PROPOSED MASSACHUSETTS TAX EXPENDITURES
EVALUATION SUMMARY

EVALUATION YEAR: 2021

TAX EXPENDITURE TITLE	Exemption for Trade-in Allowances for Motor Vehicles and Trailers
TAX EXPENDITURE NUMBER	3.606
TAX EXPENDITURE CATEGORY	Miscellaneous Sales and Use tax Exemptions
TAX TYPE	Sales and Use tax
LEGAL REFERENCE	M.G.L c. 64H, § 26, c. 64I, § 27
YEAR ENACTED	1967
REPEAL/EXPIRATION DATE	None
ANNUAL REVENUE IMPACT	Tax loss of $106.9 - $134.7 million per year during FY19-FY23
NUMBER OF TAXPAYERS	Buyers and Sellers of Motor Vehicles and Trailers at the Retail Level
AVERAGE TAXPAYER BENEFIT	$38 per Massachusetts Household in FY19.

Description of the Tax Expenditure: In most cases, motor vehicles and trailers bought from a dealer in a trade-in transaction are subject to tax only on the excess of the purchase price over the amount credited for the trade-in, rather than on the full purchase price.	**Is the purpose defined in the statute?** The statute does not explicitly state the purpose of this tax expenditure.
What are the policy goals of the expenditure? To facilitate the trade-in of motor vehicles and the purchase of newly purchased motor vehicles and to promote fairness by taxing only the excess of purchase price over the amount credited for the trade-in.	**Are there other states with a similar Tax Expenditure?** All the New England states, other than New Hampshire (which does not have a sales tax), impose a sales tax on the sale of motor vehicles and have a similar trade-in allowance. Of the 45 states with a sales tax, 35 of them have an exemption for trade-in allowances for motor vehicles and trailers.

INTRODUCTION

The tax expenditure provides for a reduction in the sales price on which tax is charged for motor vehicles and trailers bought in a trade-in transaction. For such sales, the amount subject to sales tax is the excess of the price of the newly purchased vehicle over the amount credited for the trade-in.

The Massachusetts sales tax (and complementary use tax) is a transaction tax that applies to retail sales of tangible personal property (including prewritten computer software regardless of mode of transfer) and enumerated services (currently including only telecommunication services). A retail sale is any sale other than a sale for resale. A sale for resale occurs when a business purchases an item and sells it to a third party in substantially the same form in which it was purchased. All retail sales are taxable unless an exemption applies. These exemptions are tax expenditures because they prevent the imposition of tax on transactions that would otherwise be taxable.

While the sales tax is imposed on retail sales, it is not necessarily a tax on final consumption by households, as is the case with the value added taxes (VATs) imposed in most other countries. A retail sale to a business may also be subject to sales tax. For example, paper, desks, computers, and similar items purchased for office use would generally be taxable. The exclusion of sales for resale and the application of certain exemptions prevent the imposition of the tax on many business inputs, but other business inputs remain taxable. Aside from specific statutory exclusions and exemptions, there is no general prohibition in the sales and use tax statutes on the application of the tax to retail sales at multiple stages of the production and sales process.

Absent the exemption afforded by this tax expenditure, there would be no reduction in the sales price on which tax is charged of a motor vehicle bought in a trade-in transaction. Generally, for sales tax purposes, trade-in allowances are limited to motor vehicles and boats and are not applicable to other types of retail sales.

POLICY GOALS

To facilitate the trade-in of motor vehicles and promote fairness by imposing tax only on the excess of the price of the newly purchased vehicle over the amount credited for the trade-in. The trade-in allowance authorized under this expenditure benefits both car buyers and dealers by reducing transaction costs where a used car is traded in, essentially encouraging these types of auto transactions.

DIRECT COSTS

The revenue loss resulting from this tax expenditure is estimated to be $106.9 - $134.7 million per year during FY19-FY23. See Table 1.

Table 1. Tax Revenue Loss Estimates for Sales Tax Exemption for Trade-in Allowances for Motor Vehicles and Trailers

Fiscal Year	2019	2020	2021	2022	2023
Estimated Revenue Loss ($Million)	$121.8	$106.9	$129.7	$134.2	$134.7

Under the current law, Massachusetts motor vehicle sales tax collections are deposited into the MBTA fund, MSBA fund and the Commonwealth Transportation Fund (CTF). Sales tax exemption for trade-in allowances reduces motor vehicle sales tax collections and therefore money deposited into the aforementioned three funds, and in turn reduces spending and economic activities supported by these funds. For example, there may be less investment in MBTA infrastructure, less construction or repair of school buildings, and less investment in promoting public transportation and maintaining transportation infrastructure, such as maintaining roads. Reduced spending or investment in these areas could result in a lower quality of transportation infrastructure and public education, traffic congestion[1], etc.

DIRECT BENEFITS

Massachusetts consumers and businesses that buy or sell motor vehicles and trailers at the retail level are the direct beneficiaries of the sales tax exemption. Buyers benefit from the sales tax exemption in the form of paying a lower "after tax price" while sellers benefit in the form of receiving a higher "before tax price." The exact split of the direct benefits depends on the interaction of demand and supply and is often difficult to quantify.

Businesses selling motor vehicles and trailers at the retail level include new and used car dealers, recreational vehicle dealers, and motorcycle, ATV, and all other motor vehicle dealers. Table 2 reports the numbers of such dealers in Massachusetts and their annual payrolls, sales, and employment in 2017. Note that Table 2 also contains data for parts

[1] Traffic congestion can be defined as "the demand for road space exceeds road supply" according to INRIX (INRIX_2019_20152111.pdf (ilmessaggero.it)), a data analytics company that studies how people move around the world. The American Transportation Research Institute estimates that congestion costs the U.S. freight sector $74.5 billion annually, $68.1 billion of which occurs in urban areas (ATRI-Cost-of-Congestion-to-the-Trucking-Industry-2018-Update-10-2018.pdf (truckingresearch.org)). Besides congestion, less spending or investment in transportation may partially contribute to structurally deficient bridges, traffic accidents, worse rural and urban interstate pavement condition, and so on.

dealers, (last two rows– automotive parts and accessories stores, and tire dealers). These dealers are not direct beneficiaries of this sales tax exemption, but they indirectly benefit from increased motor vehicle sales.

Out-of-state businesses selling motor vehicles and trailers to Massachusetts residents and businesses are also direct beneficiaries.

Table 2. Annual Payroll, Sales, and Employment of Motor Vehicle and Parts Dealers in Massachusetts

2017 NAICS Code	Meaning of NAICS Code	Number of Firms	Number of Establishments	Sales, Value of Shipments, or Revenue ($Millions)	Annual Payroll ($Millions)	Number of Employees
441110	New car dealers	383	475	$20,136.9	$1,380.6	24,008
441120	Used car dealers	536	556	$2,168.6	$133.0	2,905
441210	Recreational vehicle dealers	26	27	$169.9	$17.2	400
441228	Motorcycle, ATV, and all other motor vehicle dealers	76	78	$242.0	$28.4	678
441310	Automotive parts and accessories stores	290	600	$1,029.2	$178.0	6,181
441320	Tire dealers	137	302	$556.3	$113.0	2,814
Total		1,448	2,038	$24,302.9	$1,850.2	36,986

Source: The U.S. Census Bureau, 2017 Economic Census, which is the most recent version of Economic Census. The next version will be 2022 Economic Census.

For simplicity, we assume that the entire tax savings due to the sales tax exemption are passed on to buyers. Based on this assumption, Table 3 reports the distribution of estimated tax savings in FY19 among households in different income ranges. The table is based primarily on the 2019 Consumer Expenditure Survey data published by the U.S. Bureau of Labor Statistics and data from other sources such as Moody's Analytics and the U.S. Census Bureau. The Consumer Expenditure Survey reports average annual expenditures on "vehicle purchase" and number of households by different income groups. Please note that, although motor vehicles and trailers are purchased by both consumers (households) and businesses or other types of customers, the distribution of tax savings reported in Table 3 is for consumers (households) only.

According to Table 3, the average tax saving from the exemption is estimated to be $38.32 per Massachusetts household in FY19, varying from $14.02 for households with annual income of less than $15,000, to $78.46 for households with annual income of at least $200,000. 19.42% of all tax savings is attributed to households with annual income of

$100,000 to $149,999, while 4.38% is attributed to households with annual income of less than $15,000. The tax savings reduced the households' effective tax rate (the ratio of tax to income) by 0.05 percentage points on average. This reduction varied from 0.02 percentage point for households with annual income of at least $200,000 to 0.19 percentage points for households with annual income of less than $15,000. On average, households with annual income of less than $15,000 spent a much higher percentage of their income on purchases of motor vehicles and trailers than other income groups.

Table 3. Estimated Distribution of Tax Savings to MA Households by Income Level in FY19

Annual Income Range	Number of MA Households (Millions)	Tax Savings (Millions)	Average Tax Savings ($)	Tax Savings Distribution	Change in Households' Effective Tax Rate
Less than $15,000	0.322	$4.51	$14.02	4.38%	-0.19%
$15,000 to $29,999	0.403	$7.36	$18.24	7.15%	-0.08%
$30,000 to $39,999	0.264	$6.28	$23.79	6.10%	-0.07%
$40,000 to $49,999	0.228	$6.13	$26.93	5.96%	-0.06%
$50,000 to $69,999	0.355	$13.56	$38.19	13.17%	-0.06%
$70,000 to $99,999	0.388	$17.54	$45.14	17.03%	-0.05%
$100,000 to $149,999	0.370	$20.00	$54.00	19.42%	-0.04%
$150,000 to $199,999	0.168	$12.83	$76.41	12.46%	-0.04%
$200,000 to more	0.188	$14.76	$78.46	14.34%	-0.02%
Total	2.687	$102.97	$38.32	100.00%	-0.05%

Note: Numbers in the table are estimated by Massachusetts Department of Revenue.

EVALUATION: COMPARING COSTS AND BENEFITS

In the previous sections, we report the direct costs (to the Commonwealth, or to the residents and businesses who ultimately bear the costs when the Commonwealth cuts government spending due to a reduction in amounts collected from motor vehicle sales tax) and direct benefits (to buyers and sellers of motor vehicles and trailers at the retail level) of this tax expenditure. In this instance, the direct costs to the Commonwealth, namely the sales tax that would have been collected from these transactions, are equal to the direct benefits afforded by the tax expenditure to buyers and sellers of motor vehicles and trailers, which is the sales tax they would have had to pay, collect, and remit to the Commonwealth.

Besides the direct costs and benefits, there are indirect and induced costs and benefits associated with this tax expenditure. The indirect impact (cost or benefit) is felt by the chain of businesses that provide intermediate products and services to the directly

impacted businesses. The induced impact (cost or benefit) occurs when a directly or indirectly impacted business passes on the costs or benefits to households, such as those of its employees, in the form of lower or higher income, such as wages and salaries, who then in turn reduce or increase purchases of goods and services from other businesses. The total costs or benefits to the whole economy are larger than the initial direct impacts. This phenomenon is called the "Multiplier Effect".[2]

To measure these indirect and induced costs and benefits, economists often need to utilize complicated models, such as REMI (Regional Economic Models, Inc.) or IMPLAN (Impact Analysis for Planning) models. DOR did not attempt to use such models given their complexity and the data limitations present in this instance.

While hard to measure, there may also be social benefits to the tax expenditure. The sales tax exemption for trade-in allowances for motor vehicles could be seen as promoting fairness by recognizing that sales tax was paid on the vehicle being traded in. An exemption for trade-in allowances might also encourage the purchase of new vehicles to replace old inefficient vehicles, which could result in reduced air pollution.

Similar Tax Expenditures Offered by Other States

All the New England states, other than New Hampshire, impose a sales tax on the sale of motor vehicles and have a similar trade-in allowance. New Hampshire does not have a sales tax. 15 states, including the 5 states with no sales tax, and the District of Columbia, do not have an exemption for a trade-in allowance for motor vehicles.

The 35 states, including Massachusetts, that do provide a trade-in allowance generally calculate the tax on the sales price of a new or used motor vehicle, less credit for the trade-in when sold through a dealer. Some states do limit the amount of the allowance, for example, in Kentucky the trade-in credit cannot reduce the sales price of the vehicle by more than 50%, or the 50% value is used to calculate tax due and Michigan's trade-in credit is the lesser of $6,000 or the agreed-upon value of the trade-in.

For more details on this tax expenditure in other states, please refer to https://floridarevenue.com/taxes/tips/documents/TIP-123344_TIP_20A01-15_FINAL_RLL.pdf

[2] For an illustration of "Multiplier Effect", see Slide 4 of: https://www.ilw.com/seminars/JohnNeillCitation.pdf