

MEXICO

Do remittances foster financial inclusion in Mexico?

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With data from the National Financial Inclusion Survey (ENIF 2012), we estimate Probit models controlling by different variables. After estimating marginal effects at the means (MEMS), we found that households receiving remittances are more likely to have bank accounts (+10.2% to +11.3%) and to use bank branches (+11.0% to +18.8%), but are less likely to have insurance (-7.6% to -12.1%) and to use ATMs (-8.1% to -8.6%). We did not find any effects on having: i) a payroll account or other investments, ii) investment funds, iii) a loan or credit, iv) credit card, or v) mortgage loans. Thus, there are big opportunities to foster financial inclusion on remittance recipients.

Remittances, the sums of money that international migrants send from abroad to their home countries, constitute an important injection of economic resources into specific sectors of domestic, regional and local economies. In this regard, the empirical evidence shows that remittances can promote economic growth and the development of the financial sector in some countries, as well as the financial inclusion of migrants and their families. This is because the acts of both sending and receiving remittances increase senders' and recipients' use of financial services such as making deposits and wire transfers, accessing credit and loans and opening savings accounts (Giuliano and Ruiz-Arranz, 2009; Orozco and Fedewa, 2005; Anzoategui et al., 2011; Aggrawal et al., 2006; Gibson et al., 2006, 2007 and 2012; IMF, 2005).

These days, there are several research papers that explain the effect of remittances on the financial systems of migrants' home and host countries. From the perspective of remittance issuer country, the debate on the matter has centered on inquiring into migrants' knowledge and use of banking services (Gibson et al., 2012); on remittance conduits, sending costs and exchange rates (Acosta et al., 2009; Freund and Spatafora (2008); and on the impact of remittance flows on the financial sector's size and efficiency (Orozco and Fedewa, 2005; Alberola and Salvado, 2006). From the point of view of remittance receipt location, studies have revolved around the measurement, productive investment and savings of this resource (Lozano, 1993; CEPAL, 1988), and around analysing the role played by governments and banking institutions in recipient country education and financial services (Cooray, 2012). However, to date, little is known about the use of and access to financial products and services on the part of persons and families who receive remittances.

Within this context, the main purpose of this **Mexico Migration Outlook** study is to determine whether the receipt of remittances has an effect on any of the variables associated with the financial inclusion of the recipients of this monetary flow into the country. It is an important issue, given that Mexico is among the main remittance recipient countries on a worldwide level. In 2013 and according to World Bank data, Mexico ranked fourth among remittance recipient countries on an international level, with a total of around USD22bn, exceeded only by India, China and the Philippines. Currently, there is growing interest in matters of inclusion in the financial system, resulting from the nationwide and regional growth seen in financial intermediation operations, which have caused changes in the volume of resource flows and have reorganised the availability of financial

products and services in both domestic and foreign markets. Furthermore, some recent studies show that financial inclusion may have a positive impact on the living standards of senders and recipients (Anzoategui et al., 2011).

This report is organised as follows. We first describe the main determinant variables of financial inclusion, which will be used to control the estimations and isolate effects that are not directly attributable to the receipt of remittances. We subsequently describe the data source and methodology used to estimate the effects of remittance receipt on the financial inclusion of people in Mexico. We then present the significant results returned by the estimated econometric models and, lastly, highlight some conclusions and recommendations.

Determinants of financial inclusion

The estimations used variables that, according to the literature and the available information on the data sources, are deemed to be significant determinants that may influence financial inclusion. Below we describe some of the determinant variables for financial inclusion and lay out the reasons why they were used in this study:

- **Gender.** Financial system access differs between men and women. In developed countries, while 37% of women hold an account at a financial institution, the figure rises to 47% for men. In Mexico, the ENIF [National Financial Inclusion Survey] reveals that 42% of men engage in formal savings, versus 30% of women. Several studies and measurements (Allen et al. 2012; Johnson, 2004) have shown that women have fewer options to access formal financial services, which is why most social interventions focus on promoting the financial inclusion of women (Samaniego and Tejerina 2010; De los Ríos and Trivelli, 2011).
- **Age.** According to the Modigliani life-cycle hypothesis, people tend to smooth their consumption over the course of their life. They thus hoard savings in adulthood and spend them in youth and old age. This theory would mean a higher level of financial inclusion among middle-aged people, thus making it interesting to see the behaviour of this variable within the context of Mexico. The models take the individual's age and age squared to check for confirmation of the life-cycle hypothesis.
- **Household characteristics.** Position within the household and marital status are basic variables associated with access to and use of financial services. Cano et al. (2013) note that married or common-law couples have a greater tendency to bank, which matches the estimation of Allen et al. (2012) for the countries included in the Global Findex survey. This study includes a binary variable, to determine whether the person is head of household, and another to determine those who are married or living together.
- **Educational level.** Education is a frequently-used variable to analyse financial decisions, due to its association with financial knowledge and its high correlation with the level of financial education. Authors such as Mitton (2008), Demirgüç-Kunt and Kappler (2012), Kempson et al. (2013) and Djankov et al. (2008), show that financial inclusion rises in step with higher levels of education, in both Mexico and the world at large. Our models use dichotomous variables, grouping educational levels by primary or lower, secondary, *bachillerato* (higher secondary), and professional or higher.
- **Occupation.** This category covers the individuals' type of activity, which is modelled by three classes of binary variables: employed workers, unemployed workers or working-age population not seeking a job, and female domestic workers. These are common variables in studies that model financial inclusion at a microeconomic level, given that activity or occupational status may impact on the use, frequency and type of financial services of remittance senders and recipients (Allen et al. 2012, Djankov et al. 2008).

- **Resilience to exogenous shock.** Theoretical discussions in favour of financial inclusion emphasise that savings and insurance promote well-being, due to the possibility of mitigating risks (Collins et al. 2009; World Bank 2008). This is particularly significant for vulnerable populations that fall into poverty or precarious conditions that reduce their well-being, as a result of exogenous shocks. We built a proxy variable to measure this aspect in the model, represented by a binary choice based on the ENIF question: “If you had a financial emergency right now equal to what you earn or receive in a month, could you pay for it?”
- **Income.** The relationship between income and financial inclusion is evident in most of the studies on financial inclusion, as demonstrated by the fact that 62% of the world's financially excluded are poor. Both Allen et al. (2012) on a worldwide level, as well as Djankov et al. (2008), Kedir (2003), Murcia (2007) and Cano et al. (2013) include income levels in their studies, and find a direct relationship between higher income and financial inclusion. In our case, we take income from labour, as ENIF does not provide information on non-work income. This entails the limitation of underestimating the wealth of individuals.
- **Size of community where individuals live.** When dealing with diverse and large countries such as Mexico, geographic analysis is a must. Some studies (Kedir, 2003 and Murcia, 2007) that include this factor in models related to financial inclusion find differential effects according to the individuals' location, which are associated with characteristics of infrastructure, distance and natural barriers that limit or promote access to the financial system.

Considered as determinants of financial inclusion, these variables were used as control variables in the estimations of this article. The control variables refer to variables whose effects statistically adjust a result variable, to estimate the independent effects of the explanatory variable; for this study, we have used the effect on financial inclusion that arises from the characteristic of receiving international remittances. Below we describe the information source used, as well as the methodology followed for the estimations.

Data and methodology

This study's information was sourced from the data collected by the 2012 National Financial Inclusion Survey (ENIF), intended to generate statistical information on the matter of the use of and access to financial services and products in Mexico by people aged 18 to 70. The ENIF is representative of the nation and of rural (populations of less than 15,000) and urban (15,000 and over) communities. The survey was conducted from 3 to 30 May 2012, under the co-ordination of the National Banking and Securities Commission (CNBV) and National Institute of Statistics and Geography (INEGI)¹.

Based on questions 9.1 and 9.2 and the ENIF questionnaire, we built a binary variable that enables us to determine whether or not a person receives remittances from abroad. The effect of remittance recipients on financial inclusion is measured by the use of financial products and services, which is quantified by dichotomous variables built with nine questions selected from the survey, which are presented on the table below and constitute the estimations' dependent variables.

¹ For further information, see 2012 National Financial Inclusion Survey (ENIF), at <http://www.inegi.org.mx/est/contenidos/Proyectos/encuestas/hogares/especiales/enif/enif2012/default.aspx>.

Figure 1

Financial inclusion dichotomous variables to be analysed (Dependent Variables)

Variable	2012 ENIF questionnaire question
cuenta_banco	Do you have a savings, payroll, investment or other type of account at any bank?
cuenta_ahorro	Do you have a savings account?
fondo_inv	Do you have an investment fund?
prestamo	At this time, considering lending institutions and department stores, do you have any loans, credit lines or credit cards?
tarj_cred_ban	Do you have a bank credit card?
hipoteca	Do you have a mortgage?
seguro	Do you have life, automobile, home, medical expense or other such insurance?
suc_banco	From April 2011 to date, have you used a bank branch?
caj_auto	From April 2011 to date, have you used any bank's ATMs?

Source: Prepared in-house based on 2012 ENIF data

To analyse the effect of remittances on the financial inclusion of those who receive said monetary resources, we resorted to econometric analysis by maximum likelihood estimations of probit models. In probit models, the dependent variable is dichotomous and is assigned a value of 1 if the event happens or has a certain characteristic. It is assigned a value of 0 if it does not happen or does not have said characteristic. The probit model estimation is expressed as follows:

$$\begin{aligned}
 p_i &= P(y_i = 1 \mid X_i' = x_i', Rem_i = rem_i) \\
 p_i &= \Phi(z_i) = \Phi(\alpha + \beta \cdot Rem_i + X_i' \cdot \bar{\gamma} + \varepsilon_i) \\
 \Phi^{-1}(p_i) &= z_i = \alpha + \beta \cdot Rem_i + X_i' \cdot \bar{\gamma} + \varepsilon_i \\
 \text{with } \Phi(z) &= \frac{1}{\sqrt{2\pi}} \int_{-\infty}^z e^{-\frac{1}{2}x^2} dx
 \end{aligned}$$

where:

- $\Phi(z)$ dependent variable likelihood of occurrence,
- α estimation constant term,
- Rem_i binary variable that takes value of 1 for those who receive international remittances, and 0 for those who don't
- β coefficient that estimates the marginal effect of Rem_i on $\Phi(z)$,
- X_i' transposed matrix containing control variables,
- $\bar{\gamma}$ control variables matrix coefficients vector
- ε_i error term

The estimation of the effect when Rem_i switches from 0 to 1 is calculated by considering the Marginal Effects at the Means (MEMS) of the control variables. That is:

$$P(y_i = 1 \mid X_i' = \bar{x}_i', Rem_i = 1) - P(y_i = 1 \mid X_i' = \bar{x}_i', Rem_i = 0)$$

Two specification models were built, based on the aforementioned control variables: A and B. Specification A is controlled based on the inclusion of the following variables: 1) gender, 2) age, 3) marital status, 4) whether head of household, 5) highest level of education, 6) whether employed, domestic worker or other category, 7) resilience to exogenous financial shock, and 8) community size. In specification B, the set of control variables is very similar, but the sample universe is restricted to the employed. Therefore, the control variables noted in point 6) above are excluded, and binary variables are included for the different levels of labour income. Figure 4 of the Appendix provides a detailed description of the control variables used in each of these two specifications.

Two models were estimated for each financial inclusion variable in each of the control variables specifications. The first includes all control variables. The second only considers those variables that are statistically significant to a level of 10%. For each of these cases, we subsequently performed calculations at both the sample and weighted levels to make an inference at the population level, which enables analysis of the stability of the estimated coefficients.

Thus, there is information on eight final estimations for each of the dependent variables of financial inclusion. The following figure summarises the main characteristics of the eight estimation models.

Figure 2
Main characteristics of the eight estimation models

Estimation	Coverage	Variables considered in specification	Specification of control variables
1	Sample (unweighted)	All	A
2			B
3		Variables significant to 10%	A
4			B
5	Population inference (SVY module)	All	A
6			B
7		Variables significant to 10%	A
8			B

Source: Prepared in-house

Hypothesis testing was conducted on the results of the estimated models, to compare the efficiency of the estimation that includes all control variables against its respective regression, in which only variables significant to 10% are considered. First of all, for sample estimations we used the Akaike likelihood ratio test on the parameters that could have a coefficient of zero in their effect on dependent variables. Second, for estimations on population inference, we used a Wald test to check for the possibility of the parameters having a coefficient of zero in their effect on the variables that determine financial inclusion. The results of the tests may be seen in Figure 5 of the Appendix.

In general, these tests do not reveal a significant efficiency difference between the estimations that consider all control variables and the estimations that only consider significant variables. We also conducted tests by estimating some regressions with instrumental variables, to analyse the potential existence of endogeneity in the model, given that the development of the financial system in the recipient country may promote the sending of remittances (Bettin et al., 2011; Demirgüç-Kunt et al., 2011; Taylor and Mora, 2006; Vasco, 2011). The analysed variables did not reveal evidence suggesting the presence of endogeneity or the need to respecify the model.

For reasons of simplicity, and given that the variable we are interested in analysing is the effect of remittance receipt on financial inclusion, the tables only show the marginal effects at the means (MEMS) of this variable. In the analysis of the results, we only report results at the population level and for those estimations in which all control variables are significant to a level of 10%; that is, estimations 7 and 8. The results of the eight estimations for each dependent variable may be seen in the figure provided further below.

Effects of international remittance receipt on financial inclusion

Below we present the results of the estimated probit models, which explain the effects of remittance receipt on the variables related to financial inclusion in recipients of said resources, based on 2012 ENIF data. In specific terms, said results reveal that:

1) Remittance receipt increases the likelihood of having a savings account by 10.2% to 11.3%

This result is robust, given that the coefficient is statistically different from zero at 99% confidence in the eight regressions. This datum is consistent with that reported in other research on the matter and is plausible, in the sense that remittance recipients may at times receive monetary resources from abroad and put them away in a formal savings account to generate interest on the capital paid. Moreover, they can use said resources according to their intertemporal consumption needs, to invest them subsequently by purchasing real estate, or to respond to contingencies such as accidents and illnesses (Ramírez, 2009).

2) Remittance receipt increases the likelihood of using a bank branch by 11.0% to 18.8%

As with the previous variable, the estimations reveal that the result is robust. In seven of the eight estimations the null hypothesis is rejected at 99% confidence, and at 95% in the other. In communities with a bank branch, remittance recipients may make their first approaches to the formal financial system when using the branches to receive the remittances from abroad. In these cases, some will be able to use the branches in their own community, while others will have to travel to other locations or to the seat of the municipal district to receive the resource.

3) Remittance receipt reduces the likelihood of buying insurance by 7.6% to 12.1%

All estimations reveal that the estimated coefficient is significant with a minimum confidence of 90%. In this case, insurance may be one of the products that presents a greater complexity for users, and its use reflects a deeper level of financial inclusion. The estimations suggest that remittance recipients may be less cautious about preventing certain risks, or that they know little about the benefits of having insurance.

4) Receiving remittances reduces the likelihood of using an ATM by 8.1% to 8.6%

The four weighted estimations that make a population inference are significant, some at 90% and others at 95% confidence. This result, in a certain way, reveals that the conduit to tap the monetary resources is not necessarily an ATM, given that recipient individuals and households may use other means to receive, keep and withdraw their remittances, such as the simple act of going to a branch and personally withdrawing the resource.

5) The statistical evidence suggests that remittance receipt has no effects on:

- a) the holding of a savings, payroll, investment or other type of account at any bank,
- b) the opening of investment funds,
- c) the holding of any loans, credit lines or credit cards of any type,
- d) the specific holding of a bank credit card, and
- e) requests for mortgages.

We note that for the variable in point a), in two of the estimations conducted using sample coverage they are significant at 90% confidence, while for the variable in point d), in one of the sample-level estimations it is significant at the same level of confidence. This might suggest that remittance receipt could have a positive or negative effect on these two variables, although its effect may be very small or close to zero.

Figure 3.
Effect of remittances on people's financial inclusion in Mexico, 2012

	Estimation 1	Estimation 2	Estimation 3	Estimation 4	Estimation 5	Estimation 6	Estimation 7	Estimation 8
Coverage	Sample (unweighted)	Sample (unweighted)	Sample (unweighted)	Sample (unweighted)	Population inference (SVY module)	Population inference (SVY module)	Population inference (SVY module)	Population inference (SVY module)
Independent variable	Marginal Effects at the Means (MEM) of con_remasas variable	Marginal Effects at the Means (MEM) of con_remasas variable	Marginal Effects at the Means (MEM) of con_remasas variable	Marginal Effects at the Means (MEM) of con_remasas variable	Marginal Effects at the Means (MEM) of con_remasas variable	Marginal Effects at the Means (MEM) of con_remasas variable	Marginal Effects at the Means (MEM) of con_remasas variable	Marginal Effects at the Means (MEM) of con_remasas variable
cuenta_banco	0.0607 ** [0.0265]	-0.0045 [0.0366]	0.0617 ** [0.0265]	-0.0022 [0.0362]	0.0381 [0.0349]	-0.0122 [0.0453]	0.0351 [0.0347]	-0.0183 [0.0457]
cuenta_ahorro	0.1202 *** [0.0170]	0.0960 *** [0.0232]	0.1205 *** [0.0170]	0.0951 *** [0.0232]	0.1140 *** [0.0212]	0.1044 *** [0.0278]	0.1132 *** [0.0209]	0.1024 *** [0.0276]
fondo_inv	0.0042 [0.0042]	0.0014 [0.0063]	0.0036 [0.0043]	-0.0002 [0.0067]	0.0073 [0.0050]	0.0032 [0.0073]	0.0069 [0.0052]	0.0023 [0.0081]
prestamo	0.0362 [0.0240]	0.0339 [0.0287]	0.0352 [0.0239]	0.0201 [0.0319]	0.0339 [0.0287]	0.0231 [0.0351]	0.0323 [0.0287]	0.0124 [0.0358]
tarj_cred_ban	0.0100 [0.0131]	0.0291 * [0.0172]	0.0095 [0.0132]	0.0277 [0.0177]	0.0020 [0.0162]	0.0264 [0.0214]	0.0008 [0.0161]	0.0227 [0.0223]
hipoteca	0.0005 [0.0036]	0.0011 [0.0118]	0.0003 [0.0040]	0.0009 [0.0075]	-0.0041 [0.0035]	-0.0048 [0.0045]	-0.0049 [0.0040]	-0.0075 [0.0062]
suc_banco	0.2393 *** [0.0269]	0.1568 *** [0.0354]	0.2367 *** [0.0269]	0.1525 *** [0.0352]	0.1901 *** [0.0360]	0.1146 *** [0.0451]	0.1877 *** [0.0359]	0.1106 ** [0.0447]
caj_auto	-0.0301 [0.0289]	-0.0181 [0.0377]	-0.0328 [0.0288]	-0.0269 [0.0374]	-0.0802 ** [0.0354]	-0.0789 * [0.0470]	-0.0807 ** [0.0354]	-0.0861 * [0.0466]
seguro	-0.0444 * [0.0239]	-0.0771 ** [0.0345]	-0.0444 * [0.0239]	-0.0815 ** [0.0343]	-0.0754 ** [0.0295]	-0.1134 *** [0.0363]	-0.0761 *** [0.0292]	-0.1213 *** [0.0368]
Control variables	(A)	(B)	Significant of (A)	Significant of (B)	(A)	(B)	Significant of (A)	Significant of (B)

Brackets show standard error associated with coefficient

Level of significance at: * 10%, ** 5%, *** 1%.

Control variables:

(A) mujer edad edad2 jefe_hogar casado_enunion edu_sec edu_bach edu_prof_s ocu_trab cubrir_emer tl_2 tl_3 tl_4

(B) mujer edad edad2 jefe_hogar casado_enunion edu_sec edu_bach edu_prof_s ing_m3 ing_m3a5 ing_m5a8 ing_m8a13 ing_13m cubrir_emer tl_2 tl_3 tl_4

Source: In-house estimations based on 2012 INEGI ENIF data.

Conclusions and final considerations

In general terms, it may be said that the results of the estimated models reveal that people in households that receive remittances from abroad are more likely to have a savings account and to use a bank branch, but less likely to use ATMs or to purchase some type of insurance.

Remittance recipients might present a socio-demographic factor attributable to their gender, education or income level which may affect a lower use of these financial services. However, the estimations are controlled by these and other variables. The fact that, on average, remittance recipient households are located in smaller communities might also be explained (see [Mexico Migration Outlook](#), December 2013, and Albo et al., 2012), as they might have less access to this service but, similarly, estimations are controlled by community size. Therefore, it is more plausible that the results are directly associated with a regular use arising from the status of being a remittance recipient, or linked to the international migratory phenomena.

The results of the estimations reveal that remittance receipt has effects on increasing the financial inclusion of recipients only for those variables that are highly related to the act of and reasons for receiving remittances (use of bank branches and opening of savings accounts to manage this resource). Although control variables were used in the estimations, the negative effect on the likelihood of having insurance or using ATMs reveals that they may be people with less knowledge about risk protection and, in general, possibly with a lower level of financial education.

The estimations conducted based on ENIF 2012 reveal a potential for growth in the use of financial products and services among remittance recipients, given the appropriate conditions. In this case, the expansion can be generated through greater exposure to formal financial products and services, which may be achieved by improved communication of their features and benefits and, at the same time, through financial education programmes for both recipients and migrant senders of remittances.

Appendix

Figure 4
Specifications A and B of control variables

Variable	Description	Type	In Specification A	In Specification B
* hombre	Male	Binary	-	-
mujer	Female	Binary	Yes	Yes
edad	Age	Numeric	Yes	Yes
edad2	Age squared	Numeric	Yes	Yes
* no_jefe_hogar	Not head of household	Binary	-	-
jefe_hogar	Head of household	Binary	Yes	Yes
* no_casado_enunion	Not married or living together	Binary	-	-
casado_enunion	Married or living together	Binary	Yes	Yes
* edu_prim_m	Highest education, primary	Binary	-	-
edu_sec	Highest education, secondary	Binary	Yes	Yes
edu_bach	Highest education, higher secondary "bachillerato"	Binary	Yes	Yes
edu_prof_s	Highest education, professional or higher	Binary	Yes	Yes
* no_cubrir_emer	Does not have resources to cover an emergency	Binary	-	-
cubrir_emer	Has resources to cover an emergency	Binary	Yes	Yes
* tl_1	Community of less than 2,500	Binary	-	-
tl_2	Community of 2,500 to 14,999	Binary	Yes	Yes
tl_3	Community of 15,000 to 99,999	Binary	Yes	Yes
tl_4	Community of 100,000 and over	Binary	Yes	Yes
* ocu_otra	Other occupation	Binary	-	-
ocu_hog	Occupation, housewife	Binary	Yes	-
ocu_trab	Employed	Binary	Yes	-
* ing_sinpago	Working, but with no labour income	Binary	-	-
ing_m3	With labour income, less than MXN3,000	Binary	-	Yes
ing_m3a5	With labour income, MXN3,000 to < MXN5,000	Binary	-	Yes
ing_m5a8	With labour income, MXN5,000 to < MXN8,000	Binary	-	Yes
ing_m8a13	With labour income, MXN8,000 to < MXN13,000	Binary	-	Yes
ing_13m	With labour income, MXN13,000 and over	Binary	-	Yes

* These variables are excluded to prevent multi-collinearity.

Source: xxxx

Figure 5

Hypothesis tests of remittance effect on financial inclusion variables, 2012

Dependent variable	Hypothesis test Coverage Statistical Test	Estimation 3, with respect to 1	Estimation 4, with respect to 2	Significance level	Estimation 7, with respect to 5 Population inference (SVY module)	Estimation 8, with respect to 6 Population inference (SVY module)
		Sample (unweighted) Akaike Likelihood Ratio (1)	Sample (unweighted) Akaike Likelihood Ratio (1)		Wald Test (2)	Wald Test (2)
cuenta_banco	Significant Control Var.	6695	4667	Significance level	0.1219	0.9586
	All variables	6698	4625			
cuenta_ahorro	Significant Control Var.	4873	3485	Significance level	0.2360	0.2763
	All variables	4878	3487			
fondo_inv	Significant Control Var.	928	683	Significance level	0.6465	0.5632
	All variables	939	695			
prestamo	Significant Control Var.	6588	4732	Significance level	0.0000	0.0246
	All variables	6571	4730			
tarj_cred_ban	Significant Control Var.	3113	2324	Significance level	0.0004	0.0596
	All variables	3101	2323			
hipoteca	Significant Control Var.	1004	840	Significance level	0.0008	0.0661
	All variables	995	842			
suc_banco	Significant Control Var.	6908	4789	Significance level	0.1144	0.6751
	All variables	6903	4790			
caj_auto	Significant Control Var.	6490	4565	Significance level	0.0582	0.6796
	All variables	6490	4571			
seguro	Significant Control Var.	5125	3762	Significance level	0.0040	0.3246
	All variables	5116	3765			

Type of Test:

(1) Hypothesis on parameters that together are equal to zero (sample-based).

(2) Simple and compound linear hypotheses on parameters equal to zero (population).

Source: In-house estimations based on 2012 INEGI ENIF data.

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