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The administrative and compliance costs of the property tax for individuals and  
businesses: evidence for Canada for 2007\*

by

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## Introduction

This note presents evidence on the administrative and compliance costs associated with the property tax in Canada for 2007. This is of interest since there is little information in the compliance costs literature on these costs. We begin with a discussion of the compliance costs for various types of taxpayers: individuals, small firms, large firms. We then turn to the aggregate compliance and administrative costs for this tax. The property tax system in Canada is similar to that of the USA; it is a source of revenue mainly for local (municipal and school) governments and is mainly administered by these entities.

### 1) Compliance costs for individuals

The data used here is from a survey carried out by telephone between April 21 and May 11, 2008, of Canadians residing in the 10 provinces. A filter was used at the beginning of the interview to ensure that an income-tax form had been filed for the 2007 federal personal income tax as this was the main focus of this data gathering exercise.

The compliance costs of individuals with respect to the property tax do not appear to have been studied before, presumably because they are seen as small<sup>1</sup>. We inquired about paying property taxes in Canada and abroad since some Canadians own property abroad mainly in the USA; only 2% of respondents paid property tax abroad so we do not analyze this issue. Data shows that about 38% of respondents indicated not paying a property tax bill while 45% paid only one in 2007. The remainder paid two or more property tax bills in Canada, due to the ownership of a vacation home and /or a rental property. This finding on the share of non-payers is in agreement with data from Statistics Canada that 33% of households did not pay a property tax bill in 2007<sup>2</sup>. Only 4% of respondents challenged a property tax bill in 2007.

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<sup>1</sup> Relevant question in the survey are found in the appendix.

<sup>2</sup> CANSIM table 203-0003. Note that 39% of households made regular mortgage payments. Some of these payments may have included payments for property taxes to their financial institutions who then paid the relevant taxes; we neglect this here assuming similar compliance costs whatever the financial channel used.

Table 1 examines the relationship between various demographic characteristics and the individual compliance costs of property taxes. The main findings of table 1 are that:

1. Single individuals , younger ones, poorer ones and residents of Quebec( where renters account for a larger share of households<sup>3</sup>) are less likely to be property taxpayers
2. It takes on average about ½ an hour for payers to pay a property tax bill per year and about 1/3<sup>rd</sup> of an hour per adult in Canada. There are on average 8\$ of expenses associated with doing this.<sup>4</sup> So the total cost per individual paying at least one property tax bill is about 13\$.Note that in Canada property bills are often payable in two installments. In this survey this counts as two bills as compliance activities must be carried out twice<sup>5</sup> ;
3. Total property tax compliance costs go up slightly with the number of bills paid and with the income of tax fillers who pay property taxes;
4. Very few individuals challenge a property tax bill. The likelihood of such a challenge increases with the number of bills and is higher for older individuals, married ones and residents of Atlantic Canada;
5. The cost of challenging a property tax bill is about 180\$.

| Table 2<br>Property taxpayers: importance ,compliance costs and challenges of tax bills<br>Canada, 2007 |                                  |                                |                            |                            |                          |                                |
|---|----------------------------------|--------------------------------|----------------------------|----------------------------|--------------------------|--------------------------------|
|   | Paid at<br>least one<br>property | Expenses<br>associated<br>with | Time<br>associated<br>with | Total<br>cost of<br>paying | Challenged a<br>property | Total<br>cost of<br>challenged |
|   |                                  |                                |                            |                            |                          |                                |

<sup>3</sup> In 2008, 56.8% of households lived in owned dwellings in Québec; this % was 65.9 in Canada as a whole and 67.1% in Ontario CANSIM 203 -0019

<sup>4</sup> The question stated : *Spending money in this case refers to expenses like postage, photocopying, printing, and other out of pocket expenses.*

<sup>5</sup> Survey stated : *bills paid in two installments count as two*

|                          | tax bill in<br>Canada<br>% of<br>group | paying a<br>property<br>tax bill for<br>payers\$ | paying a<br>property<br>tax bill for<br>payers | a<br>propert<br>y tax<br>bill for<br>payers | tax bill | ge \$  |
|--------------------------|--|--|--|---|----------|--------|
| <b>Sex</b>               |  |  |  |   |          |        |
| Men                      | 60.8%                                  | 9.86   | 0.79   | 16.11                                       | 5.0%     | 198.99 |
| Women                    | 55.9%                                  | 5.55   | 0.36   | 9.32  | 3.5%     | 162.66 |
| <b>Age</b>               |  |  |  |   |          |        |
| 18-24                    | 4.5%                                   | nc   | nc   | nc  | nc       | nc     |
| 25-34                    | 44.3%                                  | 16.76  | 0.47   | 17.00                                       | 2.4%     | nc     |
| 35-44                    | 59.4%                                  | 6.12   | 0.42   | 14.05                                       | 4.2%     | nc     |
| 45-54                    | 65.7%                                  | 11.70  | 0.61   | 13.54                                       | 3.0%     | nc     |
| 55-64                    | 66.7%                                  | 5.80   | 0.79   | 13.82                                       | 5.0%     | nc     |
| 65+                      | 58.6%                                  | 3.42   | 0.53   | 8.54  | 5.9%     | nc     |
| <b>Education</b>         |  |  |  |   |          |        |
| Less than<br>high school | 44.3%                                  | 8.51   | 1.09   | 11.40                                       | 3.1%     | nc     |

|                                |       |       |      |       |      |        |
|--------------------------------|-------|-------|------|-------|------|--------|
| High school completed          | 53.7% | 7.09  | 0.49 | 9.68  | 4.1% | nc     |
| Some post-secondary schooling  | 65.8% | 4.48  | 0.53 | 14.67 | 4.9% | nc     |
| Some university schooling      | 61.0% | 5.90  | 0.34 | 8.94  | 4.3% | nc     |
| Completed college degree       | 58.9% | 16.75 | 0.40 | 13.42 | 2.8% | nc     |
| Completed undergraduate degree | 58.4% | 8.52  | 0.61 | 15.33 | 3.6% | nc     |
| Post graduate degree           | 71.2% | 2.35  | 0.78 | 16.09 | 7.0% | nc     |
| <b>Marital status</b>          |       |       |      |       |      |        |
| Married                        | 67.3% | 7.22  | 0.55 | 13.02 | 5.3% | 187.61 |
| Single                         | 30.7% | 15.79 | 0.65 | 15.09 | 1.8% | nc     |
| Other                          | 50.5% | 5.88  | 0.72 | 10.54 | 2.2% | nc     |
| <b>Region</b>                  |       |       |      |       |      |        |
| Atlantic                       | 60.9% | 2.21  | 1.24 | 7.52  | 9.0% | nc     |
| Québec                         | 32.3% | 7.89  | 0.61 | 11.31 | 1.5% | nc     |

|  |       |       |      |       |      |        |
|--|-------|-------|------|-------|------|--------|
| Ontario                                      | 66.3% | 8.77  | 0.50 | 13.10 | 5.1% | 233.91 |
| Prairies                                     | 71.6% | 5.90  | 0.50 | 13.48 | 2.7% | nc     |
| BC   | 66.5% | 10.06 | 0.65 | 15.48 | 6.0% | nc     |
| <b>Income</b>                                |       |       |      |       |      |        |
| Less than 10<br>000\$                        | 45.3% | 14.73 | 1.59 | 14.34 | 3.3% | nc     |
| 10 000-29<br>999                             | 49.5% | 6.27  | 0.47 | 11.41 | 3.2% | nc     |
| 30 000-49<br>999                             | 58.3% | 9.89  | 0.51 | 14.49 | 4.9% | nc     |
| 50 000-69<br>999                             | 71.0% | 2.88  | 0.56 | 12.21 | 5.9% | nc     |
| 70 000-99<br>999                             | 84.5% | 5.70  | 0.47 | 16.76 | 6.3% | nc     |
| 100 000-149<br>999                           | 74.5% | 1.77  | 0.69 | 15.94 | 2.1% | nc     |
| 150 000+                                     | 85.7% | 24.55 | 0.38 | 22.40 | 3.6% | nc     |
| <b>Language<br/>skills</b>                   |       |       |      |       |      |        |
| Poor<br>knowledge of<br>English or<br>French | 64.2% | 7.65  | 0.57 | 12.92 | 4.8% | 190.98 |
| Good+<br>knowledge of                        | 58.0% | 7.29  | 0.53 | 12.91 | 4.1% | 189.88 |

|                                     |       |       |      |       |       |        |
|-------------------------------------|-------|-------|------|-------|-------|--------|
| English or French                   |       |       |      |       |       |        |
| All payers                          | 57.8% | 7.77  | 0.58 | 12.83 | 4.1%  | 184.33 |
| All Individuals                     |       | 4.32  | 0.32 | 6.63  |       | 6.27   |
| <b>Number of property tax bills</b> |       |       |      |       |       |        |
| One                                 |       | 6.86  | 0.60 | 11.27 | 5.2%  | 160.85 |
| Two                                 |       | 13.04 | 0.51 | 16.00 | 10.5% | nc     |
| Three or more                       |       | 4.61  | 0.57 | 17.12 | 11.8% | nc     |
| N=                                  | 1156  | 1123  | 1116 | 1034  | 82    | 68     |

Source: calculations by author using data from the 2008 survey of personal income tax filers. Questions are found in Vaillancourt *et al* (2013, appendix B Q17-Q21).

nc: means not calculated since there were fewer than 20 taxpayers in such cells  
Value of time calculation is discussed in Vaillancourt *et al* (2013, p8). It is obtained using a combination of : answers to the survey, estimated wage and assumed value of time (for inactive individuals)

## 2) Compliance costs for small businesses

Here we use data from a survey carried out and provided to us by the Canadian Federation of Independent Businesses of 8,271 business income tax fillers for the year 2007 between December 10, 2007 and February 13, 2008 We focus on the work done to ascertain the compliance costs associated with five specific types of taxes including the property tax<sup>6</sup>. Table 2 presents the total taxes and

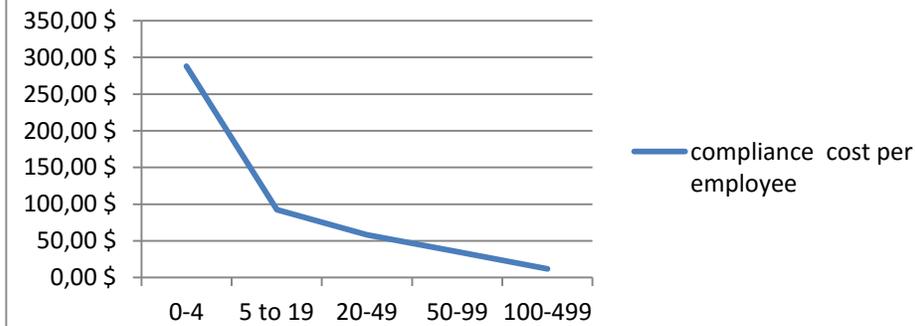
<sup>6</sup> Respondents were first asked to state their total compliance costs then asked to break them down in % by type of tax taking into account their time use. So it is a dividing rather than adding up approach.

property tax mean compliance costs for various firm characteristics as well as the ratio of the property to total compliance costs. We also present the results of a multivariate analysis of these compliance costs. Mean compliance costs for this tax is 880\$ or 5,7% of total compliance costs

Figure 1 shows the standard declining relationship between the size of the taxpayer and the property tax compliance costs, in this case per employee. Table 2 shows that:

- the ratio of property tax compliance costs does not vary much by number of employees, is higher for older businesses who may own larger or more numerous properties, is slightly higher for incorporated businesses and higher when outside help is used to help with all tax issues. It is much higher in Québec where total compliance costs are lower than in other provinces so this is perhaps a fixed cost effect. Businesses in the agriculture sector where land is an important input have the highest ratio followed closely by manufacturing firms and those in the professional services where human capital matters more have the lowest ratio;
- The multivariate analysis shows that compliance costs increase somewhat with number of employees, are higher in Quebec and for incorporated firms or those in existence more than 10 years. Sectorial results show that costs are lowest in the professional services sector. Business owners incur lower costs than other types of tax preparers, perhaps because they report a lower time value than for others (Barros and Vaillancourt, 2013)

**Figure 1 Property tax compliance costs, Canada 2007, by size of small businesses**



Source: calculations using mean values from table 2 and the mid-point of the number of employees intervals

**Table 2: Mean values total and property tax compliance costs, ratio of these costs and multivariate results , Canada 2007**

| Variables                  | Total taxes | Property taxes | Ratio property CC /total CC % | Multivariate results linear form |
|----------------------------|-------------|----------------|-------------------------------|----------------------------------|
| <b>Number of employees</b> |             |                |                               |                                  |
| 0-4                        | 9713.16     | 576.74         | 5,9                           | Omitted                          |
| 5-19                       | 18959.23    | 1201.70        | 6,3                           | 465.11***<br>(6.05)              |
| 20-49                      | 31732.31    | 2041.29        | 6,4                           | 1198.19***                       |
| 50-99                      | 42781.39    | 2652.69        | 6,2                           | (8.31)                           |
| 100-499                    | 52476.27    | 3477.75        | 6,6                           | 1725.41***                       |
| 500+                       | nc          | Nc             |                               | (6.51)                           |
| <b>Region</b>              |             |                |                               |                                  |

|                           |          |         |      |                       |
|---------------------------|----------|---------|------|-----------------------|
| Atlantic<br>Canada        | 18330.64 | 903.01  | 4,9  | -141.27<br>(-1.51)    |
| Québec                    | 14499.78 | 1542.19 | 10,6 | 306.61**<br>(2.18)    |
| Ontario                   | 20392.82 | 1175.88 | 5,8  | omitted               |
| Prairies                  | 15341.87 | 796.14  | 5,2  | -287.53***<br>(-2.83) |
| Alberta                   | 22072.18 | 1309.80 | 5,9  | 66.42<br>(0.54)       |
| B.C                       | 17739.48 | 816.66  | 4,6  | -260.68**<br>(-2.40)  |
| Territories               | 21316.77 | 801.43  | 3,7  | -276.66<br>(-1.59)    |
| <b>Years in business</b>  |          |         |      |                       |
| 1                         | 14171.73 | 625.93  | 4,4  | 47.12<br>(0.31)       |
| 2-4                       | 13775.32 | 664.43  | 4,8  | -18.59<br>(-0.15)     |
| 5-10                      | 14881.78 | 828.68  | 5,5  | omitted               |
| 11+                       | 19641.38 | 1283.52 | 6,5  | 193.46**<br>(2.03)    |
| <b>Form of business</b>   |          |         |      |                       |
| Unincorporated            | 10319.58 | 572.13  | 5,5  | Omitted               |
| Incorporated              | 19956.36 | 1271.71 | 6,4  | 147.93**<br>(2.01)    |
| <b>Sector of activity</b> |          |         |      |                       |
| Agriculture               | 10617.83 | 784.30  | 7,4  | -427.59***<br>(-3.23) |
| Natural<br>Resources      | 22628.1  | 1360.34 | 6,0  | -203.08<br>(-0.77)    |

|  |          |         |     |                       |
|--|----------|---------|-----|-----------------------|
| Construction                                       | 22930.94 | 1547.23 | 6,7 | 49.78<br>(0.28)       |
| Manufacturing                                      | 24310.8  | 1690.51 | 7,0 | omitted               |
| Wholesale  | 21801.62 | 1219.63 | 5,6 | -323.29*<br>(-1.91)   |
| Retail   | 15458.43 | 988.25  | 6,4 | -298.08**<br>(-2.29)  |
| Transportation                                     | 21988.17 | 1248.43 | 5,7 | -334.19<br>(-1.49)    |
| Arts.<br>Recreation &<br>Information               | 18444.07 | 1171.12 | 6,3 | -170.72<br>(-0.56)    |
| Finance.<br>Insurance. Real<br>Estate &<br>Leasing | 17417.18 | 1199.95 | 6,8 | -63.73<br>(-0.38)     |
| Professional<br>Services                           | 13650.9  | 462.28  | 3,3 | -694.15***<br>(-5.85) |
| Enterprises &<br>Admin. Mgmt                       | 21439.6  | 1069.18 | 5,0 | -448.58**<br>(-2.09)  |
| Social Services                                    | 14660.51 | 1002.23 | 6,8 | -241.38<br>(-1.37)    |
| Hospitality  | 14747.72 | 1006.32 | 6,8 | -336.57<br>(-1.32)    |
| Personal. Misc.<br>Services                        | 15768.19 | 1019.36 | 6,4 | -138.29<br>(-0.60)    |
| Unclassic &<br>IVMs                                | 23238.88 | 1005.63 | 4,3 | -173.90<br>(-0.71)    |
| <b>Tax preparer</b>                                |          |         |     |                       |

|                           |          |         |     |                      |
|---------------------------|----------|---------|-----|----------------------|
| Business owner/manager    | 13855.98 | 830.61  | 6,0 | -212.76**<br>(-2.16) |
| Employee                  | 27107.42 | 1611.77 | 5,9 | omitted              |
| Outside professional firm | 17823.05 | 1255.21 | 7,0 | 21.14<br>(0.19)      |
| Other                     | 26107.31 | 1504.38 | 5,7 | 314.89<br>(0.80)     |
| Constant                  | --       | --      | --  | 783.26***<br>(4.56)  |
| All firms R <sup>2</sup>  | 15370.62 | 1504.38 |     | 0.0583               |
| N                         | 6939     | 6405    | --  | 4289                 |

nc = not calculated because there were fewer than 20 respondents.

Source: Calculations by the authors using the 2008 CFIB survey

Note: \*, \*\*, \*\*\* indicate statistical significance at the 0.10, 0.05, and 0.01 levels respectively.

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### 3) Compliance costs of large firms

The data used in this part of the paper was generated by an e-mail survey of 754 businesses carried out on behalf of the Fraser Institute in July 2009 (with a reminder in September 2009) by the Canadian Chamber of Commerce from which 23 (3,1% response rate) replies were received; the small sample precludes any in-depth analysis but we find that:

- The compliance costs associated with the property tax account for 3% of in-house compliance costs;
- The compliance costs associated with the property tax account for 5,5% of outside compliance costs;
- Outside compliance costs account for 14% of the total property tax compliance costs which total 120 000\$(can).
- Large firms paid property taxes in an average of five

provinces.

- Total property taxes compliance costs increase with the number of property tax bills paid by the firm while there seems to be no clear relation between the total compliance costs per property and the number of property tax bills paid by the firm. .

Finally we note that two thirds of the firms reported that they simply paid all their property tax bills while one-third firms reported that they paid their property tax bills but formally appealed some tax bills

Among the firms surveyed, 80% reported that they appealed a property tax bill in the last five years before the survey with two thirds of them coming to an agreement with tax authorities.

#### 4) Aggregate compliance and administrative costs

##### Individuals

A total of 9.8 million households paid property taxes in Canada in 2007<sup>7</sup>. The compliance costs of so doing are estimated at 126 million of \$ while the costs of challenging a property bill were 94 million of \$. So the total property tax individual compliance costs is 220 million of \$

##### Business

Vaillancourt *et al* report (2013, table 45 ) two aggregate tax compliance costs incurred by businesses; their mean is 14,3 billion Given the % of total compliance costs associated with property taxes we multiply this by 5,5% yielding 790 million of \$ as the compliance cost associated with the property tax for business.

##### Administrative costs

Sjoquist and Walker (1999) report that previous studies by Netzer (1966) and Wicks and Killworth (1967) find an administrative cost of collecting the

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<sup>7</sup> CANSIM table 203 -0003

property tax of 1.5% of revenue. In their work, they report the average costs of assessment offices in Georgia (138 out of 159 offices provided responses for the year 1992) as well as the average number and average value for four type of properties ( agricultural, commercial, industrial and residential) in table 1. The ratio of average costs /average assessment value is 0.4% and the cost per parcel 8.20\$. This not incompatible with the 1.5% figure noted above since it only covers the cost of assessment and not those of preparing tax bills, sending them out and following up on them and since it includes only variable costs and no cost of capital. Vaillancourt and Clemens (2008, p79, Table 3.5) report costs of 1.4-1.5% of revenues collected for two large property tax collecting bodies in Canada. So we will use 1.5% of revenues to estimate administrative costs. In Canada, property tax revenues were, in 2007, 43 643 million using a narrow definition and 51 277 using a broader definition of property taxes for a mean of 47 370. Thus in 2007, administrative costs were 654.6 to 769.2 million for a mean of 710.<sup>8</sup>

#### All costs

So  $220 + 790 + 710$  is equal to 1720 million of \$ or 3, 65% of property tax revenues collected in 2007. That year residential and non-residential structures and land were estimated at 4 233 700 million<sup>9</sup> so total administrative and compliance for property taxes are equal to 4 hundredth of 1% of the value of these assets, some of which are most likely not taxable. And they are equal to 1 tenth of 1% of GDP<sup>10</sup> for that year.

#### Conclusion

This short paper brings together evidence on the compliance and administrative costs of the property tax for Canada. Since little is known about these costs, these results may be of interest to those working in this field in countries with similar property taxation.

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<sup>8</sup> CANSIM table 385 -0001. The narrow definition is general property taxes while the broader one adds Capital taxes and Other property and related taxes

<sup>9</sup> National balance sheet data ,Statistics Canada ,CANSIM series 378-0121

<sup>10</sup> CANSIM 380 0064

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Appendix questions on property tax in Survey of Individuals

*Q17 How many personal property tax bills did you pay in 2007 for property in Canada?*

[INTERVIEWER NOTE: STATE THAT BILLS PAID IN TWO INSTALLMENTS COUNT AS TWO]

- One
- Two
- Three
- Four
- Five
- Six to ten
- More than ten
- None
- DK/REF

*Q17A And how many personal property tax bills did you pay in 2007 for property abroad?*

[INTERVIEWER NOTE: IF ASKED, BILLS PAID IN TWO INSTALLMENTS COUNT AS TWO]

- One
- Two
- Three to Five
- Six to ten
- More than ten
- None
- DK/REF

*Q18 And approximately how much time did you devote to paying personal property tax bills in 2007?*

[RECORD IN HOURS]

Less than one hour

*Q18A And approximately how much money did you spend in paying personal property tax bills in 2007? Spending money in this case refers to expenses like postage, photocopying, printing, and other out of pocket expenses.*

[RECORD DOLLAR AMOUNT]

None

*Q19 Did you challenge a personal property tax bill in the last five years, since 2003?*

[INTERVIEWER NOTE: IF ASKED WHAT A CHALLENGE WOULD BE, SAY "AN EVALUATION, A CLASSIFICATION OF PROPERTY, OR A RATE THAT MAY HAVE BEEN USED"]

No [SKIP TO DEMOS]

Yes

[IF YES AT Q20, ASK Q21]

*Q20 And approximately how much time did you spend on challenging a personal property tax bill in the last five years, since 2003?*

[RECORD IN HOURS]

Less than one hour

*Q21 And how much money did you spend on challenging a personal property tax bill in the last five years, since 2003?*

[RECORD DOLLAR AMOUNT]

I did not spend any money challenging a personal property tax bill in the last five years, since 2003