

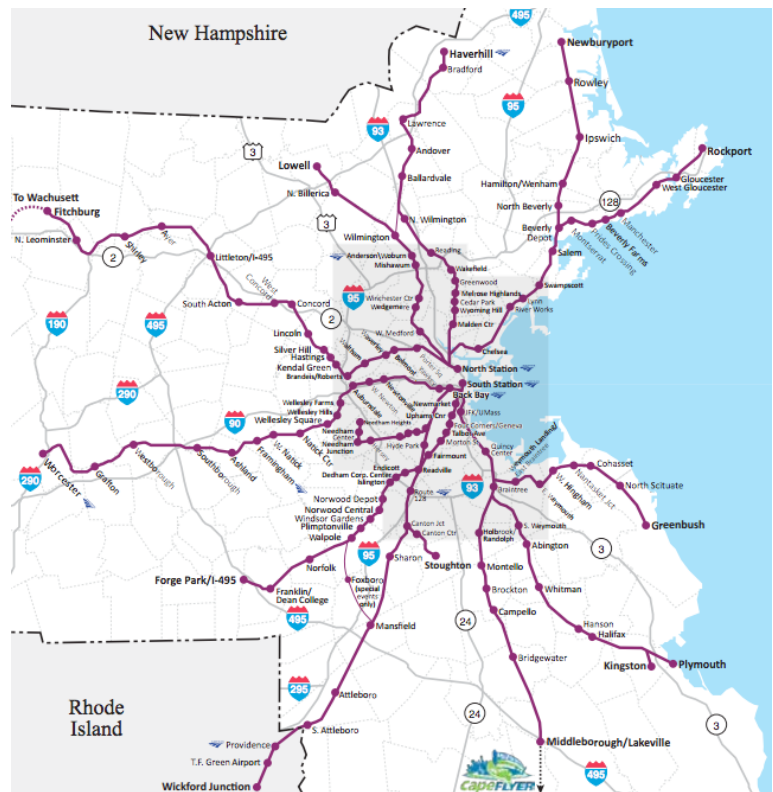
How Slow Sales Tax Growth Causes Funding Problems for the MBTA

By *Phineas Baxandall*

High-quality, reliable, transportation systems provide a foundation for building a strong economy. When people can get where they need to go reliably and efficiently, goods can get to market, and when transportation systems grow with the economy and regional needs, our economy can more effectively support broadly shared prosperity. The Massachusetts Bay Transportation Authority (MBTA) has suffered from both management problems and a funding system that is structurally flawed. A well-functioning transit system plays an indispensable role in the region's prosperity by connecting commuters to their jobs, relieving traffic congestion from our roads, enhancing transportation choices, and providing mobility and independence to many people who would otherwise be isolated. The MBTA connects the region through bus, rail, and ferry service in 175 cities and towns that contain almost three-quarters of the Massachusetts population.¹ The "T" includes over 200 routes stretching over 3,244 square miles, connecting communities from Newburyport to Plymouth, from Lowell and Worcester to Middleborough, and from Fitchburg to Rhode Island. Taxes from previous generations have built and funded the infrastructure that supports our economy today.

Since 2001, a "penny" of the state sales tax (excluding taxes on meals) has been dedicated to the MBTA, providing the authority with its largest source of funding. This arrangement replaced an earlier system of legislative reimbursements.² At the time, lawmakers projected that sales tax revenue would keep pace with the growing economy, providing the revenue needed for the "T" to support our state's economic growth. But revenues have fallen short of the original projections.

The annual revenue generated by a penny on the sales tax is now \$219.5 million less than was projected in the original finance plan for dedicated sales tax funding.³ The Legislature in 2015 folded an additional annual \$160 million into the complex formula determining the sales tax



transfer to the MBTA, though this addition occurred at the same time the Legislature discontinued other annual appropriations of the same amount.⁴

This report explains how the MBTA's finances have been negatively affected by slower-than-anticipated growth of sales tax revenue dedicated to the Authority; how excluding the MBTA from sales taxes on meals has had an unexpectedly large impact; and how several factors hinder faster sales tax growth in the future. Two appendices describe the mechanics of how the sales tax transfer to the MBTA is determined and where sales tax revenues go.

Sales Tax Transfers to the MBTA Have Fallen Short of Expectations

In 2000 when the Legislature established the Forward Funding penny on the sales tax as the new cornerstone for supporting the MBTA, they were confident that sales tax receipts would provide an adequate source of growing revenue. As the Transportation Finance Commission Report of 2007 recounted,

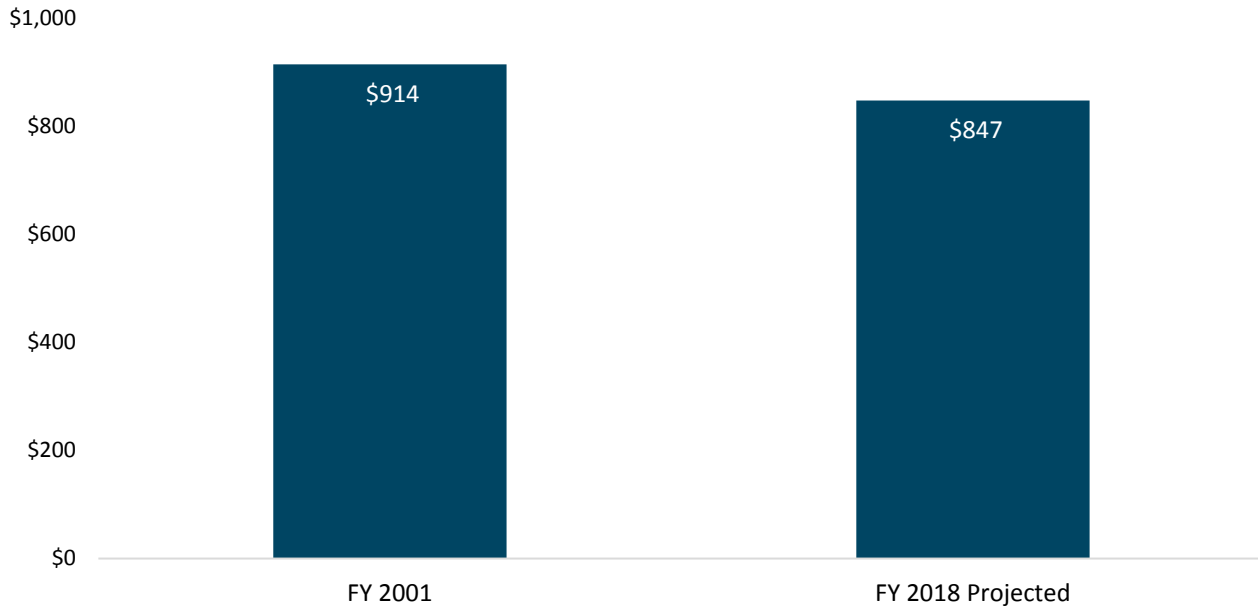
“Prior to 2000, sales tax revenue had increased by 5 percent per year on average, ranging from 3 to 8 percent in any given year. In the prior decade, from 1991 to 2001 sales tax revenues grew slightly faster than the Massachusetts economy. The 2000 Finance Plan assumed an average growth rate of 3 percent a year, which at the time was thought to be a prudent and conservative estimate.”⁵

Even in 2007, the state's Transportation Finance Commission still regarded 3 percent as the “worst case” scenario, and the “best case” scenario was continuing the 4.68 percent average rate of sales tax growth from the previous twenty years.⁶

Actual growth in the MBTA-eligible penny of the sales tax has averaged less than 1.5 percent. If the previous twenty years' growth rate had instead continued, the MBTA's penny would be worth almost \$400 million more a year than it is today.⁷ Had even the 3-percent conservative forecast been realized, the annual amount collected by “the penny” would have increased from an inflation-adjusted \$914 million in 2001 to \$1.066 billion in Fiscal Year (FY) 2018, rather than the \$847 million currently anticipated for FY 2018. That's a FY 2018 shortfall of approximately \$220 million. The figures displayed below show that the MBTA penny has not kept up with inflation or with the Legislature's stated “worst case” scenario.

MBTA's Penny of Sales Tax Is Worth \$68 Million Less than in 2001

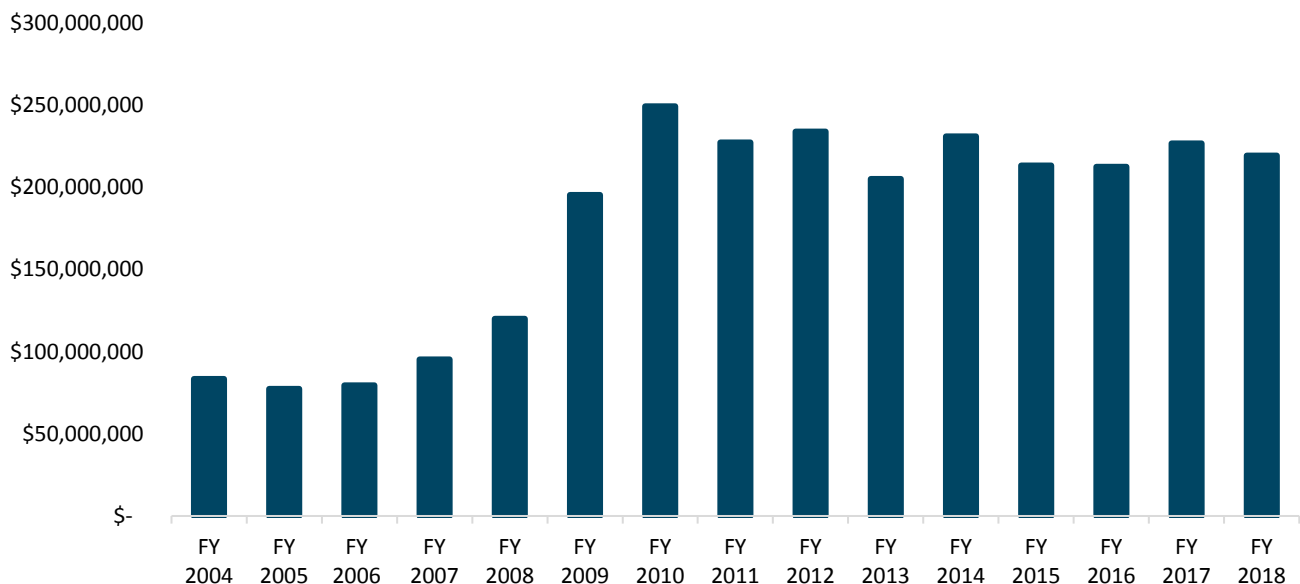
One percentage point of MBTA-eligible sales taxes, inflation-adjusted (Fiscal Year \$2018 million)



Looking at the dedicated penny alone, the chart below shows the growing gap between the conservative “worst case” sales tax growth scenario considered for MBTA funding in 2000 and the actual yearly transfer. The yearly shortfall increased from \$27.4 million in FY 2004 to \$219.5 million in FY 2018 (all numbers adjusted for inflation).

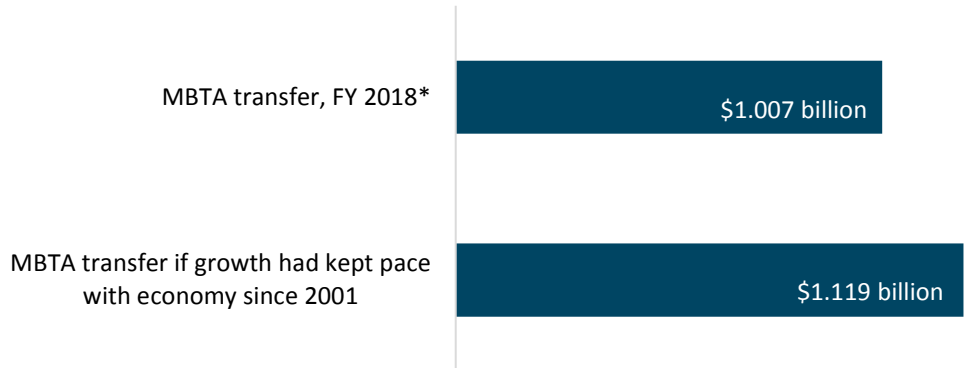
Shortfall Between Forward Funding Projection and Penny of MBTA-Eligible Sales Tax Has Grown to \$220 Million a Year

Gap between projected annual sales tax revenue for MBTA (3% assumption) and actual, infl-adjust (FY \$2018)



The MBTA sales tax transfer, including the \$160 million that was added to the yearly transfer since FY 2015 (see Appendix), has increased faster than inflation, but it has fallen well short of both the 3 percent conservative projection for growth and the actual growth of the Massachusetts economy.

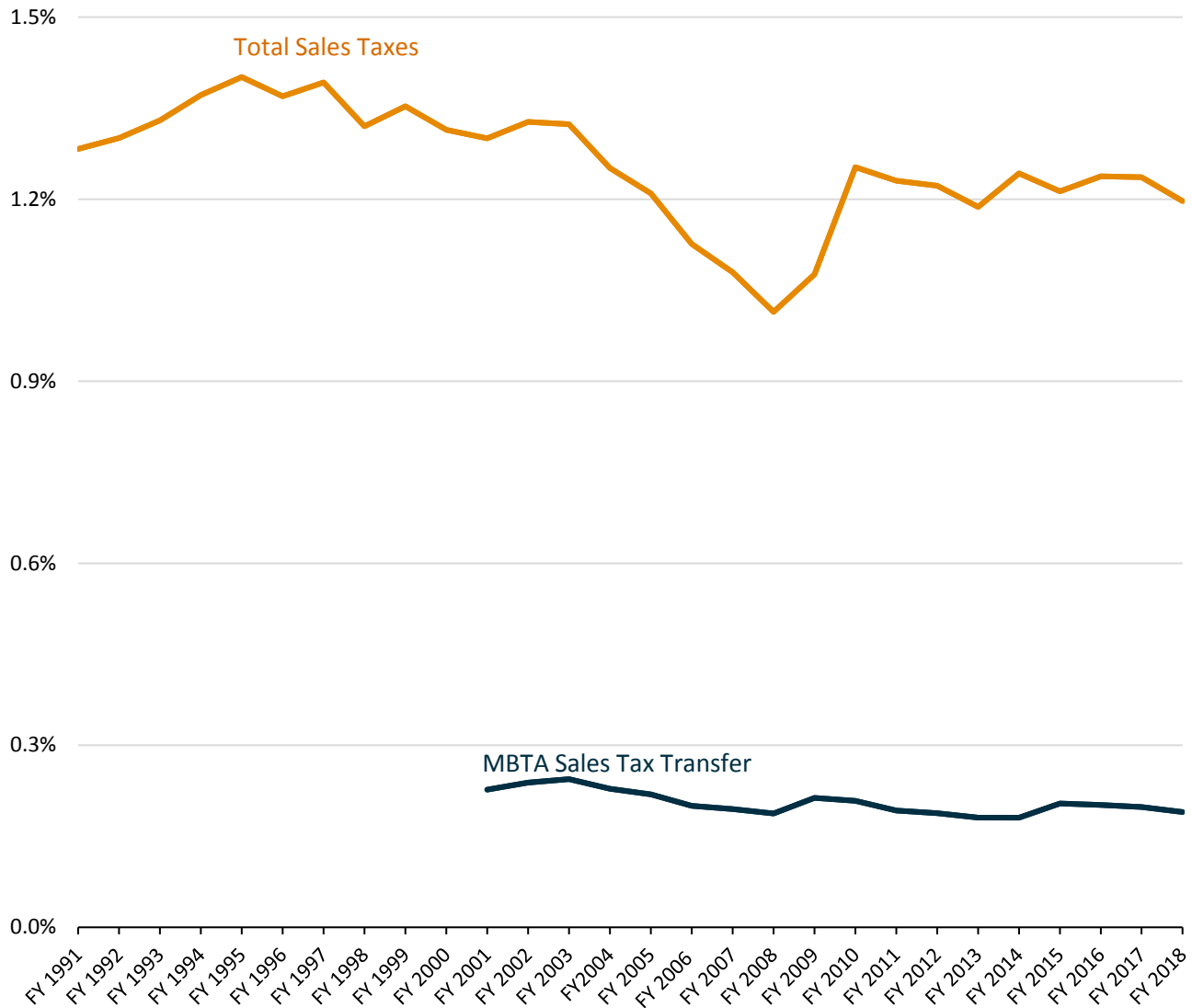
MBTA Transfer Has Grown Slower than the Economy



*MA Comptroller anticipation FY 2018, includes \$160 million base amount addition since 2015.

The slow growth of sales tax revenue and MBTA sales tax transfers is evident in the decline of these revenues as a percent of the Massachusetts economy. Despite the 2009 increase in the sales tax rate from 5.0 percent to 6.25 percent, total sales tax revenues nonetheless declined from their FY 1995 peak of 1.4 percent of total Massachusetts income to less than 1.2 percent anticipated for FY 2018.⁸ This parallels a national decline in sales tax revenue from 1.8 percent of GDP in 1996 to 1.6 percent in 2014-15, despite several states' sales tax rate increases.⁹ In Massachusetts, if sales tax revenue had retained its 1995 share of the economy, it would generate an extra \$1.25 billion in annual revenue today. MBTA sales tax transfers similarly represented 0.23 percent of the state economy in FY 2001, but fell to 0.19 percent in FY 2018 (even including the \$160 million addition that was folded into this sum). If the MBTA sales tax transfer had retained its same share of the economy since FY 2001, it would be \$192.3 million higher today.

Total Sales Taxes and MBTA Transfer as % of Massachusetts Economy

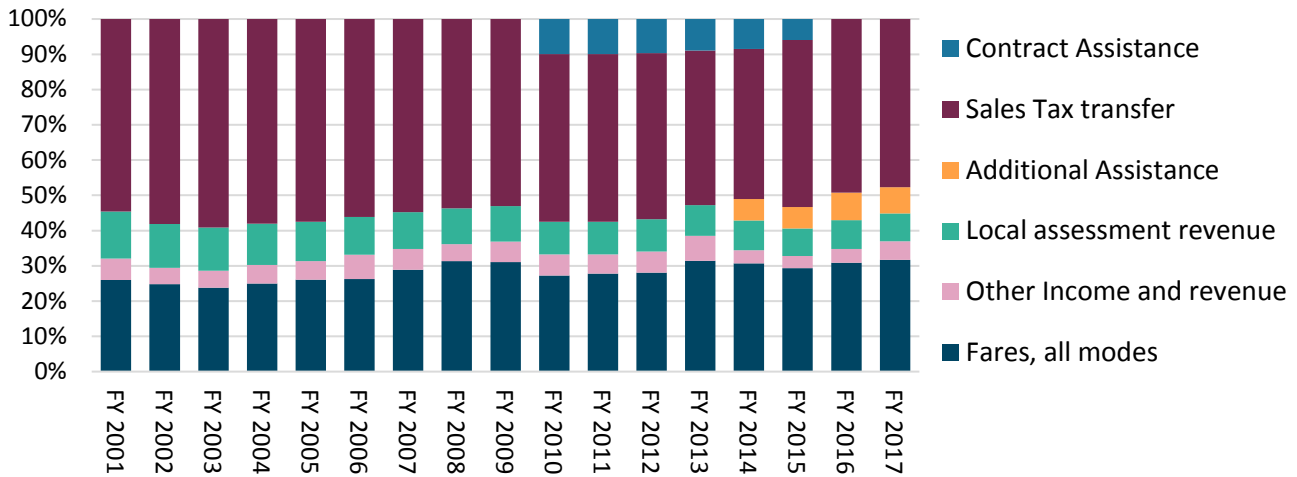


Since the Legislature established Forward Funding in 2000, the MBTA-eligible portion of the sales tax has grown at an even slower rate than Massachusetts sales taxes overall. Sales tax revenue from meals, which is excluded from the MBTA’s penny on the sales tax, had grown slower than non-meal sales tax revenue during the 1980s and 1990s. But since 2001, sales tax revenues on meals have grown over three times faster than the growth of total sales.¹⁰ Whereas sales tax revenue from meals comprised 12.8 percent of total sales tax revenues in 2001, the \$1.1 billion in taxes on meals represented 17.9 percent of total sales taxes in FY 2017. If sales taxes excluding meals had grown at the same rate as sales taxes overall, the MBTA’s penny would have been worth an additional \$49.9 million in Fiscal Year 2017.

Sales tax transfers have declined over time as a share of MBTA revenue as they have lagged behind growth of the transit authority’s operating budget. Sales tax revenue represented nearly 60 percent of

the MBTA's total revenue in 2003, but declined to about 45 percent in the middle of this decade – before the Legislature replaced \$160 million in annual Contract Assistance appropriations with the same amount of sales tax funds.¹¹ Even with this boost, sales tax transfers have declined to less than 48 percent of the MBTA's total revenue in FY 2017.

MBTA Revenue Sources as Percent of Total, FY 2001 to FY 2017



Challenges to Future Sales Tax Revenue Growth

The sales tax will remain a crucial part of how the Commonwealth supports local services, education, health care, and other public functions, including the bedrock funding source for the MBTA. However, a number of long-term trends are likely to continue to slow future sales tax revenue growth and sales tax transfers to the MBTA. While any projection is uncertain, the broader national trend has been toward slow sales tax growth. Even with several states hiking sales tax rates across the country, sales tax revenues have declined as a portion of national Gross Domestic Product since the mid-1990s.¹² Spending has shifted from taxed to non-taxed products, with the trend reinforced by the growth of online commerce.

For several decades spending has shifted away from purchases which are subject to sales taxes toward categories of purchases which are more likely to be exempt from sales taxes.¹³ People have spent less of their income, for instance, on durable and manufactured goods, which tend to be subject to sales taxes. They have spent increasing amounts on health care, shelter, personal services, pharmaceuticals, and tuition, which are tax-exempt.¹⁴ California's Legislative Analyst's Office found that in their state the share of consumers' spending subject to the sales tax peaked in 1979 at 53 cents per dollar and had fallen to 33 cents per dollar in 2012.¹⁵ They concluded, "This shift in consumer spending has occurred primarily because prices for services have grown four times as much as prices for goods since 1980, leading consumers to spend an increasing share of their income on services." A contributing factor is increased manufacturing productivity and more imports of low-cost manufactured goods from other countries which have kept down the price of durable goods.¹⁶

Depending on future policies, an ongoing shift toward online commerce may also continue to slow sales tax revenue growth. The share of retail transactions occurring online rose from about 3.5 percent in 2008 to about nine percent in 2017.¹⁷ In addition to offering convenience and potential benefits of economies of scale, some online vendors do not collect sales taxes. This has begun to change in recent years as some large national sellers such as Amazon have established a clear business presence in every state that makes them legally subject to sales taxes.¹⁸ The state of Massachusetts has made regulatory changes to help bring E-retailers into the sales tax system. For instance, the FY 2018 budget anticipates \$22 million in additional funds due to a Department of Revenue directive prompting more online retailers to collect and remit sales taxes. Federal laws could empower collection of sales taxes on a far greater share of transactions. Insofar as online sellers do not collect sales taxes, an ongoing shift toward more online commerce will decrease the number of taxable transactions and the sales and use taxes collected.

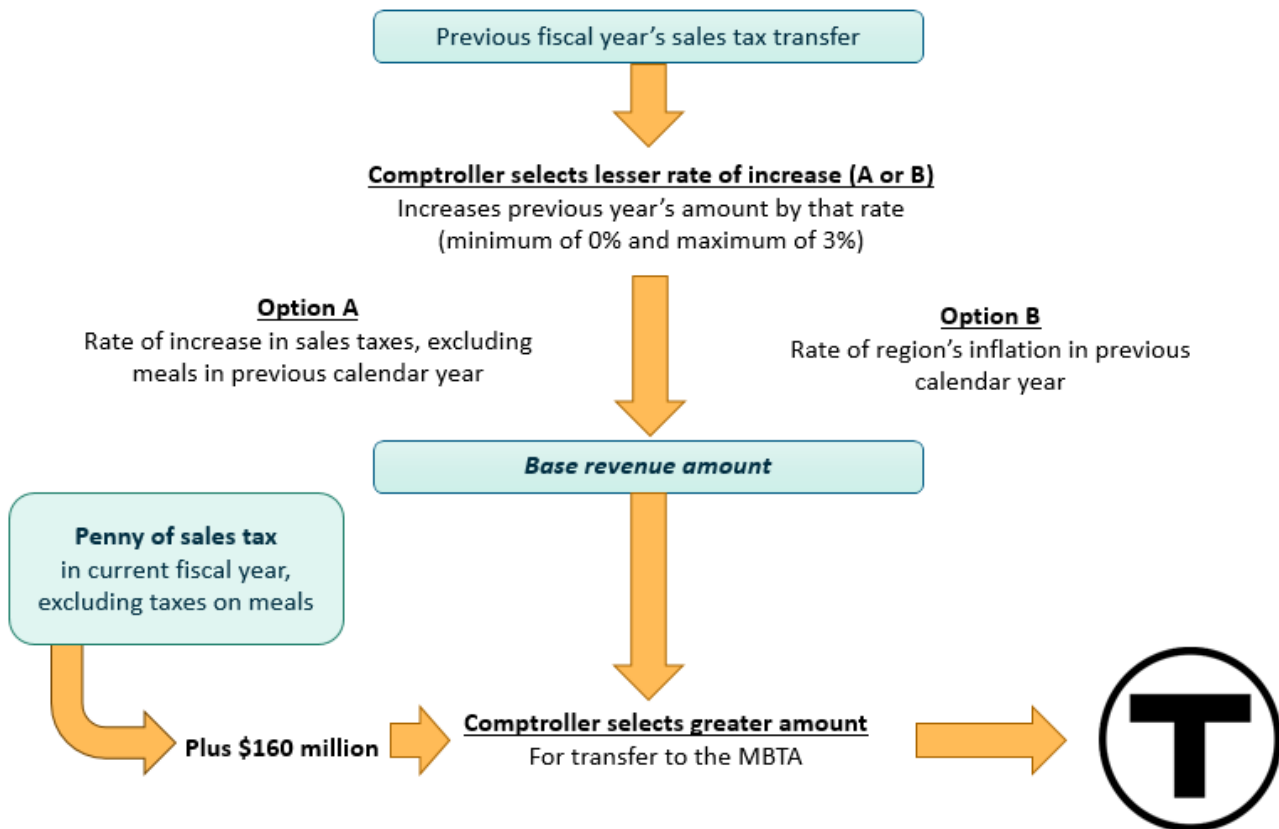
Appendix: How Sales Tax Funding for the MBTA is Determined and Where Do Other Sales Taxes Go?

Often described as “a penny on the sales tax,” the actual amount of sales taxes transferred to the MBTA excludes sales taxes on meals and includes a provision to protect against actual declines.

The State Comptroller certifies a *base revenue amount* for the fiscal year by calculating a *base revenue rate* of growth that is applied to the previous year’s transfer to the MBTA. This rate is the lesser of the inflation index or the per-cent increase in gross sales tax revenue, excluding meals, from the previous calendar year.¹⁹ The base revenue rate cannot be negative or exceed 3 percent.²⁰ After calculating the base revenue amount, the Comptroller compares it to the dedicated penny of sales taxes (excluding meals but with an additional \$160 million, with no cap on its possible rate of increase). The greater of these two sums is transferred to the MBTA.

The Legislature in FY 2015 added \$160 million to that year’s base revenue amount and to the amount from the dedicated penny as a way to replace \$160 million in annual appropriations for MBTA Contract Assistance which the Legislature discontinued that year.²¹ The \$160 million appears in the Comptroller’s calculations each year as an addition to the dedicated penny amount. On the base revenue side, the \$160 million is embedded in the calculations as well, because the growth rate is applied to a statutorily-elevated amount as of the 2015 fiscal year.

How is the Automatic Transfer to the MBTA Calculated?



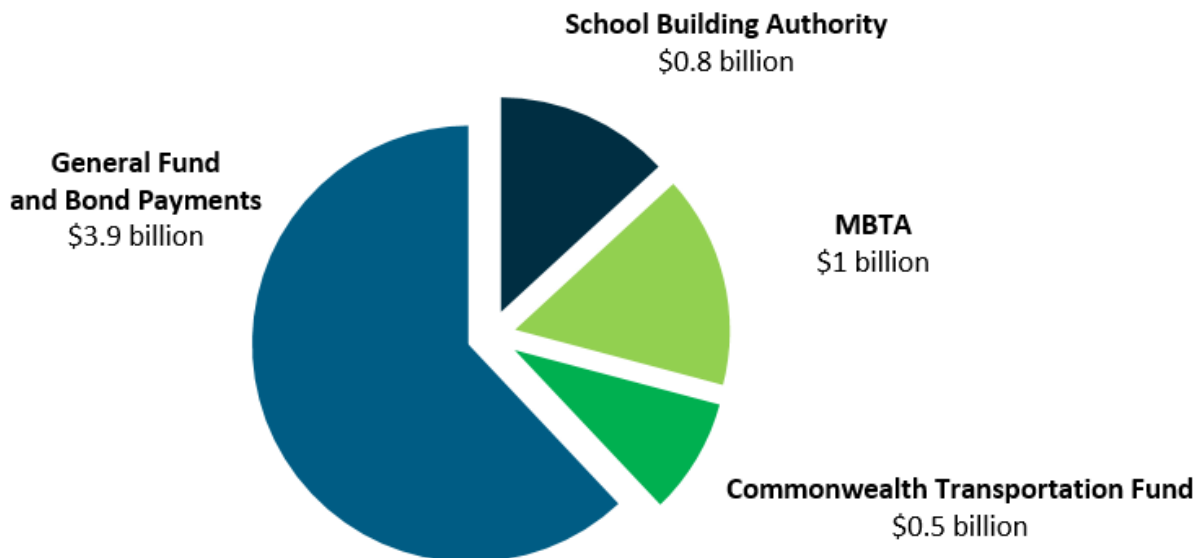
Throughout the fiscal year, the Comptroller certifies whether the dedicated sales tax revenues from “the penny” to the MBTA (plus the \$160 million) are falling short of the base revenue amount based on the most recent revenue estimates. If the dedicated revenue from the “penny” (plus \$160 million) lags behind the base revenue amount, then additional monthly transfers from the General Fund make up the shortfall. The Comptroller quarterly “re-trues” these payments to make sure they are on-course to be accurate by the end of the year. Every year since FY 2001, the amount calculated based on that year’s dedicated sales tax collections from the penny have fallen below the calculation of that year’s base revenue amount. In other words, growth of the MBTA sales tax transfer has typically been determined not by that fiscal year’s “penny on the sales tax” but instead by the base revenue rate (see chart above). While the base rate ensures that the *nominal* amount of the sales tax transfer to the MBTA does not decline from the previous year, the *value* of transfers can nonetheless fall behind the rate of inflation. In FY 2013, for instance, the sales tax transfer to the MBTA ended up being less than the FY 2012 amount after adjusting for inflation. The base rate was set according to the 1.0 percent change in gross sales tax revenues between calendar year 2010 and 2011, which was selected because it was less than inflation (2.7 percent) in FY 2011.²²

Looking at the current Fiscal Year 2018, the Comptroller calculated the base revenue amount in the beginning of March 2017 by selecting between the lesser of the region’s 2016 inflation rate (1.5 percent)

and the 2016 growth in gross sales tax revenue (2.2 percent). The Comptroller chose the lesser amount (1.5 percent) as the base growth rate, and applied this rate of growth to the MBTA's FY 2017 sales tax revenue transfer (\$992.2 million), yielding an FY 2018 base revenue amount of approximately \$1.0068 billion.²³ The eventual sales tax transfer will be larger if the eligible penny (plus \$160 million) ends up exceeding this floor. But revenues from the dedicated penny are currently projected to total only \$847 million.²⁴ With the additional \$160 million, the total amounts to \$1.0066 billion, still below the base revenue amount. Thus, the Comptroller has directed monthly payments from the state's General Fund to make up the difference.²⁵

Where Do Sales Taxes Go?

Fiscal Year 2017, including \$1.1 billion sales taxes on meals.



In addition to the MBTA, sales tax revenue is also allocated to other important public uses.²⁶ The state's School Building Authority receives a penny of the non-meals sales tax (without a floor) to help localities finance the construction and modernization of local schools. The Registry of Motor Vehicles directs sales taxes from vehicle purchases to the Commonwealth Transportation Fund that contributes to several, mainly non-MBTA transportation funds.²⁷ The Commonwealth, the MBTA, and the School Building Authority also each leverage their own dedicated streams of sales taxes to finance long-term investments at low interest rates. A portion of each year's sales tax revenue has thus already been promised to pay back investors who previously purchased state bonds backed by these funds. Sales tax revenue is by far the largest source of funds for paying back MBTA loans.²⁸ Most recently, the MBTA used sales tax revenue to secure a \$382 million low-interest federal loan toward a \$516 million project

to comply with federal requirements to use advanced technology to prevent passenger trains from derailing.²⁹ Before that loan, the MBTA was already obligated to pay back a total of \$6.2 billion in future sales tax revenues through 2046.³⁰

The sales and use tax applies to retail sales of most tangible goods, as well as telecommunications services, and prepared meals.³¹ Most food that is not served as a meal is exempt, as are most clothing, health care items, home energy supplies, and sale or lease of an aircraft.

¹ MBTA, [“Ridership and Service Statistics,”](#) 14th Edition (2014) shows these municipalities had a combined population of 4,812,658, according to the 2010 Census (page 2). The [2010 Census](#) counted a total state population of 6,547,629. Thus, the MBTA region represents 73.6 percent of the state population. Note that future population growth projected through 2035 is heavily concentrated in areas that broadly correspond to the greatest MBTA service regions. See Donahue Institute, [“Long-Term Population Projections for Massachusetts Regions and Municipalities,”](#) Prepared for the Office of the Secretary of the Commonwealth (2015), p. 15.

² The Transportation Finance Commission report, [“Transportation Finance in Massachusetts: An Unsustainable System,”](#) (March 2007) describes the system before Forward Funding was enacted in 2000 as, “the MBTA was funded 18 months in arrears. As a result, it spent what it needed, then sent the bill to the legislature, which paid it.” (p. 4). The new arrangement also placed over \$3 billion in debt from Big-Dig-related construction onto the MBTA’s ledger, making the payments to service this debt a responsibility of the MBTA.

³ “The 2000 Finance Plan assumed an average growth rate of 3 percent a year, which at the time was thought to be a prudent and conservative estimate,” Transportation Finance Commission, [“Transportation Finance in Massachusetts: An Unsustainable System,”](#) p. 6.

⁴ Legislative appropriations for annual Contract Assistance of \$160 million began in Fiscal Year 2011.

⁵ Transportation Finance Commission, [“Transportation Finance in Massachusetts: An Unsustainable System,”](#) p. 4 (March 2007). The report states, “The state sales tax has generated far less revenue than anticipated, and it is unlikely that those revenue targets will ever be achieved” p. 6.

⁶ Transportation Finance Commission, [“Transportation Finance in Massachusetts: An Unsustainable System,”](#) (March 2007), pp. 4 and 51.

⁷ Applying an annual 4.68 percent increase each year from FY 2001 yields \$1.404 billion in FY 2018.

⁸ The Boston Federal Reserve argues the measure of total income earned in the state provides the best benchmark for long-term comparisons of spending as a share of total resources in the state. See, Federal Reserve Bank of Boston, [memorandum assessing alternative measures of state income](#) (July 2008). See also, MassBudget, [“Adjusting for Personal Income: When, Why, and How?”](#) (Dec. 2012).

⁹ William J. Fox, [“Inability to Collect Sales Tax on Remote Sales Still Harms the Economy,”](#) *State Tax Notes*, Nov. 6, 2017, p. 579. The percent of GDP and percent of personal income are not equivalent.

¹⁰ Total sales tax revenues adjusted for inflation grew 19.3 percent from FY 2001 to FY 2017; whereas sales taxes on meals grew an inflation-adjusted 65.6 percent.

¹¹ 1991-2015 data based on MBTA, [Statement of Operating Revenue and Expenses, FY 1991 to FY 2016 Budget.](#) 2016 and 2017 actuals based on MBTA presentation to MBTA Fiscal Management and Control Board, [“Operating Budget Stability: FY 17 Financial Update,”](#) (October 13, 2017). The “Other Income and Revenue” category includes own-source revenue (such as advertising, parking, and recurring real estate), as well as other income such as interest income, funds from the federal government, utility reimbursements, and other non-operating income. Some measures differ from originally-budget amounts.

¹² The Urban Institute, [“Governing Within Tight Budgets: Long-Term Trends in State Finances,”](#) (Sept. 2015), p. 6. See also, Benjamin Russo, [“Is the Past Prologue? Prospects for State and Local Sales Tax Bases,”](#) *Journal of Applied Economics* (2010).

¹³ Benjamin Russo, [“Is the Past Prologue? Prospects for State and Local Sales Tax Bases,”](#) *Journal of Applied Economics* (2010).

¹⁴ Urban Institute analysis of Bureau of Labor Statistics data found a nationwide consumer shift toward tax-exempt expenditures such as shelter, tuition, personal services, medical services and supplies, and

pharmaceuticals from 34 percent in 1984 to 40 percent in 2012. See Urban Institute, "[Governing Within Tight Budgets: Long-Term Trends in State Finances](#)," (2015), endnote 7.

¹⁵ California LAO, "[Why Have Sales Taxes Grown Slower Than the Economy?](#)" (August 2013), p. 1.

¹⁶ California LAO, "[Why Have Sales Taxes Grown Slower Than the Economy?](#)" (August 2013). On top of this long-time secular trend, in the last few years, low energy prices and an extraordinarily strong dollar have held down the price of energy-intensive and imported goods, which are often subject to the sales tax. Since sales taxes get levied on the *price* of goods, lower prices mean fewer sales tax revenues. On this point, see Dan White, "[The Economy's Expanding. So Why Aren't Tax Revenues?](#)" *Governing* (January 2017).

¹⁷ U.S. Census, "[Quarterly Retail E-Commerce Sales, Second Quarter 2017](#)" (August 17, 2017).

¹⁸ Michael Mazerov, "[Marking a Milestone on Taxing Online Sales, but Still Far to Go](#)," Center on Budget and Policy Priorities (March 2017).

¹⁹ More specifically, the State Comptroller examines the consumer price index for all urban consumers for the Boston metropolitan area as determined by the Bureau of Labor Statistics of the United States Department of Labor, annualized and not seasonally adjusted. The law defines "gross sales tax revenues" as sales tax receipts by taxpayers from nonexempt sales, less amounts abated, refunded, or reimbursed (which means, for instance, net of the amount set aside for Convention Centers in section 10 of Chapter 152 of the Acts of 1997).

²⁰ The original Forward Funding law in 2000 would have allowed a nominal reduction in the transfer, but this provision was changed in 2010.

²¹ According to the State Comptroller's [2015 Comprehensive Annual Financial Report, p. 76](#), "Legislation approved by the Governor on October 31, 2014 increased the amount statutorily required to be credited to the MBTA by \$160 million annually, starting in fiscal 2015. The \$160 million increase in the dedicated sales tax revenue amount and the amount included in the inflation-adjusted floor were intended to replace the \$160 million annual state appropriation the MBTA received from fiscal 2010 through fiscal 2014." The earlier annual budget appropriation for Contract Assistance was line item 1599-1978.

²² Comptroller of the Commonwealth, "[March 2012 Certification of MBTA Base Sales Tax Revenues and Dedicated Sales Tax Revenues](#)," (March 2012). The expected sales tax transfer would have been \$97.5 million less in FY 2013 if it had been based only on the dedicated sales tax.

²³ Massachusetts Comptroller, [MBTA Certification, March 2017](#).

²⁴ Massachusetts Comptroller, [MBTA Certification, November 2017](#).

²⁵ The payments are monthly, but the Comptroller's office trues them up quarterly.

²⁶ Massachusetts Comptroller, [Statutory Basis Financial Report, FY 2017](#), p. 35 for other sales tax allocations.

²⁷ See MassBudget, "[What Does Massachusetts Transportation Funding Support and What are the Revenue Sources?](#)" (Jan. 2017.)

²⁸ Fiscal Management and Control Board presentation, "PTC Loans, Discussion and Request for Vote," November 13, 2017 ([slide 10](#)). Previously, in the summer of 2016 the MBTA issued \$218 million worth of sales-tax-backed bonds that will be paid back through 2033. See, "[Senior Sales Tax Bonds 2016 Series A \(Capital Appreciation Bonds\)](#)," (2016), p. 13.

²⁹ Fiscal Management and Control Board presentation, "[PTC Loans, Discussion and Request for Vote](#)," November 13, 2017 (slide 2, 5, 7).

³⁰ The previous use of sales taxes for MBTA bonding, "[Senior Sales Tax Bonds 2016 Series A \(Capital Appreciation Bonds\)](#)," (2016), p. 18.

³¹ The "use tax" is technically a separate, complementary tax applied to the consumption or use of services as well as other sales that for various legal reasons (other than an exemption) would otherwise go untaxed. For example, in-state furniture rentals or an automobile purchased in New Hampshire but registered for use in Massachusetts would both be subject to the use tax. The sales tax is typically collected by vendors at the time of sale, which collect and transfer ("remit") the tax to the state. Payment of the use tax relies on self-reporting and payment by those directly purchasing the goods and services, and often goes unpaid.