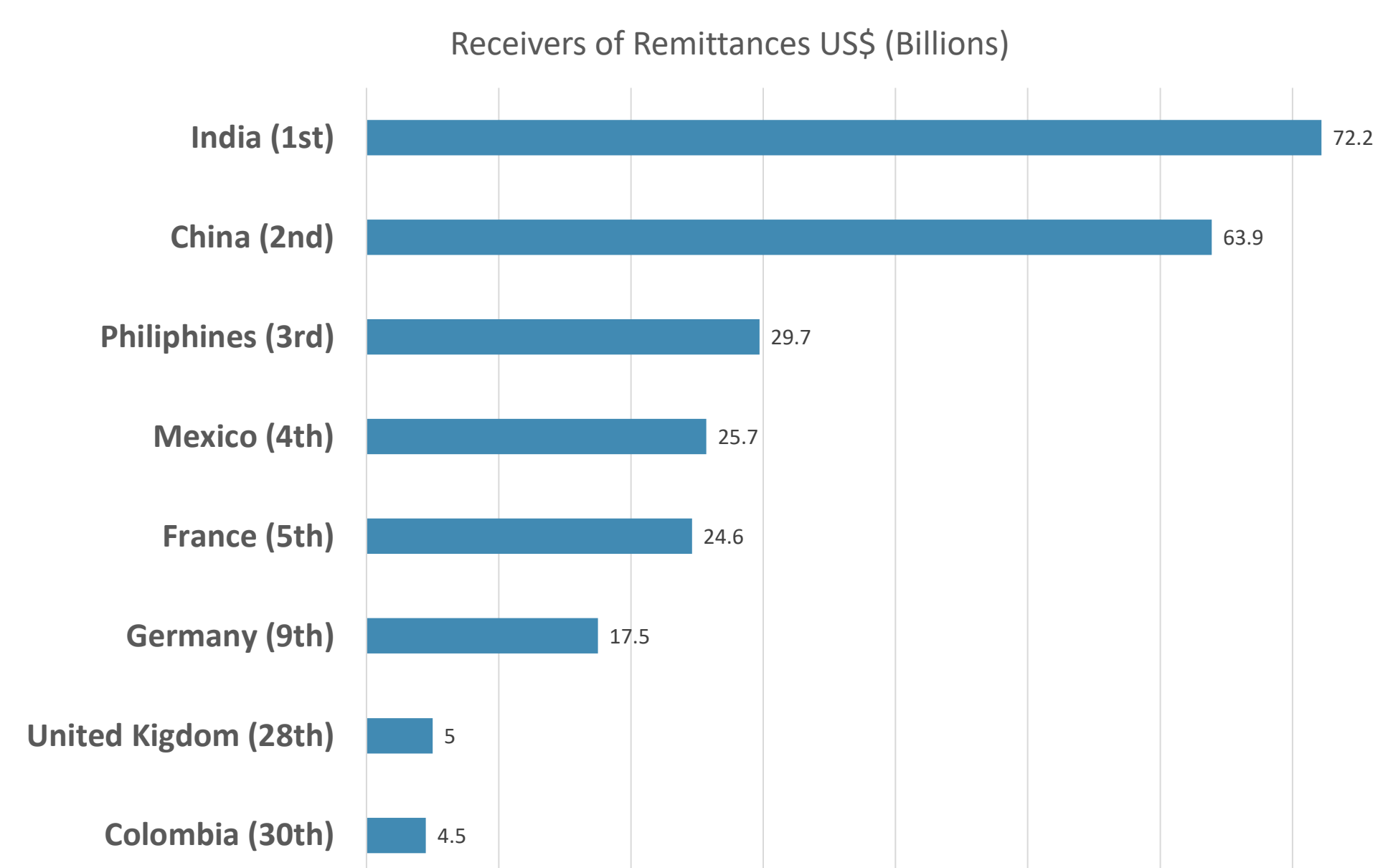
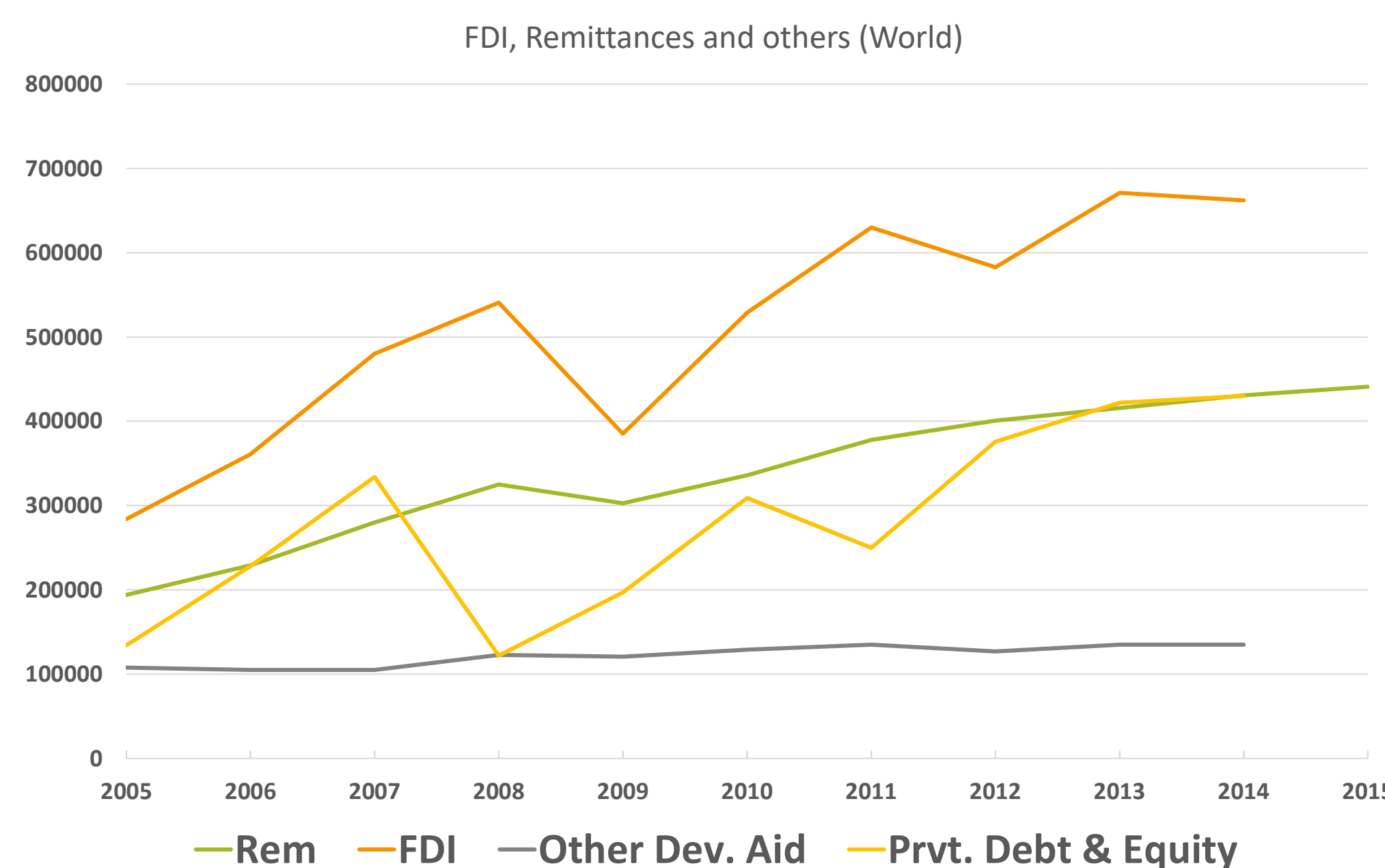


REMITTANCES



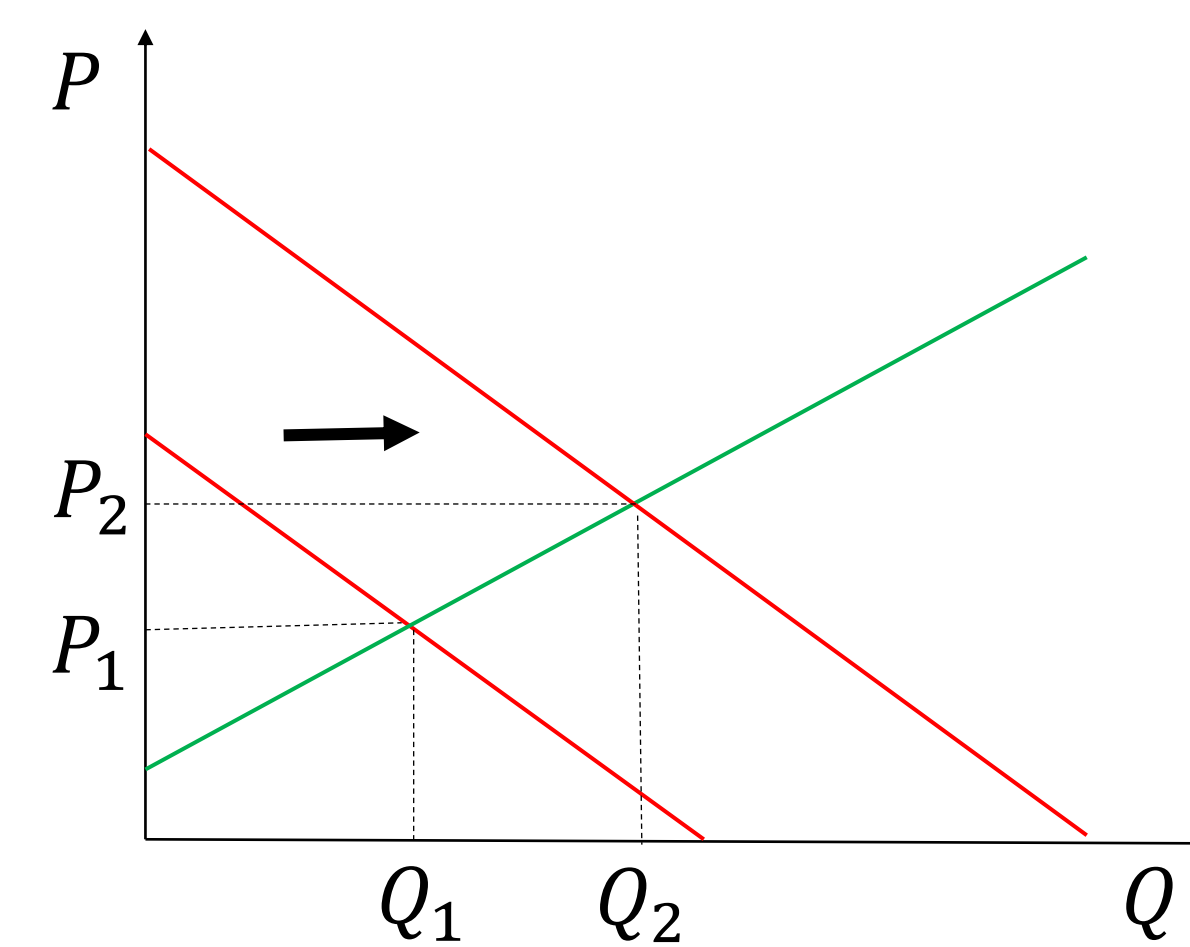
WHY REMITTANCES?

- Remittances are not directly related to classic “fundamentals”. (Migration)
- Remittances add up to 1/3 of FDI on emerging economies (on average).
- Remittances have lower volatility than FDI.
- Represents 20% to 40% of GDP in some developing countries.

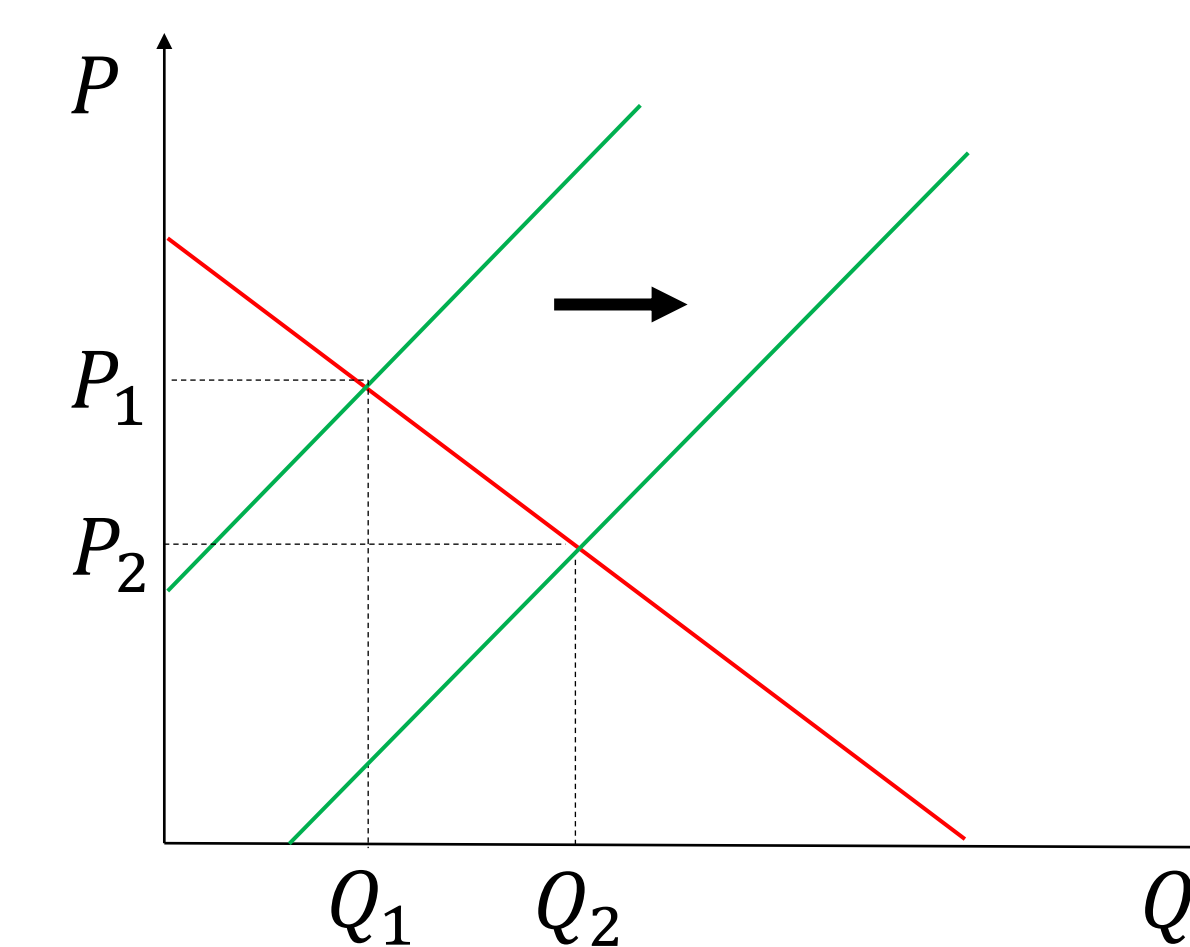


WHY REMITTANCES?

Do Remittances affect mainly Housing Demand?



Or, do Remittances affect mainly Housing Supply?

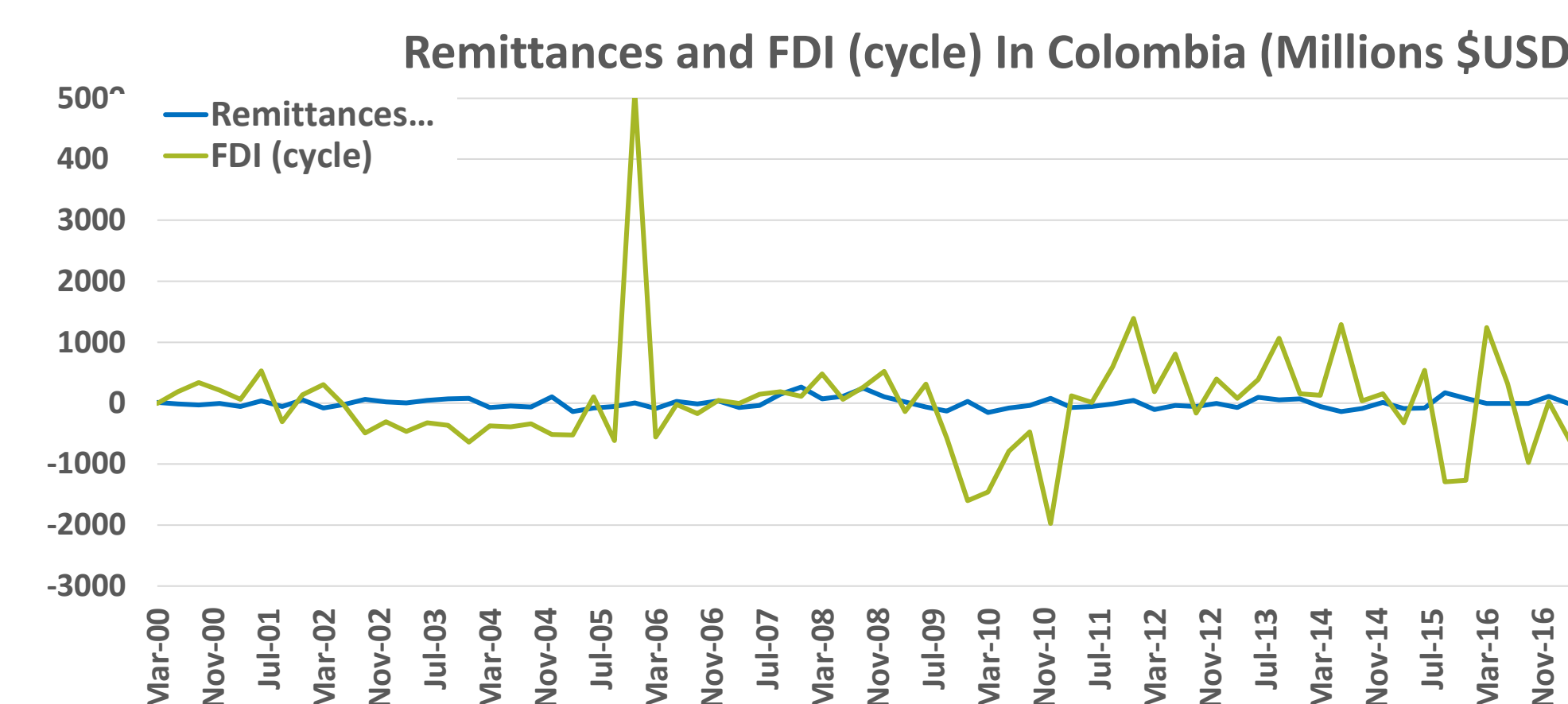
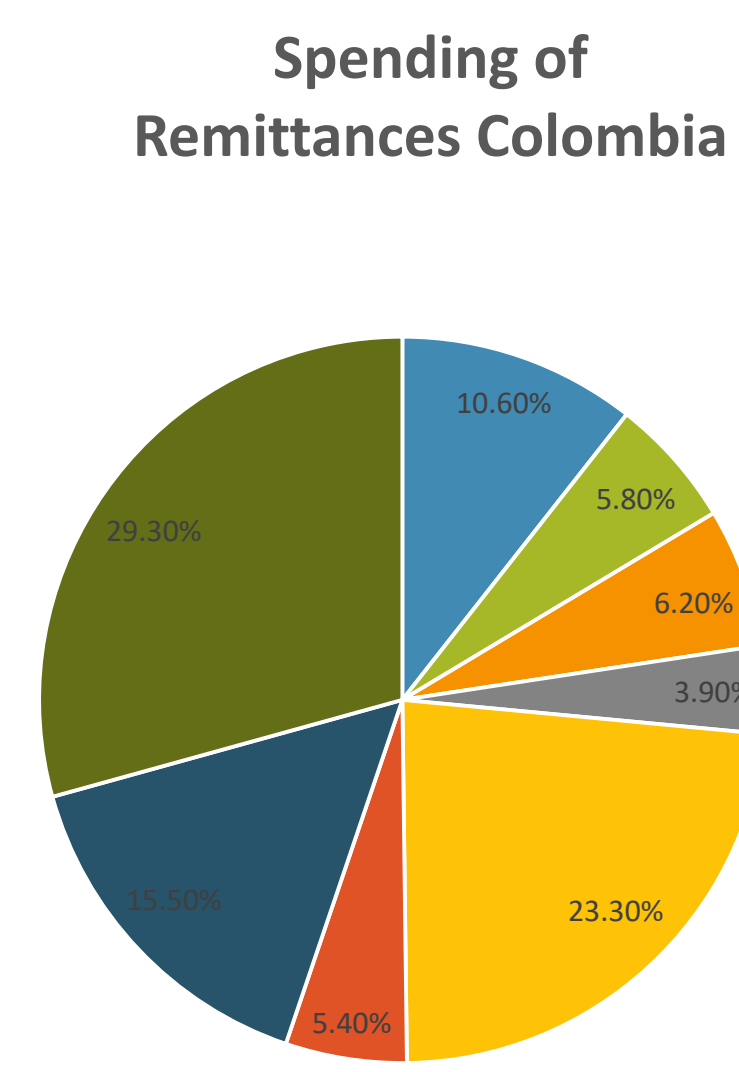
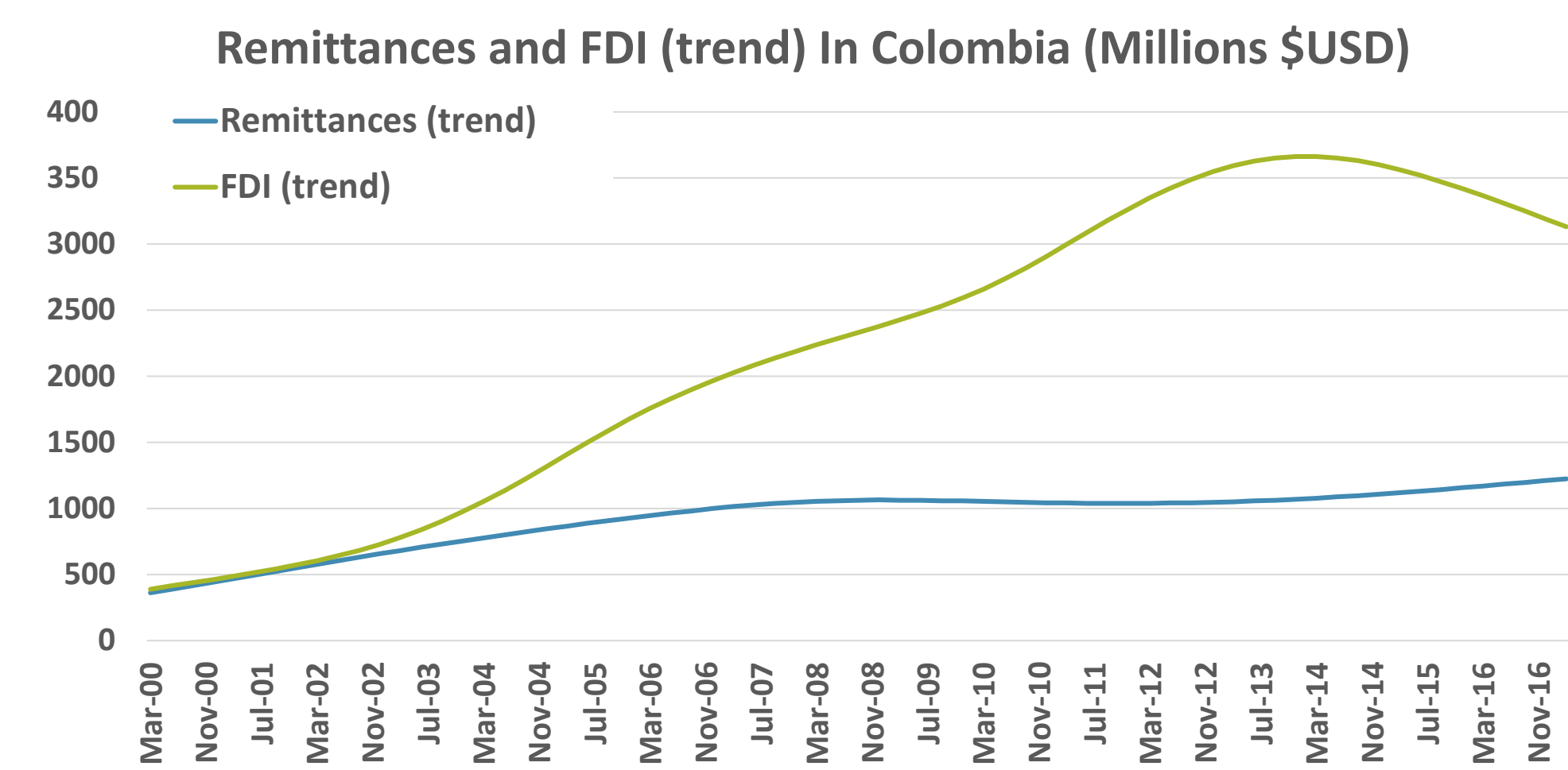


Relationship between Remittances and Housing Prices:

Δ^+ Remittances \rightarrow Δ^+ Housing Prices (+)
 Δ^+ Remittances \rightarrow Δ^- Housing Prices (-)

CASE OF STUDY: COLOMBIA

- “Mid-sized” and stable economy.
- Average historical migration patterns.
- Availability of data.
- Remittances add up to 1/3 of FDI.
- Remittances are less volatile than FDI.
- Government programs to attract remittances to invest in housing.



RESULTS

VAR(2):

	Dependent Variables:			
	GDP_t	$HousePrice_t(Sale)$	$interest_t$	$remittances_t$
GDP_{t-1}	0.810***	0.474**	1.246**	-1.686*
GDP_{t-2}	-0.412***	-0.389	-0.208	-1.028
$HousePrice_{t-1}$	-0.024	0.097	-0.011	0.922*
$HousePrice_{t-2}$	0.204**	0.387***	0.024	-0.432
$interest_{t-1}$	0.043	0.093**	1.425***	0.409
$interest_{t-2}$	-0.073	-0.065	-0.552***	-0.488
$remittances_{t-1}$	-0.028	-0.068**	0.09	0.297**
$remittances_{t-2}$	0.051***	0.043	0.151**	0.310**

	Dependent Variable: $HousePrice_t(Rent)$			
	All Incomes	Low Income	Mid Income	High Income
GDP_{t-1}	-0.001	0.026	-0.024	0.073
GDP_{t-2}	0.016	-0.017	0.048	-0.010
$HousePrice_{t-1}$	.663***	.839***	.606***	.632**
$HousePrice_{t-2}$	0.118	-0.080	0.154	0.082
$interest_{t-1}$	0.003	0.006	-0.002	0.006
$interest_{t-2}$	-0.008**	-0.005	-0.004	0.002
$remittances_{t-1}$	-0.005	-0.011**	0.000	-0.010
$remittances_{t-2}$	.008**	.010**	0.007	0.010

ARIMA(2,1,1):

	Dependent Variable: $Units\ Approved_t$			
	All Incomes	Low Income	Mid Income	High Income
GDP_t	0.525	0.307	0.513	1.084***
$interest_t$	-0.030	-0.105	-0.022	0.012
$remittances_t$	0.167***	0.253**	0.140**	0.058
$Units_{t-1}$	-0.052	0.033	0.012	0.372***
$Units_{t-2}$	0.040*	0.285*	0.245	0.396**

Granger Causality Test:

	Dependent Variables			
	GDP_t	$HousePrice_t$	$interest_t$	$remittances_t$
GDP_t	--	.494	.001	--
$HousePrice_t$	.278	--	.870	.278
$interest_t$	.023	.102	--	.023
$remittances_t$	.602	.006	.472	.602
all_t	.131	.014	.001	.131

CONCLUSIONS AND WHAT IS NEXT?

- Remittances seem to be used to finance housing supply, creating a downward pressure in the housing prices.
- The effect is more relevant in Low and Mid income housing.
- Create a theoretical model.
- Look for impact of remittances on inflation for different countries.