## Abstract

While economic factors beyond incumbents’ control, like oil prices and international interest rates, often dictate presidential succes in Latin America, the case of Mexico presents a puzzle. Research by @CampelloZucco\_2016 shows how Low Savings Commodity Exporting (LSCE) Latin American countries tie presidents' fate to external economic swings, but in Mexico, the link appears weaker. This suggests other factors influence Mexican presidential success, potentially including the impact of the US economy. I propose that Mexico's unique characteristics, shaped by long-term migration and economic ties to the US, make it less sensitive to traditional exogenous shocks, but more susceptible to those specific to the conditions of the US economy. I focus on this relationship and the mechanism of misattribution of responsibility, which occurs when citizens mistakenly assign economic outcomes to presidential performance, regardless of its true cause. I contend that citizen perceptions towards positive economic conditions that are largely determined by specific fluctuations of the US economy, such as remittance flows and real estate market performance, significantly impact Mexican presidential approval, which potentially advances misattribution. This research aims to better characterize the factors beyond commodity prices and interest rates that influence Mexican presidential success.

## Introduction

Mexico is both part of Latin American countries due to its Spanish heritage and of North America due to its geography. The presence of Mexican culture is widely present in Central and South America however, its economic dynamics very much differ from that of its Latin American peers. Decades of integration with its two northern Anglo American neighbors, mainly through migration and economic agreements, have come to shape the country characteristics that distinguish Mexico within both regions.

For a large subset of Latin American countries, presidential popularity and reelection prospects strongly depend on factors exogenous to presidents’ policy choices such as commodity prices and international interest rates. As @CampelloZucco\_2016 show, Low Savings Commodity Exporting (LSCE) countries particularly dependent on oil prices and international interest rates evaluate presidents based on the positive or negative state of the economy, regardless of their direct responsibility. Moreover, when evaluating the effect of the Good Economic Times (GET) index and presidential popularity between Mexico and Brazil, the model performs much better for the latter with a R2:74% while a scant R2:12% for the former.

This observation is particularly compelling, it signals that other factors beyond international interest rates and commodity prices influence presidential popularity in Mexico. I contend that country characteristics resulting from long-term migration and economic evolution make Mexico less vulnerable to interest rate shocks and commodity prices but also to other factors that result from exogenous shocks rooted in the conditions of the US economy.

The human trend of migration has had considerable effects in Mexico. Migration results from multiple sources of needs yet they all ultimately converge with the desire for better living conditions. Mexican migrant workers in the US have been historically employed in X and X sectors, while more recently in X and X sectors. This shift is only natural due to the technological advances allowing for the expansion and evolution of the traditional Mexican “Maquila” into a multifaceted trade hub resulting from sound economic reforms and free trade agreements with 17 countries and particularly under the scope of the USMCA, which was reformed in 2020 from the originally signed NAFTA in 1991 [@buendia\_1996; @cameronwise\_2004]. The conditions of rule of law that emanated from the trust relationship between Canada, US, and Mexico have enhanced its appeal for larger flows of FDI that tend to establish operations for longer time periods as opposed to shorter term investments that are most prone to capital-flight dynamics.

Endogeneity concerns should be considered since migration could be a consequence of poor long-term policymaking, forcing Mexicans to seek job opportunities elsewhere. However, underlying conditions in the US would determine demand for labor and trade, resulting in exogenous shocks. Beyond the benefits and consequences of trade, remittances, a historically increasing financial flow are sent by migrant workers to support Mexican households [@doyle\_2015; @doyleg\_2021]. Counterintuitively, remittances are commonly attributed as a presidential accomplishment regardless of the fact that these transfers originate from conditions in the US and migrant workers.

This matters because the positive perception of the increasing flow of remittances might result in misattribution of responsibility for an accomplishment beyond presidential policymaking. Hence, in order to amplify the fitting power of the model introduced by @CampelloZucco\_2016, I hypothesize that exogenous shocks resulting from i) remittances flows and ii) labor demand in the US proxied with an index of the real estate sector, could help better characterize the GET conditions and whether or not they have an effect on presidential popularity in Mexico.

It is tempting to introduce variables like perceptions of security and corruption, scholars like @romeromag\_2016 and @doyleg\_2021 have argued that these variables certainly have a weight in presidential success in Mexico. However, it can be argued that the foundations of these variables might be more endogenous than exogenous given the state’s responsibility for order and governance. While one could make a case that insecurity could arise from increased competition between Drug Trafficking Organizations (DTOs) on a feud to protect or increase their share of the narcotics demand in the US market, it could prove more challenging to say that corruption would be exogenously-driven by factors in the US.

The remainder of the article is structured as follows: Section (3) introduce notions of assignment of responsibility, economic voting, and presidential success. Alongside, we explain the relationship between remittances, the real estate industry, and presidential approval. Section (4) describes the experimental design and data, followed by the hypotheses, and expected results in Section (5). Finally, we portray the implications and limitations of the proposed study in Section (6).

## Literature Review

### Remittances and Social Spending (Doyle, 2015)

Literature Review: Remittances and Social Spending

@doyle\_2015 study the relationship between remittances and social spending in developing economies. Specifically, the author explores the impact of remittances on income levels, economic security, and the subsequent implications for social welfare transfers. @doyle\_2015 posits that remittances serve as an insurance and compensation mechanism, contributing to the stability of domestic economies. Findings by @doyle\_2015 are in line with @yang\_2007, reinforcing the perspective of how remittances increase significantly in response to macroeconomic shocks, acting as a stabilizing force in times of economic uncertainty. The compensation function is further highlighted by the evidence that remittances reduce household income volatility (Amuedo-Dorantes and Pozo 2011).

Ahmed (2013) showcases the dual impact of remittances in the Dominican Republic—eroding clientelistic linkages while, simultaneously, increasing support for the incumbent due to positive economic perceptions among recipients. @doyle\_2015 highlights that countries like Argentina, Brazil, and Mexico witnessed increased social transfers, while others like Bolivia, El Salvador, and Peru experience contractions or stagnation since the 1990s despite a global commodity boom and left-leaning executives in power CEPALSTAT (2014). The author suggests that while remittances aren't the sole explanation, they contribute to the unexplained heterogeneity of welfare regimes across the region, particularly in countries with high levels of inequality and economic insecurity [@doyle\_2015].

Aparicio and Meseguer (2012) demonstrate in Mexico that elected officials strategically use remittances for political purposes, emphasizing the potential misattribution of remittances. @doyle\_2015 this argument by suggesting that this misattribution, particularly in democracies, alters individual preferences towards redistribution and taxation, potentially resulting in reduced social welfare transfers being diverted towards patronage.

Ahmed (2012) argues that remittances act as unearned foreign income for governments in autocracies, leading to reduced welfare spending. @doyle\_2015 extends this argument to democratic states, suggesting that remittances, even in democracies, result in reduced social welfare transfers, emphasizing the bottom-up causal mechanism where remittances alter individual preferences towards redistribution and taxation.

Franzoni (2008) points out that countries with limited capacity to establish large social programs experience higher migration and greater remittance inflows. In the context of small Central American states, where remittance inflows are substantial, social security and welfare spending tend to be low and favor the upper-income quintiles.

The tension between taxation and consumption in developing economies is explored by Stein and Caro (2013), highlighting how social programs are funded through taxation. The growing reliance on consumption tax, alongside income taxes, is significant, especially in Latin America.

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I argue that remittances, due to their compensation and insurance functions, will increase the general income level and economic security of recipients, thereby reducing their perceived income risk. Over time, this will dampen demand from recipients for government taxation and social insurance. Therefore, I expect increases in income remitted to an economy to result in reduced levels of social welfare transfers at the macro-level.

Remittances go directly into the hands of recipient families and they serve a function that is very similar to social welfare payments.

The repeated receipt of remittances will raise the general income and consumption level of recipients, and increase their economic security thereby reducing their perceived income risk.

In Latin America for example, while social transfers have gradually increased since the 1990s in countries such as Argentina postcrisis, Brazil, Mexico, and Venezuela, in others, such as Bolivia, El Salvador, and Peru, social transfers have either contracted, or remained largely unchanged, over the same period (CEPALSTAT 2014).2 Given that this has occurred amidst a global commodity boom and while left-leaning executives were in power in some of these countries, this is somewhat puzzling.

CEPALSTAT. 2014. Base de Datos de Estad´ısticas e Indicadores Sociales, Economicos y Medio Ambientales ´ . Santiago: CEPAL.

Although remittances are by no means a one shot explanation for variation in social spending across Latin America, they can go some way towards tackling the unexplained heterogeneity of welfare regimes across the region, together with the absence of popular demand for social insurance in countries with high levels of inequality and economic insecurity (see Holland 2012; Mares and Carnes 2009).

Discussion: historical rem: However, there remains significant variation in the volume of payments remitted to Latin America. The left-hand pane of Figure 1 displays the average volume of remittances and FDI received, as a percentage of GDP, over the period 1990–2009, for 18 Latin American countries.

For some countries, these financial transfers are an extremely important source of capital. In Argentina, Brazil, Chile, Uruguay, and Venezuela, the volume of remittances is rather small. In El Salvador, Ecuador, Guatemala, Honduras, Nicaragua, and the Dominican Republic on the other hand, the average amount of remittances received between 1990 and 2009 exceeded the average inflow of foreign investment, and in some cases, for example El Salvador, rather substantially

Misattribution. Also in Mexico, Covadonga Meseguer and Francisco Aparicio (2012; Aparicio and Meseguer 2012) have shown that elected officials will use remittances (and matching grant programs) for strategic political purposes.

Aparicio, Javier, and Covadonga Meseguer. 2012. Collective Remittances and the State: The 3×1 Program in Mexican Municipalities. World Development 40 (1): 206–22.

In the Dominican Republic, Ahmed (2013) has demonstrated that remittances can, on the one hand, erode clientelistic linkages, yet on the other hand, as a consequence of positive economic perceptions amongst recipients, increase support for the incumbent.

Remittances serve an important insurance and compensation function. Income remitted to family members in a migrant’s home country increases significantly when that country suffers a macroeconomic shock (Kapur 2004). In fact, remittances serve to increase the stability of the domestic economy and a number of studies have demonstrated that they reduce output volatility (see Chami, Hakura, and Montiel 2009).

For example, Yang and Choi (2007) have demonstrated the insurance function of remittances in the Philippines in response to contractions in income. Over 60 percent of the decline in household income as a consequence of economic shocks was replaced by remittances. In Mexico, evidence suggests that remittances, on average, reduce household income volatility (Amuedo-Dorantes and Pozo 2011), and increases in income risk in Mexico significantly raised both the propensity and the proportion of income remitted to family members (Amuedo-Dorantes and Pozo 2006).4

I suggest that the answer to these questions lies in the effect remittances have on income levels and the tension that can be found between taxation and consumption in developing economies. In Latin America, social programs and social assistance are funded through taxation, and given the growing informality of the workforce, governments increasingly rely on consumption tax, in addition to income taxes, to raise revenue (Stein and Caro 2013).

In addition, Ahmed (2012) has argued that in autocracies, remittances are a source of unearned foreign income for governments, and the substitution effect of remittances is driven by government calculations to reduce welfare spending and increase patronage. I argue that remittances will result in reduced social welfare transfers in democratic states also, and although this will operate via a bottom-up causal mechanism where remittances alter or change individual preferences towards redistribution and taxation, democratic leaders, in fiscally constrained developing world countries, conscious of the substitution effect of remittances, may expedite this effect.

Those countries that never had the capacity to establish large social programs experienced higher migration and consequently greater inflows of remittances. This is a particularly pertinent issue in the Latin American context, for in the small Central American states, where remittance inflows are large, social security and welfare spending has traditionally been very low and skewed towards the upper income quintiles (Franzoni 2008).

This article argued that remittances result in lower social security and welfare spending across Latin American democracies. Remittances are a stable cross-border financial flow, which serve an important compensation and insurance function for households in developing economies.

### "When the Money Stops: Fluctuations in Financial Remittances and Incumbent Approval in Central Eastern Europe, the Caucasus and Central Asia" by Doyle et al. (2018)

Although a contentious debate exists about the relationship between remittances and economic growth (e.g. Page and Plaza 2006), many economists have suggested that remittances act as an important international risk-sharing mechanism (e.g. Yang and Choi 2007).

In this study, we explore how fluctuations in remitted income affect support for the incumbent in remittancereceiving countries

we contend that changes in remittances influence economic assessments and incumbent approval in recipient countries. Specifically, we expect that when remittance inflows increase, economic evaluations and incumbent approval will also increase, but when these payments decline, recipients will punish incumbents.

By relying on their pocketbooks to inform their evaluations of government performance however, remittance recipients may be rewarding or punishing incumbents at home for economic developments abroad, in remittance sending economies, that are largely outside of the incumbent’s control.

The results of our analyses strongly support our main theoretical contention; they establish a robust link between fluctuations in remittances, economic assessments and incumbent approval.

This article is also relevant for work on economic voting (e.g. Kramer 1971; Fiorina 1981) and competence misattribution in developed and developing countries (e.g. Duch and Stevenson 2008; Healy, Kuo, and Malhotra 2014). While some evidence suggests that voters in Europe can disentangle competence from exogenous shocks, i.e. events largely outside of the control of incumbents (Duch and Stevenson 2008), recent work has challenged this assumption for lowinformation, developing country contexts (Campello and Zucco 2016). Traditional accounts of economic voting conclude that rational voters should only sanction the incumbent when economic performance is the product of government competence (e.g. Duch and Stevenson 2008).

, economic outcomes and assessments, even if largely driven by exogenous factors, may be the only signal or source of information about incumbent competence that voters have and may serve as the basis for a calculated economic vote (Campello and Zucco 2017).

Existing research argues that remittances are largely outside of the control of governments in migrant home countries (Bravo 2012) and when incumbent popularity is shaped by remittance inflows from abroad, this may be a political manifestation of economic dependency (e.g. Wibbels 2006).

Very little work however, has explored the political effects of remittances.We have a vast literature on the political consequences of immigration in migrant receiving states (e.g. Cornelius and Rosenbulm 2005), but know very little about the political effects that remittances might exert on the countries or individuals that receive them.

This work has demonstrated that remittances can affect exchange rate policy (Singer 2010), dual citizenship requirements (Leblang 2017), and public accountability (Abdih et al. 2012; Tyburski 2012; Aparicio and Meseguer 2012), together with the linkage strategies adopted by political parties, notably clientelism (Pfutze 2014;O’Mahony 2013). Evidence suggests that remittances can prolong (Ahmed 2012) and hinder (Escribà-Folch, Meseguer, and Wright 2015) the survival of autocratic regimes and they can also shape the level, and type, of government expenditures (Chaudhry 1997; Ahmed 2012; Singer 2012; Doyle 2015).

Given the scale of these transfers, in some contexts they can be as large as the national median income, and given that they are generally untaxed and go directly into the hands of the individuals that receive them, this would seem to be an oversight, particularly as we now know how important personal economic evaluations can be for electoral behavior (Kramer 1971; Fiorina 1981; Duch and Stevenson 2008). While Doyle (2015), Meseguer, Lavezzolo, and Aparicio (2016) and Acevedo (2016) have examined the effect of financial remittances on individual attitudes towards taxation and the state

In the first study of this kind, Germano (2010) demonstrated that remittance recipients in Mexican municipalities, due to the transnational social safety net effect of remittances, are less likely to identify the economy as a pressing problem relative to non-recipients and to have fewer economic grievances. Consequently, the more positive egocentric and sociotropic outlook of remittance recipients means that they are less likely to oppose incumbent politicians (e.g. Germano 2013).

In a similar vein, Bravo (2012) has demonstrated that in Latin American countries, financial remittances positively influence presidential approval amongst recipients and that this effect operates through more favorable egocentric and sociotropic evaluations of the economic situation.

Ahmed (2017), again for a Latin American sample, has demonstrated that at high levels of dissatisfaction with the incumbent, a remittance recipient is more likely to vote for that incumbent, relative to a non-recipient.

What is particularly interesting about these studies is the fact that, as Bravo (2012) has suggested, remittances are an exogenous capital flow, over which the incumbent government, in most situations, has little control. In this work, remittances appear to be operating through a mechanism consistent with pocketbook voting effects.

when economic performance is deemed to be good, incumbents are rewarded and when economic performance is deemed bad, incumbents are punished or sanctioned (e.g. Kramer 1971; Fiorina 1981). T

It suggests that even in low-information environments with weak party systems, voters can assign responsibility for economic outcomes to the actions of incumbents, thereby establishing a chain of democratic accountability (Stokes 2001). In fact, across new democracies, evidence suggests that the economic vote is prevalent from Latin America (Singer 2013) to Africa (Posner and Simon 2002) to Eastern Europe (Roberts 2008).

Existing research shows that in developing democracies, support for incumbents is largely determined by economic and political developments abroad, such as commodity price shocks (e.g. Leigh 2009; Monteiro and Ferraz 2012).

Focusing on Latin America for example, Campello and Zucco (2016) provide evidence that voters misattribute responsibility for economic outcomes to incumbents. They develop a ‘Good Economic Times’ index based on commodity prices and US interest rates,which are exogenous to the control of Latin American governments. They demonstrate that this index can help explain the re-election of incumbents and presidential popularity.When times are good, incumbents are rewarded and when times are bad, incumbents are punished.

In many respects, remittances are an even better test of attribution in economic voting. Remittances are the “epitome of private transfers” (Bravo 2012, 6). They go straight into the hands of the individuals that receive them, often get transferred outside of formal bank channels, and for many countries in the world, lie largely outside of the incumbent’s control. For this reason, existing work considers remittances as an excellent identification strategy to test whether voters hold incumbents accountable for events beyond their control (Bravo 2012). While it is possible for governments to control the inflow of remittances, mainly through some form of tax on remitted income, or schemes to encourage migrants to remit more, or through manipulation of the official exchange rate (e.g. O’Neill 2001), the regulation of remittances does not come cheap.1 1 Examples of taxes on remittances include a five percent tax on remittances in Vietnam (which was removed in 1997), a state crossborder tax on remittances in Tajikistan (removed in 2003), an overseas document stamp tax in the Philippines (removed for workers in 1995) and the tax that the Indian government levies on fees from money transfer agents, but not on actual remittance flows (e.g. Mohapatra, et al. 2012).When Vietnam and Tajikistan removed their taxes on remittances, official flows significantly increased.

Focusing on remittance payments alone, an influential literature shows that they not only increase the general consumable income of households that receive them (e.g. Barajas et al. 2009), but also provide recipients with a social safety net that can insure them against economic shocks (Chaudhry 1997; Doyle 2015; Germano 2013; Yang and Choi 2007), thereby increasing their financial stability and reducing their economic grievances (Germano 2013). The net effect of this financial stability and greater consumption power is more positive egocentric and sociotropic economic evaluations. In turn, recipients’ evaluations of the incumbent government will improve. Bravo (2012), Germano (2013) and Ahmed (2017) provide evidence that this is exactly what happens in Latin America. Across the Americas (Bravo 2012; Ahmed 2017), and in Mexican municipalities (Germano 2013), remittance recipients exhibit greater support for incumbents relative to non-recipients, an effect that operates through the positive egocentric and sociotropic economic evaluations of recipients.

We agree that the insurance and consumption effects of remittances are likely to increase economic optimism and result in support for the incumbent

@doyleg\_2018 follow Bravo’s (2012) analysis with data from26 countries in Central Eastern Europe, the Caucasus and Central Asia, drawn from the 2006 wave of the LiTS2 (summary statistics are provided in Section A.2 of the Supporting Information (SI)). With a simple dichotomous measure of whether a respondent receives remittances or not, two-level multilevel models presented in Table 1, demonstrate that, similar to Bravo’s (2012) results, financial remittances increase satisfaction with household (Model 1) and national (Model 2) economic conditions. The effect of remittances on trust towards the country’s president in Model 3 is also positive, and statistically significant.

CHANGES IN REMITTANCES AND INCUMBENT APPROVAL Remittances do not always reach recipient households at the same time and in the same amount, and changes in the frequency and value of remittances will affect the livelihood of households in developing economies across the world. During periods of economic contraction in migrant host economies, remittance payments are likely to fall due to changing migration flows, currency depreciation, or efforts by migrants to cut costs (Mohapatra and Ratha 2010). In the midst of the global financial crisis for example, the World Bank estimated that remittance flows to developing countries declined by 6 percent between 2008 and 2009. What are the political effects of changes in remittance flows? We argue that recipients who experience a decline in remittances become less satisfied with their economic situation, thereby undermining their support for the incumbent. Conversely, when remittances increase, the economic evaluations of recipients will improve, resulting in an increase in incumbent support. In other words, remittance recipients are rewarding or punishing incumbents for economic developments in migrant receiving economies that are largely outside of the control of politicians at home.While this may be a type of pocketbook voting, it also represents a form of misattribution with normative implications for democratic accountability in remittance dependent states. Punishing or rewarding incumbents for events outside their control may distort the economic vote as an instrument of accountability as it will undermine the direct link between government action, voters and electoral sanctions (Campello and Zucco 2017). For remittance receiving countries, incumbent approval will be subject to economic conditions in countries elsewhere. If countercyclical, remittances may ‘buffer’ recipients from the vagaries of the economy and bolster support for incum

bents, but such effects could also dampen incumbent incentives to invest in welfare provisions (Doyle 2015) and encourage governments to divert income into patronage instead (Ahmed 2012). Declines in remittances, caused by downturns in economies abroad, may exacerbate economic grievances among the electorate and lead to poor evaluations of the incumbent for events not necessarily under their control. In some senses then, the flow of remittances to the developing world would appear to be a political manifestation of economic dependency (e.g. Wibbels 2006). Moreover, while we agree with Bravo (2012) that remittances are an excellent identification strategy to test how individuals attribute responsibility for shocks to their income and economic security, we think we can go one step further. Bravo (2012) argues that the bias introduced by unobserved household and individual heterogeneity is likely to bias results downwards, given that those who migrate are most likely to come from households with more negative evaluations of the incumbent and status quo; of course, it is possible that in a global or regional crisis, recipients may experience a decline in their remitted income and still blame their government for their perceived role in the wider regional crisis, above and beyond any changes in their remittances. Our panel data allows us to overcome some of the potential sources of bias by employing a within-subject design. By limiting our analysis to remittance recipients alone, we are also able to address concerns regarding the unobserved differences between households that receive remittances and those that do not.

We first illustrate our argument with the case of Kyrgyzstan. Leveraging a unique fourwave panel study of Kyrgyz citizens between 2010– 2013, the LiK surveys, we are able to carefully identify how changes in remittances affect variation in incumbent approval. In a second step, we turn to crosssectional survey data from Central Eastern Europe, the Caucasus and Central Asia, collected in the aftermath of the Great Recession in 2008–2010. Specifically, we rely on the 2010 LiTS that includes survey data for 28 countries in the region. For many of the countries in the region, remittances are one of the most important sources of external financing after foreign direct investment. In the mid-2000s for example, financial remittances were equivalent to 20 percent of GDP in Moldova, Bosnia and Herzegovina and over 10 percent in Albania and Armenia.

during the Great Recession of 2008–2010, the period from which the survey evidence we rely on is drawn, remittances became a channel through which the crisis was transmitted, not mitigated. The deterioration in the economy of migrant host countries caused official remittance flows in Central Eastern Europe and Central Asia to fall by 23 percent on average (Ratha, Mohapatra, and Silwal 2010). Relying on World Bank data, Figure 1 provides an overview of how the inflow of remittances (as a percentage of GDP) fluctuated between 2008 and 2009 in the region.

At the aggregate level, workers’ remittances, which represent the most important financing flow in the country’s balance of payments, have covered a large part of the national trade and budget deficits. In just three years for example, Kyrgyzstan’s budget deficit dropped from 13.7 percent of GDP in 2008 to 6.4 percent in 2011 (International Monetary Fund 2016).

The Kyrgyz economy is one of the most remittancedependent economies in the world. From 2011 to 2014, the flows of financial remittances were as large as about one-third of the country’s GDP (World Bank 2017). At the same time, dependence on remittances exposes the Kyrgyz economy to developments abroad, especially in Russia, where the largest share of the country’s migrant population seeks employment. It is estimated for example, that about 97 percent of all remittance flows to Kyrgyzstan originate from the Russian Federation.

As such, we think it reasonable to suggest that remittances are largely exogenous in the case of Kyrgyzstan as the Kyrgyz government was not actively manipulating or controlling remittance inflows. In the case of Mexico we align with the same definition by @doyleg\_2018 where 95% of remittances comes from the USA and the government proudly reveals the statistics of resources produced by migrant Mexican workers.

According to World Bank estimates, in 2009, some Central Asian (Kazakhstan, Tajikistan, Kyrgyzstan) and Eastern European countries (Romania, Moldova) experienced reductions of one half, to one third, of their 2008 remittance levels. This decline in remitted income recovered, before worsening again.

Endogeneity concerns. Still we might be concerned that changes in the Kyrgyz economy could be driving both the changes in remittances and incumbent approval. To deal with this concern, we employ an instrumental variables (IV) regression. As an instrument, we use annual change in unemployment in Russia, the major destination country for Kyrgyz migrants, interacted with (or weighted by) the share of women in each household. The share of female household members is a key household level characteristic correlated with the receipt and amount of remittances, but not with incumbent approval. The instrument we employ incorporates the idea, common in previous studies, that growth in the migrant host country is likely to be a key driver of remittances (e.g. Barajas et al. 2009; Singer, 2012). The results, which are reported in Table D.1 of the SI, show that remittance effects on approval remain robust, even when we instrument remittance amounts using annual changes in unemployment in Russia weighted by the share of women in the household.

Importantly, the figure shows that the effect of a reduction in remittances is of similar size to the effect of a landslide or agricultural loss. This underscores the importance of reductions in remittances for incumbent approval. Our argument suggests that recipients who experience a decline in remittances become less satisfied with their economic situation, thereby undermining their support for the incumbent. Conversely, when remittances increase, the economic evaluations of recipients will improve, resulting in more support for the incumbent.

The results suggest that respondents who experienced an increase in the amount of remitted income (Model 1), the frequency with which they receive remittances (Model 2) or in the Remittance Index (Model 3) are indeed less worried about their own economic situation.

we have theoretically argued and empirically demonstrated that changes in remittances drive fluctuations in economic assessments and evaluations of the incumbent. We have also suggested that this relationship can be understood as a form of misattribution, in the sense that voters are rewarding or punishing incumbents for economic developments originating from elsewhere. While this behavior is rational, particularly in a context where economic performance is largely driven by exogenous shocks, it has implications for the economic vote as an instrument of accountability (e.g. Campello and Zucco 2017).

In a similar vein, one could argue that households affected by a decline in remittances are holding incumbents accountable for either failing to prevent declines in remittances, and/or for failing to ‘treat’ the welfare consequences of the decline. As Ashworth, Bueno de Mesquita, and Friedenberg (2018) have argued, even exogenous shocks provide an opportunity for voters to learn new information about an incumbent. Here the change in remittances would be such a shock, and the ability of the government to respond to this shock or their preparedness to compensate its consequences could give voters new information about the incumbent (e.g. Acevedo 2016). As such, voters who experience a decline in remittances may disapprove of the incumbent not because of a mechanism underpinned by misattribution, but one rooted in an increased need for national public services. If this were the case, voters could be punishing governments for their response to the exogenous shock, rather than for the decline in remittances. This is what we call the treatment responsibility mechanism (Javeline 2003).

The evidence suggested that while decreases in remittances coincided with a decline in trust in the president, increases in remittances led to an increase in trust in the president. While it would make sense that recipients would punish governments for a lack of preparedness when remittances decline, rewarding governments when remittances increase is probably not suggestive of this mechanism. We find little empirical support for the argument that households that experience a decline in remittances become less satisfied with public safety nets, in the form of welfare provision or public goods. When remittances decline, as Acevedo (2016) has suggested, recipients may actually increase their demand for public safety nets and if the quality of public services disappoint, a recipient who experiences a reduction in remittances might sanction an incumbent to a greater degree than someone who has not experienced such a decline. We find no relationship between changes in remitted income and satisfaction with public service provision.

Our findings suggest that while the receipt of remittances does indeed bolster support for the incumbent all else equal as existing work suggests, this works to the incumbent’s disadvantage when remittances decline. Remittances are not a constant and they generate dynamic attitudes and political behavior in response to their own dynamism.

This work has focused on ascertaining in what contexts voters might be able to parse out the difference between economic outcomes driven by the competence of their leaders, compared to economic outcomes driven by exogenous global forces. One of the big issues facing this work has been the identification of misattribution effects (Campello and Zucco 2016). Remittances, given they are largely a private fiscal transfer shaped by economic conditions elsewhere, are a particularly neat way to test misattribution. Although exogenous shocks may be the only source of information about incumbent competence for rational voters in volatile contexts, the type of misattribution we examine here will still have implications for the economic vote as a mechanism of accountability and as such, it will have important normative ramifications.

From a more general perspective, we think this point highlights the precarious equilibrium that remittances can generate. When evaluations of the government at home respond to fluctuations in remitted income, largely driven by events and developments abroad, accountability mechanisms, which are rudimentary in many remittance-dependent economies could erode even further. When countercyclical (Yang and Choi 2007), remittances could bolster trust in incumbents even when economic performance at home is poor. They may also encourage governments to reduce social safety nets and increase patronage (Ahmed 2012). On the other hand, declines in remittances, and related economic grievances among recipients, may result in greater electoral punishment for events incumbents do not fully control.

### "Strong U.S. labor market drives record remittances to Mexico" by Cañas and Pranger (2023)

Remittances from the U.S. to Mexico reached a record $55.9 billion in 2022. Strong employment in the U.S. construction sector—a leading employer of Mexican migrants—best explains the recent growth of remittances to Mexico.

Mexico is the second-highest receiver of remittances in the world, trailing only India. The payments, mostly from migrants in the U.S., provide a valuable lifeline for millions of Mexican households. They are used mainly for necessities—food, clothing and health care—while they also make up an important part of household expenditures for housing, tuition and debt repayment.

Remittances from the U.S. to Mexico reached a record $55.9 billion in 2022. These transfers accounted for 95 percent of Mexico’s total remittances of $58.5 billion. Mexican migrants, who number 11 million in the U.S., typically send the funds home to support their families. The average monthly remittance to Mexico was $390 in 2022.

In economics terms, the impact of remittances is broadly split based on whether the payments are for consumption or investment purposes. Investment objectives, including human capital, can have positive long-run effects on recipient households and communities by improving health outcomes and increasing educational attainment, earnings and wealth. There is evidence that at the local level in Mexico, households use remittances not only toward consumption but also toward productive activities favoring economic growth.

During the pandemic, remittances from the U.S. played an especially important role in Mexico, whose fiscal response to the COVID-19 downturn was limited, delaying the country’s recovery. We model the flow of remittances from the U.S. and show how they increased after an initial pandemic downturn. Employment in the U.S. construction sector, a leading source of economic activity through the period and a top migrant employer, statistically best explains the recent growth of remittances to Mexico, the model finds.

Host country economy accounts for bulk of remittance growth

Because remittances usually come from migrants’ earnings, economic conditions in the host country—especially employment—drive the amount sent home. When U.S. employment and wages fell sharply during the Great Recession in 2007–09, remittances also declined (Chart 1).

Chart 1

Downloadable chart

Remittances stabilized as job and wage growth resumed from 2010 to 2014. The growth accelerated from 2015 until the pandemic, as employment and wage growth picked up. At the pandemic’s onset in March 2020, remittances first spiked then fell before rebounding along with the U.S. labor market in the summer. Remittances stayed high as U.S. wages rapidly rose in 2021–22.

Transaction costs and the exchange rate play a role in the volume of remittances, because together they determine the cost to the sender and the amount the recipient receives. For example, if the peso depreciates against the dollar, a recipient will receive more pesos for a given number of dollars.

Finally, remittances also depend on economic conditions in the receiving country. Research shows that remittances are countercyclical—more funds are transferred when the home country economy deteriorates. Additionally, when economic conditions worsen in countries with a tradition of emigration, such as Mexico, more people will migrate. More migration will increase remittances because there are more immigrants in the host country. For example, during the 1994–95 Mexican recession, also dubbed the “Tequila Crisis,” emigration and remittances spiked.

Modeling the path of remittances to Mexico since the pandemic

To better understand the growth in remittances since the pandemic, we constructed a forecasting model, which follows the standard methodology in the remittances literature. Our model performs well, closely tracking the growth in remittances since the pandemic (Chart 2).[1]

Chart 2

Downloadable chart

To capture economic conditions in the U.S., the model uses monthly construction employment from the Bureau of Labor Statistics payroll survey and median hourly nominal construction sector 12-month wage growth from the Federal Reserve Bank of Atlanta’s wage growth tracker. The model also controls for the peso-dollar exchange rate using Banco de México’s real peso exchange rate index. A real exchange rate index controls for the inflation rate differential in the two countries.

To capture labor market conditions in Mexico, the model uses formal-sector employment from the Mexican Institute of Social Security (known in Mexico as IMSS), which includes all jobs with government benefits and pensions.

In an alternative specification, we replaced construction employment and wages with overall U.S. employment and wages, but this worsened the model’s predictive performance. This is partly because, contrary to a typical recession, the pandemic period was characterized by a booming housing sector. In addition, the construction industry is one of the largest employers of Mexican migrants, as one-fifth of Mexican immigrants are employed in that industry, according to the 2021 American Community Survey.

To gauge the contribution of individual variables to the model, we did a Shorrocks-Shapley decomposition, which provides the relative importance of predictor variables in a linear regression. That is, we estimated the relevance of employment, wages, exchange rate and economic conditions in Mexico to the variation in remittances since the pandemic. As expected, U.S. construction employment was by far the most significant contributor to the rebound in remittances and their subsequent growth, accounting for 64 percent of the variation in remittances (Table 1).

Table 1: Growth in U.S. construction employment accounts for most of remittance variation

Dependent variable: remittances Contribution to total variation in remittances (percent)

Independent variables:

U.S. construction employment 63.9

Real peso exchange rate index 31.4

Mexico employment 3.5

Median nominal wages in construction 1.3

TOTAL 100

NOTE: The table shows the Shorrocks-Shapley decomposition, which provides the relative importance of predictor variables in linear regression.

The real peso exchange rate index followed in relative importance, accounting for almost one-third of the variation in remittances. The depreciation of the peso at the start of the pandemic was fundamental to remittances’ rapid pandemic recovery, later helping propel them to record highs.

Following the pandemic’s impact on remittances

Businesses and borders closed as the pandemic took hold. The dollar—generally a safe haven in times of turmoil—rose sharply against emerging market economies' currencies. The peso depreciated 22 percent from December 2019 to April 2020 when it reached its low of 24.3 pesos per dollar. The peso subsequently bounced back, ending 2020 with a 9.8 percent depreciation for the year. The peso-dollar exchange rate did not reach its prepandemic level until January 2023; by then, remittances had skyrocketed.

The deterioration of the Mexican economy and the concern about family members’ living conditions in Mexico during the pandemic were lesser factors in terms of explaining the run-up in remittances. However, our model confirmed the countercyclical nature of remittances since the coefficient on Mexico employment was negative—in other words, as formal-sector employment fell in Mexico, remittances increased.

Notably, Mexico’s pandemic economic recovery lagged, likely reflecting the lack of fiscal stimulus and enduring pandemic-related lockdowns and restrictions. Mexico’s pandemic-related stimulus was equivalent to just 1.1 percent of GDP, less than a quarter of the average in Latin America. Mexico GDP took a full nine quarters to reach prepandemic levels, while recovery only took three quarters in Brazil and four in Colombia (Chart 3).

Chart 3

Downloadable chart

Other research findings—more pronounced and detailed than what we show—also suggest that Mexico’s slow economic recovery and the COVID-19 outbreak (vaccines were not widely distributed until 2021) may have prompted additional remittances.

The “altruistic” explanation of increased remittances, partly the reason for remittances’ countercyclicality, is consistent with these studies, which show that people who had not remitted before the pandemic started doing so, and individuals who had previously stopped renewed their support.

This countercyclical relationship helps explain why migrants in the U.S. sent more money per transaction to Mexico as COVID-19 cases increased. Most likely, remittances provided economic relief to the most vulnerable sectors of the Mexican population, especially given the void left by the Mexican government’s scant fiscal support for the economy. In contrast, outsized U.S. government assistance, through unemployment insurance relief and the Coronavirus Aid, Relief and Economic Security (CARES) Act—a stimulus bill amounting to about one-tenth of U.S. GDP—likely contributed to the increased average transaction amount.

Though migration is an important channel through which remittances are impacted, our model also shows that the recent increase in migration flows from Mexico did not explain the rapid growth in remittances.

In one version of our model, to capture the real-time flow of new Mexican migration to the U.S., we used a proxy—border encounters with Mexicans at the U.S.–Mexico border by U.S. Customs and Border Protection. However, including the proxy for real-time Mexican migration lowered the accuracy of our forecast. Despite both the number of remittance transactions and the average amount remitted per transaction increasing in the pandemic period, the rise was most likely driven by an increase in the number of people sending remittances rather than new arrivals to the U.S.

Remittances matter to the Mexican economy

Remittances are Mexico’s main net foreign-exchange generator, ahead of both manufacturing exports and tourism (Chart 4). Remittances also tend to be a stable source of income that helps reduce the government’s need for overseas borrowing in a crisis. Remittances in 2022 were equivalent to 4.5 percent of Mexico’s GDP, up from 2.5 percent 10 years ago.

Chart 4

Downloadable chart

Money sent from abroad generally goes to families in the poorest states of Mexico—such as in the north central and the southwest regions—reflecting the areas from which migrants left. The remittances, thus, help mitigate some regional economic disparities (Chart 5).

Chart 5

Downloadable chart

Michoacán was the top remittance destination state in per capita terms in 2022, receiving almost $5.3 billion ($1,113 per capita). Zacatecas followed with $1.7 billion ($1,063 per capita) and Guanajuato at $5.1 billion ($835 per capita). Remittances expressed as a share of gross state product were: Guerrero, 18.3 percent; Michoacan, 18.1 percent; Mexico City, 17.0 percent, and Oaxaca, 15.1 percent.

The poverty-reducing effects of remittances have been well-documented. Several studies show that remittances help alleviate poverty and can reduce inequality. Remittances may also promote development by providing funds that recipients can spend on education or health care or can invest in entrepreneurial activities.

Additionally, there is evidence that remittances raise wages in recipient communities, particularly among low-wage workers. One 2010 paper showed how remittances shift the wage distribution, where higher remittances in high-migration states lead to fewer low-wage workers.

Not all remittances represent earnings from legal sources. Drug cartels likely send illicit earnings back to Mexico, although money transmitters and depository institutions that provide remittance transfers are subject to anti-money laundering requirements under the Bank Secrecy Act.

For example, these remittance providers must report suspicious transactions and obtain and record information for each funds transfer of $3,000 or more. Nevertheless, remittances can pose money laundering risks, as funds related to illicit activity may go undetected because of the large volume of transactions. Some news reports estimated that about $4.4 billion of remittances (less than 10 percent of the total) sent to Mexico in 2022 could have come from illegal activity.

Remittances likely to moderate in the short term

Slower U.S. job and wage growth, particularly in construction, combined with a stronger peso will slow growth in remittances, our model suggests. Current high interest rates have already slowed the residential construction industry, as demand has cooled and financing has dried up. There will be fewer new projects and more in the pipeline put on hold or scaled back.

Additionally, the peso has gained ground against the dollar, decreasing the dollar’s purchasing power in Mexico and reducing the incentive to remit.

At the same time, Mexico’s economy has improved. Forecasts have been revised upward, labor markets are tight, consumption is strong, and government spending is growing—reasons to expect that remittances will slow further.

Note

The model is a linear transfer function run in log differences (monthly growth) as follows: real remittances as a function of U.S. construction employment, U.S. construction wages, Mexico formal-sector employment and the real peso exchange rate index. The model was estimated from January 1995 to April 2020, and the out-of-sample forecast was from May 2020 to March 2023.

### IPE (2023)

In 2022, the economic impact of violence in Mexico was estimated to be 4.6 trillion pesos (US$230 billion), equivalent to 18.3 percent of Mexico’s GDP, an amount about eight times higher than the national health budget, and seven times higher than public spending on education.

### Presidential Approval and Public Security in Mexico’s War on Crime (Romero, Magaloni, Díaz-Cayeros, 2016)

Few works exist that link presidential approval and public security, most probably because crime is commonly linked to local authorities (e.g., Arnold and Carnes 2012; Chevigny 2003; Devroe 2013).

There is also evidence showing a decrease in political participation due to increases in crime in the case of Mexico (Ley 2013; Trelles and Carreras 2012).

Although the guerrilla attacks on the population were quite similar, Pastrana’s approval rating shrank by 12 percent, but Uribe’s popularity was not affected. The authors’ explanation rests on institutional factors experienced by each president: Pastrana faced a divided government and Uribe a unified government. Unified government centralized responsibility on President Uribe, which allowed him to concentrate citizens’ support, which provided a solid floor of approval.

. Therefore we use survey data from two different sources: the AmericasBarometer and a survey conducted by the Office of the Mexican Presidency in 2011.7

We measure the effect victimization has on approval by using nationwide survey data from the AmericasBarometer at two different points in time: February 2006, before President Calderón’s intervention and administration, when the yearly homicide rate was 8 per 100,000 habitants; and during the period 2008–12, using a pooled dataset that includes surveys conducted in 2008, 2010, and 2012, during President Calderón’s intervention, when the yearly homicide rate was 20 per 100,000 habitants.

Since security issues are highly sensitive to specific events, we decided to use a pooled dataset for the intervention period, as opposed to selecting one of the available survey rounds for the period during the intervention.

First, the design considers points in time before and after the policy intervention.

Second, we explicitly account for potential endogeneity problems. There may be specific social, political, or demographic characteristics that make individuals more likely to become victims of specific crimes. These same variables may also be related to presidential approval, thereby generating biased estimators.

Having been the victim of a crime decreases the likelihood of approving of the president at the two points in time that we examine: before (2006) and during (2008–12) the policy intervention. The sizes of the likelihood reductions are 9.8 percent and 7.0 percent, respectively

It is noteworthy that the effect of security on approval is considerably larger than the effect of economic performance. In 2006, before the intervention, the effect of the former was more than twice the size of the latter effect.

This result—that the marginal effect of security performance is larger than the effect of economic performance—is a significant contribution to our understanding. It also differs from the findings of Romero 2013, which had no control for endogeneity and therefore underestimated the effect of support for the intervention in regard to the economy.

Of the three security dimensions on which the analysis focused, support for the policy intervention is the dimension that most matters to determine approval of the president. Given the complex nature of security in terms of public opinion, a strong positioning by the chief executive is highly rewarded, even more than performance itself.

We show that sociotropic evaluations of public security increased approval and evaluations of the economy decreased approval, a substantive point not addressed in previous works.

The overall findings explain the apparent divergence between poor security conditions and President Calderón’s relatively high approval ratings. Citizens rewarded the executive for publicly making the effort of fighting criminal organizations while they punished him relatively less for the deteriorating security conditions in the country.

Nevertheless, there are also negative implications. These results imply an incentive structure in which presidents would be more inclined to invest political capital and money to conduct actions that emphasize their willingness to fight crime, instead of focusing on actually curbing crime.

### Crime, remittances, and presidential approval in Mexico (Doyle, García 2019)

Using individual data from Mexico for the period 2006–2017, we find that remittance recipients have higher levels of perceived personal safety and better national security evaluations than non-recipients, and that security assessments are a significant predictor of presidential approval rates.

The evidence thus suggests that in Mexico, where crime is rising, and presidents are increasingly rewarded or blamed for containing violence, the effect of remittances on presidential approval also operates through improved personal safety perceptions and public security assessments.

In this paper, we are interested in exploring the effect of family remittances on perceptions of public security and safety, and how these perceptions might then translate into presidential approval. Building on work that has linked remittances to increased presidential approval, via a misattributed economic vote whereby the income and security effect of these international transfers boost the personal economic situation of recipients (Ahmed 2017; Bravo 2012; Germano 2013, 2018; Tertytchnaya et al. 2018), we suggest that where presidents are rewarded or blamed for security issues, remittances may exert a similar effect on presidential approval, but via perceptions of public security

We suggest that in the case of Mexico, where crime rates and public insecurity are high and rising, one public good that recipients will use their remittances to boost will be personal safety. Remittance recipients, in addition to other crime prevention measures, will use the extra income to access private security and safer neighbourhoods, to avoid the most dangerous forms of public transport, and to send their children to schools where violence problems are not as prevalent.

Given that presidents in Mexico are punished or rewarded for levels of security (e.g. Romero, Magaloni, and Díaz-Cayeros 2016), this increased perception of public security and personal safety provided by remittances will, we contend, lead to higher levels of presidential approval among recipients.

Where presidents are additionally evaluated in terms of their ability to tackle public insecurity however, as in Mexico since 2006, we argue that the effect of remittances on presidential support will also operate through increased perceived levels of personal and public safety – a type of sociotropic security evaluation (see Romero, Magaloni, and Díaz-Cayeros 2016).

Romero, Magaloni, and Díaz-Cayeros (2016) have argued, security evaluations have become closely linked to the national executive’s performance. To explore our argument, we examine survey data from Mexico from the 2006–2017 waves of the Americas Barometer. Our analysis suggests that remittance recipients have higher levels of perceived personal safety and public security than nonrecipients. These perceptions of personal safety are strong predictors of sociotropic security evaluations of government performance, which in turn, are a significant predictor of presidential approval.

Overall, we believe our evidence suggests that in the Mexican case since 2006, when crime and violence exploded and presidents became rewarded or blamed for security issues, the effect of remittances on incumbency support also operates through perceptions of public security, in addition to more traditional economic evaluations.

Remittance recipients might be prone to vote in violent democracies (Pérez-Arméndariz 2019), as López García and Maydom (2019) show. However, if individual citizens use their remittance income to boost their personal safety by accessing private forms of this public good or alleviating other pressures associated with crime, then in countries with a large amount of remittance recipients, this may reduce pressure on national governments to maintain and provide this most basic form of public good. In larger theoretical and abstract terms, this could have implications for democratic accountability, state capacity and the functioning of the social contract in migrant-sending countries where violence is a key feature of democratic politics (Pérez-Arméndariz 2019).

More recently, remittances have been linked with an economic vote – that is, the degree to which incumbent support is a function of how well family finances and the national economy are doing (Fiorina 1981; Key 1966; Kramer 1971). This work argues that remittances, due to the boost in income they provide, together with their insurance effect, ensures that recipients tend to have more positive household and national-level economic evaluations (Ahmed 2017; Bravo 2012; Germano 2013, 2018) and since this income comes from abroad, remittance recipients are also less vulnerable to fluctuations in the national economy. Therefore, this argument suggests, remittance recipients have fewer economic grievances, and are less likely to punish the incumbent government (see Tertytchnaya et al. 2018). Thus, relative to non-recipients, remittance recipients are more likely to support (and trust) the incumbent.3 Of course, remittances originate from migrant destination countries and largely outside the control of incumbents in remittance receiving states, so in many respects this is a form of misattribution (e.g. Bravo 2012).

However, in countries of high crime, violence and widespread perceptions of public insecurity, the economy may not be the only pressing issue driving electoral concerns. This means that crime and perceptions of crime will have an important effect on government evaluations and concomitant levels of presidential approval. This is the starting point for our argument.

In this paper, we hypothesise that remittances improve the perceptions that recipients have of public security and personal safety by allowing them to access private security goods, better neighbourhoods and take other preventative measures against public insecurity. This in turn will shape their sociotropic security evaluations of government performance, which will feed into increased incumbent support.

As crime becomes a salient issue, it is reasonable to expect that the additional income that households receive from abroad through remittances will be spent on security. This idea is consistent with recent evidence showing that Mexican outmigrants sent remittances to be spent on education, housing and transportation (including buying vehicles) (BBVA Bancomer & CONAPO 2017). It also goes in line with previous studies on Mexico, showing that homicides and crime rates in a municipality are negatively related to the percentage of households receiving remittances in each municipality (Brito, Corbacho, and Osorio 2014; Meseguer, Ley, and Ibarra-Olivo 2017). As such, we expect remittance recipients to be less likely to experience crime because they have the economic resources with which to provide protection for themselves against such threats. And more importantly, we expect remittance recipients to have better perceptions of public and personal security, relative to non-recipients.

So, remittance recipients feel safer and more secure than non-recipients. Given this, we expect that in the contemporary Mexican context of public insecurity and widespread crime, where recipients experience improved feelings of personal safety, they will be more likely to think positively about government performance with regards crime and public insecurity. This is what Romero, Magaloni, and Díaz-Cayeros (2016) call ‘sociotropic security performance evaluations’. In other words, where presidents are responsible for fighting crime, remittances will encourage recipients to misattribute positive sociotropic security performance evaluations to the national incumbent. This is not to suggest that the effect of remittances on economic evaluations will become less salient or irrelevant: we still expect that remittances will cause recipients to attribute positive economic evaluations to the incumbent (see Ahmed 2012 ; Bravo 2012; Germano 2013), but in environments of increasing crime and public insecurity, as in Mexico since 2006, we expect that the effect of remittances on incumbent support will also operate through improved sociotropic security evaluations

The IEP (2022) the economic impact of violence in Mexico was estimated to be 4.6 trillion pesos (US$230 billion), equivalent to 18.3 percent of Mexico’s GDP, an amount about eight times higher than the national health budget, and seven times higher than public spending on education. At the individual level, the economic impact of violence is equivalent to 4 times the average monthly salary of a Mexican worker or 2 times the average monthly income of a Mexican household (IEP 2022).

Remittance recipients are much more likely to report feeling safer in their neighbourhood (from both logit and ordered probit estimations in columns 1 and 2); are less likely than non-remittance recipients to have selected crime, violence or a lack of security as the most pressing problems to face Mexico today (column 3); and are less likely to have taken measures in their local area to avoid or minimise the likelihood of becoming crime victims (column 4).

As can clearly be seen, remittances have a positive and statistically significant effect on sociotropic security evaluations. For example, on the 1–7 scale of security evaluations, remittance recipients, all else equal, choose a mean score of 4.05, compared to 3.81 for non-recipients. In column 2, when we add perceptions of personal safety, we can see that this variable is positive and statistically significant. The difference in security evaluations between those who feel very secure and those who feel very insecure (on the 1–7 scale) is nearly 0.8. Interestingly, when we add perceptions of personal safety, while remittances remain positively signed (and no longer significant in model 2), the size of the coefficient is reduced. This suggests that the positive effect of remittances on sociotropic security evaluations might be mediated through perceptions of personal safety.

Causal mediation analysis allows us to estimate if, and how much of the overall effect of remittances (the treatment) on sociotropic security evaluations (the outcome) flows through improved perceptions of personal safety (the mediator).

Perceptions of personal safety account for nearly a quarter of the effect of remittances on sociographic security evaluations. In this instance, the effect of remittances appears to be mediated by improved perceptions of safety and security.

Romero, Magaloni, and Díaz-Cayeros (2016) have conclusively demonstrated that in Mexico, sociotropic evaluations of public security increased presidential approval. In a final step here then, we wish to evaluate whether remittances, via their positive effect on sociotropic security evaluations of the Mexican government, have led to a concomitant increase in presidential approval.

As we can see from Table 4, remittances, although it is positively associated with presidential approval, does not have a statistically significant effect. Sociotropic evaluations of public security however, and as has been previously demonstrated by Romero, Magaloni, and Díaz-Cayeros (2016), have a strong positive and significant effect on approval levels.

This means that part of the effect of remittances on approval is driven by improved sociotropic evaluations.

Taken as a whole, our results appear to suggest that remittances condition perceptions of personal safety, which in turn shape sociotropic security evaluations. Furthermore, the effect of remittances on security evaluations and on presidential approval holds independent of the geographic location of the individual.

This paper has shown that in Mexico – a violent democracy, where crime has become a salient issue for national authorities and where voters also evaluate presidents in terms of their ability to address public insecurity – remittances increase presidential approval rates through their effect on recipients’ public security assessments, in addition to evaluations of the national economy.

To the extent that remittances help recipients to weather some of the pressure associated with experiencing crime and the economic costs of crime, they improve recipients’ assessments of the security situation of the country and evaluations of the incumbent’s work.

Our analysis suggests that in the Mexican case, the effect of remittances on incumbency support partly operates through safety perceptions. This is an important contribution to the existing literature on remittances and incumbency support in migrant-sending countries, which has focused on recipients’ economic assessments. Our results reveal that economic assessments might not be the only channel through which remittances affect accountability in migrant-sending countries.

However, we should be cautious about assuming that migrant remittances will induce democratic accountability in violent democracies. Our paper on Mexico shows that remittance recipients are less likely to put pressure on the national government to address public security concerns. This finding raises important normative concerns on the influence of migrant remittances on democratic development in Mexico and beyond.

## Research Design and Data

## Hypothesis and Expected Results

## Implications and Limitations

Accountability mechanisms however, which are often rudimentary in these contexts, could erode even further as a result; it constitutes a form of competence misattribution (see Campello and Zucco 2017). For electoral accountability to function properly, voters need to reward, or punish, incumbents for outcomes for which they are primarily responsible (Kayser and Peress 2012).

What is more, the increasing use of technology, such as mobile and internet transfers, is making it even more difficult for governments to exert control over remittance inflows (Vieira 2017).

The Mexican economy took an economic decision of depetrolize in the 1970s when president XX did XX. Although still dependent , gradually reducing its dependence on oil from 60% in 1960 down to 20% since 1960.

We most consider that reduced capacity in Mexican refineries increases the crude exports while increasing imports of oil and other petroleum derivates.

Since 1960 mexico passed from being the 4th trading partner of the US to 1st position in 2023.