



Commonwealth of Massachusetts

Debt Affordability Analysis

Executive Office for Administration & Finance
September 2009

The Patrick-Murray Administration's capital investment program continues to be guided by three key principles: (1) affordability, (2) strategic prioritization of capital investments, and (3) transparency. The Commonwealth faces a backlog of needed capital projects; at the same time, it faces the constraints of an extraordinarily challenging economic climate and a high debt burden. In light of this challenge, it is more critical than ever that the Commonwealth take a disciplined approach to capital budgeting that is guided by the three principles stated above.

The Patrick-Murray Administration is the first Administration to develop a debt affordability analysis and policy to ensure that the amount of debt issued to fund the capital investment program is kept to affordable levels. The debt affordability analysis is formally updated each year. With respect to strategic prioritization of capital investments, the Patrick-Murray Administration is the first to engage in a thorough process of reviewing and prioritizing capital investment needs and developing a comprehensive five-year capital investment plan within the fiscal constraints prescribed by the debt affordability analysis and policy. Finally, with respect to transparency, the Administration publishes its debt affordability analysis and its five-year capital investment plan (www.mass.gov/eoaf) in order to enhance public understanding of the Commonwealth's capital investment program and thereby improve public discourse and accountability with respect to the capital budget. This report is the Administration's third publication of the debt affordability analysis and five-year capital investment plan.

This debt affordability analysis addresses the first of the key principles guiding the Administration's approach to capital budgeting – affordability. The debt affordability analysis detailed below is an update to the analysis published in December 2008. The Administration will continue to update this analysis on an annual basis to inform its annual capital budgeting process.

In setting the annual administrative bond cap, the Administration has established a policy which sets a cap that will ensure debt service does not exceed 8% of annual budgeted revenues. By keeping total annual debt service within this limit, the Administration will be able to maximize needed capital investments while ensuring that debt service levels remain affordable.

For purposes of constraining growth in debt, the Administration has placed another restriction on its debt capacity model: growth in the annual bond cap for the regular capital program is limited to not more than \$125 million each year (excluding carry forwards of unused bond cap from prior years). This limit will apply even if in



some years the actual revenue growth projection provides capacity to issue a greater amount of debt. This additional constraint ensures stable and manageable growth and avoids taking on an unaffordable long-term debt burden on the basis of unusually robust short-term revenue growth.

After the completion and publication of last year's updated analysis in December 2008, state tax revenues continued to decline at an historic rate due to the economic downturn. Fiscal year 2009 state tax revenues were ultimately \$2.6 billion less than the original fiscal year consensus revenue forecast. While certain economic indicators suggest that the economy may be stabilizing, it is still unclear when growth in state tax revenues will occur and at what rate.

It is important that this debt affordability analysis take into account the impacts of the current challenging fiscal environment. It is also important, however, that the debt affordability analysis continue to be based in part on longer-term, historic trends rather than simply being reactive to current economic conditions. Trends reflecting experience over time are particularly relevant in the context of evaluating the affordability of long-term debt issued to fund investments in long-lived capital assets pursuant to a multi-year capital investment plan.

This debt affordability analysis is consistent with the basic analytical approach presented in the debt affordability analyses published previously. All of the underlying assumptions have been reviewed and, where appropriate, updated to reflect new information and revised outlooks.

Based on the debt affordability analysis and policy described in more detail below, the Administration has set the annual borrowing limit - or "administrative bond cap" – to fund the Commonwealth's regular capital budget for fiscal year 2010 at \$1.5 billion (plus \$150 million of the fiscal year 2009 administrative bond cap that was not used and that will carry forward into fiscal year 2010). This represents a \$226.1 million decrease in the fiscal year 2010 bond cap projected in the previously published December 2008 five-year capital investment plan. When compared to the first five-year capital investment plan published by the Patrick-Murray Administration in July 2007, this updated debt affordability analysis results in a reduction of \$1.1 billion of planned borrowing through fiscal year 2014, reflecting the changed economic conditions. (See Table 8.) As this analysis demonstrates, the planned bond cap levels for fiscal years 2010 through 2014, together with the continuation of the planned borrowings for the accelerated structurally deficient bridge program, represent an affordable level of new debt that will allow the Commonwealth to responsibly invest in the general capital infrastructure needs of the state.



Introduction

Although a portion of the Commonwealth's capital investments are funded from federal grants and other sources, the Commonwealth borrows funds through the issuance of bonds and notes to fund the large majority of its capital investments. The issuance of bonds and notes to fund capital projects must be approved by a two-thirds vote of each house of the Legislature. The Governor determines the timing and amount of any authorized debt issuances. At the request of the Governor and with his approval, the State Treasurer is responsible for the issuance of the debt. The Governor, through the Executive Office for Administration & Finance (A&F), approves and manages the capital budget and the allocation of debt proceeds to pay the costs of authorized projects.

In addition to direct debt¹, the Commonwealth has a number of other debt-like, long-term liabilities. These liabilities include contract assistance payments and contingent liabilities.

Contract assistance payments are made by the Commonwealth to some independent authorities and political subdivisions of the state to support all or a portion of the debt service on certain bonds issued by such entities. Some of these contract assistance payment liabilities of the Commonwealth are secured by a general obligation pledge of the Commonwealth and others are subject to annual appropriation by the Legislature.²

Contingent liabilities of the Commonwealth exist with respect to certain debt issued by independent authorities and agencies of the Commonwealth. These obligations are expected to be paid by the issuing entities, but the Commonwealth has guaranteed payment of debt service or replenishment of reserves if expected payment sources are inadequate.³

¹ "Direct" debt includes general obligation debt (secured by a pledge of the full faith and credit of the Commonwealth), special obligation debt (secured by a pledge of receipts credited either to the Commonwealth Transportation Fund, formerly the Highway Fund, or to the Convention Center Fund), and federal grant anticipation notes (secured by a pledge of federal highway construction grants).

² General obligation contract assistance liabilities (which, like general obligation debt, must receive 2/3 approval of the Legislature) include payments to the Massachusetts Water Pollution Abatement Trust and the Massachusetts Turnpike Authority. Under legislation passed in 2008, debt for public infrastructure improvements to support approved economic development projects may be issued by the Massachusetts Development Finance Agency that would also constitute a general obligation contract assistance liability of the Commonwealth. Budgetary contract assistance liabilities (which are the result of certain capital leases and other contractual agreements) include payments on behalf of the Route 3 North Transportation Improvements Association, the Plymouth County Correctional Facilities Corporation, and the Saltonstall Building Redevelopment Corporation Project.

³ Contingent liabilities of the Commonwealth exist with respect to certain debt obligations of the Massachusetts Bay Transportation Authority, the Woods Hole, Martha's Vineyard and Nantucket Steamship Authority, the University of Massachusetts Building Authority, the Massachusetts State College Building Authority, the Massachusetts Housing Finance Agency and regional transit authorities. Under recent legislation, the Commonwealth is authorized to guarantee certain debt (subject to appropriation) that may be issued by the Massachusetts Turnpike Authority and to guarantee certain payment obligations of the Massachusetts Turnpike Authority under an interest rate swap agreement, but neither of such authorized guarantees have been issued to date.



Statutory Debt Limits

Legislation enacted in December 1989 restricts the amount of the Commonwealth's outstanding direct debt.⁴ This legislation imposed a "statutory debt limit" of \$6.8 billion in fiscal year 1991 and set the limit for each subsequent year at 105% of the previous fiscal year's limit. The statutory debt limit is calculated according to certain rules⁵ and excludes several direct and contingent obligations of the Commonwealth.⁶ The statutory debt limit on "direct" debt as of June 30, 2009 is estimated to be approximately \$16.4 billion, and the Commonwealth's outstanding direct debt subject to the limit as of June 30, 2009 was estimated to be \$14.7 billion.⁷

Legislation enacted in January 1990 imposes a limit on debt service appropriations in Commonwealth operating budgets.⁸ No more than 10% of total budgeted appropriations may be spent on debt service (both interest and principal) on Commonwealth general obligation debt in any fiscal year. Payments on debt not subject to the statutory debt limit described above are also excluded from the debt service limit. In fiscal year 2009, budgeted debt service on debt subject to this limit is estimated to be approximately \$1.6 billion, representing 5.2% of total budgeted expenditures, which are estimated to be approximately \$30.7 billion.⁹

Administrative Bond Cap

The statutory debt limit and debt service limits represent only an upper limit on the amount of direct debt the Commonwealth may incur, and they do not count many types of Commonwealth debt and debt-like obligations (e.g., contract assistance payment liabilities). Since fiscal year 1991, A&F has established an "administrative bond cap" to limit annual bond issuance to affordable levels. However, growth in the bond cap has not always been based on transparent, analytical measures of

⁴ M.G.L. Chapter 29, Section 60A.

⁵ The statutory debt limit is calculated under the statutory basis of accounting, which, unlike GAAP, measures debt net of underwriters' discount, costs of issuance, and other financing costs. In addition, the statutory debt limit excludes bonds that are refunded by the proceeds of Commonwealth refunding bonds once those refunding bonds have been issued.

⁶ Debt not counted in the calculation of the statutory debt limit includes: certain Commonwealth refunding and restructuring bonds issued in September and October 1991, federal grant anticipation notes, special obligation bonds, debt issued by certain counties that has been assumed by the Commonwealth, bonds issued to pay operating notes of the Massachusetts Bay Transportation Authority or to reimburse the Commonwealth for advances to the Massachusetts Bay Transportation Authority, certain debt issued to fund costs of the Central Artery/Tunnel project, bonds issued to finance the Massachusetts School Building Authority and bonds and notes issued to finance the accelerated bridge program. Contract assistance payments, lease payments, and contingent liabilities are also excluded.

⁷ Commonwealth of Massachusetts, Executive Office for Administration and Finance. Fiscal year 2009 figures are estimated pending the closing of the fiscal year for accounting purposes on October 31, 2009.

⁸ M.G.L. Chapter 29, Section 60B.

⁹ Commonwealth of Massachusetts, Executive Office for Administration and Finance. Fiscal year 2009 figures are estimated pending the closing of the fiscal year for accounting purposes on October 31, 2009.



affordability. Prior to the Patrick-Murray Administration, certain bonds issued outside of the stated cap do not appear to have been taken into account in determining debt affordability or in setting the annual bond cap (e.g., \$1 billion of bonds issued during fiscal years 2005 and 2006 to support the Massachusetts School Building Authority).

Existing Debt Burden

Despite statutory and administrative debt limits, the Commonwealth's debt burden remains among the highest in the nation by certain measures. A 2007 U.S. Census Bureau study of state finances ranked Massachusetts third in the nation in outstanding debt and first in the nation in debt per capita.¹⁰ Moody's Investors Service ranks Massachusetts fourth in total net tax-supported debt, fifth in total gross tax-supported debt (down from third last year), second in net tax-supported debt as a percentage of personal income, and second in net tax-supported debt per capita (down from first last year).¹¹ Standard and Poor's Massachusetts rankings are similar: first in tax-supported debt per capita, second in tax-supported debt as a percentage of personal income, and fourth in total tax-supported debt.¹²

It is important to note, however, that these measures include certain debt issued by entities other than the Commonwealth for which the Commonwealth is not liable (e.g., \$3.95 billion of debt issued by the Massachusetts School Building Authority). In addition, these measures favor other states that have stronger county governments and other political subdivisions that issue debt to finance capital improvements that are financed by state government in Massachusetts. In fact, in the most recent U.S. Census Bureau report on the matter, Massachusetts ranked 49th out of 50 states in terms of local debt as a percent of total debt (local and state debt)¹³, indicating that relative to other states, many of the capital needs of the entire state are borne by the Commonwealth itself. Based on this statistic, it is safe to assume that Massachusetts would likely rank lower when measuring debt as a percentage of personal income or per capita if both state and local debt were taken into account.

In light of the Commonwealth's large outstanding debt burden and significant need for capital investment, the Patrick-Murray Administration evaluated the administrative bond cap immediately after taking office in connection with the fiscal year 2008 capital planning process and the publication of the FY2008-2012 Five-Year Capital Investment Plan. This examination and analysis focused on the affordability of the Commonwealth's current obligations and its capacity to support additional debt obligations. This report represents the third annual update of the analysis and the results inform the FY2010-2014 Five-Year Capital Investment Plan.

¹⁰ U.S. Census Bureau, "2007 State Government Finance Data" (<http://www.census.gov/govs/www/state07.html>).

¹¹ Moody's Investors Service, "2009 State Debt Medians."

¹² Standard and Poor's, "State Debt Issuances Are Likely to Accelerate with Substantial Infrastructure Needs," June 5, 2007.

¹³ U.S. Census Bureau, "State and Local Government Finances by Level of Government and by State: 2005-06".



Methodology and Model for Analysis

Consistent with prior years' analysis, this updated analysis evaluates the affordability of issuing new debt, taking into account the Commonwealth's existing debt service and contract assistance payment obligations. In this analysis, affordability is measured by determining the annual amount of debt service and other debt-like payment obligations as a percentage of budgeted revenues. This measure (debt service as a percent of budgeted revenues) is a commonly accepted standard for measuring debt capacity. It provides a true indication of the relative cost of Commonwealth debt by taking into account the actual payment obligations on Commonwealth debt and the amount of revenue available to pay those obligations and other budgetary obligations.

Existing Obligations and Liabilities

A&F's debt capacity analysis includes an examination of existing Commonwealth debt service and contract assistance payment obligations. The analysis includes all general obligation debt issued through June 30, 2009. The analysis includes only the interest payments on federal grant anticipation notes (GANs); principal payments are made with grants from the Federal Highway Administration that are legally dedicated to such purpose and are not available for general budgeting purposes. Special obligation bonds secured by gas tax receipts are included in the analysis. Special obligation bonds for the Massachusetts Convention Center Authority are not included; although these bonds are obligations of the Commonwealth, they are secured and paid directly by a pledge of dedicated tax and excise revenues related to the convention center projects financed with proceeds of the bonds. Massachusetts Bay Transportation Authority (MBTA) and Massachusetts School Building Authority (MSBA) bonds are also not included because they are obligations of the respective authorities, and, although secured in part by a portion of the Commonwealth's sales tax revenues, the Commonwealth is not liable for such bonds and such sales tax revenues are legally dedicated to the MBTA and MSBA. The revenues legally dedicated for the convention center bonds and for the MBTA and MSBA bonds are not available for general budgetary purposes and are consequently not included in the budgeted revenue figures taken into account in this analysis.

The Commonwealth's existing direct debt service obligations for fiscal years 2009 through 2014 are presented in the following table.



Commonwealth of Massachusetts Debt Affordability Analysis – FY2010-2014

Table 1
Existing Direct Debt Service Obligations
Fiscal Years 2009-2014
(\$000s)

Fiscal Year	General Obligations	Federal GANs (interest only)	Special Obligations (gas tax only)	Total Existing Direct Debt Service Obligations
2009	1,830,277	29,425	64,105	1,923,807
2010	1,829,476	53,403	64,111	1,946,990
2011	1,679,834	44,957	64,113	1,788,904
2012	1,703,884	36,880	64,119	1,804,883
2013	1,544,554	28,933	64,102	1,637,589
2014	1,493,014	16,727	59,639	1,569,380

Contract assistance obligations, including certain capital lease obligations that relate to major capital projects, were also included in the examination of existing Commonwealth obligations.¹⁴ These obligations for fiscal years 2009 – 2014 are presented in the following table.

Table 2
Existing Contract Assistance Obligations
Fiscal Years 2009-2014
(\$000s)

Fiscal Year	General Obligation		Budgetary			Total Contract Assistance Obligations
	Water Pollution Abatement Trust	Turnpike Authority	Route 3 North Transportation Improvements Association	Plymouth County Correctional Facility	Saltonstall Building	
2009	66,856	25,000	9,619	10,247	9,506	121,228
2010	67,871	125,000	9,618	10,244	9,578	222,311
2011	70,000	125,000	9,618	10,245	9,693	224,556
2012	70,000	125,000	5,409	10,240	9,770	220,419
2013	70,000	125,000	1,129	10,245	9,848	216,222
2014	70,000	125,000	1,130	10,244	9,929	216,303

Exhibit A to this Debt Affordability Analysis lists the line items in the General Appropriations Act that provide for the debt service and contract assistance payment liabilities described above. It should be noted that the appropriated amounts may not match the amounts reflected in this Debt Affordability Analysis due to more conservative assumptions in this analysis of the timing of bond issues and the resulting impact on fiscal year budgets and different assumptions regarding interest rates.

Revenue Projections

¹⁴ The analysis includes major capital lease obligations, such as lease payments that support the Route 3 North Transportation Improvements Association, the Plymouth County Correctional Facilities Corporation, and the Saltonstall Building Redevelopment Corporation Project, all of which are large-scale capital projects that were funded outside of the bond cap by prior administrations. For the Water Pollution Abatement Trust, the contract assistance payment obligations shown for fiscal years 2010 through 2014 assume new contract assistance payment obligations will be incurred by the Commonwealth in connection with future bond issues of the Trust. For the Turnpike Authority (which, as of November 1, 2009, will be succeeded by the Massachusetts Department of Transportation), the contract assistance payment obligations reflect an increase of \$100 million annually beginning in fiscal year 2010 pursuant to recent legislation. Minor capital costs, such as equipment lease purchases made by Agencies, are funded through their respective operating budgets and are not part of the state's capital budget and, accordingly, are not included in this analysis.



The debt affordability analysis is based on projections of budgeted revenue that will be available to support debt service and other budgetary needs. The budgeted revenue projection for fiscal year 2010 is based on the consensus tax revenue estimate as determined by the Secretary of Administration and Finance and the chairs of the House and Senate Committees on Ways and Means. On May 6, 2009, the consensus tax revenue estimate for fiscal year 2010 was revised downward by \$1.5 billion, from \$19.530 billion to \$17.989 billion. In addition to the consensus revenue, fiscal year 2010 budgeted revenues include \$889.7 million in tax initiatives that were a part of the adopted fiscal year 2010 budget. \$759 million of this amount is attributable to an increase in the sales tax which went into effect August 1, 2009. The annualized amount of the increase in the sales tax is \$900 million, and the difference of \$141 million was included in the fiscal year 2011 budgeted revenue estimate for purposes of this analysis. For purposes of projecting budgeted revenue in future fiscal years, the compound annual growth rate (CAGR) in budgeted revenues from fiscal years 2000 through 2010 of 2.66% was applied to fiscal year 2011 revenues and to each year thereafter. This is consistent with past practice of applying the lesser of (a) the CAGR of historical budgeted revenues, which is 2.66%; and (b) 3%.

To ensure consistency, the budgeted revenue projection for fiscal year 2010 takes into account the same revenues included in the actual budgetary revenue amounts reported in the audited statutory basis financial statements. Specifically, budgeted revenue includes all Commonwealth taxes and other revenues available to pay Commonwealth operating expenses, including debt service, pensions and other budgetary obligations. These budgeted revenue amounts do not include off-budget revenues or tax or toll revenues dedicated to the Massachusetts Turnpike Authority, Massachusetts Bay Transportation Authority, the Massachusetts School Building Authority, and the Massachusetts Convention Center Authority (the debt service obligations of these entities payable from such dedicated revenues have also been excluded from the analysis) or inter-fund transfers from budgeted funds, such as the Stabilization Fund. Although the fiscal year 2009, 2010 and 2011 budgets have relied and will rely on a significant amount of additional federal funding pursuant to the American Recovery and Reinvestment Act of 2009 (ARRA), these are one-time, non-recurring revenues similar in nature to Stabilization Funds; consequently, these federal ARRA revenues have not been included in the budgeted revenue estimates used for purposes of this debt affordability analysis.

Actual and projected budgeted revenues are shown in the table below. The fiscal year 2009 number is an estimate and will not be finalized until October 31, 2009. The fiscal year 2010-2014 budgeted revenue amounts are projections, as described above.



Commonwealth of Massachusetts Debt Affordability Analysis – FY2010-2014

Table 3
Actual and Projected Budgeted Revenues
(\$000s)

Fiscal Year	Budgeted Revenues (Excluding ARRA Revenues)	Annual Growth Rate	Compound Annual Growth Rate
2000	22,587,100	n/a	2.66%
2001	22,860,700	1.21%	
2002	21,174,800	-7.37%	
2003	21,987,200	3.84%	
2004	23,988,400	9.10%	
2005	24,373,400	1.60%	
2006	26,305,600	7.93%	
2007	28,615,900	8.78%	
2008	30,313,200	5.93%	
2009	29,609,500	-2.32%	
2010	29,372,700	-0.80%	Projections
2011	30,301,302	2.66%	
2012	31,107,317	2.66%	
2013	31,934,771	2.66%	
2014	32,784,236	2.66%	

As a starting point for the analysis of future debt capacity, the following table shows existing debt service and contract assistance payment obligations in fiscal year 2009 and in each of the next five fiscal years as a percentage of the budgeted revenue projection for each of those fiscal years.

Table 4
Existing Debt Obligations as Percentage of Budgeted Revenue
Fiscal Years 2009-2014
(\$000s)

Fiscal Year	Existing Direct Debt Service	Existing Contract Assistance	Total Existing Obligations	Projected Budgeted Revenue	Debt Service as % of Budgeted Revenue
2009	1,923,807	121,228	2,044,268	29,609,500	6.90%
2010	1,946,990	222,311	2,169,301	29,372,700	7.39%
2011	1,788,904	224,556	2,013,460	30,301,302	6.64%
2012	1,804,883	220,419	2,025,302	31,107,317	6.51%
2013	1,637,589	216,222	1,853,811	31,934,771	5.80%
2014	1,569,380	216,303	1,785,683	32,784,236	5.45%

Accelerated Bridge Program

In fiscal year 2009, the Commonwealth launched a new capital investment program known as the “Accelerated Bridge Program” (the Bridge Program). The Bridge Program is a \$3 billion, eight-year program to rehabilitate and repair bridges in the Commonwealth that are structurally-deficient or that would otherwise become structurally deficient within the next few years. The Bridge Program will be financed from two sources: (1) approximately \$1.9 billion from special obligation gas tax bonds of the Commonwealth, and (2) approximately \$1.1 billion from federal grant anticipation notes.

Based on current project cash flow projections and discussions with the Federal Highway Administration (FHWA) regarding eligibility for financing with federal grant anticipation notes, the following table shows the current estimate of annual Bridge



Program spending to be funded with special obligation gas tax bond and federal grant anticipation note issues. These estimates are likely to change as spending estimates are further developed, as FHWA reviews projects for approval for federal funding and as opportunities to accelerate bridge projects are further analyzed.

Table 5
Projected Accelerated Bridge Program Spending Schedule
Fiscal Years 2009-2016
(\$000s)

Fiscal Year	Gas Tax Bond Issues	Federal GANs Issues	Projected Issues to Fund Accelerated Bridge Program
2009	100,504	0	100,504
2010	352,305	5,000	357,305
2011	392,617	132,912	525,529
2012	380,381	308,279	688,660
2013	358,271	310,173	668,444
2014	130,938	226,202	357,140
2015	82,698	125,434	208,132
2016	78,288	0	78,288
	1,876,000	1,108,000	2,984,000

In addition to addressing the public safety and transportation concerns posed by the Commonwealth's backlog of structurally-deficient bridges, the Bridge Program is an intentional effort on the part of the Commonwealth to generate hundreds of millions of dollars of cost savings by doing these needed bridge projects sooner than it otherwise would. These savings will result from avoided cost inflation and avoided costs of further deferring maintenance and repair of the bridges.

In an effort to achieve the public safety and cost savings benefits through the acceleration of investment in structurally-deficient bridges, the amounts to be borrowed and expended for the Bridge Program over the next few years will be in addition to the bond cap for the regular capital program. The debt service impact of the Bridge Program financing is, however, taken into account for purposes of determining the affordable level of debt to fund the regular capital program each year within the 8% of budgeted revenue limit described herein. Specifically, the principal and interest payable on any special obligation gas tax bonds and the interest payable on any federal grant anticipation notes issued to finance the Bridge Program will be included in the total debt service payment obligations that must be constrained within 8% of budgeted revenues (principal on the federal grant anticipation notes will be payable from future federal grants which are not included within budgeted revenue). This treatment of the Bridge Program gas tax bond and federal grant anticipation note debt service is consistent with the manner in which this debt affordability analysis treats the Commonwealth's outstanding gas tax bonds and GANs.

The impact of the Bridge Program will be to constrain the bond cap in future years. As the debt service impact of the debt issued to finance the Bridge Program increases over the next few years, there will be less capacity than there otherwise would be to issue new debt to fund the regular capital program within the 8% limit. The reduced future capacity will result in less funding for transportation capital projects in future years than there otherwise would be. However, by accelerating this future



borrowing capacity (as well as accelerating the future federal grant spending capacity through the issuance of the federal grant anticipation notes) to invest in structurally-deficient bridge projects that must be undertaken by the Commonwealth, the Bridge Program will ensure that these projects are done cheaper and sooner than they otherwise would be.

Self-Supporting Project Financings

Unlike past practice in Commonwealth capital budgeting, the Patrick-Murray Administration is taking all debt service and debt-like payment obligations into account in determining the appropriate level of annual borrowing pursuant to the policy set forth below. The Administration recognizes, however, that exceptions to this policy may be justified in limited circumstances where a project financed with debt payable by the Commonwealth directly or indirectly generates new state revenue that is targeted to the payment of such debt. In these limited circumstances when new state revenue is generated as a result of a capital project and when that new revenue is directly linked to and covers the debt service payment liability related to the project, the Administration will exclude the debt from the annual bond cap and will exclude such debt service payment obligations, and the related new revenue used to pay such obligations, from the analysis set forth herein for purposes of determining the annual bond cap.

One example of debt the Administration will exclude from the annual bond cap and debt affordability analysis is debt the Massachusetts Development Finance Agency will issue for public infrastructure improvements necessary to support significant new private development. This debt will be excluded because the Commonwealth will ultimately be responsible for funding only the portion of the related debt service that is supported by new state tax revenue generated from the related private development. Another example is debt the Administration issues to fund fire training facility projects as legislation authorizes the Commonwealth to raise the amounts needed to fund the related debt service costs for such projects through assessments on property insurance policies. The table on the right shows the amounts of assessments projected over the next several years, which amounts are equal to the estimated debt service on bonds issued to fund the construction of the fire training facilities. Table 7 excludes such amounts from both the debt service and the budgeted revenue estimates.

Table 6	
DFS Insurance Assessment	
Fiscal Years 2009-2014	
(\$000s)	
Fiscal Year	Assessments
2009	767
2010	1,758
2011	2,625
2012	3,026
2013	3,194
2014	3,214

Fiscal Year 2010-2014 Debt Issuance Modeling

In analyzing potential levels of debt issuance to fund the Commonwealth's capital spending plan for the next five years, the Patrick-Murray Administration has made the following conservative and fiscally responsible assumptions:

- Timing of Debt. All debt issued to fund the capital spending program is assumed to be issued at the start of the fiscal year in which it will be spent. Similarly, any



debt required to be issued to fund amounts expended in fiscal year 2009 that have not yet been reimbursed with bond proceeds is assumed to be issued at the start of fiscal year 2010. These assumptions are conservative for modeling purposes, as they result in the debt service impact of bonds issued in a fiscal year being assumed as early as possible.

- Term of Debt. Although the Commonwealth has the statutory authority to issue virtually all of its authorized debt for a term of up to 30 years and the useful life of significantly more than one-third of the Commonwealth's annual capital investments are for assets with a useful life of 30 years or longer, the Administration has adopted a policy of issuing not more than one-third of the debt it issues each year to fund the regular capital program for a term of 30 years. Consequently, this analysis assumes that one-third of the debt to be issued each year to fund the regular capital program will have a 30-year term and two-thirds of the debt to be issued each year will have a 20-year term. For the Bridge Program financing, all of the federal grant anticipation notes are expected to be paid by fiscal year 2021 and this analysis assumes that one-third of the special obligation gas tax bonds will have a 30-year term and two-thirds will have a 20-year term.
- Interest Rates. The interest rate used for 20-year debt and for the federal grant anticipation notes for the Bridge Program is 4.63%, which is the average of the Bond Buyer 11 Index¹⁵ for the 24-month period ending August 30, 2009; the interest rate used to model the 30-year debt is 4.80%, reflecting the approximate spread between 20 and 30-year general obligation bonds as of August 2009 according to municipal market data published in The Bond Buyer.
- Principal Amortization. Consistent with past practice by the Commonwealth, the principal on bonds issued for a 20-year term is structured to result in level annual debt service payments over that 20-year period and the principal on bonds issued for a 30-year term is structured to result in level annual debt service payments over that 30-year period. The principal on the federal grant anticipation notes issued to finance a portion of the Bridge Program is assumed to be payable in the aggregate amount of \$150 million each year in fiscal years 2015 through 2021.
- Carry Forward of Unused Bond Cap. It is estimated that there will be at least \$150 million of unused bond cap from fiscal year 2009 that will carry forward and be available for capital investments in the current fiscal year. This analysis assumes that there will be no unused bond cap in fiscal year 2010 or any future fiscal year that will be carried forward and available for spending in a subsequent year. To the extent that there is unused bond cap in fiscal year 2010 or in future years, these amounts will be carried forward and considered available for the next year's capital budget, since the affordability analysis takes into account

¹⁵ The Bond Buyer 11 Index tracks the interest rates of 11 issues of 20-year municipal debt with a double-A credit rating.



the full amount of the annual bond cap being issued at the start of each fiscal year.

In setting the annual administrative bond cap, the Administration has established a policy which sets a cap that will ensure debt service does not exceed 8% of annual budgeted revenues. By keeping total annual debt service within this limit, the Administration will be able to maximize needed capital investments while ensuring that debt service levels remain affordable.

For purposes of constraining growth in debt, the Administration has placed another restriction on its debt capacity model: growth in the annual bond cap for the regular capital program is limited to not more than \$125 million each year (excluding carry forwards of unused bond cap from prior years). This limit will apply even if in some years the actual revenue growth projection provides capacity to issue a greater amount of debt. This additional constraint ensures stable and manageable growth and avoids taking on an unaffordable long-term debt burden on the basis of unusually robust short-term revenue growth.

As shown in the table below, funding the annual bond cap and the Bridge Program in the amounts shown, together with the existing obligations, results in total annual debt service as a percent of budgeted revenues within the 8% limit described above¹⁶. The fiscal year 2010 bond cap is comprised of \$1.5 billion plus \$150 million of unused bond cap carried forward from fiscal year 2009.

Table 7
Projected Annual Debt Service as a Percentage of Budgeted Revenues
Fiscal Years 2009-2014
(\$000s)

Fiscal Year	Projected Capital Spending		Debt Service				Budgeted Revenue Growth 2.66% per year after FY10	Total Annual Debt Service as % of Revenues
	Annual Bond Cap	Annual Bridge Program	Total Existing Obligations	Cumulative New Debt Service from Annual Bond Cap	Cumulative New Debt Service from Bridge Program	Total Annual Debt Service		
2009	1,577,000	100,504	2,026,370	17,898	0	2,044,268	29,608,733	6.90%
2010	1,650,000	357,305	2,169,301	35,128	10,842	2,215,272	29,370,942	7.54%
2011	1,625,000	525,529	2,013,460	153,207	48,650	2,215,317	30,298,677	7.31%
2012	1,750,000	688,660	2,025,302	273,969	91,307	2,390,578	31,104,291	7.69%
2013	1,875,000	668,444	1,853,811	404,519	132,927	2,391,257	31,931,577	7.49%
2014	2,000,000	357,140	1,785,683	544,345	164,235	2,494,262	32,781,022	7.61%

The annual bond cap amounts reflected in the table above are less than had been previously projected in the prior five-year capital spending plans published by the Patrick-Murray Administration. The reduction in the annual bond caps is a function of the Administration's disciplined approach to debt management through its formal debt affordability analysis and policy. The debt affordability analysis and policy ensure that planned borrowing to fund capital investments is periodically adjusted to take into account the Commonwealth's fiscal condition and capacity to pay debt. The following

¹⁶ Table 7 excludes debt service on fire fighting academies which is funded with insurance assessments; Table 7 also excludes the assessments Budgeted Revenue. (See Table 6).



Commonwealth of Massachusetts Debt Affordability Analysis – FY2010-2014

table shows the reductions in the annual bond caps from the Administration's original five-year capital spending plan resulting from the application of the Administration's debt affordability analysis and policy.

Table 8
Bond Cap Compared with Prior Five-Year Capital Investment Plans
(\$000s)

Fiscal Year	FY08-12 Plan	FY09-13 Plan	Difference		Difference
			Between FY09 and FY08	FY10-14 Plan	Between FY10 and FY08
2008	1,661,000	1,319,600	-341,400	1,319,600	-341,400
2009	1,625,000	1,727,000	102,000	1,577,000	-48,000
2010	1,750,000	1,726,100	-23,900	1,650,000	-100,000
2011	1,875,000	1,762,600	-112,400	1,625,000	-250,000
2012	2,000,000	1,800,000	-200,000	1,750,000	-250,000
2013	2,000,000	1,900,000	-100,000	1,875,000	-125,000
2014	2,000,000	2,000,000	0	2,000,000	0
			-675,700		-1,114,400

The Patrick-Murray Administration will revisit the assumptions underlying this affordability model at least once each year as part of the development of the following fiscal year's capital plan to adjust the model's assumptions as needed to reflect new trends in revenue growth, interest rates, and other factors. As a part of this annual review, the Administration will also reassess the debt capacity model as a whole, including the limitation of keeping debt service below 8% of budgeted revenues and the additional limitation of keeping maximum annual bond cap increases for the regular capital program to the levels prescribed in this report, to ensure that it continues to be an appropriate and responsible model for measuring the Commonwealth's debt capacity in the future.

Exhibit A**FY2010 General Appropriations Act****Debt Service and Contract Assistance Payment Line Items**

Account	Description
0699-0015	Consolidated Long Term Debt Service
0699-0016	Accelerated Structurally Deficient Bridge Program Debt Service
0699-2004	CA/T Debt Service
0699-9101	Federal Grant Anticipation Notes
1599-0093	Water Pollution Abatement Trust
1599-1970*	Mass Turnpike Authority Contract Assistance
1599-0050	Route 3 North Contract Assistance
8910-0000	Plymouth County Correctional Facilities (included in County Sheriffs' joint line item)
1102-3224	Saltonstall Building Lease

*Outside Section 138 of the FY10 budget provides for the annual payment of \$100 million in Commonwealth contract assistance to the Massachusetts Turnpike Authority. This contract assistance is in addition to the \$25 million annually pledged and historically funded in Account 1599-1970, above, and will be added to that account beginning with the FY11 budget. A portion of Outside Section 138 is provided, below.

Transfer to Commonwealth Transportation Fund

SECTION 138. (a) Notwithstanding any general or special law to the contrary, upon the effective date of this act, the comptroller shall make a transfer from the General Fund to the Commonwealth Transportation Fund, established pursuant to [section 2ZZZ of chapter 29](#), totaling \$275,000,000,. The secretary of administration and finance, in concurrence with the secretary of transportation and public works, shall ensure that \$100,000,000 shall be transferred to the Massachusetts Turnpike Authority or its successor in interest in fiscal year 2010 and, to provide for and secure this payment obligation, the secretary of administration and finance, on behalf of the commonwealth, shall, with the concurrence of the secretary of transportation and public works, enter into a contract with the authority before July 1, 2009 providing for the payment of that amount to said authority or its successor in interest in each fiscal year for the purpose of defraying costs, including debt service on bonds heretofore or hereafter issued by the authority or its successor in interest to finance or refinance improvements to the metropolitan highway system. The term of this contract shall extend until the last fiscal year in which any such bonds issued before the date of the contract are scheduled to mature. These payments may be treated as revenues of the authority or of its successor in interest within the meaning of [section 6 of chapter 81A](#) of the General Laws and the authority or its successor in interest may pledge such contract and the rights of the authority or its successor in interest to receive amounts thereunder as security for the payment of the bonds issued before the date of the contract or of any bonds or notes issued by the authority or its successor in interest to refinance those bonds. This contract shall constitute a general obligation of the commonwealth for which the full faith and credit of the commonwealth shall be pledged for the benefit of the authority or its successor in interest and of the holders of any bonds or notes secured by a pledge of such contract or of amounts to be received by the authority or its successor in interest under the contract. The payment obligation and contract securing it provided for in this section shall be in addition to the payment obligation provided for under [section 12 of said chapter 81A](#) of the General Laws and the contract securing it under said section 12.