



CONTRIBUTION OF REMITTANCES TO PUBLIC INCOME IN MEXICO

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1. INTRODUCTION

Even though Mexican workers in the United States also effectively pay taxes in Mexico via the spending of family remittances in the national market, remittance contributions to public coffers are hardly ever discussed in migration and development literature. Based on the hypothesis that an important part of remittance contributions to the public purse come from indirect taxes, this paper estimates remittance contribution to government revenue by quantifying value added tax (VAT) proceeds associated with remittance flow from the United States. It intends to answer the following

questions: What is the amount of VAT-related proceeds derived from remittance spending and how have these contributions changed between 2006 and 2008? How important are these contributions vis-à-vis other budgetary revenue sources such as oil exports or income tax? What is the tax burden on remittance-receiving Mexican households compared to those that do not receive these money flows? Do the poorest, remittance-receiving households pay more taxes than poor groups without remittances? Does the state fairly compensate the remittance-receiving population with appropriate social spending?

For years, Mexico's tax system has shown serious signs of being in

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¹ This article is part of a larger project entitled «Relocating the Debate on Remittances and Development: Remittance Contribution to National Budget in Mexico and El Salvador» (*Reubicando el debate sobre remesas y desarrollo: el aporte de las remesas al presupuesto nacional en México y El Salvador*), coordinated by the National Alliance of Latin American and Caribbean Communities (NALACC) with support of the MacArthur Foundation. The authors wish to thank Katharine Andrade Eekhoff, general project coordinator, for her comments and suggestions, and Rodrigo Aguilar Zepeda and Fidel Olivera Lozano for their help in data management.



crisis and problems have worsened with the recent drop in international oil prices. The government's response to the crisis has taken the shape of President Felipe Calderón's 2010 fiscal reform, which has already been approved, with modifications, by the Mexican Congress and intends to obtain more resources by increasing VAT taxation. If remittances constitute the third source of external income after oil and manufacture exports, we should be asking ourselves if they are in fact contributing to tax collection. According to our research, remittances do make an important contribution to the public purse; and, even though remittance growth has slowed down and even diminished since 2007, this fall is hardly as precipitous as those in other revenue sources such as oil. This leads us to assume that, unlike other sources, remittances will maintain or even increase their participation in national tax collection.

The empirical results of this research are based on an analysis of VAT-related spending in remittance-receiving households according the 2006 and 2008 National Survey of Income and Spending in Households (Encuesta Nacional de Ingreso y Gasto de los Hogares, ENIGH), as well as the Bank of Mexico's information on family remittances. The paper is divided into several sections, the next of which addresses tax collection in Mexico. The third examines the recent evolution of remittance flows and the general makeup of remittance-receiving homes according to sociodemographic characteristics, composition and income and

spending structure. It also includes an analysis of inequality and poverty across Mexican households depending on whether or not they received remittances. The fourth part shows our estimates regarding VAT collection and an analysis of its redistributive impact in remittance- and non-remittance-receiving households. The fifth part analyzes the role of remittance-related VAT vis-à-vis several economic indicators. The final section offers some brief final thoughts.

2. TAX COLLECTION IN MEXICO

Mexico's sources of budgetary revenue can be divided into two groups: oil-related income and other. During the past three decades, oil income has played a crucial role in public revenue and in 2008 it contributed as much as 36.9% (see Table 1). The nation has come to depend considerably on these earnings, which means that revenue is quite vulnerable to variations in international oil prices. Non-oil related revenue amounted to little more than 40% between 2006 and 2008; sources included income tax (Impuesto Sobre la Renta or ISR, around 20% of the total) and VAT (around 16%).

Mexico has low tax revenues in relation to its economic activity, which is reflected in one of the lowest tax burden (i.e., the percentage of revenue in regards to the GDP) in Latin America: the regional average is 18% and, in 2007, Mexico's rate was 12%. In comparison and also in 2007,



TABLE 1
Public sector budgetary revenues, 2006-2008

CONCEPT	BILLIONS OF PESOS (CURRENT)			PERCENTAJE DISTRIBUCION		
	2006	2007	2008	2006	2007	2008
Total	2,264	2,486	2,861	100.0	100.0	100.0
Oil	861	881	1,055	38.0	35.4	36.9
Non-oil related	1,402	1,605	1,806	62.0	64.6	63.1
Tax related	931	1,047	1,208	41.1	42.3	42.2
ISR	448	527	562	19.8	21.2	19.7
VAT	381	409	457	16.8	16.5	16.0
Non-tax related	472	558	599	20.8	22.4	20.9

Source: Secretaría de Hacienda y Crédito Público, Mexico.

El Salvador had a burden of 15% (CEPAL, 2009). Mexico, in short, has a low and weak tax base that, in addition to oil dependency, betrays substantial informality and a large number of exemptions and special regimes when it comes to the payment of taxes.

During the past two decades, tax burden growth across Latin America nations has been based on VAT increase (Jiménez, 2009: 26, in CEPAL, 2009). By 2007, the percentage of tax resources in Latin American countries oscillated between 30 and 50%. For example, El Salvador had a rate of 46% in comparison to Mexico's 42%. These numbers contrast with the average 19% of those nations within the Organisation for Economic Co-operation and Development (OECD), which attests to the importance of private consumption as a source of VAT-linked revenue in many countries of Latin America. This tendency seems to deepen in the Mexican case,

as shown by the approved 2010 fiscal reform: this entails a 15 to 16% increase in VAT-incurring products and services.

3. CURRENT REMITTANCE FLOW AND REMITTANCE-RECEIVING HOUSEHOLDS IN MEXICO: CHANGES BETWEEN 2006 AND 2008

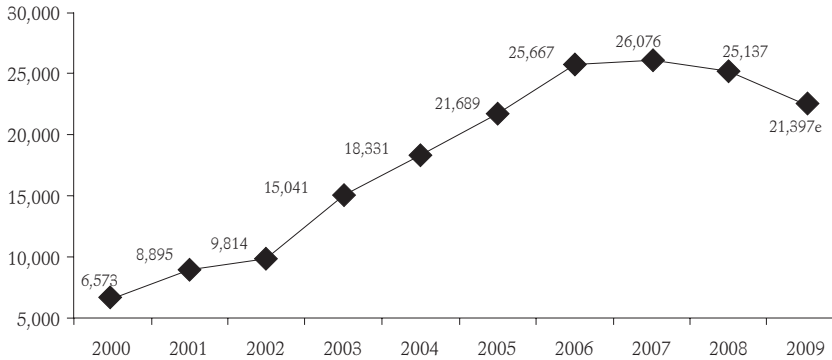
According to Bank of Mexico data, family remittances underwent an explosive growth during the present decade. Between 2000 and 2006, they went from 6.6 billion to 25.7 billion, an increase of 290% in six years. Between 2006 and 2007 there was an absolute growth of 2%, which points to a visible decrease. The 2007-2008 period shows the first negative remittance growth, -3.6%; this is expected to fall further between 2008 and 2009, down to -15%.² And yet, this fall is less precipitous than that of 50% in oil exports, which went from 40 billion dollars in the

² The 2009 remittance figure was estimated using the amount reported by Banxico between January and November 2009, which was 19,621 million dollars, plus the amount observed between November and December 2008, which was 1,776 billion dollars.



GRAPH 1

Family remittance income, 2000-2009
(Millions of dollars)



January-October period in 2008, to 20 billion during that same period in 2009.³ Remittances are an important source of national resources during a crisis such as this one; considering the eventual recovery of the U.S. economy, it is possible that they could eventually contribute almost as much as oil exports. As we shall see further, this has serious implications in terms of tax collection.

According to ENIGH information, the residents of households where at least one of the members received foreign earnings amounted to 7.4 million people in 2006 and 6.5 million in 2008,⁴ a decrease that reflects the fall in the total amount of remittances sent by Mexican migrants residing in the United States. Sex and age categories show a predominance of women in remittance-receiving households: 57.1% in 2006 and 55.4% in 2008. The age group category

shows that receiving households have a higher percentage of children and elderly people in comparison with non-receiving households, as well as less members of productive age (16 to 64 years).

Between 2006 and 2008, the number of homes in which at least one member declared having received family help from abroad diminished 15%, decreasing from 1.9 million to 1.6 million. This decrease affected the countryside much more palpably. There, the amount of remittance-receiving homes fell 25% between 2006 and 2008, while urban environments only saw a 6% decrease.

As far as the income amount, dynamics and structure in Mexican households are concerned, ENIGH data show that the average total current income in all households in the country fell 1.6% in real terms between 2006 and 2008, while in

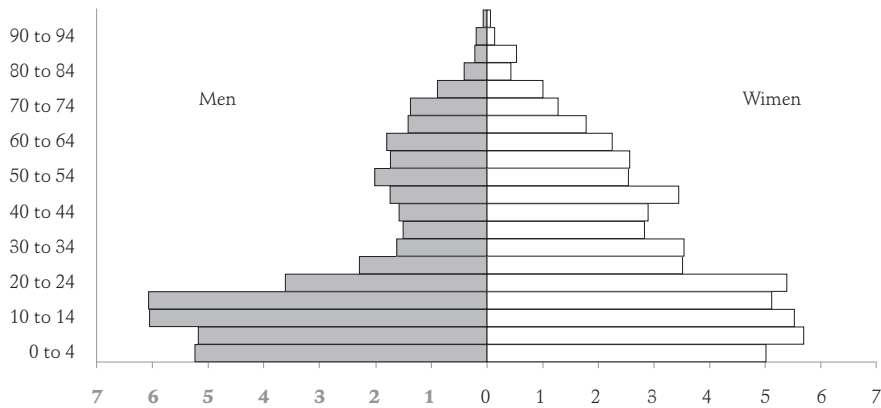
³ Consulted in the Petróleos Mexicanos (Pemex) website on December 17, 2009: <http://www.ri.pemex.com/index.cfm?action=content§ionID=16&catID=12155>

⁴ It must be pointed out that, according to ENIGH, the Mexican population increased by 1.8 million people between 2006 and 2008, from 105.0 to 106.8 million individuals.



GRAPH 2

Mexico, 2008. Population by age group and sex in remittance-receiving households
(Percentage distribution)



Fuente: Elaboración propia con base en microdatos de la ENIGH, 2008.

remittance-receiving households the same indicator showed an increase of 6.1%. This means that the average total current income in receiving households increased, in real terms, from 27,522 pesos to 29,201 pesos per quarter (2008 base). This is an important indicator because it shows that remittance-receiving households did not suffer the average income drop experienced by other Mexican households, even though the average remittance amount decreased from 9,235 pesos per quarter in 2006 to 6,203 pesos in 2008.⁵ In this sense, the remittance drop in household income was offset, among other things, by increased work-based earnings, which rose 24.3%, from 6,925 pesos per quarter in 2006 to 8,611 pesos in 2008.

As far as spending is concerned, average running costs decreased 12.7% in real terms between 2006 and 2008. However, this decline was not as steep in the case of receiving households, where average quarterly expenditures fell by 3%. In 2008, the major source of expenditure in receiving households was food, 24.2% of total expenses. This was followed by transport and communications (13.1%), housing (6%), education (6%), clothing and footwear (3.9%) and health bills (2.5%). In short, receiving households retained a spending structure that, as we shall see in the next section, has certain implications in terms of VAT revenues because VAT collected from expenses associated to receiving households did not drastically diminish in relation to

⁵ Remittance-receiving homes transformed their income structure between 2006 and 2008 given that remittance transfers into their total income (that is, monetary and non-monetary income plus financial earnings) diminished from 31.9% in 2006 to 20.1% in 2008, while remittance contributions to current monetary income fell from 43.1 to 27.1% between 2006 and 2008.



TABLE 2

Population below the poverty line according to whether they receive remittances or not, rural and urban areas, 2006 and 2008

CONTEXT AND TYPE OF POVERTY	POPULATION AND PERCENTAGE DISTRIBUTION				CHANGE IN PARTICIPATION BETWEEN 2006 AND 2008	
	2006		2008		REMITTANCE-RECEIVING HOUSEHOLDS	NON-REMITTANCE-RECEIVING HOUSEHOLDS
	REMITTANCE-RECEIVING HOUSEHOLDS	NON-REMITTANCE-RECEIVING HOUSEHOLDS	REMITTANCE-RECEIVING HOUSEHOLDS	NON-REMITTANCE-RECEIVING HOUSEHOLDS		
<i>National</i>	7,382,954	97,440,341	6,542,255	100,177,093		
Alimentary	15.6	13.6	18.6	18.2	3.0	4.6
Capabilities	21.5	20.6	25.6	25.0	4.1	4.5
Patrimony	42.8	42.6	51.3	47.1	8.5	4.5
<i>Urban</i>	3,858,538	76,759,475	3,789,811	79,032,723		
Alimentary	13.4	9.5	13.5	12.3	0.1	2.8
Capabilities	17.8	15.9	21.1	18.7	3.3	2.7
Patrimony	38.9	37.9	42.2	41.1	3.3	3.2
<i>Rural</i>	3,789,811	79,032,723	2,752,444	21,144,370		
Alimentary	18.0	28.9	25.7	40.4	7.7	11.5
Capabilities	25.7	37.9	31.8	48.9	6.2	11.0
Patrimony	47.1	60.0	63.8	69.7	16.7	9.6

Source: Authors' table based on ENIGH microdata, 2006 and 2008.

the drop in remittances observed in the 2006-2008 period.

To conclude this section, we present an empirical approximation to household poverty depending on the presence of remittances. We use the methodology employed by the National Council for the Evaluation of Development Policies (CONEVAL) and ENIGH data from 2006 and 2008. CONEVAL defines income poverty in Mexico in regards to three items. The first is *alimentary poverty*, which includes those who cannot afford the basic food basket. The second is *capabilities poverty*, which covers those who cannot afford the basic food basket and cover the necessary health and education expenses. The third is *patrimony poverty*, which covers those

who cannot afford food, health, education, housing, clothing and transport needs. According to CONEVAL, between 2006 and 2008 patrimony poverty increased from 42.6 to 47.4%, capability poverty from 20.7 to 25.1% and alimentary poverty from 13.8 to 18.2% (CONEVAL 2009). Table 2 shows income poverty estimates based on remittance reception for 2006 and 2008.

Is the population receiving remittances actually poorer? If we consider the urban population, we will see there are no significant differences in poverty levels for those who receive remittances and those who do not. However, if we consider rural populations (located in towns of less than 2,500 inhabitants), we can see



significant differences between receiving and non-receiving groups, since all poverty levels are lower in the population that received remittances on both years. For example, Table 2 shows that 28.9 and 40.4% of non-remittance-receiving households experienced alimentary poverty in 2006 and 2008, respectively. This contrasts with 18 and 25.7% of remittance-receiving households during those same years. This pattern also applies to capabilities poverty and, to a lesser extent, patrimony poverty. Based on this analysis, we can conclude that remittance flow does contribute to the reduction of poverty in rural Mexico, which means that poor remittance receivers contribute a greater share of tax payments, as we shall see.

4. ESTIMATE OF REMITTANCE CONTRIBUTION TO VAT IN MEXICO

This section presents an estimate of VAT contributions by remittance-receiving and non-receiving households based on ENIGH microdata from 2006 and 2008. It also includes an analysis of the impact said VAT contributions have on households depending on whether or not they receive remittances, are urban or rural, and what kind of income they receive. This is done to determine the degree of regressivity of VAT payments. Finally, we present an estimate of VAT amounts associated to the flow of remittances; this uses the 2006 and 2008 ENIGH data and the Bank of

Mexico's family remittance data. The section begins with a description of the methodology employed to elaborate these estimates.

Methodological description of tax collection estimates

Using the 2006 and 2008 ENIGH data, the first step involved the allocation of VAT payments for each sample household in accordance with the VAT-incurring products and services used in each home. An informal consumption rate per household was then estimated based on the source of each product and service; goods acquired in places such as municipal or street markets, from street vendors or in shops outside the country were considered informal and, therefore, VAT free. The estimate of informal consumption played a crucial role in determining the amount of money that does not enter the public purse, because although this consumption should incur VAT it does not. Having done this, we obtained an estimate of VAT collection in Mexican homes, which was analyzed in accordance with the following criteria: households that receive remittances and households that do not; households in urban and rural areas, and households distributed in accordance to total income deciles per capita. Finally, using 2006 and 2008 ENIGH data, we elaborated a system of VAT payment associated to remittances and based on the remittance information provided by the Bank of Mexico.



TABLE 3

VAT estimate according to ENIGH and by household type 2006 and 2008.
(Figures in millions of dollars, adjusted by informality)

TYPE OF HOUSEHOLD	VAT 2006	%	VAT 2008	%	CHANGE % 2006 AND 2008
Rural, remittances	372	1.65	289	1.36	-22.3
Rural, no remittances	2,138	9.51	1,660	7.79	-22.4
Urban, remittances	664	2.95	686	3.22	3.3
Urban, no remittances	19,301	85.88	18,679	87.64	-3.2
<i>Total (ENIGH)</i>	22,475	100.00	21,314	100.00	-5.2
Subtotal, remittances	1,036	4.63	975	4.58	-5.9
Subtotal, no remittances	21,439	95.36	20,339	95.42	-5.1
<i>Total (ENIGH)</i>	22,475	100.00	21,314	100.00	-5.2
SHCP	34,912		41,001		17.4
ENIGH Proportion (%)	%		%		
ENIGH	64.37		51.98		
SHCP	100.00		100.00		

Source: Authors' table based on ENIGH, 2006 and 2008, and its expansion factors.

Note: In order to convert pesos to dollars using ENIGH's quarterly figures we employed the average exchange rate for the year's third quarter, which was 10.947 pesos to a dollar in 2006 and 10.323 pesos to a dollar in 2008. In order to obtain annual data, the result was multiplied by four. All other amounts provided in pesos by other sources (e.g., SHCP) were converted to dollars using the yearly average exchange rate, which was 10.901 pesos to a dollar in 2006 and 11.152 in 2008.

VAT contributions by remittance-receiving households

Remittance-receiving homes contributed 1,036 million dollars in VAT during 2006 and 975 million in 2008, which amounted to 4.6% of ENIGH's total *estimated* tax collection for both years. These calculations consider an informal consumption rate of 12.6% in 2006 and 13.3% in 2008. Table 3 shows that, while ENIGH's total estimated VAT collection decreased 5.2% between 2006 and 2008, the greatest drop was in rural

households (whether they received remittances or not). In this case, VAT collection decreased some 22%.

Urban, remittance-receiving households are the only group where VAT payments had a positive increase at 3.3%. Even though this VAT estimate employs a conservative tally of informal consumption, VAT payments are still substantial.⁶

These results support the idea that remittance-receiving homes (especially in urban areas), having experienced an increase in average current income, were able to increase

⁶ Table 3 shows that ENIGH microdata allows us to estimate a significant percentage of the VAT observed by SHCP—around 65% in 2006 (22,475 million dollars) and 52% in 2008 (21,314 million dollars).



their VAT contributions. This was not the case for the rest of the population (see Table 3).

Redistributive impact of VAT payments made by remittance-receiving households between 2006 and 2008

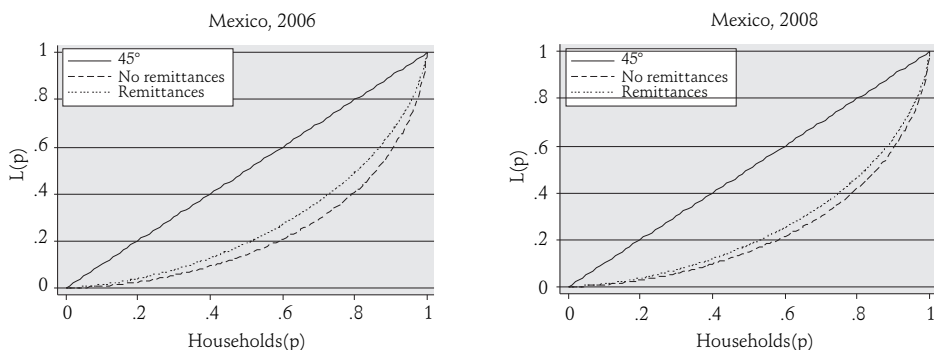
In order to measure the redistributive impact of tax payments, we present an analysis broken down by deciles and Gini coefficient, as well as Lorenz curves (Yithzaki, 1983, Kakwani, 1984 and Lambert, 2001). These indicate the concentration degree of VAT payments among households with and without remittances. It also explores the effects increased VAT payment concentration has on per capita income inequality for households with and without remittances, both on a national level and in rural and urban areas. In the case of VAT payments, a high Gini coefficient would be desirable; the

Lorenz curves should be as far as possible from the equality line. The closer the curve is to the straight 45° line, the higher the level of regressivity. In other words, tax payments will concentrate in households with reduced income levels, which is hardly desirable in terms of equality. Graphs 3 and 4 show the Lorenz curves for VAT payments during 2006 and 2008 depending on remittance reception status. As can be seen, VAT distribution for remittance-receiving homes is closer to the equality line than its counterpart, which confirms that VAT payments have a lower concentration in high strata while households in the lower deciles make more VAT contributions.

In the case of the Gini coefficients (Tables 4 and 5), we can see that the distribution of VAT payments in remittance-receiving households is less concentrated, a sign of higher regressivity.⁷ Said homes are not only

GRAPH 3 AND 4

Lorenz curves for VAT payments in Mexico, 2006 and 2008



Source: Authors' graphs based on ENIGH microdata, 2006 and 2008.

⁷ A tax system is regressive if it extracts proportionally more resources from those who generate less income and progressive where those who earn more pay proportionally more taxes.



TABLE 4

VAT payment per total *remittance-receiving* household deciles in Mexico, 2006 and 2008 (Figures in millions of dollars, adjusted by informality)

DECILES	VAT 2006	CONTRIBUTION IVA %	VAT 2008	CONTRIBUTION IVA %	DIFFERENCE IN CONTRIBUTION
1	45	4.3	44	4.5	0.2
2	53	5.1	77	7.9	2.7
3	91	8.8	86	8.8	0.0
4	95	9.2	66	6.8	-2.4
5	121	11.7	86	8.8	-2.9
6	113	10.9	97	10.0	-0.9
7	82	7.9	129	13.2	5.3
8	114	11.0	115	11.8	0.8
9	178	17.2	133	13.6	-3.5
10	144	13.9	143	14.7	0.8
Total	1,036	100.0	975	100.0	
Gini		0.4794		0.4949	
SE		(0.013)		(0.017)	

Source: Authors' table based on ENIGH and respective weighting factors.

TABLE 5

VAT payment per total *non-remittance-receiving* household deciles in Mexico 2006 and 2008 (Figures in millions of dollars, adjusted by informality)

DECILES	VAT 2006	CONTRIBUTION IVA %	VAT 2008	CONTRIBUTION IVA %	DIFFERENCE IN CONTRIBUTION
1	454	2.1	576	2.8	0.7
2	743	3.5	802	3.9	0.5
3	924	4.3	969	4.8	0.5
4	1,078	5.0	1,150	5.7	0.7
5	1,270	5.9	1,330	6.5	0.6
6	1,530	7.1	1,610	7.9	0.8
7	1,910	8.9	1,800	8.8	-0.1
8	2,410	11.2	2,462	12.1	0.9
9	3,460	16.1	3,370	16.6	0.4
10	7,660	35.7	6,270	30.8	-4.9
Total	21,439	100.0	20,339	100.0	
Gini		0.5621		0.5374	
SE		(0.005)		(0.003)	

Source: Authors' table based on ENIGH and respective weighting factors.



paying more VAT, relatively speaking, but households in the lower income deciles contribute more tax. Gini indicators for remittance-receiving households are lower (0.479 and 0.495 in 2006 and 2008, respectively), while households without remittances have higher values (0.562 and 0.537 respectively).

Remittance contribution to VAT payment in Mexico

So far we have presented the results of estimated VAT payments for remittance-receiving households, but the amount of VAT associated with remittances has not been mentioned. This requires an initial estimate of the total VAT payment (hypothetical scenario) exclusively associated to remittance spending using 2006 and 2008 ENIGH microdata. This must be followed by an estimate of remittance contributions to VAT payment based on Bank of Mexico information for the same years. We decided to provide a fictional scenario exploring what would happen if the State only received remittance-associated VAT payments. This estimate only calculated the VAT generated by the share of remittances per total

household income. Informality was readjusted under the assumption that this would behave homogeneously in regards to remittance spending and VAT extraction. The estimated results are shown in Table 6 as *Hypothetical VAT linked to remittance spending (ENIGH)*, which reached 342 and 226 million dollars in 2006 and 2008, respectively.⁸ This information was used to calculate the proportion of said amounts in regards to the total amount of remittances recorded by ENIGH—a value of 5.9% for both years (see *Remittance VAT as % of the total amount of remittances (ENIGH)* in Table 6). That is, for every dollar that enters Mexico as remittance money, almost 6 cents end up as VAT contributions.

The last step involves obtaining an appropriate estimate of remittance amount in order to correct ENIGH's low estimate. In this case, just like household income surveys are adjusted using national tallies (SHCP 2008; Vargas 2006), we decided to rescale the ENIGH remittance estimate using an expansion factor (or Altimir Factor),⁹ which was validated through an analysis of linear regression by the least squares method using ENIGH's regional data and that from the Bank of Mexico.¹⁰ The amount of remittances reported by the Bank of

⁸ In regards to these results, the remittance amount destined to certain types of spending or investment is difficult to assess with exactitude. The suggested remittance-based VAT is an approximation to real data and assumes that households would only contribute a proportion equivalent to the spending of the amount of remittances received.

⁹ The expansion factor is, where BM is the amount of remittances reported by the Bank of Mexico during year t and $ENIGH$ is the amount of remittances estimated by ENIGH in time t .

¹⁰ Several regressions performed using ENIGH's regional information and Bank of Mexico data suggest that the expansion of ENIGH's amount of remittances with respect to the Bank of Mexico data is adequate. The expansion factor used for 2006 and 2008 was 4.4 and 6.6 respectively, while the regression analysis with the pool of regional data for both years results in an expansion factor of 5.5 with an R^2 of 0.88.



TABLE 6

Estimated VAT linked to remittance spending according to ENIGH and adjusted with Bank of Mexico information, 2006 and 2008 (millions of dollars)

	2006	2008
Hypothetical VAT linked to remittance spending (ENIGH)	342	226
ENIGH remittance amount estimate	5,764	3,806
Remittance VAT as % of the total amount of remittances (ENIGH)	5.93	5.94
Remittance amount estimate (Banxico)	25,567	25,137
VAT estimate for remittance-receiving households (Banxico base)	1,517	1,493

Source: Authors' table based on ENIGH, 2006 and 2008, and Bank of Mexico.

Mexico is shown in Table 6; it totals 25,567 million dollars in 2006 and 25,145 million in 2008. When 5.9% of these amounts is calculated, we obtain a remittance-related VAT estimate of 1,517 million and 1,493 million dollars for 2006 and 2008, respectively. This last result shows that remittance-related VAT collection amounts to 4.3% of the total VAT collection *observed* by the SHCP in 2006, and 3.6% in 2008.

5. PUBLIC SPENDING, TRANSFERS AND SOCIAL PROGRAMS IN MEXICO *VIS-À-VIS* REMITTANCE-RELATED VAT COLLECTIONS

During the past few years, spending in public sector programs in Mexico (including current expenditure, investment spending, subsidies and transfers) was about 16% of the gross GDP; specifically, 16.1% in 2006 and 18.4% in 2008. Non-programmable expenditure has remained around 6% of the GDP. According to data from the SHCP, expenditures classified as Social Development (e.g., education, health, social welfare, urbanization, housing,

regional development, water supply, sewerage and welfare) comprised 59% and 60% of budgeted expenditures in 2006 and 2008, respectively. The remaining public expenditure is labeled as Economic Development expenses, which comprise 30% of total programmed expenditure for the relevant years. An important part of public expenditure in Mexico is used on education and health, reaching up to one third of the total: it comprised 36 and 33% of total spending in 2006 and 2008, respectively. In this regard, mention must be made of the balance between remittance-related VAT contributions and the health-related benefits received by the population living in remittance-receiving households. ENIGH and other official sources allowed us to estimate that, in 2008, remittance-related VAT contributions were 50% higher than federal health spending aimed at the population living in remittance-receiving households (see Table 7).

Another important area of social spending belongs within the so-called Conditional Cash Transfers (Transferencias Condicionadas en



TABLE 7

Estimated VAT linked to remittance spending and several economic indicators, 2006 and 2008 (millions of dollars)

ECONOMIC INDICATORS	2006		2008	
	MILLIONS OF DOLLARS	REMITTANCE VAT AS % OF THE INDICATORS	MILLIONS OF DOLLARS	REMITTANCE VAT AS % OF THE INDICATORS
<i>Remittance VAT estimates</i>	1,517		1,493	
<i>Social spending indicators</i>				
Health spending, remittance-receiving households	–	–	989	151.10
Oportunidades (program)	3,075	49.3	3,740	39.9
Procampo (program)	1,378	110.1	1,273	117.3
3x1 Program for Migrants	18	8,427.8	44	3,393.2
<i>Economic and tax indicators</i>				
Gross domestic product	985,899	0.15	1,087,001	0.14
Oil budget revenues	78,984	1.9	94,602	1.6
Incometax (ISR)	41,097	3.7	50,395	3.0
Value added tax (VAT)	34,912	4.3	41,001	3.6
Foreign direct investment	25,618	5.9	22,516	6.6

Source: Authors' table based on ENIGH, 2006 and 2008, Informe de Gobierno 2009, Secretaría de Hacienda y Crédito Público, and Banco de México.

Efectivo, TCE), which in Mexico are associated to programs such as Oportunidades and Procampo. However, in contrast to the amounts allocated to health and education, the combined spending of Oportunidades and Procampo is less than 3% of the total (2.6 and 2.5% in 2006 and 2008, respectively). Interestingly, remittance contribution to VAT is not insignificant when compared to Oportunidades' expenses, since said tax contributions were equivalent to 50 and 40% of the amount allocated to this program in 2006 and 2008, respectively. In the case of Procampo, remittance-related tax contributions were higher, amounting to 10 and 17% of program expenses in 2006 and 2008, respectively (see Table 7).

Another social program that has received a lot of attention in recent years given its direct link to remittances is the 3x1 Program for Migrants (Programa 3x1 para Migrantes). This is supposed to fight poverty and promote local development in communities of origin: the federal government provides a quarter of the funding, migrant associations another quarter, and the state and municipal governments the remaining parts. However, state expenditure on this program represents a negligible part of public spending: 0.01 and 0.02% of total spending in 2006 and 2008, respectively. Even when evaluating whether the 3x1 Program's spending is significant in relation to the target



population, it appears that, judging from our own ENIGH-based estimates, this spending represented 3% (2006) and 8.3% (2008) of total direct transfers made by Procampo and Oportunidades and targeted at remittance-receiving households. When we compare state spending on the 3×1 Program and remittance-related contributions to VAT collection, we will see that the latter were 85 and 35 times larger in 2006 and 2008, respectively. This means that for every remittance-related VAT dollar, the federal government contributed one cent in 2006 and three cents in 2008.

Finally and in comparison with other economic and fiscal indicators in 2008, remittance-related VAT contributions amounted to 0.14% of GDP, 1.6% of oil revenue, 3.0% of income tax, 3.6% of VAT, and 6.6% of direct foreign investment (see lower line of Table 7).

6. FINAL THOUGHTS

Mexican migrants in the United States contribute a significant part of Mexico's tax revenue through the spending of their remittances in the national market.

Historically speaking, international migration and migrant's remittances have had enormous impact on Mexican economic and social development. However, both the Mexican state and society in general should acknowledge that migrants contribute a significant part of tax revenue via the spending of

their remittances in the national market. According to our results, remittance spending led to some 1,500 million in VAT contributions during 2006 and 2008. This is a substantial amount, more so if we consider that this was equivalent to half the federal budget for the Oportunidades program in 2006 and 40% of the same program in 2008.

Remittance-receiving homes will continue to contribute significantly to VAT revenue, probably increasing in the immediate future.

Considering the impending changes in revenue collection (especially given an important drop in oil revenues) VAT collection associated to remittance flow could well increase progressively. According to this research, around 4% of collected VAT could be dependent on remittances. Estimates based on fiscal projections by the SHCP indicated revenues from taxes would rise from 42 to 50% in 2009, while oil revenues would fall from 37 to 25%. Also, VAT's share in budget revenues was expected to increase from 16% in 2008 to 18.5% in 2009. In this new scenario, the share of remittance-derived VAT collection could well increase in the coming years, since the decrease in remittance flow will undoubtedly be lower when compared to other important sources of budget revenue, as in the case of oil.

A decline of remittance flow in recipient households does not translate into a proportional reduction in VAT for these homes.



The population living in remittance-receiving households is not poorer than the rest, and this is, to a large extent, explained by the very fact that they receive remittances. Specifically and applying CONEVAL's poverty measuring method, we can conclude that the most vulnerable population is in rural areas, where poverty levels in remittance-receiving homes are considerably lower than in households that do not receive this aid. This is not the case in urban areas, where there are no significant differences in poverty levels between households that receive remittances and those who do not.

In turn, the fact that households with remittances have not exceeded the poverty levels present in the non-receiving population suggests that these households conducted successful strategies to offset the drop in remittances (e.g., increased labor market participation). For purposes of this research, this means that households with remittances were able to maintain certain levels of past consumption, a situation that explains why VAT collection in these homes did not decline as expected.

Population associated to migration reaps more benefits from state spending via direct transfers like those of the Oportunidades program, rather than the 3×1 Program.

As far as the 3×1 Program is concerned, contributions made by the State through this medium will not exceed even 10% of direct transfers received by remittance-receiving households by way of the

Oportunidades and Procampo programs. The 3×1 Program has been considered a very important, almost paradigmatic initiative aimed at promoting economic and social development in regions with high emigration rates. Strictly speaking, it is difficult to question government policies of this kind. What can nevertheless be strongly questioned is the negligible amount of resources spent by the government on this program given that, when comparing remittance-derived VAT contributions with the 3×1 budget, we see that for every remittance-derived VAT dollar the government contributed a mere cent of a dollar in 2006 and three cents in 2008.

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