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# Use of e-money transfer methods: Lessons from the Study on International Money Transfers from Canada

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# Use of e-money transfer methods: Lessons from the Study on International Money Transfers from Canada

by *Zacharie Tsala Dimbuene and Martin Turcotte*

## Overview of the study

Many Canadian residents born abroad send money to relatives or friends living outside Canada—most often in their home country, but not always. To do so, they use either traditional money transfer methods, such as money transfer stores, or electronic money transfer (EMT) methods, such as online banking or providers' websites. Based on data from the 2018 Study on International Money Transfers, this study first examines differences in sending fees between non-electronic and electronic money transfer methods by region of destination. It also examines the factors associated with the use of EMT methods versus traditional methods. The target population includes Canadian residents born in official development assistance-eligible countries in 2017, the majority of whom were immigrants from low- and middle-income countries.

- Depending on the destination region, the average sending fees of a traditional money transfer method were about 10% to 70% higher than those of an EMT method.
- Even though EMT methods are less expensive than traditional money transfer methods, only 15% of remitters used an EMT the last time they sent money in 2017 to relatives or friends.
- Remitters most likely to use an EMT were younger and more highly educated. Remitters who sent money to higher-income countries, as well as those who sent money to Sub-Saharan Africa, had a higher probability of using an EMT. In contrast, the likelihood of using an EMT was lower for older remitters and those who sent money to West Central Asia and the Middle East.
- Remitters were asked to identify the most important factor when choosing a method for remitting. Those who answered “convenience for the sender” or “cost of the method” were more likely to use an EMT to send money abroad.

## Introduction

The money that immigrants, permanent residents and temporary foreign workers send to family or friends abroad—known as international remittances—has steadily increased internationally since 2000. According to recent estimates from the World Bank, international remittances to low- and middle-income countries increased by 10% between 2017 and 2018, reaching a record \$529 billion in 2018.<sup>1</sup> International remittances are an important source of external funding in developing countries<sup>2</sup> and are sometimes viewed as a poverty mitigation strategy at the household level. For example,

it has been shown that remittance-receiving families often use the money to improve their health, nutrition, educational opportunities, housing and sanitation.<sup>3</sup>

Sending money abroad comes with a cost that is deemed to be too high by several international organizations and advocacy groups.<sup>4</sup> In Canada, according to the 2017 Study on International Money Transfers (SIMT), fees paid by remitters amounted to 6% of remittances on average.<sup>5</sup> This is similar to other international studies' findings indicating that remitters pay transaction fees that are an average of 7% of the amount sent.<sup>6</sup>

## Use of e-money transfer methods: Lessons from the Study on International Money Transfers from Canada

The costs associated with sending international remittances have become a strategic focus of international organizations and national governments. The Sustainable Development Goals adopted by United Nations members in September 2015 include a specific goal targeting remittance fees: “By 2030, reduce to less than 3% the transaction costs of remittances and eliminate corridors with costs higher than 5%.”<sup>7</sup>

In an effort to align with international initiatives, in 2015 the Government of Canada announced a series of provisions to reduce the cost of remittances, especially those sent to developing countries.<sup>8</sup> More recently, the federal government reiterated that it intended to work closely with provincial and territorial governments to improve regulation of the remittance industry so that Canadian residents who send money abroad can do so less expensively than they do now.<sup>9</sup> Although remittance fees are decreasing in almost all regions of the world, some challenges remain.<sup>10</sup>

Electronic money transfer (EMT) methods—also called e-money transfer methods or digital remittances— may offer, if they become more widely used, a solution to these challenges. In Canada, remitters most often use traditional in-person money transfer methods, which include all *in-person* transfers through banks, money transfer service providers such as Western Union and MoneyGram, or other types of stores or establishments, including currency exchange stores.<sup>11</sup> However, as previous research has shown, these traditional methods can be more expensive for remitters than EMT methods.<sup>12</sup> These EMT

methods include a variety of options, including using a bank or credit union’s website or mobile app, a money transfer provider’s website or mobile app, or another type of service provider’s website or mobile app.<sup>13</sup> In addition to lowering sending costs and increasing accessibility<sup>14</sup>, an increase in EMT methods use could impact the volume of remittances sent abroad.<sup>15</sup>

In the current context of the COVID-19 pandemic, EMT methods may be even more appealing than usual for immigrants. First, using an EMT to send money may appear to have fewer health risks than going in person to a bank or money transfer store. These considerations may have implications for many immigrants. For example, recent data have shown that immigrants are more concerned than their Canadian-born counterparts about the health impacts of the COVID-19 pandemic.<sup>16</sup> The use of EMT methods may also have become an option for a number of Canadian immigrants who usually hand-deliver funds when they visit relatives and friends abroad but who are unable to do so at this time because of travel restrictions.

Using recent data from the SIMT, this paper examines the use of EMTs by Canadian residents born in countries eligible for official development assistance (ODA), the target population for that survey (see [Data sources, methods and definitions](#) for more details). ODA-eligible countries consist of all low- and middle-income countries based on gross national income (GNI) per capita as published by the World Bank. All of the Least Developed Countries, as defined by the United Nations, are included in the ODA-eligible country list.

This article first documents the costs of sending remittances from Canada via EMT and non-EMT methods. Initial descriptive findings from the SIMT showed that EMT methods were less costly on average than non-EMT methods for Canadian remitters.<sup>17</sup> This paper nuances these results by taking into account the value and destination of remittances, as well as the sociodemographic characteristics of remitters within a multivariate framework.

In the second section of this paper, the likelihood of using an EMT method is estimated across the same set of sociodemographic characteristics, as well as respondent’s assessments of the most important factor they consider when remitting (as a proxy of perceived benefits and risks). Information on these perceived benefits and risks of EMT and non-EMT methods can help identify some of the barriers impeding the adoption of EMT methods.

### Electronic money transfers are cheaper than non-electronic money transfers

In the SIMT, respondents were asked which money transfer method they used the last time they sent money abroad in 2017. These methods were classified as either non-electronic (i.e., non-EMT methods), such as in-person banking or going to a money transfer store, or as EMT methods, such as using a bank website or a money transfer store mobile app (see [Data sources, methods and definitions](#) for more details). The amount sent by remitters, including the amount last sent in 2017 and the sending fee paid, was also collected. This allows for the average sending fee to be calculated as a percentage of the remittance sent and to draw comparisons between EMT and non-EMT methods.

## Use of e-money transfer methods: Lessons from the Study on International Money Transfers from Canada

Overall, sending fees were lower for EMTs than for non-EMT methods, at 4.1% and 5.8%, respectively (Table 1).

While average sending fees varied across destination regions, fees for EMTs were significantly lower than those for non-EMT methods for nearly all regions. For example, the fees for sending remittances to Eastern Asia averaged 1.3% for funds sent via EMT methods, compared with 2.2% for funds sent via non-EMT methods. For remittances sent to the Americas, the average fees were 5.7% and 8.8% for funds sent via EMT and non-EMT methods, respectively.

### The amount remitted negatively affects sending fees

Spending fees varied by size of remittances (Table 1). For non-EMT methods, sending fees for remittances of \$100 or less averaged 13%, while the fees for sending remittances over \$1,000 averaged 1.3%. A similar pattern was observed for EMTs. Average remittances sent to different destination regions also varied, thus raising the possibility that regional differences in sending fees are due to regional differences in the size of remittances. For example, for their last remittance sent in 2017, remitters sent an average of \$5,110 to Eastern Asia, \$1,225 to West Central Asia and the Middle East, \$665 to Eastern Europe and Southern Europe, \$545 to Sub-Saharan Africa, and \$455 to the Americas (Chart 1).

The proportion of remitters who last sent larger amounts of money also varied significantly by destination region. For example, more than half of remitters who sent money to Eastern Asia the last time they

**Table 1**

**Average fees paid as a percentage of the last international remittance sent in 2017 by Canadian residents born in countries eligible for official development assistance, by type of method used, destination region and the amount last remitted in 2017**

Variables	All methods	Non-electronic methods	Electronic methods
	percent		
All respondents	5.5	5.8	4.1*
<b>Destination region</b>			
Americas (ref.)	8.5	8.8	5.7 <sup>†</sup>
Eastern and Southern Europe	7.9*	8.4	5.2 <sup>†</sup>
Sub-Saharan Africa	7.2*	7.6*	5.2 <sup>†</sup>
North Africa	6.1*	6.5*	4.3* <sup>†</sup>
West Central Asia and the Middle East	6.2*	6.3*	4.7
Eastern Asia	2.1*	2.2*	1.3* <sup>†</sup>
Southeast Asia and Oceania	4.4*	4.5*	3.5* <sup>†</sup>
Southern Asia	3.6*	3.7*	3.0*
Countries not eligible for official development assistance	5.8*	6.2*	4.6 <sup>†</sup>
<b>Amount last sent in 2017</b>			
\$100 or less (ref.)	12.6	13.0	9.2 <sup>†</sup>
\$101 to \$200	7.0*	7.1*	6.1*
\$201 to \$300	5.1*	5.3*	4.2* <sup>†</sup>
\$301 to \$500	3.5*	3.7*	2.6* <sup>†</sup>
\$501 to \$1,000	2.6*	2.8*	2.0* <sup>†</sup>
\$1,001 or more	1.3*	1.3*	1.0*

\* significantly different from reference category (ref.) ( $p < 0.05$ )

<sup>†</sup> sending costs are significantly different between non-electronic and electronic methods ( $p < 0.05$ )

Source: Statistics Canada, Study on International Money Transfers, 2018.

did so in 2017 sent at least \$1,000 in a single money transfer (54%). The corresponding proportions were 21% to West Central Asia and the Middle East, 12% to Eastern Europe and Southern Europe, 9% to Sub-Saharan Africa, and 6% to the Americas. In these latter regions, it is possible that remitters sent money more often during the year but in smaller amounts each time.<sup>18</sup>

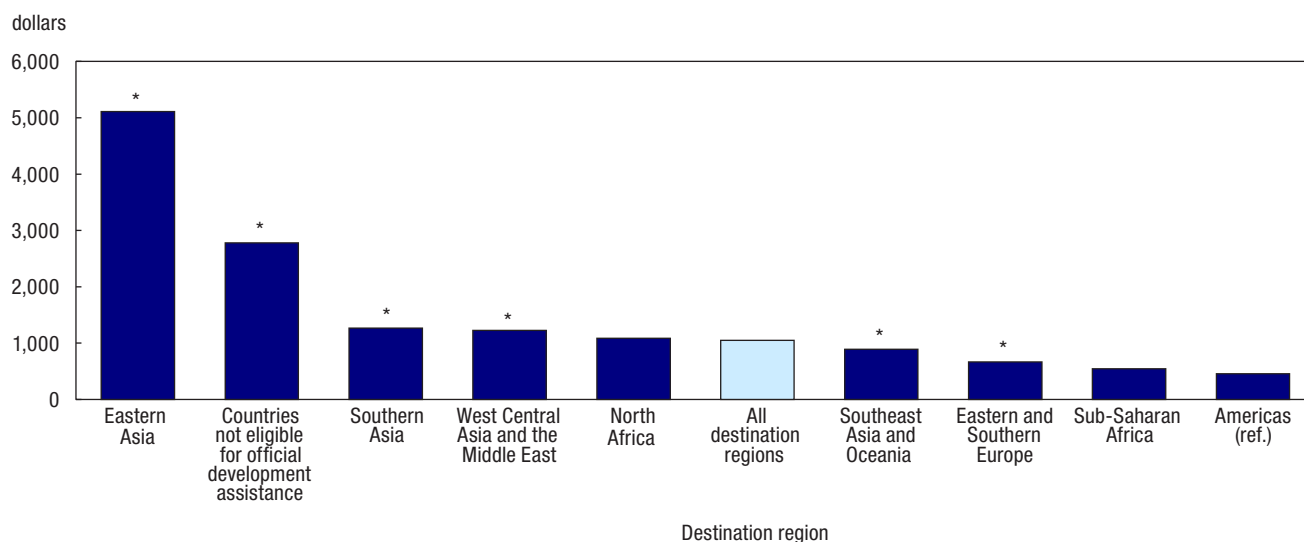
To get a better sense of differences in sending fees by method and by region, a multivariate model was used to estimate the cost of remitting funds to different destination regions via EMT and non-EMT methods. First, the sending fees as a percentage of the amount last sent in 2017 were regressed on (1) destination region, (2) type of method used,

(3) their interaction and (4) the amount last sent, controlling for (5) sociodemographic characteristics (e.g., sex, age, education, marital status, employment status, personal income) and place of residence (Quebec, Ontario, the Prairies, British Columbia and the Atlantic provinces). Second, predicted sending fees were estimated, from the regression model, by holding constant the amount sent between \$201 and \$300, partly because studies from the World Bank computed the sending fees as an average to remit US\$200. Remitters are assumed to have used either a non-EMT or EMT method for the totality of their remittances.

## Use of e-money transfer methods: Lessons from the Study on International Money Transfers from Canada

**Chart 1**

**Average amount of last international remittance sent in 2017 by Canadian residents born in countries eligible for official development assistance, by destination region**



\* significantly different from reference category (ref.) ( $p < 0.05$ )

**Note:** Sending costs were estimated at the fixed amount last sent.

**Source:** Statistics Canada, Study on International Money Transfers, 2018.

The results of the multivariate analysis confirmed that EMT sending fees were lower than non-EMT fees (Table 2). The predicted sending fees associated with non-EMT methods ranged from 4.1% for funds sent to Southeast Asia and Oceania to 7.8% for funds sent to Eastern and Southern Europe. In contrast, predicted sending fees associated with EMTs ranged from 3.5% for funds sent to Eastern Asia, and Southeast Asia and Oceania to 5.5% for funds sent to West Central Asia and the Middle East.

In general, sending fees varied less from one destination region to the other for EMTs than for non-EMT methods. Depending on the destination region, the sending fees associated with non-EMT methods were about 10% to 70% higher

**Table 2**

**Predicted sending fees as a percentage of the last international remittance sent in 2017 by Canadian residents born in countries eligible for official development assistance, by destination region**

Destination region	Non-electronic money transfer methods	Electronic money transfer methods	Absolute difference
	percent		
Americas (ref.)	6.5	4.1	2.4
Eastern Europe and Southern Europe	7.8**	4.5	3.3
Sub-Saharan Africa	6.4	4.3	2.1
North Africa	5.8	4.0	1.8
West Central Asia and the Middle East	7.0	5.5*	1.5
Eastern Asia	4.8**	3.5	1.3
Southeast Asia and Oceania	4.1**	3.5	0.6
Southern Asia	4.3**	4.0	0.3
Countries not eligible for official development assistance	7.0	4.7	2.3

\* significantly different from reference category (ref.) ( $p < 0.05$ )

\*\* significantly different from reference category (ref.) ( $p < 0.01$ )

**Notes:** First, the sending fees as a percentage of the amount last sent in 2017 were regressed on (1) destination region, (2) type of method used, (3) their interaction and (4) the last amount sent, controlling for (5) sociodemographic characteristics (e.g., sex, age, education, marital status, employment status, personal income) and place of residence (Quebec, Ontario, the Prairies, British Columbia and the Atlantic region). Second, sending fees were estimated at a fixed amount sent between \$201 and \$300.

**Source:** Statistics Canada, Study on International Money Transfers, 2018.

## Use of e-money transfer methods: Lessons from the Study on International Money Transfers from Canada

than those associated with EMT methods.<sup>19</sup> This finding suggests that a greater use of EMTs would both lower overall sending fees and reduce differences in the fees for sending remittances to different regions. While regional differences remain after controlling for other factors such as amount last sent, sociodemographic characteristics and place of residence, these differences were almost completely eliminated for EMT methods, except for West Central Asia and the Middle East.

### Only 15% of remitters used an e-money transfer method the last time they sent money abroad

Having considered the fees associated with EMT and non-EMT methods of remitting, the characteristics of individuals who remit using each of these methods

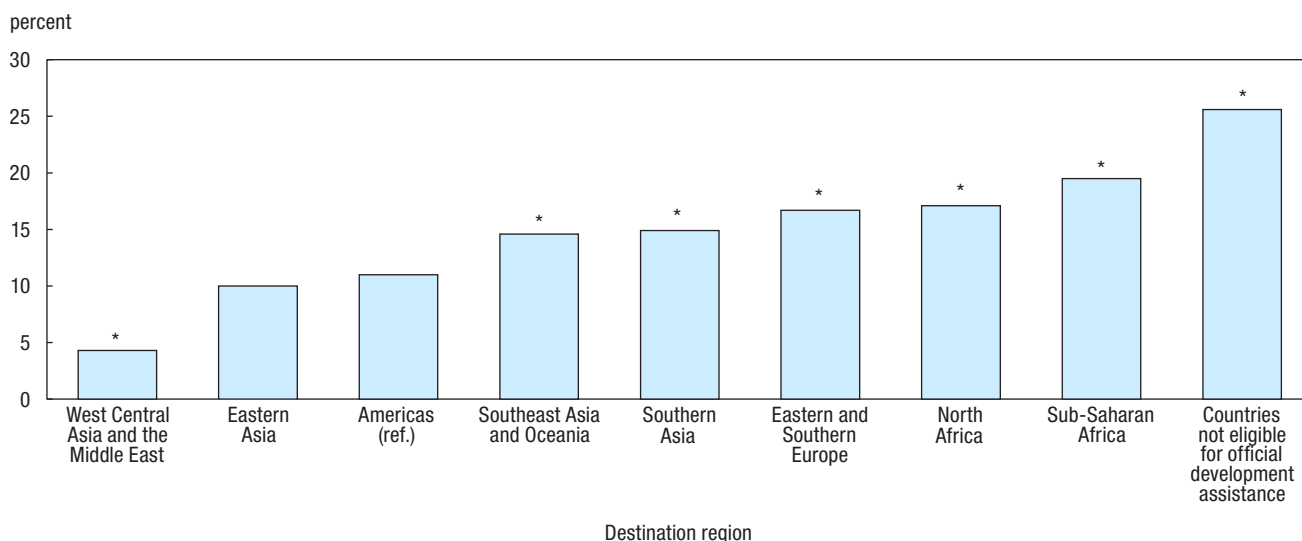
were next examined. Because the costs associated with EMTs are lower,<sup>20</sup> one might expect them to be the preferred method for sending money abroad, but this is not the case. In Canada, most transactions still originate in person.<sup>21</sup> In 2017, 15% of remitters used an EMT method during their last transaction (Table 3).

A number of barriers have been identified as potentially impeding the adoption of EMT remittance methods worldwide. These include (1) lack of awareness, (2) lack of access to formal financial services and (3) lack of access to digital technologies.<sup>22</sup> While digital remittances were relatively unknown until recently, money transfer stores have been around for many years. When asked if they had heard of or had used different remittance methods, only 5% of Canadian residents who had ever sent money abroad said

they did not know about money transfer stores, while about 40% to 50% did not know about the existence of electronic methods.<sup>23</sup> In this context, it may be the case that many remitters are not aware of the cost advantages associated with EMT methods.

Awareness of EMT methods is a prerequisite for their use. However, financial infrastructure in destination countries is another potential reason cited by some remitters for why they do not use these methods. Many people, especially those in the least developed countries, lack access to financial services (i.e., they are “unbanked”). Access to digital technologies in destination countries may be another challenge. The next section will examine the factors and possible barriers associated with the likelihood of using EMT methods to send money abroad to family and friends.

**Chart 2**  
Percentage of Canadian residents born in countries eligible for official development assistance who used an electronic money transfer method for the last international remittance sent in 2017, by destination region



\* significantly different from reference category (ref.) ( $p < 0.05$ )

Source: Statistics Canada, Study on International Money Transfers, 2018.

## Use of e-money transfer methods: Lessons from the Study on International Money Transfers from Canada

### Remitters who sent money to non-official development assistance countries and Sub-Saharan Africa are more likely to use electronic methods

The proportion of remitters who used EMTs varied in terms of the regions to which they sent money. EMT methods were used most by remitters who sent funds to non-ODA countries (26%) (Chart 2). Recipients in these higher-income countries were most likely to have bank accounts, internet access and smart phones, which make it easier for them to receive and accept EMT remittances. A relatively large share of remitters who sent money to Sub-Saharan Africa also used EMT methods (20%).

In contrast, the lowest percentage of people who used an EMT method were among those who sent money to West Central Asia and the Middle East. In Eastern Asia, which ranked first in terms of the average amount last remitted in 2017, 10% of people used an EMT, and this was not statistically different from the Americas (reference category).

Logistic regression models were developed to account for other factors (e.g., the sociodemographic characteristics of remitters) that may influence their likelihood of using an EMT.<sup>24</sup> Predicted probabilities are reported in Table 3 and should be interpreted as the probability of a remitter using an EMT method, holding all other factors constant.<sup>25</sup> The probability of using an EMT ranged from 4.5% for funds remitted to West Central Asia and the Middle East to 22% for funds remitted to non-ODA countries, a finding that is consistent with the results described above in the descriptive statistics.

**Table 3**

**Unadjusted and adjusted probabilities of using an electronic money transfer method by Canadian residents born in countries eligible for official development assistance, for the last international remittance sent in 2017**

Variables	Unadjusted probabilities	Adjusted probabilities <sup>1</sup>
	percent	
<b>Destination region</b>		
Americas (ref.)	11.0	14.3
Eastern and Southern Europe	16.7*	16.7
Sub-Saharan Africa	19.5**	18.0*
North Africa	17.1**	17.0
West Central Asia and the Middle East	4.3**	4.5**
Eastern Asia	10.0	10.0
Southeast Asia and Oceania	14.6**	14.9
Southern Asia	14.9**	12.6
Countries not eligible for official development assistance	25.6**	22.3**
<b>Most important factor when sending money abroad</b>		
Convenience for the sender	23.6	23.2*
Convenience for the recipient	8.8**	9.6**
Cost of the method (ref.)	21.4	18.7
Reliability of the method	13.0**	13.0**
Timeliness of the method	11.1**	11.7**
<b>Sex of respondent</b>		
Male (ref.)	15.7	15.3
Female	13.5*	13.9
<b>Age of respondent (in years)</b>		
18 to 29 (ref.)	23.7	25.3
30 to 39	18.3*	17.1**
40 to 49	15.4**	14.7**
50 to 59	9.4**	9.7**
60 to 69	6.4**	7.3**
70 and older	6.7**	7.7**
<b>Highest level of education</b>		
Less than high school (ref.)	6.1	8.8
High school	7.0	7.4
Postsecondary (below bachelor's degree)	11.6**	12.1
University (bachelor's degree or higher)	21.7**	19.9**
<b>Marital status</b>		
Married (ref.)	14.3	14.7
Living common law	14.7	14.3
Widowed	8.6	18.7
Separated	8.0**	10.2*
Divorced	12.5	15.8
Single	19.3**	14.5
<b>Employment status in 2017</b>		
Employed full time (ref.)	15.8	14.7
Employed part time	13.0	14.2
Unemployed	9.9**	14.4
<b>Personal income in 2017</b>		
less than \$20,000 (ref.)	12.7	14.4
\$20,000 to \$29,999	11.0	11.6
\$30,000 to \$39,999	13.4	13.2
\$40,000 to \$49,999	13.1	13.5
\$50,000 to \$69,999	17.4**	16.5
\$70,000 to \$89,999	20.1**	16.6
\$90,000 or more	22.3**	19.2*



## Use of e-money transfer methods: Lessons from the Study on International Money Transfers from Canada

**Table 3**  
Unadjusted and adjusted probabilities of using an electronic money transfer method by Canadian residents born in countries eligible for official development assistance, for the last international remittance sent in 2017

Variables	Unadjusted probabilities	Adjusted probabilities <sup>1</sup>
	percent	
<b>Region of residence in 2017</b>		
Quebec (ref.)	13.4	13.2
Ontario	13.8	14.7
The Prairies	17.5	15.7
British Columbia	12.7	13.4
Atlantic	22.5	17.2
<b>Amount last sent in 2017</b>		
\$100 or less (ref.)	11.6	12.9
\$101 to \$200	13.9*	14.3
\$201 to \$300	15.9*	15.7
\$301 to \$500	15.7*	15.3
\$501 to \$1,000	17.6*	16.6
\$1,001 or more	13.8	13.1

\* significantly different from reference category (ref.) ( $p < 0.05$ )

\*\* significantly different from reference category (ref.) ( $p < 0.01$ )

1. Predicted probabilities were estimated from the logistic regression model, holding all other factors at their means.

Source: Statistics Canada, Study on International Money Transfers, 2018.

### Youth and highly educated people are more likely to use electronic money transfer methods

Age and education emerge as strong predictors of EMT use (Table 3). For example, the estimated probability of using an EMT was 25% for remitters aged 18 to 29, compared with 17% for those aged 30 to 39 and just 7% for those aged 60 to 69. Higher rates of technology use among younger Canadians—including those who remit—may be reflected in these differences. In 2018, the share of all Canadians aged 15 to 24 who used the Internet was 88% compared with 71% of Canadians aged 65 and older. Among Internet users, 63% of those aged 15 to 24 spent 10 hours or more online per week, compared with 31% of their counterparts aged 65 and older.<sup>26</sup> Internet use aside, in-person transactions may appear to some—

including older remitters—as safer than digital remittances. In Canada, seniors generally still greatly prefer in-person banking.<sup>27</sup>

A correlation between remittance method and educational attainment was observed. Specifically, the probability of using an EMT method was 9% among remitters with less than a high school education and 20% among those with a university degree (bachelor's degree or higher).

Although the bivariate results indicate that remitters who sent smaller amounts of money were the least likely to have used EMTs, this difference became insignificant once other factors were accounted for in the multivariate model.

### Remitters who report that convenience for the person receiving the money is their prime consideration when sending money abroad are significantly less likely to use electronic money transfers

Individual perceptions and usefulness of a method may also be associated with the choice of the money transfer method used. In the SIMT, respondents were asked what factor they considered to be most important when sending money abroad.<sup>28</sup> Responses included convenience for sender, convenience for recipient, cost of the method, reliability of the method and timeliness of the method.<sup>29</sup> From a theoretical and practical viewpoint, these motives fall under the broad category of perceived benefits and perceived risks, which have been identified as drivers for consumer decision making.<sup>30</sup>

Although the cost of sending remittances may be the central factor in the decision-making processes of remitters, the contextual conditions in the destination country may be even more influential. When transferring money, senders are likely to consider the capacity of recipients to receive the money in a manner that is safe, affordable and convenient. Such factors may outweigh the costs incurred by the sender themselves when sending money using a particular method. This may be especially true during emergencies, such as natural disasters, when people are in urgent need of financial support.

Results indicate that remitters who consider their own convenience (i.e., convenience for the sender) as the most important factor when sending money abroad were the

## Use of e-money transfer methods: Lessons from the Study on International Money Transfers from Canada

most likely to have used an EMT method (23%). In contrast, 10% of those who reported convenience for the recipient as the most important factor used an EMT method.

For those who identified cost as the most important factor when remitting, the adjusted probability of using an EMT method was 19%.

Lastly, the probability of using an EMT method was lower than average for remitters who said that timeliness was the most important factor when remitting (12%), and for those who reported that reliability of the method mattered most (13%).

### Conclusion

In this digital age and, because sending fees have become a strategic focus at the international level, it is important to further our understanding of how destination region and individual preferences can affect international remittance choices.

In 2017, the sending fees associated with EMT (as the percentage of the amount remitted) were lower in all destination regions compared with those associated with traditional— or non-electronic—money transfer methods.

Although EMT methods are cheaper than traditional methods, their use among Canadian remitters born in ODA-eligible countries is still limited. Traditional methods continue to dominate remittance markets. For example, 85% of remitters used a traditional money transfer method in their last money transfer in 2017. This may be the result of the development level of the financial infrastructure in destination regions. For example, sending money to countries not eligible for ODA (i.e., developed countries) is significantly associated with a greater likelihood of using an EMT. Wide access to the Internet and smartphones, as well as universal banking, in developed

countries allow recipients to easily access remittances through their bank accounts. Therefore, senders may favour EMT methods.

When analyzing the association between the most important factor respondents consider when remitting and the likelihood of using an EMT method, this study found that people who consider convenience for the sender as the most important factor when remitting were more likely to use an EMT the last time they remitted in 2017. In contrast, those who considered convenience for the person receiving the money to be the most important factor were the least likely to use an EMT. Lastly, youth and remitters with a university degree were also more likely to use an EMT.

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### Data sources, Methods and Definitions

#### Data source

The data for this study come from the Study on International Money Transfers (SIMT), a cross-sectional survey conducted in 2018. The target population was Canadian residents (naturalized Canadians, landed immigrants and temporary residents) aged 18 years and older born in official development assistance (ODA)-eligible countries.

ODA-eligible countries consist of all low and middle income countries based on gross national income (GNI) per capita as published by the World Bank. All of the Least Developed Countries, as defined by the United Nations, are included in the ODA-eligible country list.

The list of countries eligible for ODA includes least-developed countries (for example, Haiti, and Senegal), lower-middle-income countries and territories (e.g. Indonesia, Ukraine, Philippines), and upper-middle-income countries and territories

(for example, China, Colombia, Mexico). The SIMT sample includes respondents born in 127 out of the 166 ODA-eligible countries for reference year 2017.

Some immigrants in Canada born in higher income countries, which are not eligible for ODA, may also send money to family and friends living abroad. However, the reasons for which these immigrants send money (e.g., gifts) may be very different from those of immigrants born in lower income, ODA-eligible countries (e.g., money to pay for living and medical expenses). Canadian residents born in ODA-eligible countries are generally more likely to send money to lower income countries. This is important, since remittance flows to low- and middle-income regions are a considerable source of external funding for many developing countries.<sup>31</sup> That being said, although all remitters in this study were born in ODA-eligible countries, they may still send money to family and friends living in other higher-income countries not eligible for ODA.<sup>32</sup>

## Use of e-money transfer methods: Lessons from the Study on International Money Transfers from Canada

For this study and, because of its focus on the use of electronic money transfer (EMT) methods, analysis was restricted to respondents who sent money abroad or had money hand-delivered to relatives or friends living outside Canada and had a valid response for (1) the method used the last time they sent money and (2) the amount of money last transacted in 2017, which yielded a sample size of 5,285 respondents.

### Methods

Statistical analyses used both descriptive and multivariate techniques. Key independent variables were cross-tabulated with the binary dependent variable, which takes the value of 1 if the respondent used an EMT method the last time they remitted in 2017, and a value of 0 otherwise. Modelling techniques included coefficients and average marginal effects from logistic regressions. All estimates were weighted to be representative of the SIMT's target population. Like many other Statistics Canada surveys, SIMT uses a complex and stratified sampling scheme, the analyses use bootstrap standard errors to determine the statistical significance and inferences. However, because the analyses are restricted to a subsample, the "subpop" option in Stata was used to keep the whole sample in the analyses while restricting estimates on the subsample.

Methodological issues arising from multivariate analyses, such as multicollinearity, were diagnosed. There were no multicollinearity problems detected among the variables used in the analyses.

### Definitions

EMT methods in SIMT were measured as the response to the question "In 2017, what method did you use the last time you sent money to relatives or friends living in [another country]?" This money is also referred to as "international remittances." Responses were grouped into two broad categories. These took the value of 1—or electronic method—if the respondent used the following: bank or credit union website, money transfer provider website, another type of store website, bank or credit union mobile app, money transfer provider mobile app, another type of service provider mobile app, cryptocurrency. These took the value of 0—or non-electronic method—otherwise (i.e., the respondent reported using a bank or credit union, money transfer store, currency exchange store, another type of store, hand-carried money themselves, used a hand-carry money traveller, hand-carry money visitor, informal transfer method, or other method).

For destination region, respondents were first asked "In 2017, to what country did you send money most often?" They were then asked "In 2017, did you send money to relatives or friends living outside Canada in any countries other [than that identified above]?" From these two pieces of information, it was possible to define destination region as (1) the Americas, (2) Eastern Europe and Southern Europe, (3) Sub-Saharan Africa, (4) North Africa, (5) West Central Asia and the Middle East, (6) Eastern Asia, (7) Southeast Asia and Oceania, (8) Southern Asia, and (9) non ODA-eligible countries.

The most important factor when remitting was used as a proxy of perceived benefits and risks. Respondents were asked "What is the most important factor when sending money abroad?" Responses included convenience for the sender, convenience for the recipient, cost of the method, reliability of the method and timeliness of the method.

## Notes

1. See, for example, World Bank (2019).
2. International remittances represent as much as 30% of the gross domestic product of countries such as Kyrgyz Republic (34%), Tonga (35%), Tajikistan (31%) and Haiti (31%). For more information, see World Bank (2019).
3. See, for example, Adams and Page (2005), Anyanwu and Erhijakpor (2010), Guinguindo (2007), Yang (2011).
4. See, for example, Ahmed et al. (2017), Maloumy-Baka and Kingombe (2015).
5. It should be noted that the methodology used to estimate the sending cost in the Survey on International Money Transfers differed from that of the World Bank, which publishes these statistics by country of origin and destination. For more details, see Statistics Canada (2019).
6. See World Bank, IBRD and IDA (2019).
7. [A remittance corridor is the outflow of funds from one country to the other](#). For more details, see <https://www.un.org/sustainabledevelopment/>.
8. Global Partnership for Financial Inclusion (2017). *G20 National Remittance Plan Canada 2018–2020*. G20, Hamburg, Germany.
9. For more details, see Government of Canada, *Budget 2015—Strong Leadership: A Balanced-Budget, Low-Tax Plan for Jobs, Growth and Security*. p. 297–299.
10. See World Bank, IBRD and IDA (2019).
11. See Statistics Canada (2019).
12. See, for example, Ahmed et al. (2017), Beck and Pería (2011), Naghavi and Scharwatt (2018).

## Use of e-money transfer methods: Lessons from the Study on International Money Transfers from Canada

13. This study refers to electronic money transfer methods for all money transacted individually without a third party, using either a computer or a mobile application developed by a money transfer provider or bank.
14. According to the International Fund for Agricultural Development (IFAD), average sending costs of 3% would save an additional US\$20 billion annually. See IFAD (2017).
15. See Aycinena et al. (2010), Menjivar et al. (1998), Vargas-Silva and Pozo (2006).
16. See LaRochelle-Côté and Uppal (2020).
17. For details, see Statistics Canada (2019).
18. See Statistics Canada (2019) for information about the frequency of remitting by birth region (Table A.10).
19. Southern India was an exception, with similar costs for both non-electronic and electronic methods (4.3% and 4.0%, respectively).
20. For details, see Statistics Canada (2019), Ahmed et al. (2017), Farooq et al. (2016).
21. For details, see Statistics Canada (2019).
22. For details, see Bolzani (2017), Davis et al. (1989), Davis (1989), DeVoretz and Vadean (2008), Dwived et al. (2017), Fishbein et Ajen (1975), Venkatesh and Davis (2000), Venkatesh et al. (2003).
23. For details, see Statistics Canada (2019), Table A.5.
24. The use of an electronic money transfer (EMT) method of remitting is the dependent variable, coded as 1 if the respondent used an EMT or as 0 if the respondent used a non-EMT.
25. Unadjusted probabilities—or observed percentages—are also reported in the first column of the table for information purposes.
26. Statistics Canada 2018 Canadian Internet Use Survey.
27. See [Financial Consumer Agency of Canada](https://www.canada.ca/en/financial-consumer-agency/programs/research/highlights-survey-banking-of-canadians.html) (2019). <https://www.canada.ca/en/financial-consumer-agency/programs/research/highlights-survey-banking-of-canadians.html>.
28. For more details, see Statistics Canada (2019). [The survey questionnaire](http://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=assembleInstr&lang=en&Item_Id=452773#qb498770) is available at [http://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=assembleInstr&lang=en&Item\\_Id=452773#qb498770](http://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=assembleInstr&lang=en&Item_Id=452773#qb498770).
29. According to the findings of the Study on International Money Transfers analytical report, convenience for both the sender and recipient was the main reason respondents chose a particular money transfer method for their last transaction in 2017. See Statistics Canada (2019).
30. See, for example, Lu et al. (2011).
31. At the macroeconomic level, for example, it has been estimated that, on average, remittances account for 27% of gross domestic product (GDP) in some developing countries. See Meyer and Shera (2017).
32. See Statistics Canada (2019). In 2017, \$761 million was sent to non-official development assistance countries, representing 14.7% of the total amount remitted that year.

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