### Carlos Molina

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Current Massachusetts Institute of Technology (MIT). Ph.D., Economics (fifth year).

Position

Fields Primary Fields: Development Economics, Political Economy.

Secondary Fields: Public Economics, Industrial Organization.

#### Dissertation Committee and References

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Prior Universidad de Los Andes (Bogota, Colombia). M.A., Economics (2016).

**Education** Universidad de Antioquia (Medellín, Colombia). B.A., Economics (2014).

Citizenship Colombia.

**Languages** English, Spanish (native).

Fellowships, Presidential Graduate Fellowship, MIT (2019).

**Honors,** George and Obie Shultz Fund Grant  $(\times 2)$ , MIT (2021, 2023)

and Awards Best graduate, M.A. Universidad de Los Andes (2017).

Best graduate, B.A. Universidad de Antioquia (2014).

Jesús Antonio Bejarano National Prize, Academic Paper Contest in Economics (2013).

Relevant positions

Research Assistant to Daron Acemoglu (since 2018).

Referee

Review of Economic Studies  $(\times 2)$ .

Teaching Experience Matlab Workshop (undergraduate, Universidad de Los Andes, 2016-2017).

Microeconomics (undergraduate, Universidad de Antioquia, 2013-2014).

International Trade (undergraduate, Universidad de Antioquia, 2013-2014). Teaching assistant: Advanced Long Run Macroeconomics and Advanced Short

Run Macroeconomics. (graduate, Universidad de Los Andes, 2017).

Teaching assistant: Microeconomics I, Macroeconomics II and Economic Development of Latin America in the Long Run. (graduate, Universidad de Los

Andes, 2015-2016).

Teaching assistant: Microeconomics I, Microeconomics III, Game theory, Econometrics I, Econometrics II. (graduate, Universidad de Antioquia, 2012-2013).

Software

Stata, Python, R, Matlab, SQL (intermediate), C-Sharp (intermediate).

#### Work in Progress

### Social Influence and News Consumption (with Alex Moehring).

Populations in many countries have become decidedly more polarized over the last decades. Many believe that social media, which creates echo chamber-like interactions, is partly to blame. In principle, more intense communication can have two distinct impacts on news consumption and ultimately political beliefs. First, individuals are more likely to be exposed to the slanted diet of political news shared by their social circle. Second, in order to remain more in line with their friends, individuals may purposefully slant their own news consumption and beliefs. Despite the importance of these questions, there is little evidence for either of these two types of influences. This paper designs a unique field experiment on Twitter to separately identify both mechanisms. By inducing variation on an individual's beliefs about the ideological position of their social circle and what an individual's social media followers see about her news diet we find that (1) individuals internally adjust their news consumption and political beliefs as a response to the behavior of their social circle and (2) individuals manipulate their news diet in order to remain more in line with their friends when they believe that their choices will be observed by these friends.

#### Facebook Causes Protests (with Leopoldo Fergusson).

Using Facebook's release in a given language as an exogenous source of variation in access to social media where the language is spoken, we show that Facebook has had a significant and sizable positive impact on citizen protests. By exploiting variation in a large sample of countries during close to 15 years and combining both aggregate and individual-level data, we confirm the external validity of previous research documenting this effect for specific contexts along a number of dimensions: geographically, by regime type, temporally, and by the socioeconomic characteristics of both countries and social media users. We find that "coordination" effects that rest on the "social" nature of social media play an important role beyond one-way information transmission, including a "liberation effect" produced by having a direct outlet to voice opinions and share them with others. Finally, we explore the broader political consequences of increased Facebook access, helping assess the welfare consequences of the increase in protests. On the negative side, we find no effects on regime change, democratization or governance. To explain this result, we show there are no effects on other political engagements, especially during critical periods, and that social media access also helps mobilize citizens against opposition groups, especially in less democratic areas. On the positive side, we find that Facebook access decreases internal conflict, with evidence that this reflects increased visibility deterring violence and that social media and the resulting protests help voice discontents that might otherwise turn more violent.

## (Successful) Democracies Breed Their Own Support (with Daron Acemoglu, Nicolás Ajzenman, Cevat Giray Aksov and Martin Fiszbein).

Using large-scale survey data covering more than 110 countries and exploiting within-country variation across cohorts and surveys, we show that individuals with longer exposure to democracy display stronger support for democratic institutions, and this effect is largely driven by individuals who have been exposed to democracies that have performed well in terms of fostering economic growth, avoiding political instability, and providing public goods. We bolster these baseline findings using an instrumental-variables strategy exploiting regional democratization waves and focusing on immigrants' exposure to democracy before migration. In all cases, the timing and nature of the effects are consistent with a causal interpretation. We also show that support for democratic institutions matters: when there is greater support for democratic institutions, democratic political instability, and coups are less likely, and democracies perform better in the face of negative shocks.

### Do Candidates Exert More Effort to Rule Over a Larger Budget? Evidence from Colombia

Likely due to a lack of information, few studies have examined political candidates' behavior before elections. In this paper, I test whether political candidates (and citizens) find it profitable to overcome the costs of engaging in long-term clientelistic relationships before an election when the incentives to capture office increase. I collect information on the proportion of people in Colombia that illegally attempted to vote in a municipality that was not their residence, a practice known as electoral transhumance that constitutes a complex form of vote buying. I exploit a discontinuity in the allocation of transfers from central to local governments to show that this practice is more common in districts with larger budgets, which may give local politicians greater incentives to seek office. Consistent with a model in which open economies can "trade" voters, I find that a positive shock in a municipality's revenue makes transhumance more likely in three types of municipalities: (1) those with small populations, (2) those with well-functioning institutions, and (3) those with neighboring municipalities that have larger populations. I show that candidates are forward-looking: they engage in this behavior as early as two years prior to election day.

## Voter Learning and Measuring Support for Democratic Institutions (with Daron Acemoglu, Ceren Baysan and Cevat Giray Aksoy).

There is widespread concern about the reported global democratic decline and its implications for economic growth. A critical factor that may determine the future of democracy is the level of voter understanding and appreciation for the quality of democratic institutions. However, it remains unclear how voters assess these institutions and if they have a shared understanding of which political parties and leaders uphold them. This study aims to evaluate the effect of credible information about democratic institutions on voter behaviour and beliefs in Turkey using a large-scale experimental information campaign, electoral data, and survey data. The information source is experimentally varied as non-partisan or aligned with either right or left-wing ideologies, allowing us to control for voter beliefs of the credibility of the information or reputation of the information source. Our research design also allows us to isolate the impact of information on voter beliefs and behaviour from any persuasive effects.

#### The Return of Pachamama (with James Robinson and Pablo Selaya).

We study the political and economic consequences of the violation of the "moral economy" of rural Bolivia, based on coca, caused by the escalation of coca eradication in the 1990s. We show that this policy is associated with the rise of the MAS political party - their vote share is significantly higher both in coca-suitable places and in the presence of traditional socio-political institutions notably the Aymara *ayllu*. We then study the consequences of controlling the state after 2005. We present evidence of an "empowerment effect" in the form of an increased use by indigenous people of indigenous first names for their children. Using survey data we show that indigenous people significantly increased their expectations of social mobility after 2005.

### Do Ghosts Exist? Corruption in the Colombian Education System (with Leopoldo Fergusson, Arturo Harker and Juan Camilo Yamin).

We study how political coordination can increase corruption where political relationships are prevalently clientelistic (i.e., where politicians exchange favors for political support with voters and with other politicians in their network). We rely on a censal measure of "ghost students", fabricated by local politicians and bureaucrats in Colombia to obtain more transfers from the national government. Using a Regression Discontinuity Design, we show that political alignment between local and regional politicians increase ghost students, with no improvements in either the quality or true quantity of education. Effects on ghosts are larger in municipalities with more historical prevalence of clientelism, more discretion over resource spending, weaker institutions, and less qualified teachers and school officials. Electoral fraud and disciplinary complaints against functionaries also increase with alignment. Suggestive evidence also shows that incumbents have better future electoral and employment prospects in aligned areas. The findings are consistent with our theoretical framework, where resource extraction is more valuable to politicians whose network is connected to higher echelons of power.

#### **Publications**

Converging to Converge: A Comment (with Daron Acemoglu, 2022). NBER Macroeconomics Annual 2022, v. 36. University of Chicago Press.

We revisit recent evidence by Kremer, Willis, and You (2021) suggesting that the lack of economic convergence in early years has now been replaced by modest convergence. We show theoretically and empirically that failure to include country fixed effects will create a bias in convergence coefficients toward zero and this bias can be time varying, even when the underlying country-level parameters are stable. Our reanalysis finds no evidence of major changes in patterns of convergence and, more importantly, no flattening of the relationship between institutional variables and economic growth.

The Weak State Trap (with Leopoldo Fergusson and James Robinson, 2021). *Economica*, v. 89 Issue 354.

Development outcomes come in 'clusters' that seem difficult to exit. Typically juxtapositioned are states that are both weak in the sense of lacking fiscal resources, but also patrimonial or clientelistic in the way in which they operate. We document the individual behaviour underlying such a cluster using original data from Colombia. We show that tax evasion, as a measure of state weakness, and vote buying, as a measure of clientelism, are highly correlated at the individual level. We argue that while state weakness creates the right environment for clientelism to flourish, clientelism sets in place a structure of incentives for politicians and citizens that is detrimental to building state capacity. We also document that both practices are widely accepted in society, a result consistent with a deeply entrenched relationship of mutually reinforcing influences. Finally, we present evidence of a vector of other types of behaviour and beliefs that are highly correlated with both clientelism and tax evasion, which suggest the presence of multiple feedback loops that we argue justifies calling this situation a trap.

# Consumers as VAT "Evaders": Incidence, Social Bias, and Correlates in Colombia (with Leopoldo Fergusson and Juan Felipe Riaño, 2019). Economia, v. 19(2).

Tax evasion lies at the core of the relationship between citizens and the state: it reflects the level of trust in the state and compliance with society's implicit social contract. How- ever, empirically analyzing tax evasion is challenging, particularly because there are few direct and reliable measures. We conduct list experiments on a large sample of households to estimate how frequently consumers are willing to be complicit in value added tax (VAT) evasion, as well as the extent of social desirability bias in respondent answers. Around 20 percent of respondents agree to make purchases without a receipt in order to avoid paying VAT; surprisingly, they are not ashamed to admit this openly. Evasion is more prevalent in places with more informality and less physical presence of the state, as well as among poorer, less educated individuals and those who disregard the rule of law.

## I Sell My Vote, and So What? Incidence, Social Bias, and Correlates of Clientelism in Colombia (with Leopoldo Fergusson and Juan Felipe Riaño, 2018). *Economia*, v. 19(1).

Exchanging one's vote for particularistic benefits—practices usually grouped under clientelism—is often thought to weaken programmatic links between citizens and politicians and disincentivize public good provision, as well as undermine voter autonomy and the ideal role of elections. However, empirically analyzing this key phenomenon for the working of democracies entails formidable challenges. We conduct list experiments on a large sample of households to estimate the incidence of clientelistic vote buying, as well as the extent to which respondents refrain from openly recognizing this behavior. Nearly one out of every five respondents engage in clientelism, and, surprisingly, they do not feel ashamed to admit it. Guided by the existing literature and systematically verifying the sensitivity of the results to model specification, we examine the robust correlates of clientelism and discuss the implications of our key findings