

The Slowdown of Remittances to Mexico and the Aftermath of the Financial Crisis

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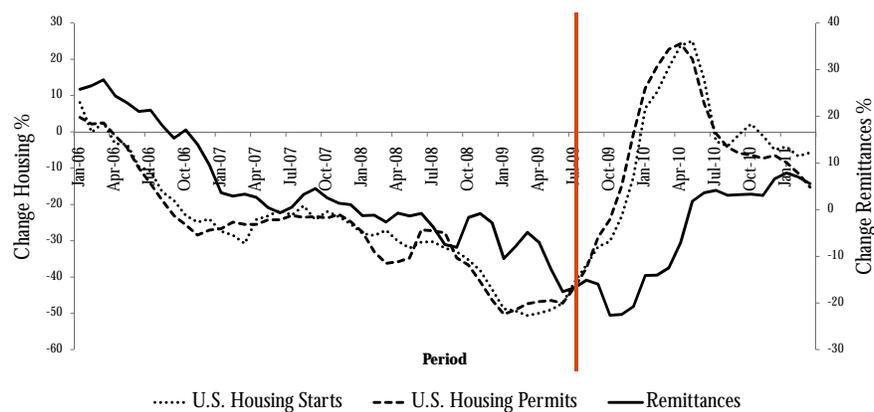
Impact of the crisis on remittances

- As the latest financial crisis unfolded there was a fear of a significant decrease in remittance flows worldwide, but the impact was mixed.
- For some regions there was no decrease in remittances and flows just suffered a mild slowdown (e.g. Asia). Latin America was one of the most affected region.
- The decrease in remittances in Latin America was not similar across countries. **Mexico** was the most affected (in terms of volume). With the exception of Venezuela, there were no other major decreases in remittances to Latin American countries in 2008.

Why are remittances to Mexico so affected by the crisis?

- Possibility: The condition of the U.S. housing market.
 1. Downward fluctuations in the U.S. construction sector negatively affected migrant budgets, which, in turn, led migrants to decrease the amounts transferred to family and friends abroad (Ruiz and Vargas-Silva 2009).
 2. A downturn in the housing/construction market hits Mexican migrants particularly hard because foreign-born Mexican workers tend to concentrate in this sector.
 3. In fact, the Pew Hispanic Center (2007) estimated that of the 2.9 million Hispanics employed in the U.S. construction industry in 2006, 2.2 million were foreign-born, representing about 19 percent of the industry's labor force.

Change in remittances and US housing starts/permits



The US housing market may not be telling the whole story.

- Remittances may also have been affected by the overall poor shape of the U.S. economy, not simply the housing market (Pew Hispanic Center 2010).
- Although an important percentage of Mexican immigrants work in the construction sector, Mexican immigrants also tend to concentrate in other sectors such as manufacturing, agriculture, and services.
- Moreover, there is evidence of a reduction in the number of new migrant arrivals from Mexico to the U.S. (Passel and Cohn 2009).
- It is also possible that the apparent increase in remittances during the 1990s and early 2000s was the result of improvements in the measurement of these flows (Cañas et al. 2007). Therefore, the slowdown may just reflect the actual growth rate.

In the article...

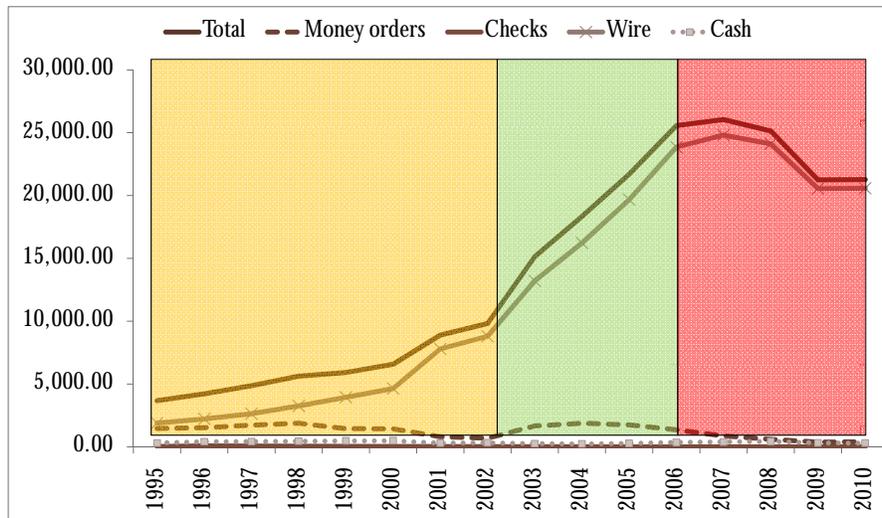
...we explore some of the potential explanations for the slowdown in workers' remittances to Mexico.

- Note, however, that these explanations are not mutually exclusive.
- Indeed, it is unlikely that the decline in growth has a single cause.
- Rather, we seek to discern which—if any—of these explanations have merit and—if so—to what degree.

The decrease....

Date	Volume		Transactions	
	Flow	Growth	Number	Growth
1996	4223.7	15.0	13208.1	17.3
1997	4864.9	15.2	15368.6	16.4
1998	5626.8	15.7	19419.5	26.4
1999	5909.6	5.0	20937.3	7.8
2000	6572.8	11.2	17999.1	-14.0
2001	8895.3	35.3	27744.3	54.1
2002	9814.5	10.3	29953.8	8.0
2003	15040.7	53.3	47651.3	59.1
2004	18331.3	21.9	57011.3	19.6
2005	21688.7	18.3	64923.3	13.9
2006	25566.8	17.9	74183.6	14.3
2007	26068.7	2.0	75700.8	2.0
2008	25137.4	-3.6	72627.3	-4.1
2009	21181.1	-15.7	66797.0	-8.0
2010	21271.2	0.43	67434.3	0.74
Average	14208.7	14.4	43108.9	15.2

Transfer methods



State or Territory	2006	2007	2008	2009	2010
Aguascalientes	17.6	-1.7	-10.9	-15.3	4.3
Baja California	17.7	10.7	0.0	-3.9	8.2
Baja California Sur	16.8	12.6	8.1	-8.1	5.6
Campeche	24.8	-2.0	-9.6	-23.4	-1.3
Coahuila	14.4	6.5	-5.0	-16.1	0.0
Colima	11.0	9.0	-7.6	-10.9	4.3
Chiapas	22.9	-2.1	11.9	-25.0	-5.7
Chihuahua	21.8	-2.9	3.2	-14.3	-2.3
Distrito Federal	13.5	-29.0	2.4	-11.1	3.6
Durango	11.5	5.7	-2.4	-15.4	1.3
Estado de México	17.8	4.2	-4.6	-17.9	-3.6
Guanajuato	21.3	3.3	-3.0	-16.3	2.0
Guerrero	23.9	2.3	-3.6	-16.6	0.2
Hidalgo	20.6	11.1	-12.0	-21.9	-4.7
Jalisco	16.5	1.0	-4.1	-11.7	3.7
Michoacán	2.5	-2.7	0.5	-13.2	0.7
Morelos	16.4	8.0	-2.0	-12.2	1.4
Nayarit	15.0	7.7	0.4	-9.5	-1.1
Nuevo León	20.7	-4.6	-1.0	-9.7	-3.0
Oaxaca	25.9	11.5	0.3	-14.9	0.0
Puebla	25.4	9.1	0.1	-15.1	-0.1
Querétaro	19.3	-1.9	-8.1	-17.7	-1.4
Quintana Roo	17.1	-1.0	-1.3	-12.1	1.5
San Luis Potosí	27.0	8.9	-2.2	-17.8	0.6
Sinaloa	11.6	3.9	-6.7	-6.6	3.1
Sonora	10.6	1.9	-6.4	-10.6	4.9
Tabasco	20.1	-2.8	-14.6	-27.0	-2.5
Tamaulipas	16.8	4.0	-3.1	-17.3	-2.9
Tlaxcala	22.4	12.0	0.6	-15.4	0.0
Veracruz	22.4	5.6	-8.9	-20.1	-4.4
Yucatán	29.8	12.0	-0.4	-19.5	2.6
Zacatecas	23.5	2.9	-0.8	-16.1	1.6
Average	18.7	3.2	-3.6	-15.1	0.5

Methodology

- Correlations
- Impulse response functions
- Variance decompositions

Correlations

We calculate correlation coefficients between remittance flows to Mexico and several measures of economic activity in the United States and Mexico:

- Industrial production in Mexico
- US real per capita income
- US retail and food services sales
- US average hourly earnings in the hospitality and leisure sector
- US average hourly earnings in the manufacturing sector
- US Hispanic unemployment
- US unemployment of individuals without a high school degree
- Several measures of US housing activity.

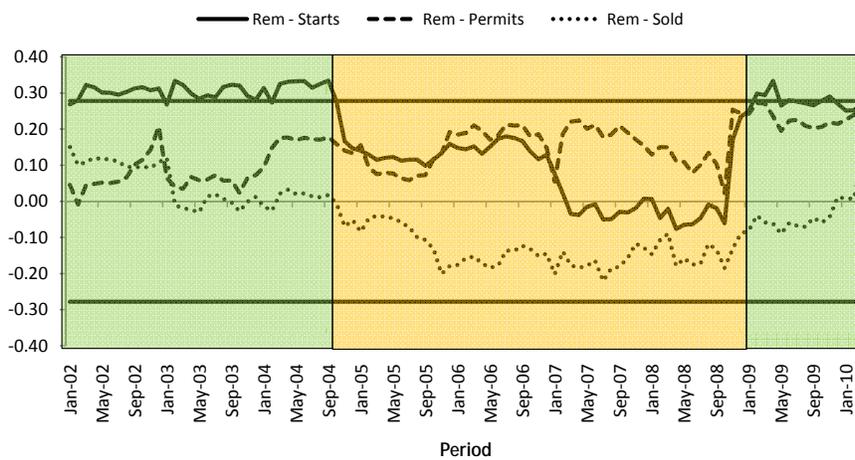
US housing activity

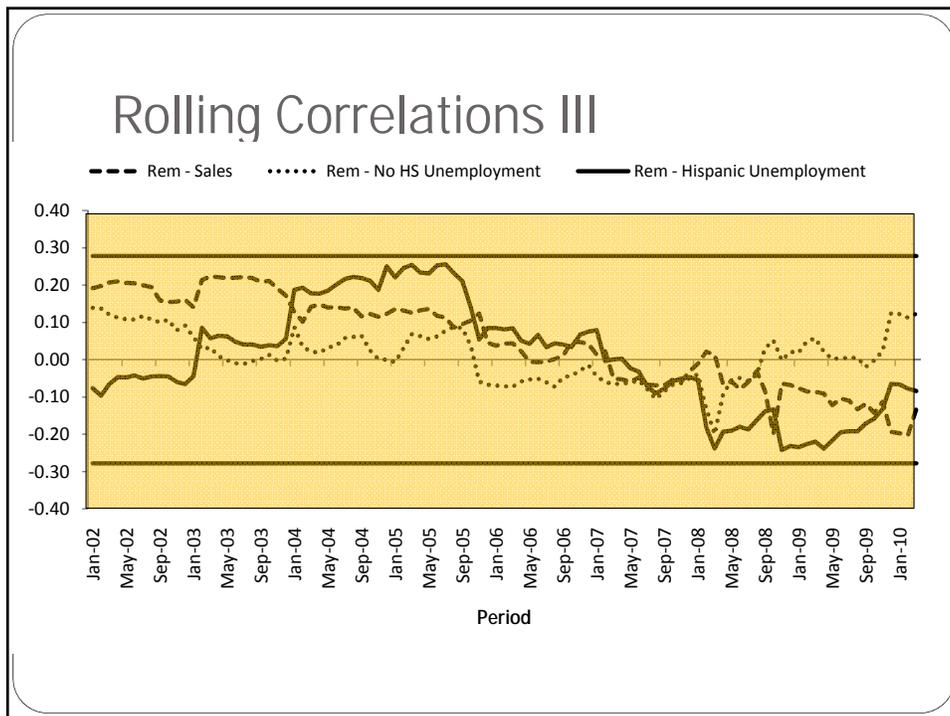
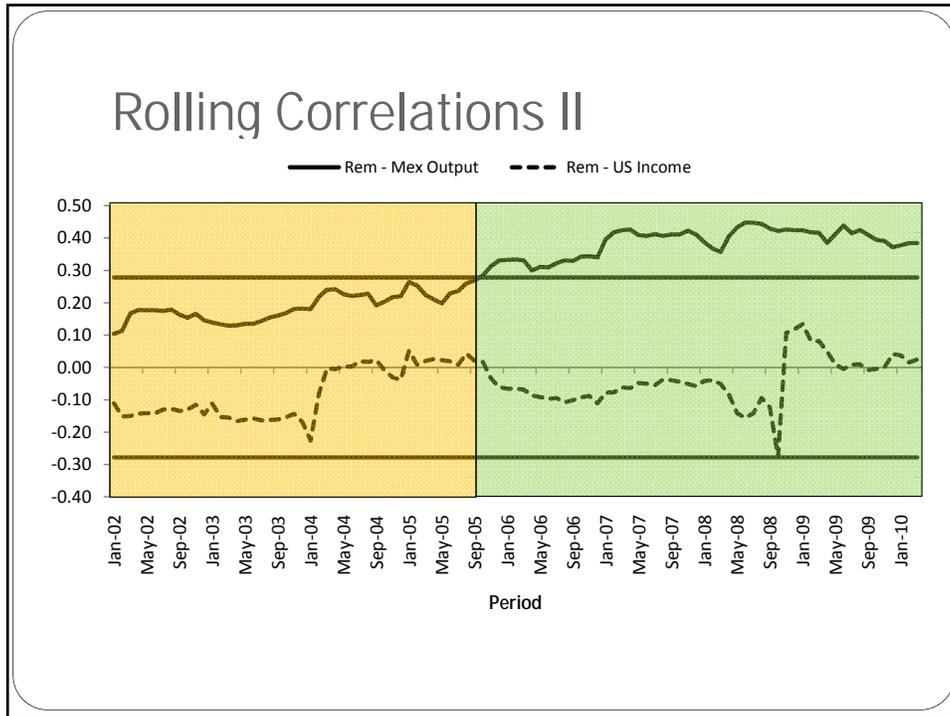
- New privately owned housing units starts (housing starts).
- New private housing units authorized by building permit (housing permits).
- New one-family home sales (home sales).

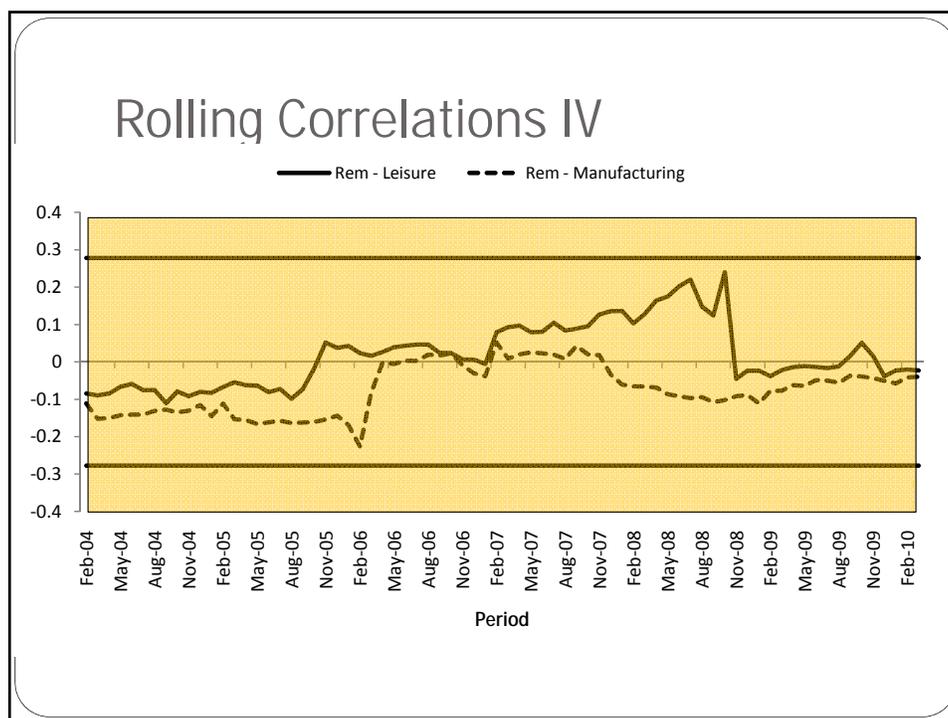
Correlations

Variable	Remittances				
	(1) $t-2$	(2) $t-1$	(3) t	(4) $t+1$	(5) $t+2$
Mexico's output	-0.08	-0.04	0.28*	-0.28*	0.13
U.S. income	0.10	0.08	-0.01	0.11	0.02
Housing starts	0.03	-0.04	0.24*	0.01	-0.11
Housing permits	0.05	0.00	0.20*	0.02	0.05
Home sales	-0.03	-0.01	0.07	0.19*	-0.02
Retail and food sales	-0.02	-0.02	0.08	0.05	0.06
Leisure and hospitality earnings	-0.09	-0.07	-0.06	-0.20*	0.01
Manufacturing earnings	0.03	0.13	-0.13	-0.24*	-0.02
Hispanic unemployment	-0.14	0.11	-0.06	-0.06	-0.08
No high school unemployment	0.08	-0.23*	0.05	0.07	-0.17*

Rolling Correlations I







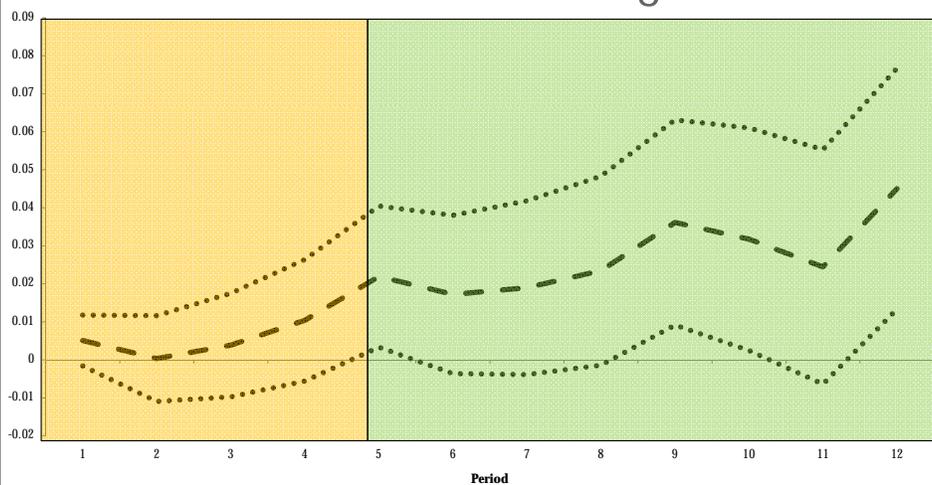
VAR model

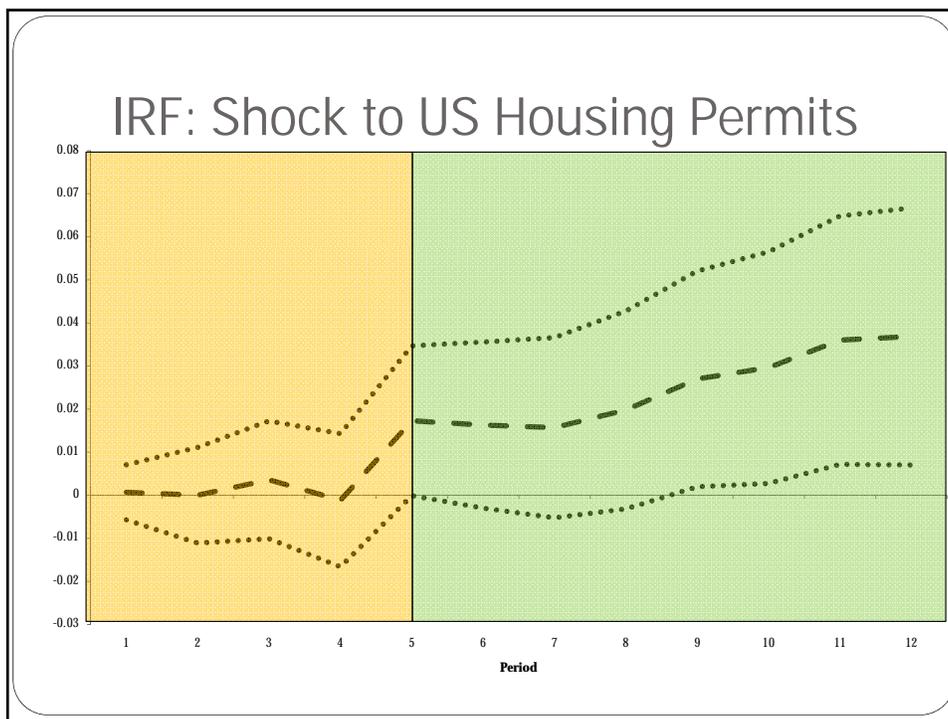
- We also estimate a six-variable VAR model containing: 1) US income, 2) an indicator of the economic conditions of Mexicans in the US, 3) remittances, 4) Mexico's interest rate, 5) Mexico's exchange rate, and 6) Mexico's output.
- Monthly data (January 1998 to March 2010), 12 lags; Cholesky
- Variables are seasonally adjusted and in real terms. All variables, except the interest rate, are used as first differences of natural logarithms in the VAR.

Indicators of the economic conditions of Mexicans in the US

- Housing activity variables (starts, permits and sales)
- US retail and food services sales
- US average hourly earnings in the hospitality and leisure sector
- US average hourly earnings in the manufacturing sector
- Unemployment rate of Hispanics
- Unemployment rate of those that lack a high school degree

IRF: Shock to US Housing Starts





VDCs

Portion of the Forecast Error Variance Explained by

U.S. Income	8	(7)	Housing Starts	18	(6)^
U.S. Income	12	(7)	Housing Permits	16	(7)
U.S. Income	10	(6)	Home Sales	7	(6)
U.S. Income	12	(7)	Retail and Food Sales	9	(6)
U.S. Income	19	(8)^	Manufacturing Earnings	8	(7)
U.S. Income	20	(9)^	Leisure and Hospitality Earnings	7	(7)
U.S. Income	8	(6)	Hispanic Unemployment	9	(6)
U.S. Income	8	(6)	No High School Unemployment	6	(6)

Summary

This paper explores the slowdown of remittances to Mexico and the role that may have been played by some key variables from the U.S. economy.

- We first focus on the housing sector because the weak condition of the United States housing market has been consistently mentioned by policy experts as a reason for the slowdown in remittances.
- Second, we examine other sectors of the U.S. economy as a factor in the slowdown in remittances.
- Third, we focus on the specific economic conditions of Mexicans in the United States and inquire on the impact of two unemployment series on remittances to Mexico.

No impact...

- We find that several variables fail to provide feasible explanations for the slowdown in remittances. That is, statistically speaking, these variables do not seem to have an impact on remittances.
- Specifically, the unemployment rate of Hispanics in the United States and the unemployment rate of those that lack a high school degree do not show a strong relation with remittance transfers.
- Likewise, if U.S. housing activity variables are included, U.S. income does not have a strong impact on remittance transfers to Mexico.
- Lastly, earnings in the manufacturing sector and the leisure sector and the food and retail services sales also turn out to be non-significant.

Impact...

- The results indicate that positive shocks to different measures of U.S. housing activity (i.e. U.S. housing starts and U.S. housing permits) have a positive and significant impact on remittances.
- Remittances are also positively correlated with U.S. housing variables over time.
- Thus, ...from the explanations that have been put forth in the press and the ones that we can test empirically using macro level data, it seems that the decrease in housing activity in the United States stands out as a valid and important consideration.

All and all...

- All and all, there is still not a clear picture of what is happening in the remittances market. While the positive news is that the amount seems to be picking up and most Mexican states are reporting positive increases, it seems that housing activity has been declining again and the few data points for 2011 do not seem to be encouraging

➤ **Thank you**