



Legislative Fiscal Bureau

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Joint Committee on Finance

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Transportation Bonding and Debt Service (DOT -- Transportation Finance)

Several of the Committee's decisions on transportation programs involve the use of transportation fund-supported bonds. The use of bonding for transportation programs is a long-established practice in Wisconsin, as well as many other states, and may be justified to, in effect, spread the cost of transportation improvements over their useful life. The more bonds that are used, however, the higher are future debt service costs. Therefore, the state's transportation bonding policy must weigh current advantages of the use of bonds versus future debt service costs. This paper provides an overview of the state's use of transportation fund-supported bonding, including a discussion of current transportation fund debt service, to provide a framework for the Committee's decisions on transportation program expenditures and finance.

Rationale for the Use of Bonds for Transportation

The issuance of bonds for transportation projects allows the benefits of transportation construction projects to be realized in the short term, while spreading the costs, through the repayment of principal and interest, over the long term, typically 20 years. In this way, future users of a highway or other capital improvement project can be made to share in its cost.

A bond financing strategy can be particularly useful if the proposed improvements are expected to have immediate economic development benefits. If, for instance, a highway project improves transportation efficiency and reliability, existing businesses that use the highway may increase their profits, and new businesses may take advantage of the improvements to locate in the area. Consequently, although interest repayment on the bonds may add to the overall cost of financing the project (depending upon inflation and other factors), increased economic activity resulting from the project may reduce the cost as a percentage of total economic output. In other words, the auxiliary economic benefits of a transportation improvement project may, in the long term, make the project more "affordable" over the period in which the bonds are repaid.

The use of bonds may also be appropriate if expenditures for transportation

improvements are expected to be uneven over a period of several years. If, for instance, the state expects to have a particularly high level of expenditures in one year, followed by a period of lower expenditures, the use of bonds allows the state to finance the high expenditure year, while repaying the bonds in the subsequent, lower-expenditure years. Without bonds, this situation would require the state to either generate additional tax or fee revenues in the high-expenditure year, or reduce expenditures on other projects in that year.

Finally, bonds may, for two reasons, be particularly advantageous during a period of high unemployment. First, when unemployment is high, revenues generated by transportation-related taxes and fees may be stagnant or falling. In this situation, the state can use bonds to maintain a steady level of transportation improvements, to avoid falling behind in its normal system rehabilitation schedule. Second, during a period of high unemployment, private business investments and consumer spending are reduced. Bonds can be used to increase government expenditures over the "normal" level to offset some of the reduction in private business or consumer spending. Any resulting increased level of aggregate demand may, in turn, help increase employment until private investment and consumer spending recover.

Use of Bonds in Wisconsin for Transportation

Bonds have been authorized in Wisconsin for transportation purposes since 1969. Originally, these bonds were general obligation bonds, meaning that the state pledges the "full faith, credit, and taxing power" of the state for the payment of debt service. Despite this general pledge, debt service on the original transportation bonds was paid from the highway fund, or later, the transportation fund (created in 1977). In 1984, however, the state stopped using general obligation bonds for highways and bridges, and began using transportation revenue bonds for major highway development projects and departmental administrative facilities.

Revenue bonds, unlike general obligation bonds, are not backed by the full faith, credit, and taxing power of the state, but instead, the source of debt service payments is limited to a specific fund consisting of fees, penalties, or excise taxes set up for that purpose. In the case of transportation revenue bonds, this fund consists of vehicle registration fees and other vehicle-related revenues, such as title fees. After paying the debt service, the balance of the pledged revenues are deposited in the transportation fund and are available for appropriation. Since first issuing revenue bonds in the 1980s, this has been the dominant source of bonding for transportation programs. However, the state has continued to issue general obligation bonds for harbor and freight rail improvements, and has more recently issued general obligation bonds for a portion of the cost of the Marquette Interchange and I-94 North-South freeway reconstruction projects. In the 2009-11 biennial budget, the state also issued transportation fund-supported, general obligation bonds for the state highway rehabilitation and major highway development programs.

The following table shows the use of transportation fund-supported bonds over the past 10 fiscal years, plus the proposed levels for the 2011-13 biennium, by type of program. For the purposes of the table, bond authorization provided in each biennium is equally divided between the two fiscal years, except in the case of transportation revenue bonds for the major highway

development and administrative facilities, for which amounts are dictated by appropriation. In practice, general obligation bonds may be allocated unequally between years, depending upon project needs or the availability of other funds, but the equal distribution between fiscal years provides a general sense of bonding levels over time without the variability caused by those factors.

TABLE 1

Transportation Bond Usage, 2001-02 through 2012-13 (\$ in Millions)

<u>Biennium</u>	<u>Major Highway Development*</u>	<u>Southeast Wisconsin Freeways</u>	<u>Freight Rail</u>	<u>Harbors</u>	<u>Other Highways</u>	<u>Total Bonds</u>
2001-02	\$131.4	\$0.0	\$2.3	\$1.5	\$0.0	\$135.2
2002-03	136.1	0.0	2.2	1.5	0.0	139.8
2003-04	142.2	0.0	2.3	1.5	0.0	146.0
2004-05	142.8	0.0	2.2	1.5	0.0	146.5
2005-06	156.8	106.6	6.0	6.4	0.0	275.8
2006-07	152.7	106.5	6.0	6.3	0.0	271.5
2007-08	210.7	45.1	22.0	6.4	0.0	284.2
2008-09	201.4	45.1	22.0	6.3	0.0	274.8
2009-10	141.7	125.1	30.0	6.4	55.0***	358.2
2010-11	171.7	125.1	30.0	6.3	55.0***	388.1
2011-12**	160.7	75.6	30.0	6.4	50.0***	322.7
2012-13**	165.7	75.6	30.0	6.3	50.0***	327.6

* Includes approximately \$6.0 million per year designated for Department of Transportation administrative facilities.

** Amounts proposed under AB 40/SB 27.

*** Represents \$30 million for state highway rehabilitation projects and \$25 million for major highway development projects annually in the 2009-11 biennium and \$25 million annually for each program in the 2011-13 biennium.

As the table shows, the use of bonds has increased in recent biennia, mostly corresponding to the beginning of the reconstruction of the Marquette Interchange and the I-94 North-South freeway in southeast Wisconsin, although bonding has also been increased for other uses. Under the Governor's 2011-13 budget bill, bonding would be at the same or similar levels for most programs, relative to the 2009-11 biennium, although the amount authorized for southeast Wisconsin freeway projects would decrease.

As outlined in the previous section, there are several advantages to using bonds to finance transportation projects. However, the increases in the use of bonds over the past three biennia may pose longer-term problems if the amount of the resulting debt service consumes an increasing share of transportation revenues. The next section provides a discussion of the different measures of transportation fund debt service.

Measures of Transportation Fund Debt Service

There are two principal measures of transportation fund debt service that have been used to evaluate the state's use of bonds. The first is the revenue bond coverage ratio, which is a measure of debt service payments on revenue bonds in relation to the vehicle-related revenues that are pledged for that debt service. The so-called coverage ratio is an expression of the pledged revenues collected in a certain period, divided by the revenue bond debt service payments in the same period. To illustrate, in a particular year if pledged revenues are \$400 million and debt service is \$100 million, the coverage ratio will be 4.0:1 (a four-to-one ratio).

Under the guidelines for the issuance of bonds under the transportation revenue bond program, new bonds may be issued only if the coverage ratio was at least 2.25:1 for at least 12 consecutive months of the preceding 18 months. The following table shows the amount of revenue bond debt service, pledged revenues, and the coverage ratios over a ten-year period, plus estimates for the two years of the 2011-13 biennium, based on provisions of AB 40/SB 27.

TABLE 2
Revenue Bond Coverage Ratios (\$ in Millions)

<u>Fiscal Year</u>	<u>Revenue Bond Debt Service</u>	<u>Pledged Revenue</u>	<u>Coverage Ratio</u>
2001-02	\$87.9	\$325.0	3.7:1
2002-03	101.1	325.9	3.2:1
2003-04	113.1	426.5	3.8:1
2004-05	122.0	436.7	3.6:1
2005-06	143.7	467.4	3.3:1
2006-07	152.7	458.1	3.0:1
2007-08	167.4	544.7	3.3:1
2008-09	169.9	600.5	3.5:1
2009-10	170.6	610.4	3.6:1
2010-11*	180.3	600.1	3.3:1
2011-12**	200.3	621.8	3.1:1
2012-13**	215.3	616.5	2.9:1

* Estimated.

** Estimated based on bond usage and revenues under AB 40/SB 27.

By this measure of revenue bond debt service, the state is not currently in jeopardy of being precluded from issuing additional revenue bonds, since the coverage ratio is projected to exceed 2.25:1 through the biennium. However, the ratio is trending downward, both because of projected increases in revenue bond debt service and stagnant vehicle registration fees. Additional capacity to use revenue bonds for major highway development projects will depend in the future upon maintaining the ratio above 2.25:1, which may eventually require the state to increase pledged revenues by either increasing vehicle registration or other currently pledged fees, or pledging revenue sources that are not currently pledged.

While this measure may be used to gauge the level of bonding and debt service for revenue bonds, it does not provide a complete expression of the overall level of transportation debt service, since it does not take into account debt service on general obligation bonds. Since general obligation bonds have become an increasingly important part of the state's transportation bonding policy, a different measure is needed to fully assess total transportation debt service. The percentage of gross transportation fund revenues needed to pay total debt service (on both general obligation and revenue bonds) provides such a measure. The following table shows the debt service percentage for the past 10 years, plus an estimate of this percentage for the two years of the biennium, based on AB 40/SB 27.

TABLE 3

**Debt Service as a Percentage of Gross Transportation Fund Revenues
(\$ in Millions)**

<u>Fiscal Year</u>	<u>Total Debt Service</u>	<u>Gross Revenues</u>	<u>Debt Service as % of Revenues</u>
2001-02	\$93.2	\$1,337.7	7.0%
2002-03	105.8	1,386.6	7.6
2003-04	119.7	1,440.4	8.3
2004-05	166.2	1,482.9	11.2
2005-06	148.2	1,523.3	9.7
2006-07	165.3	1,612.9	10.2
2007-08	187.5	1,681.3	11.2
2008-09	191.0	1,693.6	11.3
2009-10	184.8	1,714.1	10.8
2010-11*	198.3	1,735.4	11.4
2011-12**	263.9	1,750.8	15.1
2012-13**	292.4	1,784.0	16.4

* Estimated.

** Estimated based on bond usage and revenues under AB 40/SB 27.

As this table illustrates, the percentage of total transportation fund revenues devoted to debt service has generally increased over the past 10 years, but is projected to grow substantially in the 2011-13 biennium. Notably, total debt service is projected to increase by more than 50% over the final three years shown. In part, that rate of growth is affected by a debt restructuring initiative in the 2009-11 biennium, as well as other bond issuance strategies over the past several years that have frequently deferred initial principal payments in those years. However, these measures generally have the effect of delaying debt service payments, but not reducing the overall level of payments over the long term. Since the projected debt service payments in the two years of the 2011-13 biennium do not reflect any debt restructuring or similar measures, the "jump" may appear more dramatic than it otherwise would be, but the debt service payments and percentages in those years are, nevertheless, a reflection of prevailing bonding policy over the period shown in the table. It is possible that bond issuance strategies in the future could defer some of the debt service out of the 2011-13 biennium, resulting in lower amounts than are shown in the table.

Although the expansion in the use of general obligation bonds for southeast Wisconsin freeway rehabilitation projects has contributed to the growth in debt service payments, most of the debt service is associated with transportation revenue bonds, issued primarily for the major highway development program. To illustrate this point, the following table provides a breakdown of the debt service percentage, by type of program. The first column shows debt service payments on transportation revenue bonds (identified in the table as "major highway development" since that program is the primary use of those bonds) as a percent of total transportation fund revenues, the second column shows this percentage for bonds issued for southeast Wisconsin freeway reconstruction projects, and the third shows the percentage associated with all other bonds (freight rail, harbor, and, more recently, major highway development and state highway rehabilitation projects). The final column shows the total percentage, matching the final column in Table 3.

TABLE 4

**Debt Service as a Percentage of Gross Transportation Fund Revenues,
By Type of Bond Program (\$ in Millions)**

<u>Fiscal Year</u>	<u>Major Highway Development</u>	<u>S.E. Wis. Freeways</u>	<u>Other Programs</u>	<u>Total</u>
2001-02	6.6%	0.0%	0.4%	7.0%
2002-03	7.3	0.0	0.3	7.6
2003-04	7.9	0.0	0.5***	8.3
2004-05	8.2	0.0	3.0***	11.2
2005-06	9.4	0.1	0.2	9.7
2006-07	9.5	0.5	0.3	10.2
2007-08	10.0	0.9	0.2	11.2
2008-09	10.0	0.9	0.3	11.3
2009-10	10.0	0.6	0.2	10.8
2010-11*	10.4	0.7	0.3	11.4
2011-12**	11.4	2.4	1.2	15.1
2012-13**	12.1	2.8	1.6	16.4

* Estimated.

** Estimated based on bond usage and revenues under AB 40/SB 27.

*** The percentage shown in the "other" bonds category in 2003-04 and 2004-05 was affected by a decision to pay debt service on bonds issued to replace SEG funds in the highway program (to allow for a transfer to the general fund) from the transportation fund. After those years, the general fund became the source of those debt service payments. Without those debt service amounts, the percentages in those two years would have been 0.3% and 0.2%, respectively.

The full, annualized debt service payments associated with newly authorized bonds may not accrue until a few years after the bonds are authorized. Consequently, the debt service on the proposed level of bonds in the bill is only partially reflected in the debt service percentages shown in Tables 3 and 4. If the full, annualized debt service on all of the bonds authorized under

the bill were paid in 2012-13, the total debt service percentage would be around 18%, instead of 16.4%.

There is no universally agreed-upon debt service percentage that is considered to be an appropriate level or a maximum limit. However, in the absence of an industry standard, some may argue that whatever the appropriate absolute level may be, a situation where the percentage is growing as it has over the past decade and is projected to continue to grow has certain negative consequences. In recent years, the state's transportation financing system has been faced with not only increasing debt service, but relatively stagnant or falling revenues, and increased demand for expenditures stemming from southeast Wisconsin freeway reconstruction projects and other bond-financed programs. Together, these factors have created increased pressure for additional transportation tax and fee revenues, but since it is difficult to fully satisfy the various transportation program demands solely through tax and fee increases, the Governor and Legislature have resorted to further increasing the use of bonds.

Summary Discussion

The use of bonds for major highway development projects, southeast Wisconsin freeway reconstruction projects, and rail and harbor projects is defensible on a variety of levels, as discussed in the first section of this paper. Capital improvement projects have a long life and have benefits that will accrue to future generations. The issuance of bonds may allow such improvements to be done earlier than they otherwise would be done, because the costs are spread over many years.

Nevertheless, it is possible to utilize bonds to an extent where future costs exceed the amount that those future users are willing or able to pay. In Wisconsin, the ongoing use of bonds in some programs, like the major highway development program, has created a situation where annual debt service payments on previously-issued bonds now exceeds the amount of new bonds used. [In 2010-11, revenue bond debt service is estimated at \$180.3, exceeding the \$171.7 million in bonds used for the major highway development program in that year.] Clearly, the use of bonds has allowed some projects to be completed faster than would otherwise have been possible without the bonds. However, some may argue that the state would now be better off if the state had originally committed to finance major highway development projects on a "pay-as-you-go" basis. That is, from this perspective, for any program expenditure that is expected to be maintained for 10 to 20, or more, years, like the major highway development program, it may be appropriate to establish a cash-based financing basis, reserving the use of bonds to short-term higher expenditures or during periods when revenues fall due to economic conditions.

Generally, Wisconsin's use of bonds is not far from the average for U.S. states, although highway-related indebtedness varies widely among states. Ten states had less than \$100 per capita in outstanding highway debt in 2008 (the latest year for which complete data are compiled by the Federal Highway Administration) and three states had over \$1,000 in debt per capita. Wisconsin, with \$284 in highway debt per capita, ranks close to the middle of states on this measure, at 27th highest. Wisconsin's per capita debt was below the nationwide, state-level highway debt per capita of \$362. However, the relative ranking of states is not necessarily

indicative of sound fiscal management or sustainability. In other words, the fact that Wisconsin has less debt on a per capita basis than many states does not mean the state's growing debt service costs should not be considered a cause for concern.

The Committee's decisions on bonding policy will not greatly impact the state's debt service in the short term. However, reducing the use of bonds, either through reducing expenditures or replacing bonds with increases in cash funding, could slow the growth of the percentage of transportation fund revenues devoted to debt service.

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