# It's 2016 - Do You Know What Your Tax Rate Is? 

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There's been much discussion about tax rates this year, with a cut in the 2016 federal tax rate for middle-income Canadians and an increase in the tax rate for Canada's highest income-earners. Some provinces have also tinkered with their rates over the past few years. With all the recent changes, do you know what your tax rate will be in 2016? And have you considered how different types of income impact your tax rate?

This Report will help you to understand how your income is taxed and why the "advertised" tax rate isn't always what you end up paying.

## Graduated Tax Rates

Canadian individuals pay taxes at graduated rates, meaning that your rate of tax gets progressively higher as your taxable income increases. Figure 1 shows the federal tax rates that apply at various levels of taxable income for 2015 and 2016.

Figure 1
Federal tax rates at varying levels of taxable income in 2015 \& 2016

| Taxable income (2016 amounts) | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 6}$ |
| :--- | :---: | :---: |
| $\leq \$ 45,282$ | $15 \%$ | $\mathbf{1 5 \%}$ |
| $>\$ 45,282$ and $\leq \$ 90,563$ | $22 \%$ | $20.5 \%$ |
| $>\$ 90,563$ and $\leq \$ 140,388$ | $26 \%$ | $26 \%$ |
| $>\$ 140,388$ and $\leq \$ 200,000$ | $29 \%$ | $29 \%$ |
| $>\$ 200,000$ | $29 \%$ | $33 \%$ |

For example, on the first $\$ 45,282$ of taxable income, you would pay federal tax at a rate of $15 \%$ On the next $\$ 45,282$ of taxable income (i.e. from $\$ 45,282$ to $\$ 90,563$ ), there was a decrease of $1.5 \%$ (from $22 \%$ to $20.5 \%$ in the federal tax rate from 2015 to 2016, known as the "middle-income tax cut." In contrast, high-income individuals with taxable income exceeding $\$ 200,000$ saw the applicable tax rate rise $4 \%$ (from 29\%to 33\%) from 2015 to 2016.

## Income Inclusions, Deductions \& Credits

While graduated tax rates are applied to "taxable income," not all income is included and certain amounts may be deducted in determining taxable income, thereby reducing the base to which marginal tax rates are applied.

Capital gains are an example of income that is only partially taxed. Unlike interest income that is fully included in taxable income, only 50\% of capital gains (less capital losses) are included.

The remaining $50 \%$ is excluded from income and tax is saved at your marginal rate on this excluded half of net capital gains.

For example, let's say you realized net capital gains of $\$ 10,000$ from the sale of shares. Only half of this amount $(\$ 5,000)$ would be taxed. If instead you earned interest income of $\$ 10,000$, you would pay tax on the entire amount.

Common deductions that you may subtract from your total income, thereby decreasing your taxable income, include investment management fees for non-registered accounts, contributions to a Registered Retirement Savings Plan (RRSP), and child care expenses.

In contrast to deductions, tax credits directly reduce the tax you pay after marginal tax rates have been applied to your taxable income. With tax credits, a fixed rate is applied to eligible amounts and the resultant credit amount offsets taxes payable. Figure 2 shows that when the federal tax credit rate of $15 \%$ is applied to a $\$ 1,000$ amount, $\$ 150$ of tax savings results.

Common federal non-refundable tax credits include the basic personal amount, the amount for a spouse or partner, medical expenses and charitable donations.

A non-refundable tax credit is also available to investors who receive dividends from Canadian corporations, to recognize the fact that tax was already paid on the income by the corporation. Canadian dividends are typically classified as either "eligible" or "non-eligible."

Eligible dividends are most commonly received from Canadian publicly-traded companies or mutual funds that hold Canadian dividend-paying equities. An enhanced dividend tax credit is available to an individual who receives eligible dividends to compensate for the high rate of tax that was paid when income was initially earned and taxed in the corporation. Non-eligible
dividends would typically be received from a private Canadian corporation that paid tax on its corporate income at the low, small business rate. Because tax is paid at a low rate in the corporation, a lower dividend tax credit is available to an individual for non-eligible dividends.

Let's look at an example that shows how a tax deduction yields tax savings at the marginal tax rate that varies with your income level, while a tax credit yields tax savings at a fixed rate. Suppose you have total income of $\$ 50,000$ and claim either a $\$ 1,000$ deduction (e.g. an RRSP contribution) or claim a federal non-refundable credit for $\$ 1,000$ (e.g. public transit expenses). Figure 2 shows how deductions and credits reduce the tax that you pay.

Figure 2
Value of a $\$ 1,000$ federal tax deduction and tax credit

|  | No Deduction or Credit | $\begin{gathered} \text { Tax } \\ \text { Deduction } \end{gathered}$ | Tax Credit |
| :---: | :---: | :---: | :---: |
| Total income | \$50,000 | \$50,000 | \$50,000 |
| Deductions (e.g. RRSP deduction) | $\mathrm{n} / \mathrm{a}$ | ( 1,000) | $\mathrm{n} / \mathrm{a}$ |
| Taxable income | \$50,000 | \$49,000 | \$50,000 |
| Tax @ 15\%on first \$45,282 | \$ 6,792 | \$ 6,792 | \$ 6,792 |
| Tax @ 20.5\%on remaining income | 967 | 762 | 967 |
| Total tax payable before credits | \$ 7,759 | \$ 7,554 | \$ 7,759 |
| Tax credit ( $\$ 1,000$ @ 15\%) (e.g. public transit) | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | ( 150) |
| Total tax payable | \$ 7.759 | \$ 7,554 | \$7,609 |
| Value of deduction / credit |  | \$ 205 | \$ 150 |

The amount of the deduction is subtracted from income, so that this amount of income is not taxed. In Figure 2, a $\$ 1,000$ tax deduction yields $\$ 205$ of tax savings, calculated as the $\$ 1,000$ deduction multiplied by the marginal tax rate that would have applied to the income (20.5\%). Consequently, a deduction yields tax savings at your marginal tax rate.

On the other hand the $\$ 1,000$ of public transit expenses generates a federal non-refundable credit of $15 \%$ yielding a federal tax savings of only $\$ 150$. When you add provincial tax savings to the federal savings above, the total tax savings can range from $20 \%$ for the combined credits to more than $50 \%$ for a deduction.

## Marginal Tax Rate

Your marginal tax rate is the amount of tax you would pay on an additional dollar of income. In
addition to the graduated federal tax rates shown in Figure 1, provincial taxes are applied to your taxable income before allowing for credits.

Figure 3 shows the combined federal and provincial marginal tax rates that apply to various types of income for an individual with $\$ 50,000, \$ 100,000$ or $\$ 250,000$ of taxable income, allowing for a $50 \%$ inclusion of capital gains and the dividend tax credit on eligible dividends.

Figure 3
Combined federal / provincial marginal tax rates with $\$ \mathbf{5 0 , 0 0 0} \mathbf{\$ 1 0 0 , 0 0 0}$ or $\$ \mathbf{2 5 0 , 0 0 0}$ of ordinary income, capital gains or eligible dividends in 2016

|  |  | $\$ 50,000$ |  |  | $\$ 100,000$ |  |  | $\$ 250,000$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ordinary <br> income | Capital <br> gains | Eligible <br> dividends | Ordinary <br> income | Capital <br> gains | Eligible <br> dividends | Ordinary <br> income | Capital <br> gains | Eligible <br> dividends |
| AB | $30.5 \%$ | $15.3 \%$ | $7.6 \%$ | $36.0 \%$ | $18.0 \%$ | $15.2 \%$ | $47.0 \%$ | $23.5 \%$ | $30.3 \%$ |
| BC | $28.2 \%$ | $14.1 \%$ | $7.6 \%$ | $38.3 \%$ | $19.2 \%$ | $18.3 \%$ | $47.7 \%$ | $23.9 \%$ | $31.3 \%$ |
| MB | $33.3 \%$ | $16.6 \%$ | $14.1 \%$ | $43.4 \%$ | $21.7 \%$ | $28.1 \%$ | $50.4 \%$ | $25.2 \%$ | $37.8 \%$ |
| NB | $35.3 \%$ | $17.7 \%$ | $11.5 \%$ | $42.5 \%$ | $21.3 \%$ | $21.4 \%$ | $54.0 \%$ | $27.0 \%$ | $37.2 \%$ |
| NL | $33.0 \%$ | $16.5 \%$ | $17.4 \%$ | $39.3 \%$ | $19.7 \%$ | $26.1 \%$ | $48.3 \%$ | $24.2 \%$ | $38.5 \%$ |
| NS | $35.5 \%$ | $17.7 \%$ | $16.0 \%$ | $43.5 \%$ | $21.8 \%$ | $27.1 \%$ | $54.0 \%$ | $27.0 \%$ | $41.6 \%$ |
| ON | $29.7 \%$ | $14.8 \%$ | $7.6 \%$ | $43.4 \%$ | $21.7 \%$ | $25.4 \%$ | $53.5 \%$ | $26.8 \%$ | $39.3 \%$ |
| PEI | $34.3 \%$ | $17.2 \%$ | $12.1 \%$ | $44.4 \%$ | $22.2 \%$ | $24.6 \%$ | $51.4 \%$ | $25.7 \%$ | $34.2 \%$ |
| QU | $37.1 \%$ | $18.6 \%$ | $17.5 \%$ | $45.7 \%$ | $22.9 \%$ | $29.4 \%$ | $53.3 \%$ | $26.7 \%$ | $39.8 \%$ |
| SK | $33.5 \%$ | $16.8 \%$ | $10.3 \%$ | $39.0 \%$ | $19.5 \%$ | $17.9 \%$ | $48.0 \%$ | $24.0 \%$ | $30.3 \%$ |

Source: EY 2016 Personal tax calculator, which reflected known rates as of J anuary 15, 2016

For example, Figure 3 shows that in Alberta in 2016, the marginal tax rate for an individual who earns $\$ 50,000$ of ordinary income is $30.5 \%$ (20.5\% federal rate plus $10 \%$ Alberta rate). Since only $50 \%$ of capital gains are included in taxable income, the marginal tax rate for capital gains is $15.3 \%$ or $50 \%$ of the marginal tax rate for ordinary income. And, due to the dividend tax credit, the marginal tax rate for eligible dividends is just $7.6 \%$

## Average Tax Rate

The second tax rate to be considered is your average tax rate, which is typically much lower
than your marginal tax rate, and is simply calculated as the amount of tax you pay, divided by your total income. So, for the same individual in Alberta in 2016 who earns $\$ 50,000$ of ordinary income, the combined federal and provincial tax liability in 2016 would be about $\$ 9,200$, allowing for only the basic personal credit. This results in an average tax rate of about $18 \%(\$ 9,200 / \$ 50,000)$ significantly below the $30.5 \%$ marginal rate.

Figure 4 compares the marginal and average tax rates for various levels of ordinary income across the provinces in 2016.

Figure 4
Marginal and average tax rates with $\$ \mathbf{5 0 , 0 0 0} \mathbf{\$ 1 0 0 , 0 0 0}$ or $\$ 250,000$ of ordinary income in 2016

|  | $\$ 50,000$ |  | $\$ 100,000$ |  | $\$ 250,000$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Marginal tax rate | Average tax rate | Marginal tax rate | Average tax rate | Marginal tax rate | Average tax rate |
| AB | $30.5 \%$ | $18.4 \%$ | $36.0 \%$ | $25.0 \%$ | $47.0 \%$ | $35.3 \%$ |
| BC | $28.2 \%$ | $16.7 \%$ | $38.3 \%$ | $23.9 \%$ | $47.7 \%$ | $36.0 \%$ |
| MB | $33.3 \%$ | $21.6 \%$ | $43.4 \%$ | $29.5 \%$ | $50.4 \%$ | $40.0 \%$ |
| NB | $35.3 \%$ | $20.8 \%$ | $42.5 \%$ | $28.9 \%$ | $54.0 \%$ | $41.1 \%$ |
| NL | $33.0 \%$ | $19.9 \%$ | $39.3 \%$ | $27.2 \%$ | $48.3 \%$ | $37.4 \%$ |
| NS | $35.5 \%$ | $21.9 \%$ | $43.5 \%$ | $30.0 \%$ | $54.0 \%$ | $41.6 \%$ |
| ON | $29.7 \%$ | $16.8 \%$ | $43.4 \%$ | $25.2 \%$ | $53.5 \%$ | $39.1 \%$ |
| PEI | $34.3 \%$ | $21.8 \%$ | $44.4 \%$ | $29.7 \%$ | $51.4 \%$ | $40.6 \%$ |
| QU | $37.1 \%$ | $22.1 \%$ | $45.7 \%$ | $30.6 \%$ | $53.3 \%$ | $42.5 \%$ |
| SK | $33.5 \%$ | $19.8 \%$ | $39.0 \%$ | $27.2 \%$ | $48 \%$ | $37.4 \%$ |

Source: EY 2016 Personal tax calculator, which reflected known rates as of J anuary 15, 2016

Let's take a look at three examples and review how the type of income you earn can have a significant impact on your marginal and average tax rates.

## Example 1

Angelica lives in B.C. and earns $\$ 50,000$ of employment income in 2016. Assuming only the basic personal amount, she will pay about $\$ 8,400$ in tax, yielding an average tax rate of $16.8 \%$ $(\$ 8,400 / \$ 50,000)$. Her marginal tax rate would be $28.2 \%$ on each additional dollar of ordinary income. On capital gains, her marginal tax rate would be half that or $14.1 \%$ while on Canadian eligible dividend income, her marginal tax rate would be a mere 7.6\%

## Example 2

Eliza lives in Ontario and earns $\$ 50,000$ of investment income in 2016, comprised of $\$ 10,000$ of interest income, $\$ 20,000$ of realized (gross) capital gains and $\$ 20,000$ of Canadian eligible dividends. Assuming only the basic personal amount as well as the applicable dividend tax credit, her total tax bill would be a mere $\$ 1,400$ and her average tax rate only $2.8 \%$ ( $\$ 1,400 / \$ 50,000$ ). The reason for such a low rate stems primarily from the dividend tax credit,
which not only eliminates her tax bill on the dividend income but acts as a tax shield to recover some of the taxes she would otherwise pay on her interest income and capital gains.

## Example 3

Peggy lives in Manitoba and earns $\$ 50,000$ of employment income, contributes $\$ 5,000$ to an RRSP and has $\$ 5,000$ of tuition credit amount carryforward from when she was a student. She makes $\$ 1,200$ in charitable donations annually. Taking into account her RRSP deduction, the basic personal amount and her tuition and donation credits, her 2016 tax bill would be about \$7,300, resulting in an average tax rate of about $15 \%$

## Conclusion

We can see from the examples above that, while all three taxpayers had $\$ 50,000$ of income, their average tax rates ranged from $2.8 \%$ (Eliza) to $16.8 \%$ (Angelica). We can see that both the type of income (e.g. employment, dividends and capital gains) and the opportunity to claim various deductions (e.g. RRSP contribution) and credits (e.g. tuition, donation, etc.) all can have a significant impact on your average tax rate and the tax you ultimately pay.

## Marginal Effective Tax Rate

There is a third type of rate that must also be kept in mind for some taxpayers: Marginal Effective Tax Rate (METR). Similar to the marginal tax rate, the METR goes a step further by comparing the amount of tax paid on an additional dollar of income, taking into account not only the statutory federal and provincial income tax bracket thresholds and rates, but also the potential loss of income-tested tax deductions, credits and government benefits. That is, many government benefits, credits and programs are based on net income and are substantially or even totally reduced as your income gets higher.

For instance, both the "age credit" and the GST/HST credit are income tested, as is the Guaranteed Income Supplement (GIS), and Old Age Security (OAS) benefit payments. (See Figure 5.) As income increases, these credits and benefits may be reduced or even eliminated altogether.

For example, in 2016, the OAS clawback begins when income is over approximately $\$ 74,000$ and results in the OAS being fully clawed back once income reaches approximately $\$ 119,000$. The clawback of OAS alone can produce METRs of well over $50 \%$ depending on your income and province of residence.

As withdrawals from a TFSA (unlike RRSP or RRIF withdrawals) are not considered "income" and do not impact income-tested benefits, such as the OAS. The potential for a future OAS clawback can sometimes influence the decision on whether to currently contribute to a TFSA or an RRSP. Similarly, future eligibility for the GIS and Age Credit may also impact such a decision.

Figure 5
A Sample of Various Federal Income Tested Benefits \& Credits

|  | Value | Income Threshold |  |
| :--- | :---: | :---: | :---: |
|  |  | Begins |  |
| Ends |  |  |  |
| Guaranteed Income | $\$ 9,283$ | $\$$ | 24 |
| Supplement - Single ${ }^{1}$ |  |  | 17,304 |
| Old Age Security | $\$ 6,846$ | $\$ 73,756$ | $\$ 119,398$ |
| Age credit (federal) | $\$ 1,069$ | $\$ 35,927$ | $\$ 83,427$ |
| GST / HST Credit - Single | $\$ 272$ | $\$ 35,475$ | $\$ 43,765$ |

Figure 5 reflects amounts in effect as at March 23, 2016
A February 2016 C.D. Howe Institute report ${ }^{2}$ looked at this issue from the viewpoint of current METRs, rather than future. It defines a "participation tax rate" (PTR) as the "disincentive to participate in the labour market at all." The report reviews the impact of both METR and PTR on participation in the workforce for a secondary earner in a two-parent household. As the report stated, "high METRs or PTRs, for a child-caring spouse, are likely to have an impact on incentives to work longer hours, to seek part-time work or to re-enter the workforce - leading to fewer paid work hours than people otherwise might choose."

At very low income levels, METRs can actually be negative, reflecting the subsidy to work generated by the Working Income Tax Benefit (WITB). As income grows, the WITB begins to be clawed back, as do other income-tested government benefits such as the federal GST/HST credit, and METRs increase dramatically. The Report's author is in favour of programs such as the proposed Quebec provincial "tax-shield" program where relief would be provided from claw-back in the first year after the increase in paid labour.

Finally, it looks as if income-tested benefits will continue to be introduced. The 2016 Federal Budget announced a new Canada Child Benefit, starting in July 2016, which will be phased out based on the number of children and adjusted family net income.

Failing to consider your METR, along with your marginal and average tax rates, in your financial planning discussions may lead to unintended consequences down the road.

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1 The 2016 federal budget announced an increase to GIS by up to $\$ 947$ annually starting in July 2016. Single seniors with annual income (excluding OAS and GIS benefits) of about $\$ 4,600$ or less will receive the full increase of $\$ 947$. Above this income threshold, the amount of the increased benefit will be gradually reduced and will be completely phased out at an income level of about $\$ 8,400$.
2 Laurin, Alexandre. "The High Cost of Getting Ahead: How Effective Tax Rates Affect Work Decisions by Lower-Income Families" C.D. Howe Institute E-brief, February 2016, available online at https://www.cdhowe.org/sites/default/ files/attachments/research papers/ mixed/ebrief 228.pdf.

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