2.50 per gallon, when Michigan fuel taxes and sales taxes are combined, Michigan exhibits one of the five highest state tax rates in the country.

However, two important aspects of Michigan's sales tax on gasoline should be highlighted. First, the majority of sales tax revenue collected is not directed to transportation-related funds. Constitutionally, approximately 73.3% of sales tax revenue is dedicated to the School Aid Fund (60.0% of the collections at a 4.0% rate, plus 100% of collections at a 2.0% rate) while another 10.0% of collections (15.0% of collections at a 4.0% rate) is constitutionally dedicated to revenue sharing payments to local units of government. As a result, more than 83.3% of sales tax revenue from gasoline is constitutionally designated to funds that have nothing to do with transportation.

A portion of sales tax revenue is statutorily earmarked to the Comprehensive Transportation Fund by M.C.L. 205.75, which allocates to the CTF 27.9% of one-fourth of the sales tax collections at a 4.0% rate remaining on sales of "fuels sold to propel motor vehicles upon highways, on the sale of motor vehicles, and on the sale of the parts and accessories of motor vehicles by new and used car businesses, used car businesses, accessory dealer businesses, and gasoline station businesses" after the distributions to the School Aid Fund (SAF) and constitutional revenue sharing are subtracted. In FY 2008-09, this transfer to the CTF totaled $82.9 million, down 4.9% from FY 2007-08.

Assuming an average gas price of $2.50 for 2009, sales taxes on motor fuels totaled approximately $718.2 million in FY 2008-09. Constitutional earmarks on sales tax revenue directed $526.7 million of that revenue to the SAF (and another $71.8 million to constitutional revenue sharing), approximately $210.7 million more than if gas had been $1.50 per gallon. However, this "windfall" to the SAF represented only 1.6% of FY 2008-09 SAF revenue, and less than one-third of what the Lottery contributed to the SAF. More relevant to the topic of this paper, very little of the increase saw its way into transportation funding.

The Role of Inflation

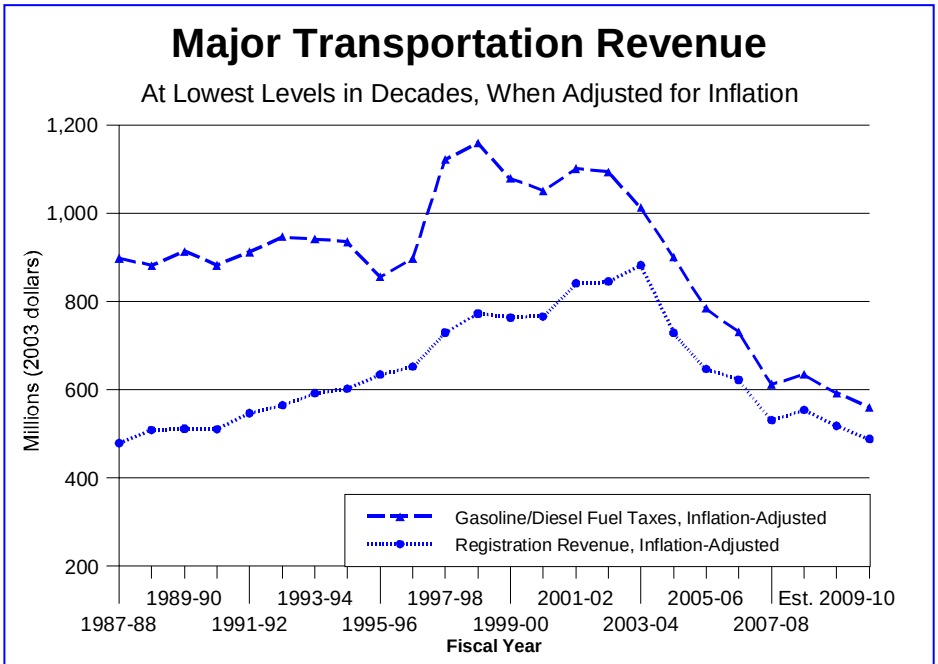
The discussion so far has focused on the actual dollars received, rather than taking into account their buying power. In the case of transportation funding, this distinction is important because there has been significant inflation in the prices of materials and supplies used in road and highway construction. The actual declines in transportation revenue since FY 2003-04 are significant and unprecedented, without accounting for the effects of inflation. When adjusted for price changes, the drop in transportation revenue is staggering -- rivaling or exceeding the changes experienced by the General Fund depending on which years are examined.

While a road construction-related producer price index is not available back that far, if the 1927 tax rate were adjusted by the Detroit consumer price index (CPI), the rate would have been approximately 34.1 cents per gallon in 2009, rather than the actual rate of 19 cents per gallon. However, the best measure for inflation relevant to transportation funding is the producer price index for material and supply inputs to highway and street construction, published by the U.S. Bureau of Labor Statistics. The modern version of this index is available back through June 1986.

When adjusted for inflation, FY 2008-09 fuel tax revenue was 42.0% below the FY 2002-03 level, while registration taxes were down 34.4%. (See Table 2 and Figure 2.) Combined, inflation-adjusted transportation revenue fell 38.7% between FY 2002-03 and FY 2008-09. When the forecasted values for FY 2010-11 are taken into account, FY 2010-11 fuel tax revenue is expected to be 48.8% below the FY 2002-03 level, and registration fee revenue is predicted to be 42.2% lower. Combined, inflation-adjusted transportation revenue in FY 2010-11 is forecasted to be 45.9% below the level in FY 2002-03.

The inflation-adjusted transportation revenue estimates for FY 2010-11 mean that while the stock of roadway the State must maintain has increased, the buying power of State funds to maintain that infrastructure (in terms of plowing and mowing, as well as in resurfacing, reconstruction and rehabilitation) and/or expand it is half what the buying power was in FY 2002-03. The situation is expected to continue to worsen: Inflation for highway construction has averaged 3.4% per year over the life of the index and 5.2% per year over the last decade, while higher fuel economy standards are expected to lower gasoline consumption by approximately 15.0% over the next 20 years. Over the same period, the average price of oil is expected to increase to approximately $130 per barrel, in 2008 dollars -- more than double the average price of oil during 2009 and roughly on par with the price of oil during its record peaks of 2008. Higher oil prices, and the corresponding increase in fuel prices, also will further reduce consumption.

Figure 2



Source: *Comprehensive Annual Financial Report*, various issues, Michigan Dept. of Mgmt. & Budget.
Inflation based on Producer Price Index for Inputs to Highway/Street Construction, Bureau of Labor Statistics

Table 2

Revenue History for Select Michigan Transportation Taxes, Adjusted for Inflation
(dollar amounts in millions)

									Hwy/Road Materials PPI	
Fiscal Year	Gasoline Tax	Diesel Fuel Tax	Total	Percent Change	Vehicle Registration Taxes	Percent Change	Transportation Revenue	Percent Change	Index (FY 2003=100)	Percent Change
1988	$829.1	$68.8	$897.9	0.5%	$479.1	11.2%	$1,376.9	3.9%	75.8	3.4%
1989	812.3	69.4	881.6	-1.8%	508.7	6.2%	1,390.4	1.0%	78.0	2.9%
1990	847.2	66.6	913.8	3.6%	511.8	0.6%	1,425.6	2.5%	80.1	2.6%
1991	817.5	64.5	882.0	-3.5%	510.3	-0.3%	1,392.2	-2.3%	82.3	2.8%
1992	844.8	67.6	912.3	3.4%	546.6	7.1%	1,458.9	4.8%	80.8	-1.8%
1993	865.3	81.4	946.7	3.8%	564.9	3.4%	1,511.6	3.6%	81.9	1.3%
1994	858.6	82.7	941.2	-0.6%	592.1	4.8%	1,533.3	1.4%	83.5	2.0%
1995	850.6	85.1	935.7	-0.6%	602.2	1.7%	1,537.9	0.3%	86.5	3.7%
1996	766.2	90.3	856.4	-8.5%	634.4	5.3%	1,490.8	-3.1%	89.0	2.8%
1997	805.8	91.7	897.5	4.8%	652.4	2.8%	1,549.9	4.0%	91.5	2.9%
1998	992.0	129.8	1,121.8	25.0%	729.7	11.8%	1,851.5	19.5%	91.2	-0.4%
1999	1,013.4	146.5	1,159.9	3.4%	772.4	5.9%	1,932.3	4.4%	91.9	0.8%
2000	933.2	145.7	1,078.9	-7.0%	763.5	-1.1%	1,842.5	-4.6%	98.9	7.6%
2001	919.6	131.5	1,051.2	-2.6%	765.9	0.3%	1,817.1	-1.4%	101.6	2.7%
2002	955.5	145.8	1,101.4	4.8%	841.6	9.9%	1,943.0	6.9%	98.3	-3.2%
2003	936.2	157.3	1,093.5	-0.7%	845.3	0.4%	1,938.8	-0.2%	100.0	1.7%
2004	880.7	133.0	1,013.7	-7.3%	882.3	4.4%	1,896.0	-2.2%	105.9	5.9%
2005	776.9	123.5	900.4	-11.2%	729.3	-17.3%	1,629.7	-14.0%	118.8	12.2%
2006	673.8	110.7	784.4	-12.9%	646.8	-11.3%	1,431.2	-12.2%	134.6	13.3%
2007	629.2	102.6	731.8	-6.7%	622.6	-3.7%	1,354.4	-5.4%	140.5	4.4%
2008	525.8	86.9	612.7	-16.3%	531.2	-14.7%	1,143.9	-15.5%	161.5	15.0%
2009	557.0	77.6	634.6	3.6%	554.4	4.4%	1,189.1	3.9%	151.9	-5.9%
Jan. 2010 Consensus Revenue Forecast										
2010	$520.7	$72.0	$592.7	-6.6%	$518.2	-6.5%	$1,111.0	-6.6%	159.8	5.2%
2011	491.7	68.5	560.1	-5.5%	488.7	-5.7%	1,048.8	-5.6%	168.0	5.2%
Change Since FY 2002-03										
2009	-40.5%	-50.7%	-42.0%		-34.4%		-38.7%		51.9%	
2011	-47.5%	-56.5%	-48.8%		-42.2%		-45.9%		68.0%	
Average Growth										
1989-1997	-0.1%	3.6%	0.2%		3.2%		1.4%		2.0%	
1998-2003	-1.2%	3.9%	-0.5%		3.0%		0.9%		1.9%	
2003-2009	-8.3%	-11.1%	-8.7%		-6.8%		-7.8%		7.2%	

Source: Senate Fiscal Agency

Conclusion

Michigan transportation-related revenue collections, primarily from motor fuel taxes and vehicle registration fees, have fallen significantly in the last six years and are expected to continue falling. Declining fuel taxes have been driven by a combination of high fuel prices, rising fuel efficiency standards, and a weak economy, all of which have worked to reduce fuel consumption. Falling registration revenue has primarily reflected Michigan's weak economy, as well as higher fuel prices and weak population growth. Transportation-related revenue from these two sources is expected to be 9.1% less in FY 2010-11 than in FY 2002-03, despite increasing demands from Michigan's transportation infrastructure.

When adjusted for inflation, Michigan's primary transportation revenue is predicted to be 45.9% less in FY 2010-11 than in FY 2002-03. The trend of declining revenue and above-average inflation for transportation expenses is expected to continue for many years, as oil and gas prices rise and fuel economy standards increase. To the extent that Michigan's economy remains weak for several more years, a condition consistent with most major State and national forecasts, the problem of declining revenue and rising costs will only worsen.

For Michigan's road and bridge programs, declining revenue and rising costs will be exacerbated by the State's failure to fully use available Federal matching funds. The FY 2010-11 budget recommendation falls $84.0 million short of maximizing Federal matching revenue, leaving unused $475.0 million of Federal funds that could be directed to Michigan's roads and bridges. Under the current system, as revenue continues its forecasted decline, Michigan is likely to leave ever-increasing amounts of Federal revenue unused. If the State continues to direct insufficient State revenue to road and bridge programs and leave available Federal funds unmatched, Michigan's transportation infrastructure will bear the brunt of not only declining State revenue, but also reduced Federal revenue.