Intelligence MEMOS

From: Alexandre Laurin

To: Canada's ministers of finance

Date: August 27, 2019

Re: **The Ugly Arithmetic of All-Inclusive Tax Rates, Part I**

In my new C.D. Howe Institute E-Brief, I examined the effects of "all-inclusive" tax rates through separate lenses, the marginal effective tax rate (METR) and the participation tax rate (PTR).

These all-inclusive tax rates take into consideration the impact of earning income on fiscal benefit entitlements, such as the Canada Child Benefit, as well as income and payroll taxes, and other contributions.

I found that low-income Canadian families with children encounter high "all-inclusive" tax rates that could discourage parents from working more or entering the workforce. Many parents in lower-income families considering taking on extra work stand to lose a significant chunk of their prospective income through taxes and reduced fiscal benefits.

Today, I look at these marginal tax rates. I examine the participation tax rate tomorrow.

Imagine a family of four with two young children, residing in Alberta. Each parent earns $30,000, for a total family income of $60,000. Collectively, they pay $8,141 in combined federal income taxes and contributions (employment insurance and Canada Pension Plan) as well as $1,771 in Alberta taxes and contributions, for total payments of $9,912. They are also entitled to receive a federal child tax benefit of about $9,386 and $1,245 in provincial benefits. Total benefits received minus taxes and contributions paid yields an initial family disposable income of $60,719. One parent then considers working overtime for one month to earn an extra $500. As a result, family benefits would decrease by $88, while federal and provincial taxes and contributions would increase by $150; the family's disposable income would increase by $262, rather than the full $500. The family's all-inclusive tax rate on the extra $500 – the Marginal Effective Tax Rate – would be 48 percent ($88 + $150 ÷ $500).

Figure 1 in my recent E-Brief shows the METR for a typical family of four in each of the 10 provinces. Past the $17,000 mark, as federal and provincial refundable credit and income-tested benefits are successively (and sometimes simultaneously) reduced with each extra dollar of earnings, the METR climbs rapidly to levels approaching or surpassing 50 percent for families with at least two children, and stays at around this level from about $30,000 to $55,000 of family income. And for lone-parent families, METRs are generally even higher. They generally peak at family incomes around the $50,000 mark. In Quebec and Ontario, METRs peak at levels in the 60 to 75 percent range.

So how many families fall in those high METR ranges? One way to determine this is to compute detailed METRs for a large representative sample of the Canadian population, and generate a frequency distribution (see Figure 3 here). Of all working lone parents and secondary-earning parents (the lower-earning parent in two-parent families) in 2019, 23 percent face a METR below 30 percent. Another 61 percent face a METR between 31 and 50 percent, leaving 16 percent of lone/secondary-earning parents facing a METR higher than 50 percent. The share of Canadian parents facing very high METRs was starkly lower in the 1980s, before the introduction of income-tested refundable child tax credits in the 1990s. Between 1995 and 2019, the share of parents facing a METR higher than 50 percent remained relatively stable, oscillating between 14 and 17 percent.

Federal and provincial policymakers should pay special attention to effective tax rates when considering changes to the tax-and-transfer system: income testing of multiple fiscal benefits requires an integrated approach to reduction rates. High METRs at low incomes generally arise when tax filers receive generous government income support from multiple sources, which improves their individual well-being. Having a high METR, therefore, does not necessarily imply that the tax system overall is being unfair to you.

The main reason for studying METRs is their effect on individuals' incentives to earn income, and thus on the incentives to improve their well-being through paid employment. The tax-and-transfer system should not discourage parents from working more.

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