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AMLO and Huachicoleo: The Effects and Implications of the Fuel Theft Crackdown in Mexico

Samuel Starr
University of Mississippi

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AMLO AND HUACHICOLEO: THE EFFECTS AND IMPLICATIONS OF THE FUEL

THEFT CRACKDOWN IN MEXICO

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By Samuel Starr

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Approved by

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Advisor: Dr. Marcos Mendoza

_____

Reader: Mr. Wesley Yates

_____

Reader: Dr. Ian Gowan

Abstract

On December 20th, 2018—less than three weeks into new president Andrés Manuel López Obrador's term—the Mexican federal government initiated a crackdown on fuel theft, or *huachicoleo*. The crackdown was intensive and nationwide. Its implementation was costly: gas stations throughout the country shut down as fuel pipelines were closed, the newly established National Guard was deployed to protect fuel infrastructure, and cartels threatened acts of terror against the government. The crackdown ended in April of 2019, with the López Obrador administration calling it a success. The overarching goal of this study is to test that assertion empirically by investigating the crackdown's effects on Mexican politics, the national economy, and organized crime. To that end, this study uses a mixed-method approach to determine how the crackdown impacted Mexico as well as investigate what it means in the broader context of Mexican policy and public security. This study argues that while the crackdown was successful politically, it fell short of accomplishing its goals for public security and was an expensive enterprise for the Mexican government. Furthermore, this study argues that the crackdown advantaged transnational criminal corporations in Mexico via a disproportionate impact on small criminal groups, with whom large criminal corporations compete.

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Chapter 1: Introduction

On December 27th of 2018, Mexican President Andrés Manuel López Obrador unveiled a federal initiative intended to combat the rampant theft of hydrocarbons from state petroleum company Petróleos Mexicanos (Gobierno de México, 2018; SEC, 2021). The effort had begun a week before, less than three weeks into the López Obrador administration. cracked down on fuel theft, known in Mexico as *huachicoleo* or *huachicol*, by implementing sudden changes in fuel distribution, the deployment of a newly established National Guard to potential targets of theft, corruption investigations, audits, and more (Felbab-Brown, 2019; Gobierno de México, 2018; Jones & Sullivan, 2019). Finished-product gasoline pipelines were shut down in some states, resulting in fuel scarcity for roughly two weeks (Caballero-Morales & Martínez-Flores, 2019; Cervantes & Woodhouse, 2019; MND, 2019). On April 23rd of 2019, López Obrador (hereafter AMLO) mostly concluded the crackdown, calling it a mission accomplished (López Obrador, 2019).

As AMLO's first major initiative as president, the crackdown on *huachicoleo* carries enormous political significance. AMLO's decision marks a serious departure from standard public security policy in Mexico. The results of the initiative are similarly valuable information, as its success or failure could set a new standard for combatting organized crime in Mexico or in the region.

Questions surrounding the crackdown have yet to be addressed. While the presidential administration was quick to point at reduced theft in 2019 and 2020 and call the initiative a

massive success, there is reason to study the effects empirically (López Obrador, 2019). A change in 2019 by no means signals a permanent effect. The impact of COVID-19 on gasoline demand also makes a reduction in 2020 theft a questionable source of evidence. This study thus seeks to address a number of questions that remain unanswered in the wake of the crackdown on *huachicol*.

This study asks: what were the effects and implications of the 2019 fuel theft crackdown in Mexico? More precisely, this study investigates the political and economic impacts of the initiative before considering how the crackdown may have affected Mexican organized crime. By addressing each impact—the political repercussions, the economic gains and costs, and the crackdown's degree of success in combatting cartels—a much clearer picture of the initiative can be developed.

This study argues that the crackdown was a resounding political success for AMLO, but a costly enterprise economically that is unlikely to have a permanent impact on the ability of Mexican criminal corporations to steal fuels from the state. While the action was very well-received by voters, it was also very expensive, and the costly changes did little to create a national fuel supply chain that is significantly better defended from theft.

Methodology

This study uses a mixed methods approach and combines methods from several disciplines. As befits the disciplinary diversity of the study, each subject is investigated with a unique approach and framework. Chapter 3, focusing on politics, primarily uses rhetorical analysis. Chapter 4, focusing on economics, uses correlative indicators, financial analysis, and

illegal market frameworks. Chapter 5 employs a variety of theoretical frameworks within the discipline of organized crime.

The primary sources used by this study vary by chapter as well. Chapter 3 uses speeches and weekly briefings from AMLO as well as texts he has authored. In addition, the chapter uses polling data of opinions on the crackdown and analyzes results via populist political frameworks previously used to study the now-president before he entered Mexico's highest office. Chapter 4, focusing on economic implications, utilizes Mexican stock indices, SEC 20-F Forms filed by Petróleos Mexicanos, and data from Google Trends. Google Trends provides data on searches for several crackdown-related keywords, which serve as stand-in data points representing the intensity of gasoline shortages; the intensity of shortages is then correlated with Mexican stock closing prices. Pemex 20-F forms are used for a financial analysis of the crackdown's effect on Pemex profitability. Chapter 5 focuses on organized crime via a case study of the state of Guanajuato. The chapter relies on local reporting in Mexico, publicly available crime data, Drug Enforcement Agency reports, and messaging made public by the Santa Rosa de Lima Cartel and the Jalisco New Generation Cartel. Those primary sources are used to provide a clearer picture of the status of Mexican organized crime before, during, and after the crackdown.

Terminology and Timelines

Huachicoleo or *huachicol* is the theft of hydrocarbons from state oil company Pemex in Mexico. Fuel theft is typically accomplished via an illicit tap in a finished-product pipeline,[1] though other methods are used frequently (Jones & Sullivan, 2019). The hijacking of tanker trucks and the robbery of railway tankers have also been used to steal gasoline (Jones &

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[1] "Finished-product hydrocarbons" refers to hydrocarbons that have been refined and are ready for consumer sale, as distinguished from unrefined products such as crude.

Sullivan, 2019). Fuel theft is not limited to gasoline. Theft operations have stolen natural gas, crude, hydrocarbon-based fertilizers, and other hydrocarbon products as well; however, gasoline theft presents the most significant and longstanding problem (Jones & Sullivan, 2019). Fuel theft incidents have increased exponentially over the past two presidential administrations in Mexico, from 213 incidents in 2006 to 14,956 incidents in 2018 (Aroche Aguilar, 2018).

The López Obrador administration revealed the crackdown measures seven days after initial implementation, on December 27 of 2018. AMLO took office on December 1, 2018 (Gobierno de México, 2018). For the purposes of this study, the "fuel theft crackdown" refers to the measures taken to combat fuel from December 20, 2018 until April 23, 2019, the date on which AMLO declared victory over fuel theft (López Obrador, 2019). One of the most significant events of the crackdown was a resulting gasoline crisis, primarily in south-central Mexico. When this study refers to "gasoline shortages," it denotes the period from January 5 to January 19, 2019 unless otherwise noted.

Overview

Following a review of relevant literature, this study is divided by thematic area into three sections: politics, economics, and organized crime (Chapters 3, 4, and 5, respectively). Each chapter uses relevant primary sources to answer two questions: First, what were the crackdown's effects? How did the implementation of the crackdown affect relevant indicators in each thematic area? Next, the study asks what the crackdown means—what might it indicate for the future of Mexican politics, economics, and public security? The study concludes with results and newly opened areas of inquiry.

<center>**Chapter 2: Literature Review**</center>

Chapter 2 reviews the scholarship pertaining to organized crime, energy, and politics in Mexico. The final section of this chapter highlights contributions to the academic literature made by this study.

Organized Crime

Scholarship regarding organized crime in Mexico has historically focused on drug-trafficking organizations, or DTO's. DTO's were defined by the National Drug Intelligence Center in 2010 as "complex organizations with highly defined command-and-control structures that produce, transport, and/or distribute large quantities of one or more illicit drugs" (DOJ, 2010). Cartels in Mexico generally fell into this definition prior to the fall of the one-party system in Mexico in 2000: "Under the PRI,[2] the major cartels in Mexico, each with their assigned territories (plazas) remained subordinate to a state whose officials and elite families quietly profited from the illicit narcotics trade" (Bunker 2013). Change in Mexican organized crime since the fall of the one-party system has been swift.

Cartels have dramatically changed their revenue sources, degree of diversification, methods of violence, and stance towards the state in the 21st century (Bunker, 2013; Correa-Cabrera, 2017; Payan & Correa-Cabrera, 2014). This new type of organization is highly diversified, "...moving from drug smuggling to making billions of dollars in illegal mining and

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[2] *Partido Revolucionario Institucional* (Institutional Revolutionary Party), the party that dominated Mexico's political system and elections until 2000.

iron ore exports, illicit logging, human trafficking and smuggling, kidnapping for ransom, extortion, and pirated goods" (Payan & Correa-Cabrera, 2014). Previously limited to the drug trade, Mexican organized crime is now invested in crime in general.

These new groups, variously referred to as "polyglot criminal organizations" (Bunker, 2013), "Zeta Model" (Correa Cabrera 2017), "3rd Phase Cartels" (Bunker 2011) and other titles are less easily characterized by their involvement in the drug trade. Criminal enterprises have also become more international. Many have created connections with foreign criminal enterprises or licit businesses, as well as expanded their operations into foreign countries (Correa-Cabrera, 2017; McCarthy-Jones et al., 2020; McCarthy-Jones & Baldino, 2016). Accordingly, modern organized crime groups in Mexico can be more accurately characterized as transnational criminal organizations (hereafter TCO's) than as drug-trafficking organizations. TCO's are more diversified criminal groups operating in the likeness of a transnational or multinational corporation (Correa-Cabrera 2017). Mexican TCO's have also expanded into the control of licit markets in their increasing attempts to diversify revenue streams (Erickson & Owen, 2020).

Some small criminal groups, such as the Santa Rosa de Lima Cartel, focus primarily on illegal markets that were left untouched by cartels organized as DTO's (Jones & Sullivan, 2019). Such groups, smaller and less diversified than TCO's, compete against TCO's in the narrow markets in which they participate (Jones & Sullivan, 2019). These unconventional groups, while not TCO's, still contrast sharply with drug-trafficking organizations in that they operate in entirely different criminal markets.

Mexican TCO's can be defined under a broad degree of theoretical frameworks, given that they can act as corporations, insurgents, criminal groups, state challengers, state cooperators

and so on depending on a wide array of economic and political factors (Celaya Pacheco, 2009) (Correa-Cabrera 2017). TCO's in Mexico have been analyzed through civil war literature (Atuesta & Pérez-Dávila, 2018) (Correa-Cabrera 2017), business administration literature (Correa-Cabrera 2017), traditional criminal justice models (Vilalta, 2014), territorial governance models (Maldonado Aranda, 2014a, 2014b; Mendoza 2022) and irregular warfare models as "criminal insurgencies," and terrorists (Brands, 2009; Bunker, 2013; Celaya Pacheco, 2009).

Despite the rapid changes in cartel organization, one aspect remains unchanged: Whether through a business, political, or criminal framework, Mexican TCO's "...have the same essential goal...to maximize profits" (Correa-Cabrera 2017:62). Accordingly, the success of a TCO can be roughly gauged by its apparent capability to generate profit. As aforementioned, modern TCO's in Mexico have an extremely diversified portfolio, akin to a transnational conglomerate (Payan & Correa-Cabrera, 2014). Therefore, analyzing a given cartel's ability to earn income will vary depending on its revenue streams. Cartel capabilities can also be measured by their perceived governance areas or spheres of control (Celaya Pacheco, 2009).

Energy

In discerning the economic effects of the *huachicoleo* crackdown in Mexico, this study addresses how Mexican oil production has been affected by theft, how distribution of oil has been affected by the closure of pipelines, and what the effects have been on consumers.

The theft of hydrocarbons in Mexico has had a strong effect on PEMEX. Fuel theft caused around US $3 billion in losses for PEMEX in 2018, as AMLO's crackdown began; for reference, PEMEX suffered a total loss of US $9.16 billion that year (Cunningham, 2019; SEC, 2020). Fuel theft can thus be seen as a strong threat to the health of the Mexican oil industry. The

theft of fuel in Mexico most often occurs through taps on finished-product pipelines (Jones & Sullivan, 2019). In recent years, the theft has "…transitioned from a basically local activity, well-organised but not violent, to merge with drug-trafficking organisations" with the collusion of corrupt PEMEX officials (Hernández Ibarzábal & Bonilla, 2020). Cartel takeover of *huachicoleo* has made the practice more violent and more difficult for the Mexican government to combat (Jones & Sullivan, 2019; Sullivan & Bunker, 2019a).

Existing scholarship regarding AMLO's energy policy in Mexico has generally focused on the relationships between AMLO's "Fourth Transformation" or 4T and Mexican energy markets. AMLO's 4T platform is based on recreating Mexico via a national transformation; a significant portion of his promises relate to Mexico's energy sector. 4T has promised to "achieve energy sovereignty in Mexico" and "eradicate fuel theft," statements which have been given various interpretations within the existing literature (Hernández Ibarzábal & Bonilla, 2020). Energy sovereignty can be generally understood to signify a country's capability to act independently in providing energy within its borders (Menconi et al., 2016). Mexico, despite ample crude reserves, has become increasingly dependent on U.S. gasoline products following the partial privatization of PEMEX, which provides context for such a national objective (Gutierrez et al., 2021).

Existing scholarship indicates that the dual goals of eliminating fuel theft and achieving energy sovereignty may prove difficult to achieve simultaneously. AMLO's primary weapon against fuel theft has been the closure of pipelines, which has strong implications for the distribution of gasoline and other finished petroleum products in Mexico. Existing logistics literature shows that Mexico's infrastructure was incapable of handling pipeline closures while still meeting fuel needs, primarily due to a shortage of fuel depots (Caballero-Morales &

Martínez-Flores, 2019). Gasoline imports from the United States increased sharply following the pipeline closures; however, scholarship on a possible relation between the two does not yet exist. Scholarship is similarly lacking as to the other effects of the closures.

Mexican Politics

Mexican President Andrés Manuel López Obrador assumed office on December 1st, 2018, after a massive win by the party he created: the Movimiento Regeneración Nacional (National Regeneration Movement) or MORENA. The party took a large majority in both legislative houses as well as 5 of the 9 governorships in contention in 2018; accordingly, AMLO has perhaps one of the strongest mandates of any leader since the fall of the PRI (Speck, 2019). The existing literature regarding AMLO tends to define him as a center-left populist, both in his style and his policy (Felbab-Brown, 2019; Hernández Ibarzábal & Bonilla, 2020; Speck, 2019).

The concept of Latin American populism is a highly contested issue in the scholarship, as is even the concept of populism (Knight, 2016; Mudde, 2004; Schroeder, 2020). Populism can be variously interpreted as a style of leadership, a political strategy, or a political ideology (Mudde, 2004; Schroeder, 2020).

Populism can be broadly defined as "…an ideology that considers society to be ultimately separated into two homogeneous and antagonistic groups, 'the pure people' versus 'the corrupt elite', and which argues that politics should be an expression of the *volonté Générale* (general will) of the people" (Mudde, 2004). While each definition is general and contested in the scholarship, populism can be broadly considered an anti-elitist, anti-corruption, people-first style of policymaking (Knight, 2016; Mudde, 2004; Schroeder, 2020). Center-left populists in

Latin America have historically highlighted wealth redistribution from corporations and elites to the working class (Absher et al., 2020; Schamis et al., 2006).

AMLO's crackdown on fuel theft has been considered a reflection of his populist style of leadership. Part of his strategy to improve public safety has been a differentiated approach to organized crime, emphasizing peaceful measures and structural causes of crime: "*abrazos no balazos*" or "hugs not bullets" has been a key phrase (Speck, 2019). His attempts to crack down on *huachicoleo* have also focused more on corruption and nonviolent measures: fuel pipeline closures and arrests of corrupt officials have been two primary methods of combatting theft (Caballero-Morales & Martínez-Flores, 2019; Felbab-Brown, 2019; Navarro, 2017). Corruption in general has been a major focus of the AMLO administration. AMLO's rhetoric on corruption has taken a populist approach, invoking an idea of theft from "the people" by the corrupt elite and stating that "Only [he] can fix corruption" (Speck, 2019). The crackdown thus departs from previous strategy, which isolated organized criminal groups as the cause for fuel theft and combatted theft through combatting criminal groups directly (Speck, 2019). Instead, the president has looked towards government via corruption crackdowns and to non-confrontational preventative approaches such as the shutdown of fuel pipelines. On the other hand, AMLO has created a national guard which has also been used to combat fuel theft militarily, which has been interpreted in some literature as a return to previous policies involving the use of force against *huachicoleros* (Speck, 2019).

Oil and fuel theft play a substantial role in AMLO's promised 4T, or Fourth Transformation. Oil continues to play a massive role in the Mexican economy, and continued fuel theft reduces the potential of PEMEX to regain its status as a source of state income and pride; as such, the fight against fuel theft has been seen as "…a fight for the nation" between the

state and organized criminals (Hernández Ibarzábal & Bonilla, 2020). Oil has been interpreted in some literature as a guarantor of sovereignty, particularly as relates to decolonization literature (Dietrich, 2015).

Contribution to the Literature

This study adds to existing academic literature by investigating AMLO's crackdown on *huachicoleo* in greater depth than previous works. Rather than view the crackdown as a symptom of the president's populist center-left policy, this study investigates the crackdown within the broader context of AMLO's agenda. While previous studies have acknowledged the crackdown, little empirical investigation into its effects has occurred. As such, this study seeks to provide a thorough investigation of the crackdown's effects and implications in the realms of politics, economics, and public security in Mexico. In addition, this study hopes to break ground in the growing literature regarding unconventional criminal organizations in Mexico.

Chapter 3: The Political Implications of the *Huachicoleo* Crackdown

This chapter explores the political response to AMLO's crackdown on fuel theft. After providing background on fuel theft as an issue in Mexican politics, the study investigates the president's rhetoric as he presented the crackdown to the public in a speech in December of 2018. The study then investigates the political reception of the action via Mudde's populist framework. This chapter concludes that the crackdown was a major political success for the president that could represent a new direction for Mexican public security policy.

Politics in Mexico

In the years following the Mexican Revolution, a one-party system led by the Partido Revolucionario Institucional (Institutional Revolutionary Party), or PRI, was established in Mexico (Hamnett, 2019). The PRI had near-total political hegemony from 1929 onward but began to unravel in the late 20th century, finally losing its absolute authority with the 2000 presidential election (Hamnett, 2019). President Vicente Fox was the first opposition president, leading the conservative Partido Acción Nacional (National Action Party, PAN) to the presidency in 2000 (Hamnett, 2019). President Felipe Calderón, also of PAN, won office in 2006 by a margin of less than 1% against Andrés Manuel López Obrador (Hamnett, 2019). Calderón was succeeded by Enrique Peña Nieto, a PRI candidate, from 2012-2018; AMLO again came second in the national vote (Hamnett, 2019). In 2018, AMLO won on his third run, this time with

the Movimiento de Regeneración Nacional (National Regeneration Movement, MORENA), a party he established following his 2012 defeat (Hamnett, 2019).

AMLO captured the largest percentage of the electorate since the Mexican Revolution and claimed victory in all but the state of Guanajuato, which was won by the PAN (INE, 2018).

Figure 3.1

Candidate	Party	Percentage of Vote
Andrés Manuel López Obrador	MORENA	53.19%
Ricardo Anaya	PAN	22.28%
José Antonio Meade	PRI	5.23%
Independents/Other/Invalid		8.12%

2018 Mexican presidential election results (INE, 2018)

AMLO campaigned on corruption crackdowns, the creation of a nationalist economic approach that tempered neoliberal influences, and a demilitarized approach to ending Mexico's drug war and reducing the power of organized crime (Felbab-Brown, 2019; Hernández Ibarzábal & Bonilla, 2020; Speck, 2019). As a presidential candidate, AMLO promised to usher in a "Fourth Transformation" of Mexico, or 4T, referencing three prior transformations of Mexico: Mexico's War of Independence (1810-1821), the Reform War (1858-1861), and the Mexican Revolution (1910-1917) (Speck, 2019).

AMLO's 4T platform was in opposition to a number of neoliberal policies put in place by his predecessors, especially relating to energy policy (Speck, 2019). In a list of 100 promises of the 4T platform by the AMLO campaign, six highlight energy policy ("100 Compromisos"). In Promise 70, the president pledges to "…allocate more public investment to urgently produce more oil, gas and electricity and thus face the crisis left by neoliberal politicians and those

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responsible for the so-called energy reform[3] ("100 Compromisos"). Past presidents, particularly Enrique Peña Nieto, had begun the process of partial privatization of Mexican state oil company Pemex, which had been nationalized since 1938 (Ackground et al., 2015; Gutierrez et al., 2021; Hamnett, 2019). As a piece of his campaign, AMLO pledged to reverse privatization and increase Mexico's ability to produce and refine hydrocarbons (López Obrador, 2021). 4T emphasized the importance of refining capability and lamented the fact that Mexico, despite its significant oil reserves, was forced to import substantial amounts of gasoline due to a limited capacity in refining ("100 Compromisos").

AMLO and Populism

A study using Cas Mudde's populist framework found that AMLO utilizes several populist strategies. When directing a speech at favorable audiences, like a campaign rally, AMLO tends to divide the Mexican people in Manichean terms, separating the pure masses (whom he claims to represent) from the corrupt elites, especially PRI and PAN officials (Bruhn, 2012). AMLO has claimed that the 2000 fall of the PRI did not result in real change for Mexicans, as it was "a crude continuation of the corrupt regime" of neoliberalism (López Obrador, 2021:15). AMLO tends to refer to social assistance as a universal right, which he states can be funded through a crackdown on high-level corruption (Bruhn, 2012).

AMLO has used his political perspective on Mexican institutions—corrupt, elite-controlled, and sometimes undemocratic—as a way of questioning election results, especially after the tightly contested 2006 election (Bruhn, 2012). The President also called for a recall vote

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[3] "Vamos a destinar mayor inversión pública para producir con urgencia más petróleo, gas y energía eléctrica y así enfrentar la crisis que dejaron los políticos neoliberales y los responsables de la llamada reforma energética"

against himself to be held in 2022, arguing that it would strengthen democracy; opposition claims is a costly move to consolidate power (de Haldevang, 2021; Graham, 2020).

Fuel Theft in Politics

The Calderón administration saw fuel theft rise from 213 incidents in 2006 to 1,635 by the end of the six-year term in 2012 (Aroche Aguilar, 2018; IGAVIM, 2021). The Peña Nieto (hereafter EPN) presidency oversaw a rise from 1635 to 14,956 incidents in 2018 (Aroche Aguilar, 2018). The exponential rise in fuel theft in Mexico has brought the issue to the forefront of national attention.

The Calderón administration, as a part of its militarization of the fight against narcotics, fought *huachicol* primarily through the targeted killing or arrest of leaders of organized criminal groups (Jones & Sullivan, 2019; Speck, 2019). The EPN presidency pursued similar tactics (Speck, 2019). AMLO's proposed strategy fell in line (at least partly) with his demilitarized approach to public security, focusing on corruption and the interruption of supply (Jones & Sullivan, 2019). His *huachicoleo* crackdown was by no means entirely peaceful, however; AMLO deployed 4000 soldiers around the country to defend refineries and pipelines while drastically stiffening punishments for *huachicoleros*, making fuel theft a felony crime without the possibility of bail (Jones & Sullivan, 2019). Corruption measures focused on investigations into Pemex officials as well as audits, account freezes, and license revocations for gas stations caught dealing in the illegal gasoline market (Jones & Sullivan, 2019). For the average Mexican citizen, the most impactful aspect of the crackdown was pipeline shutdowns, which for many made gasoline nearly impossible to purchase for a period of about two weeks (Cárdenas et al., 2019). Noting the impact of shutdowns on the public, this study seeks to investigate how the

Mexican electorate viewed the crackdown, as well as explore the political implications of AMLO's actions for the future of Mexican politics and public security.

AMLO's Framing of the Crackdown

Previous Mexican presidents have used force, both through the justice system and through the military, as the primary means of deterring fuel theft (Jones & Sullivan, 2019; Speck, 2019). While AMLO has not completely avoided the use of force against fuel theft, he has framed the crackdown as a departure from the militaristic policies of his predecessors (Felbab-Brown, 2019).

In introducing the crackdown in a speech on December 27, 2018, AMLO referred to corruption in nine separate instances. He referred to the planned use of force just once.

Figure 3.2:

References	English	Spanish
Corruption	If we think of 600 pipes daily, we are not only speaking of the so-called *huachicol*, the tapping of pipelines; we are speaking of a plan with links to the interior of the government and that is supported by a fuel distribution system, because it is not easy to distribute, sell 600 pipes worth of gasoline daily.	Si pensamos en 600 pipas diarias, no estamos sólo hablando del llamado huachicol, la ordeña de ductos; estamos hablando de un plan que tiene vinculación al interior del gobierno y que se apoya en un sistema de distribución de combustibles, porque no es fácil distribuir, vender 600 pipas diarias de gasolina diarias.
Corruption	That is why we are going to fight this theft inside and outside of	Por eso vamos a combatir este robo afuera y adentro de las instalaciones

	Pemex facilities.	de Pemex.
Corruption	Look, 1,145 pipes per day, 1,145 pipes. That is *huachicol*, but from above.	Miren, mil 145 pipas por día, mil 145 pipas. Eso es huachicol, pero desde arriba.
Corruption	There is the hypothesis that, of all of the theft, only 20 percent happens with pipeline taps, which is a kind of cover, that most of it has to do with a plan that operates with the complicity of authorities and with a distribution network.	Hay la hipótesis de que, de todo el robo, solo el 20 por ciento se da con la ordeña de ductos, que es una especie de pantalla, que la mayor parte tiene que ver con un plan que se opera con la complicidad de autoridades y con una red de distribución.
Corruption	The purpose of this plan is to prevent this theft, to not tolerate the continuation of these thefts, to not allow corruption.	Este plan tiene como propósito evitar este robo, no tolerar que se sigan cometiendo estos robos, no permitir la corrupción.
Corruption	We have to end this corruption.	Tenemos que acabar con esta corrupción.
Corruption	And I call on Pemex workers to support us, to help us achieve the goal of zero corruption.	Y yo convoco a los trabajadores de Pemex para que nos apoyen, nos ayuden a que se logre el propósito de cero corrupción.
Corruption	We as Mexicans cannot continue to be embarrassed, to occupy the 135th spot among 176 countries, the 135th spot as a corrupt country. The objective is to end corruption.	No podemos los mexicanos, seguir pasando vergüenzas; ocupar el lugar 135 entre 176 países, el lugar 135 como país corrupto. El objetivo es acabar con la corrupción.

The Use of Force	A reform to the Constitution, to the law, is about to be approved, so that the theft of hydrocarbons becomes a serious crime, without right to bail, because until now it is not a serious crime, and they are easily released on bail. It won't be like that anymore. And it won't matter how much was stolen.	Está por aprobarse una reforma a la Constitución, a las leyes, para que el robo de hidrocarburos sea delito grave, sin derecho a fianza, porque hasta ahora no es delito grave, y salen fácilmente bajo fianza. Ya no va a ser así. Y no va a importar la cantidad de lo robado.
Corruption	…there will not be corruption for anyone, not above nor below; that **we will cleanse the government of corruption, that is the purpose.** (Emphasis added)	…no va a haber corrupción para nadie, ni arriba, ni abajo; que vamos a limpiar de corrupción al gobierno, que ese es el propósito.

References to corruption and the use of force in AMLO's public address on December 27, 2018 (López Obrador, 2018).

The crackdown on fuel theft, as presented to the public, is thus a corruption crackdown. Rather than look outward towards the criminal organizations that have made fuel theft so prevalent, AMLO directs attention towards the government, insisting that fuel theft could not occur at 2018 levels without significant support from state actors.

The Crackdown's Public Perception

As is evidenced through polling data, AMLO's decision to portray the illegal fuel market as corurption-driven seems to have paid significant political dividends. While no firm

conclusions about the electorate's opinion of the actions can be drawn, data seems to suggest that the action was viewed favorably on the national scale.

Gasoline shortages, the most salient negative repercussion of the crackdown, do not appear to have negatively impacted AMLO's approval to a serious degree. Significant shortages occurred almost exclusively in January of 2019 (Caballero-Morales & Martínez-Flores, 2019). An aggregation of the six largest approval polls in Mexico compiled by communications firm ORACULUS shows that approval of AMLO increased from 76% in December, when he took office, to 79% in January and 81% in February (Márquez, 2021). A poll from communications firm Gabinete provides further insights. The poll, conducted 100 days into AMLO's term, showed that 86% of respondents agreed with the actions taken to deter fuel theft, with just 12.8% in disagreement (Gabinete, 2019).[4] Poll respondents were also asked what action, among a list of 19 options, they thought was the best measure implemented by the president in the first 100 days[5]; the most chosen response, with 27.2% of respondents, was combatting fuel theft (Gabinete, 2019).[6] When asked the worst measure, only 4.5% selected "Combatting fuel theft / gasoline shortages" (Gabinete, 2019).[7]

It should be noted that the actions were somewhat less popular during their initial execution. Several protests opposing the pipeline shutdowns were staged in January (Graham, 2019). There is evidence to suggest the closures were popular even as their worst consequences struck, however: In a poll by Consulta Mitofsky conducted from January 9th to 11th of 2019—as

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[4] Respondents were asked "¿Qué tan de acuerdo o en desacuerdo está con la aplicación de las siguientes medidas?" 86% responded "Muy/Algo de acuerdo" and 12.8% responded "Algo/Muy en desacuerdo" with the remaining 2.2% either not answering or selecting one of "Ni de acuerdo ni en desacuerdo" or "No sabe" in response to the prompt "Cierre de ductos y distribución de combustibles a través de pipas para el combate del Huachicoleo" (Closure of pipelines and distribution of fuel through pipes to combat fuel theft).
[5] "Por lo que sabe o ha escuchado, ¿cuál considera que ha sido la mejor medida que ha implementado el Presidente en sus primeros 100 días de gobierno?"
[6] "Combate al huachicoleo"
[7] "Combate al huachicoleo/desabasto de gasolina"

shortages raged throughout the country—50% of respondents approved of the president's shutdown of pipelines, with just 40% in disagreement and the remainder unsure (Graham, 2019).

The crisis contrasts sharply with a similar event that occurred in January two years prior: *el gasolinazo*, a series of protests and riots that followed a gasoline price hike in Mexico in 2017. The EPN administration had increased prices as part of a plan to partially privatize Pemex and salvage its profitability (Okeowo, 2017). That 20% price markup sparked labor strikes, deadly riots, and attacks on police (Okeowo, 2017). Enrique Peña Nieto's (hereafter EPN) approval ratings did not prove nearly as sturdy as AMLO's. EPN saw his public approval sink from 23% prior to the price hike to 17% the month after, with ratings not recovering for another 7 months (Márquez, 2021). Considering that the results of the *gasolinazo* and the *huachicoleo* crackdown were comparable—a rapid decrease in motor fuel accessibility—comparing the two may help explain the crackdown's relative lack of political fallout.

Figure 3.3

	Huachicoleo Crackdown	*Gasolinazo*
President and party initiating action	Andrés Manuel López Obrador, MORENA	Enrique Peña Nieto, PRI
Type of reduced availability	Shortage	20.1% price increase
Length of reduced availability	Roughly two weeks	Indefinite
Geographic distribution of reduced availability	South-central Mexico[8]	National
Motivation for change	Combatting fuel theft	Privatization of gasoline sales

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[8] Primarily the states of Hidalgo, Mexico, Jalisco, Michoacan, Guanajuato, Queretaro, and Aguascalientes. The degree of shortages varied strongly by state; the worst effects were in the state of Guanajuato, where 84% of gas stations had no fuel in the second week of January. See Caballero-Morales and Martínez-Flores.

Presidential approval month prior to reduced availability	76%	23%
Presidential approval change in month of crisis and month following	**Both positive**	**Both negative**

Comparison of the crackdown on *huachicoleo* and the *gasolinazo*.

Immediately notable in Figure 3.3 is that shortages in the *huachicoleo* crackdown were resolved, while the increase in gasoline prices by the EPN administration was a permanent change. While that fact lends itself to a more favorable perception after the crisis, it fails to explain why the *huachicoleo* crackdown was more supported than not when the crisis was underway (Graham, 2019). While the problems resulting from AMLO's initiative were more localized, the shortages by no means affected a small portion of the population. The region severely affected by logistical issues makes up a third of the electorate, while panic buying and cross-state purchases of gasoline from affected populations spread throughout Mexico, resulting in shortages in areas without severe supply-side problems (Caballero-Morales & Martínez-Flores, 2019; Carrizales, 2019; Gutiérrez, 2019; INE, 2018). Gas stations shutdowns occurred in states as distant as Sonora (Cervantes & Woodhouse, 2019). It is difficult, therefore, to assume that the crackdown received such a high degree of support because the majority of the population was unaffected.

The political context of each event may be more relevant. EPN's decision came as part of a move to partially privatize a company that had been nationalized since 1938 (Hamnett, 2019). He did so after a number of corruption scandals had overtaken his own administration, including his having used a luxury apartment of a wealthy businessman and his wife having

bought a house from a contractor that had received favorable government deals (Okeowo, 2017). AMLO's action was centered around ending corruption, placing blame on the government.

Mudde's populist framework provides additional insights. AMLO has previously described Mexican politics in Manichean terms, separating the pure and honest "people" from the corrupt "elite" (Bruhn, 2012; Mudde, 2004). The political success of the crackdown on fuel theft may be grounded, at least in part, from a similar separation in his rhetoric surrounding the action. AMLO chooses not to focus on criminal organizations or Pemex workers in his rhetoric. This is in spite of ample evidence that criminal organizations commit most fuel theft and that many Pemex workers are necessary pieces in the distribution network he describes. Instead, AMLO continuously refers to corruption and corrupt actors in an abstract sense and separates those actors from the Mexican people: "We as Mexicans cannot continue to be embarrassed, to occupy the 135th spot among 176 countries, the 135th spot as a corrupt country. The objective is to end corruption" (López Obrador, 2018).

The Political and Ideological Implications of the Crackdown

In choosing to focus on corruption in his policy and discourse on organized criminal markets, AMLO created a new path in Mexican politics. His decision to shut down pipelines and attack corrupt practices in the hydrocarbon industry demonstrated that the president was serious about his intentions of taking the issue of public security in Mexico in a new direction. Polling shows that the Mexican public was overwhelmingly supportive of that new path.

Where might that new path lead? Based on AMLO's discourse and policy actions during the crackdown, we can see that AMLO views corruption as the root cause of the public security crisis in Mexico. We can thus expect AMLO to continue focusing on fighting the transactions

between the state and criminal enterprises that, in his view, have allowed criminal organizations to grow so powerful in Mexico. We can furthermore expect that the president will continue to look towards government first as he seeks to place blame. Such policy has significant implications for the Mexican government's future stance on public security. In identifying corruption as the source of cartel power, rather than their capacity to use violence, the president sets a new target for Mexican federal authorities: the Mexican government itself. If the power of organized criminal groups stems from corruption, no amount of dead cartel leaders nor military deployments into domestic territory would be sufficient to solve the security crisis. Instead, the federal government would center its efforts around ending corruption, whatever form that may take.

As relates to energy policy, we can expect AMLO to continue to emphasize the importance of Mexican energy sovereignty. The president has already taken action to reduce Mexican dependence on foreign finished-product hydrocarbons (Gutierrez et al., 2021; López Obrador, 2021). Via the crackdown on huachicoleo, AMLO has placed importance on the Mexican people's possession of national energy resources. In attacking corrupt public workers and organized crime, he has demonstrated an attempt to retake control of public resources, in parallel with other economic policy.

AMLO's new direction distances the López Obrador administration from its predecessors. The Calderón and EPN administrations took drastically different approaches to theft of fuels, both focused on the use of force. Both also failed to slow the exponential rise of fuel theft in Mexico. Just as importantly, AMLO's policy shift may change the conduct of future Mexican leaders. The resounding political success that AMLO had in targeting corrupt bureaucracy, rather than violently targeting organized criminal groups, could encourage other

officeholders to follow in AMLO's new path in taking on organized crime. That path will not necessarily address Mexico's public security issues. As is addressed in the following chapters, the crackdown was far more successful politically than practically.

Chapter 4: The Economic Implications of the *Huachicoleo* Crackdown

This chapter investigates how the 2019 crackdown on *huachicoleo* affected the Mexican economy. The chapter begins by examining several macroeconomic indicators in Mexico in relation to the intensity of gasoline shortages. The chapter then uses existing illegal market frameworks to analyze how the crackdown may have affected the market for stolen gasoline. Finally, the chapter attends to how the crackdown affected Mexican state oil company Pemex.

This chapter finds that while the Mexican national economy remained mostly unaffected, the government likely incurred major costs in implementing the crackdown; these costs were ignored by the presidential administration in statements following the crackdown's conclusion. Furthermore, this study finds that the crackdown may have inadvertently benefitted large, widespread criminal organizations.

The Crackdown and the Mexican National Economy

Gasoline shortages were a significant economic event for a large section of the Mexican population during the crackdown on *huachicoleo*. In investigating the economic repercussions, this study finds that while significant economic disruptions occurred in highly affected states, there is no evidence to suggest that the Mexican economy suffered any serious effects on the national scale. Lagging macroeconomic indicators (indicators which denote changes *after* an economic change has occurred) did not decline in the months following the crackdown. Mexico's national consumer confidence indicator moved from 45.9 in January 2019 to 47.8 in

February (INEGI, 2019b). Unemployment moved from 3.44% to 3.40% in the same timeframe (INEGI, 2019a). The small increase in those indicators would suggest that the crackdown did not cause enough disruption to significantly damage long-term economic activity in Mexico.

Concurrent data (indicators which denote changes *while* an economic change is occurring) also fail to present evidence of national economic disruption. To determine the daily level of shortage intensity, this study used Google Trends[9] for the keywords "gasolina," "ductos," "gasoductos," "huachicol," and "desabasto" in Mexico from December 1, 2018 (when AMLO took office) through the end of January 2019.[10] Searches for those words spikes during the timeframe shortages were reported (from around January 5 to January 20, 2019), and the seven states severely affected have the highest search frequencies; search frequency peaked in Guanajuato, where gasoline shortages were most intense (Caballero-Morales & Martínez-Flores, 2019). Figure 3.1 shows the frequency of searches, ranging from 1 as least frequently to 100 as most frequently, in relation to the Mexican Indice de Precios y Cotizaciones (IPC), a cap-weighted total market index of the Mexican stock exchange. As a total-market index, the IPC was selected to represent concurrent change in the Mexican financial market in its entirety. As may be noted, the market maintained a moderate positive trend throughout the crackdown and saw minor disruptions at most at the peak of gasoline shortages. A lack of disruption on a total-market index may indicate insignificant disruption to Mexican markets as a whole.
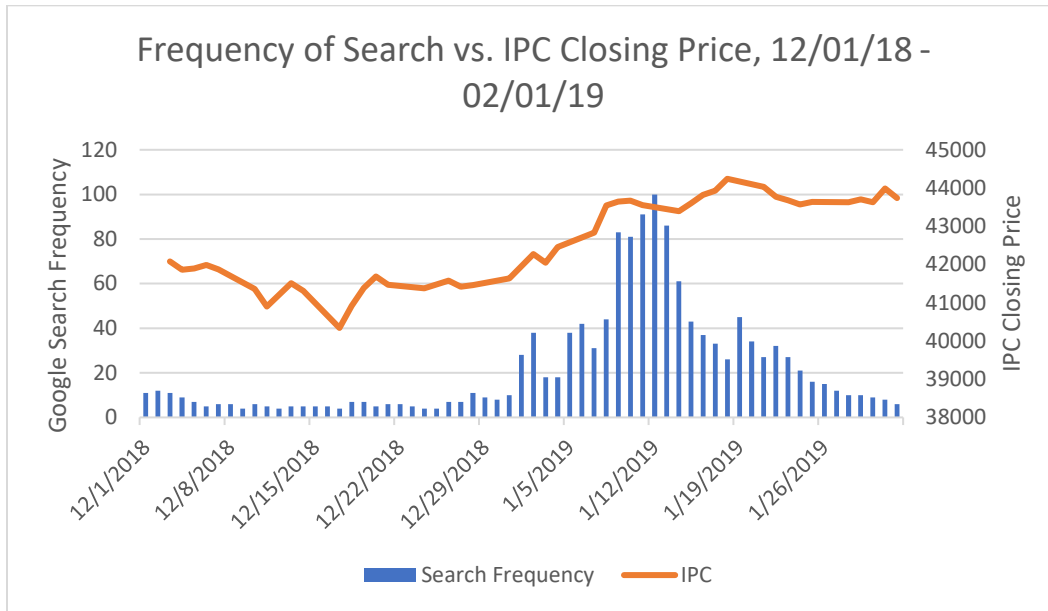
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[9] Google Trends indicates frequency of searches on Google in a given timeframe for given keywords.
[10] Keywords in English: gasoline, pipelines, fuel pipelines, fuel theft, shortage

Figure 4.1

Frequency of searches for "gasolina," "ductos," "gasoductos," "huachicol," and "desabasto" in Mexico from December 1, 2018 through January 31, 2019 vs. the daily closing price of the Mexican Indice de Precios y Cotizaciones (*IPC Mexico*, 2021)

Greater economic disruption occurred in areas where shortages were most severe. A poll of 3500 business owners in Michoacán, Querétaro, and Guanajuato estimated that the shortages caused around 1.25 billion pesos in damage in those three states (BBC, n.d.). Damage appears to have varied by industry, with agriculture being particularly hard hit. Due to an inability to transport laborers to agricultural sites, Guanajuato's Agricultural Development Secretariat placed losses at around 200 million pesos for the sector (MND, 2019). While such impacts were severe in highly affected states, evidence does not suggest that the crackdown caused significant disruption in the Mexican national economy as a whole.

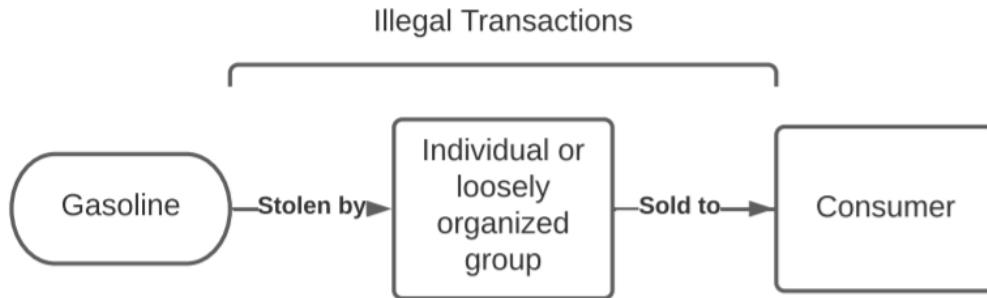**The Crackdown and the Market for Stolen Gasoline**

The pipeline shutdowns initiated during the *huachicoleo* crackdown created a supply squeeze in the gasoline market in Mexico. Through an economic sociology of transactions in the market for stolen gasoline, this study argues that the government created an advantage for more established cartels with geographically larger zones of control.

The market for stolen gasoline has existed in Mexico for nearly as long as the legal market for gasoline (Jones & Sullivan, 2019). However, the market has changed substantially over the past two decades. In assessing that change, this study identifies two types of *huachicoleo* markets, which will be referred to as "old *huachicoleo*" and "new *huachicoleo*." Old *huachicoleo* consisted of individual thieves or small bands of thieves who created rudimentary pipeline siphons and sold stolen gasoline directly to locals at a steep discount; these thieves were criminals, but they were not integrated members of criminal organizations (Jones & Sullivan, 2019). The new *huachicoleo* market is dominated by cartels, is often more organized and efficient, a(Arroyo Macías, 2019; Jones & Sullivan, 2019)s, 2019; Jones & Sullivan, 2019).

In Mexico, gasoline is held at a fixed price set by the state (SEC, 2020). The majority of gas stations in Mexico operate under the Pemex brand; a handful of those stations are operated directly by Pemex, but the vast majority are franchised to private owners (Favela & Lerma, 2020; SEC, 2020). In the new *huachicoleo* market, cartels more commonly sell large amounts of gasoline to gas station owners at a reduced price, rather than sell directly to consumers (Arroyo Macías, 2019; Jones & Sullivan, 2019). Cartel theft and sales are typically aided by co-opted Pemex employees, with some officials (including the President, AMLO) estimating that around 80% of fuel theft incidents involved corrupted Pemex employees; some have argued that it is

reasonable to acknowledge a "parallel Pemex" consisting of illegal transactions (Cunningham, 2019; Hernández Ibarzábal & Bonilla, 2020; Jones & Sullivan, 2019).

Figure 4.2

Illegal Transactions

Gasoline —Stolen by▶ Individual or loosely organized group —Sold to▶ Consumer

Transactions of "old" *huachicoleo*.

Figure 4.3

Illegal Transactions — Legal Transaction

Gasoline —Stolen by▶ Criminal organization —Sold to▶ Gas station owner —Sold to▶ Consumer

Aided by

Co-opted public servants
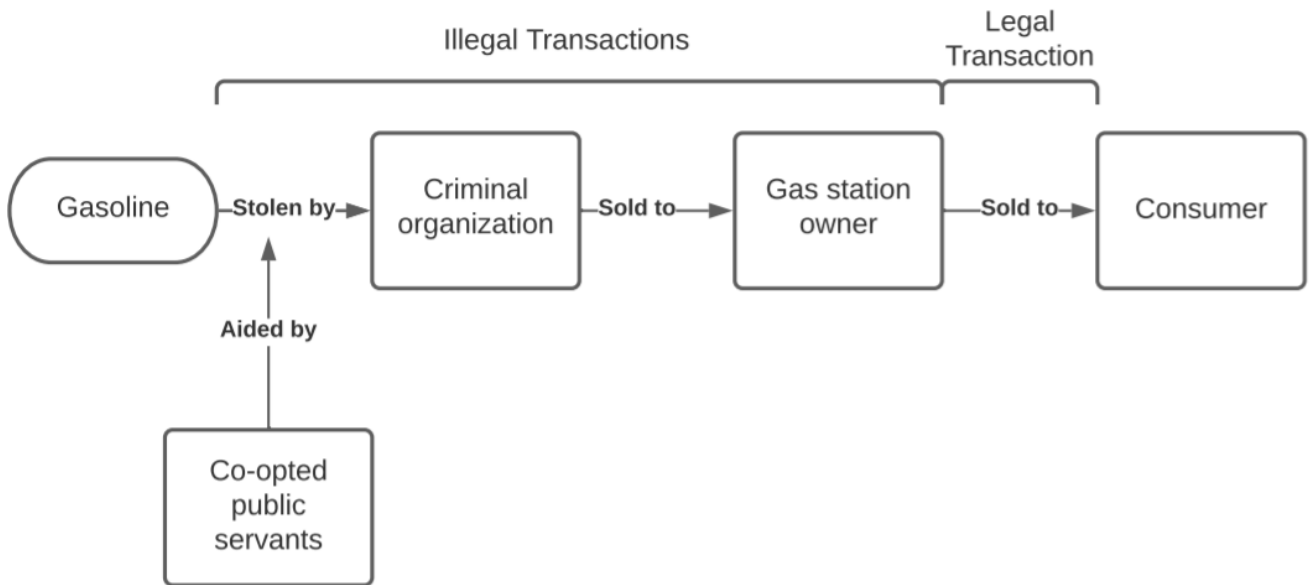
Transactions of "new" *huachicoleo*.

An economic sociology framework adds clarity to how business transactions have been altered as organized crime has taken control of the illegal gasoline market. In new *huachicoleo*, the consumer buys gasoline with a legal status that cannot be easily discerned; with the transaction not known to be illegal, their purchase is legitimate. The crackdown on fuel theft is

not directly affecting the consumer's transaction in the new model—consumers will continue to buy from gas stations—and so the relationships being altered are the two clearly illegal transactions: that between the state and the cartel (transactions in which public servants are corrupted) and that between the cartel and the gasoline distributor.

A cartel's ability to supply stolen product depends in part on its ability to co-opt state officials. The crackdown's corruption measures are intended to reduce that ability; without any explicit information regarding the extent of Pemex corruption, however, it is difficult to discern how effective the crackdown was in disrupting transactions between public servants and organized crime.

The relationship between cartels and gasoline distributors is clearer. The state, while not a party to the transaction, should be considered a central actor. In naming the transaction illegal, the state denies the market all the protections granted to legal transactions: property rights, contracts, the ability to resolve disputes in the legal system, and any other market mechanism that relies on the rule of law (Beckert & Dewey, 2017). Illegal markets are left with three primary mechanisms with which to establish business relationships: reputation, violence, and state co-optation (Beckert & Dewey, 2017).

In the case of gasoline distributors purchasing illegal gasoline, violence can be taken off the table quickly, assuming that no gas station franchisee seriously considers an act of violence against their cartel supplier. While state co-optation may reduce prosecution risk, it does not provide a supply of gasoline for franchisees. The relationship between gasoline distributors and cartels, then, relies on cartel reputation to reliably deliver product in a fair transaction, as well as the ability of cartels to use violence on gasoline distributors.

As pipelines were shut down during the crackdown, the cartel gasoline supply was lessened—however, the degree of disruption likely varied for each group. That disruption would likely affect the mechanism of reputation used to create business relationships in illegal markets: if one seller cannot supply a gasoline franchisee, their reputability as a supplier would fall. In areas where multiple cartels contest market control, cartels with less supply disruption would be at an advantage.

Two cartels operating in the state of Guanajuato provide an example. The Cártel de Santa Rosa de Lima (hereafter Santa Rosa Cartel) is an organized criminal group that has historically operated in the state of Guanajuato almost exclusively (Sullivan & Bunker, 2019b; A. Torres, 2020). Their chief rival, in 2019 as well as today, is the Cártel de Jalisco Nueva Generación (Jalisco New Generation Cartel, hereafter CJNG) (Torres 2020; "Jalisco Cartel New Generation" 2020). CJNG controls some territory in every Mexican state aside from Sinaloa and has near-hegemonic control of illegal markets in several Mexican states ("Jalisco Cartel New Generation" 2020).

The differences in geographic spread between those two groups likely affected their ability to steal gasoline. The finished-product gasoline pipeline shutdown implemented during the *huachicoleo* crackdown was not uniform throughout the country: the government initiated such measures primarily in states where fuel theft was already occurring at high rates (Caballero-Morales & Martínez-Flores, 2019). However, as noted by the director general of Pemex, theft spiked in other areas once shutdowns were initiated; Pemex information suggested that some cartels had simply shifted operations (Jones & Sullivan, 2019). Cartels with a national reach, like CJNG, would be more capable of continuing operations during pipeline shutdowns than cartels that only held territory in shutdown-affected areas, such as Santa Rosa. In the event of finished-

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product pipeline shutdowns, theft of other hydrocarbons would remain a viable option; CJNG,

for example, could take advantage of its domination in Veracruz, the source of a significant share

of Mexico's natural gas production (Dittmar, 2020).

Figure 4.4

CJNG Areas of Influence (Dittmar, 2020).

Figure 4.5

Areas of focus of the fuel theft crackdown (Caballero-Morales & Martínez-Flores, 2019).

As aforementioned, illegal market firms have an extremely limited arsenal as they compete for business partners. As gas station franchisees sought product during the crackdown, larger cartels were likely more capable of providing it; as they did so, they established their firm as the more reliable supplier. Smaller criminal organizations would be left with the threat of violence as the only mechanism for ensuring a continued relationship—a threat that may not hold in contested market zones.

In concentrating pipeline shutdowns in high-theft areas, the government may have inadvertently assisted more dominant and widespread cartels, while putting smaller criminal organizations at a disadvantage in the market. That hypothesis is corroborated in Chapter 5.

The Crackdown's Effects on Pemex

Fuel theft is much more than a headache for Mexican state petroleum company Pemex. In 2018, the company recorded a $9 billion net loss; the company attributed more than $3 billion of that loss to fuel theft (Cunningham, 2019). Reducing fuel theft will be vital as Pemex seeks to return to profitability. This study uses Pemex 20-F[11] forms submitted to the United States Securities and Exchange Committee to determine the impact that crackdowns have had on Pemex's bottom line. While reports indicate that the measures aided Pemex and were likely a net-positive play internal to the company, this study argues that external costs and a failure to invest in appropriate facilities make current measures unsustainable and costly for the Mexican federal government.

The crackdown's enforcement measures spanned multiple branches and government entities (Felbab-Brown, 2019; Speck, 2019). Pemex's primary role was to temporarily change

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[11] SEC 20-F forms are submitted by any companies with securities trading in the United States. The 20-F is a detailed accounting of market risk, corporate and organizational structure, planning, operational details, and financial statements.

how gasoline was transported, moving away from insecure pipelines and instead using ground transport such as tanker trucks and railways which could be guarded by the Mexican military (Cunningham, 2019; Felbab-Brown, 2019; Jones & Sullivan, 2019). Over the course of 2019, there was a total 17.8% reduction in the amount of petroleum products transported via pipeline (SEC, 2020).

Pemex subsidiary Pemex Logistics handles the bulk of transportation for the company (SEC, 2020). While Pemex did not report the exact costs of changing transportation methods, the company does disclaim that an uncharacteristically large jump in sales for its logistics company—from 68.381 billion pesos to 93.269 billion pesos—resulted from an increase of services provided to the company division which handles sales of gasoline (SEC, 2020). Using the difference between 2018 and 2019 logistics sales, 24.89 billion pesos can be used as a stand-in for internal cost increases due to changes in the method of gasoline transport.

Pemex furthermore disclosed its total reduction in fuel theft from 2018 to 2019, which it estimated to have saved 35.24 billion pesos (SEC, 2020). The difference between logistic sales increases and fuel theft reduction would thus be 10.36 billion pesos, or $538,720,000 USD via the average 2019 exchange rate of 1USD:0.052MXN (*Mexican Peso to US Dollar Spot Exchange Rate*, 2019; SEC, 2020). That amount, while significant, does not lend itself to the portrayal of the crackdown as a net-positive play for the Mexican government's balance sheet. The deployment of Mexico's billion-dollar national guard to deter theft was surely a costly exercise (Kilroy, 2021). Pemex received further aid from a variety of intelligence agencies and other branches of the Mexican military, for which costs are not accounted for by Pemex and cannot be easily discerned (Felbab-Brown, 2019; SEC, 2020; Speck, 2019). Lastly, the

consequences of gasoline shortages incurred serious economic costs absorbed by the Mexican public.

It should be noted that shortages and other costs could be mitigated. A study of the shortages resulting from the crackdown found that shortages could be averted even with pipeline closures if Pemex increased its finished-product storage capacity via the construction of additional fuel terminals (Caballero-Morales & Martínez-Flores, 2019). The study found that the cause of shortages was an inability to get fuel to terminals frequently enough using ground transport methods, resulting in their depletion before the next resupply; additional storage would correct the issue (Caballero-Morales & Martínez-Flores, 2019). Such a measure, while not reducing the cost of ground transport, would allow Pemex to shut pipelines off suddenly without causing shortages of gasoline (Caballero-Morales & Martínez-Flores, 2019). That flexibility would likely make Pemex much more capable of combatting theft.

However, there is no evidence that Pemex has taken action to make closures more feasible. Pemex listed no new storage terminal projects for Conclusion 1/32020 or 2021, and its capital expenditure disclosures noted only maintenance of existing storage facilities (SEC, 2020, 2021). Pemex should thus expect similar gasoline shortages if similar closures were to be implemented again in the future.

Combining the costs of over-ground gasoline transportation, a large military and intelligence mobilization, and the economic costs incurred by gasoline shortages, it does not appear that the Mexican government made a positive short-term financial play in the crackdown on *huachicoleo*. However, short-term finances are only one piece of the plan. An overarching goal of the crackdown was to reduce gasoline theft long-term. Unfortunately, the reduction in gasoline demand resulting from Covid-19 in 2020 would make any conclusions about 2020 theft

incidents tenuous at best. The effectiveness of the crackdown in reducing theft is better measured through an assessment of its effects on organized criminal organizations, which is addressed in the next chapter.

AMLO's Framing of the Economic Repercussions

In a speech discussing the results of the crackdown on April 23, 2019, AMLO makes no mention of the economic cost of the crackdown (López Obrador, 2019). The president furthermore claims that the government was on pace to save over 50 billion pesos from theft reduction efforts through 2019: "We have saved so far, at the Pemex price, not at the gas station price, we have saved 12 billion pesos. If we continue as we are, especially with the decrease that has been recorded in the last two months, we will be able to save around 50 billion pesos by avoiding fuel theft"[12] (López Obrador, 2019). This is an especially optimistic guess given that pipeline shutdowns had concluded (Caballero-Morales & Martínez-Flores, 2019). This study instead suggests a savings of 10.36 billion pesos, discounting costs accrued outside of Pemex.

Conclusions and Discussion

The crackdown on *huachicoleo* does not appear to have caused any significant disruptions in the Mexican national economy. However, multiple industries reported serious disruptions in states where gasoline shortages were most severe. While those disruptions could be avoided with necessary investment by Pemex and the Mexican federal government, no steps have been taken in that direction. Pemex remains unprepared for the consequences of another pipeline shutdown.

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[12] "Llevamos ahorrados hasta ahora, a precio de Pemex, no al precio de las gasolineras, llevamos ahorrados 12 mil millones de pesos. Si seguimos como vamos, sobre todo con la disminución que se está registrando en los dos últimos meses, vamos a poder ahorrarnos alrededor de 50 mil millones de pesos por evitar el robo de combustible."

The AMLO administration presented a drastically different situation than financial data would indicate. Given the limiting factors that caused shortages—finished-product fuel storage terminals—fuel shortages were likely a predictable outcome, as were the costs incurred through ground transportation of fuels (Caballero-Morales & Martínez-Flores, 2019). The administration pushed such measures anyway and was rewarded with a political victory. It could be said that the AMLO administration's decision had more basis in ideology and a dramatic introduction to the Fourth Transformation than it did the government's balance sheet.

The same pattern can be observed with regard to organized crime. While the crackdown made theft difficult for small cartels with limited pipeline access, nothing short of a national shutdown of hydrocarbon transportation would prevent Mexico's more dominant cartels from accessing opportunities for theft. Large, decentralized criminal corporations remain capable of accessing supply. Without significant investment in fuel storage terminals—which has yet to begin—Pemex and the Mexican federal government should not expect another pipeline closure to be successful. If the economic disruption in heavily affected areas is any representation, a total national shutdown would have severe economic consequences.

Moreover, a national shutdown would not necessarily have permanent effects on the illegal fuel theft industry. Cartels that survive a prolonged shutdown period could resume theft as soon as transportation via pipelines is restarted. Shutdowns would thus need to seriously damage a given criminal organization's capacity to engage in illegal activity. The 2019 crackdown's effects on cartel capacity are investigated in the next chapter.

Chapter 5: The Crackdown's Effects on Organized Crime in Guanajuato

This chapter investigates the potential effects of the fuel theft crackdown on organized criminal organizations in the state of Guanajuato. Given the impracticality of finding exact information on organized criminal entities, this study employs a business administration framework to investigate the crackdown's potential effects on the two most significant organized criminal entities in the state in 2019. This chapter argues that the crackdown on fuel theft, while having a significant effect on one cartel, likely did little to deter fuel theft in Guanajuato in the future. Furthermore, this study suggests that the AMLO administration may have prioritized political appearances over long-term security strategy in its implementation of the fuel theft crackdown.

Background

The state of Guanajuato was emphasized by the federal government as it sought to crack down on fuel theft (Calderón, 2020). Guanajuato saw its highest-ever homicide rate and had the second-highest number of fuel theft incidents in the year 2019; the state led Mexico in homicides in 2018 and 2019 (Calderón, 2020; Jones & Sullivan, 2019). A combination of high fuel theft rates along with extremely high violent crime rates made the state a target for the crackdown's administration (Caballero-Morales & Martínez-Flores, 2019; Calderón, 2020). In that year, the state was primarily under the control of two organized criminal groups: The Cártel de Jalisco Nueva Generación and the Cártel de Santa Rosa de Lima (hereafter CJNG and Santa Rosa)

(Calderón, 2020; *Jalisco Cartel New Generation*, 2020; A. Torres, 2020). The characteristics of those two organizations make the state an excellent case for observations regarding the effects of the crackdown on fuel theft.

CJNG is a large, Jalisco-based cartel with operations in nearly every Mexican state (*Jalisco Cartel New Generation*, 2020). The cartel was originally formed as a group combatting the domination and extreme violence of the Zetas Cartel, and for some time went by the name *Los Matazetas* or Zeta Killers (Correa-Cabrera, 2017; *Jalisco Cartel New Generation*, 2020). Santa Rosa, named after the Guanajuato town Santa Rosa de Lima, is a smaller organization which has operated primarily in Guanajuato since its formation (A. Torres, 2020).

The two groups have a violent history. The leader of Santa Rosa, José Antonio Yépez (alias El Marro, "The Sledgehammer"), initiated a war with CJNG in 2017 over CJNG's entrance into the stolen gasoline market in Guanajuato (López Ponce, 2020; Milenio, 2017). The leader of CJNG, Nemesio Oseguera Cervantes (alias "El Mencho") later sent his nephew to negotiate a merger between the two groups, with Yépez managing fuel theft operations; Yépez refused and executed the nephew, sparking an intensified conflict between the two groups (Calderón, 2020; López Ponce, 2020; R. Torres, 2019). The conflict is ongoing, though Santa Rosa has a seriously reduced capacity (A. Torres, 2020).

CJNG is a highly diversified and international criminal organization. Drug trafficking revenue is derived from sales of methamphetamine, heroin, fentanyl, cocaine, and marijuana in a multitude of markets including the U.S., Canada, Australia, China, and Southeast Asia (2020 National Drug Threat Assessment 2021; Jalisco Cartel New Generation 2020). D.E.A. intelligence indicates that CJNG has monopoly control over narcotics distribution in several U.S. cities, including Seattle, Kansas City, Orange County, Gulfport, Orlando, and San Juan (DEA,

2021). The cartel manufactures some narcotics, especially methamphetamine, while importing others from Asia or other Latin American countries (Dittmar 2020). Non-drug revenue sources include human trafficking, ransom kidnapping, extortion of business owners, fuel theft, and coerced takeovers of small businesses (Dittmar, 2020). CJNG has committed mass killings of seemingly random individuals not affiliated with organized crime, which might indicate greater involvement in human trafficking and ransom kidnapping than is already known (Calderón, 2020; López Ponce, 2020; Milenio, 2012).

Santa Rosa is a much less diversified and smaller organization. U.S. intelligence gives no indication that Santa Rosa has any major drug trafficking networks into the U.S. or abroad (DEA, 2021). Revenues appear to be driven almost exclusively through the theft of hydrocarbons (Sullivan & Bunker, 2019b; A. Torres, 2020; R. Torres, 2019).

Comparing how the crackdown may have affected each organization allows investigation into the crackdown's effectiveness in fighting small, *huachicoleo*-focused groups vs. larger, more diversified criminal enterprises.

A Business Administration Analysis of Guanajuato's Criminal Actors

The analysis of changes in illegal markets often lends itself to overly simplistic explanations (Beckert & Dewey, 2017). While it is easy to assume that a crackdown on fuel theft would have a negative impact on the two Guanajuato cartels engaged in the practice, this study argues that the repercussions may have been different.

Mexican cartels have been analyzed as paramilitary groups, terror cells, mafias, and a variety of other labels (Celaya Pacheco, 2009; Correa-Cabrera, 2017). However, it should be emphasized that the ultimate priority of Santa Rosa and CJNG as organizations is the creation of

profit (Correa-Cabrera, 2017). In assessing the effects of the crackdown, this study thus analyzes the two groups as firms.

However, the crackdown on fuel theft did not necessarily address organized criminal groups as businesses. This study argues that the implementation of measures intended to reduce theft may have strengthened the larger cartels which form the root of Mexico's public security and crime crises.

In cracking down on one specific criminal activity, the AMLO administration essentially targeted a single criminal market. For the Santa Rosa de Lima Cartel, an organization which appears to operate exclusively in that market, we can expect the crackdown to have had a strong effect. As aforementioned, the Santa Rosa Cartel operated exclusively in zones where pipeline shutdowns were in effect in January of 2019. Seeing as Santa Rosa likely had few or no other sources or revenue, the crackdown likely resulted in a rapid interruption of almost all cashflow for the organization (A. Torres, 2020).

A comparable business case is the sudden loss of income for firms in the tourism industry during the onset of the COVID-19 pandemic. In those cases, three factors were critical in determining whether firms continued to meet costs: diversification, government assistance, and cash stockpiles (Aburumman, 2020; Alves et al., 2020; Kalogiannidis, 2020). Assuming no government assistance, Santa Rosa would either need to add additional revenue streams or rely on existing cash reserves in an attempt to wait out government shutdowns.

CJNG presents a very different case. While the exact weight of fuel theft in CJNG's balance sheet cannot be known, the cartel is known to have a large number of established revenue sources. In that sense, CJNG can be labeled variably as a "related-diversification" business—by virtue of its enterprises all being illegal—or an "unrelated-diversification"

business, due to the relative lack of connections between the markets in which it operates. In this case, either structure would pay dividends. This study sees no evidence that the crackdown would have a meaningful impact on unrelated illicit markets in which CJNG operates, such as drug trafficking, human trafficking, or extortion. Instead, CJNG would likely have been capable of using existing revenue sources to continue to meet costs as the crackdown was underway. Again referencing the effects of COVID on tourism, Santa Rosa's crisis could be compared to an airline, while CJNG's crisis could be compared to a conglomerate with a stake in an airline—damaging, but by no means a business-destroying threat in and of itself.

Moreover, CJNG's geographic reach ensured that the cartel would have been capable of taking advantage of what the director of Pemex referred to as a "cockroach effect" of cartels shifting theft operations based on where pipeline shutdowns were implemented (Jones & Sullivan, 2019). CJNG's national presence means that the infrastructure of illegal markets—employees, logistics, and so forth—were readily available nearly wherever an opportunity for hydrocarbon theft presented itself. Thus, CJNG was essentially faced with a regional setback to a corporate division, whereas Santa Rosa faced a firm-wide income loss.

Those differences between two firms fighting for market share would be significant in a legal market, but are drastically more so in an illegal market. In this case, Santa Rosa and CJNG were in actual armed conflict over the illegal fuel market in Guanajuato (Dittmar, 2020). Referring back to the options Santa Rosa was left with, to diversify or rely on cash reserves, each alternative would likely have seriously reduced Santa Rosa's capacity. Relying on excess cash, if it existed, would have drained Santa Rosa's resources as it fought a war against one of Mexico's strongest criminal groups. Diversifying would mean expanding into other illicit businesses,

either by taking CJNG market share or attempting to take market share from another organized criminal group while already in conflict with CJNG.

Violence in Guanajuato

The conflict between CJNG and Santa Rosa has resulted in a massive increase in violence in Guanajuato. Homicides have hit record numbers over the past several years. Guanajuato has had more homicides than any other state since 2018, immediately after Santa Rosa declared its war against CJNG in October of 2017. In 2017 the state had the 3rd most homicides, and in 2016 the state had the 8th most. The crackdown, due to its significant effect on Santa Rosa, likely had equally significant implications for violence in the state. Notably, homicides in Guanajuato continued to rise sharply from 2018-2020 even as national homicides rates declined (INEGI, 2021).

Figure 5.1
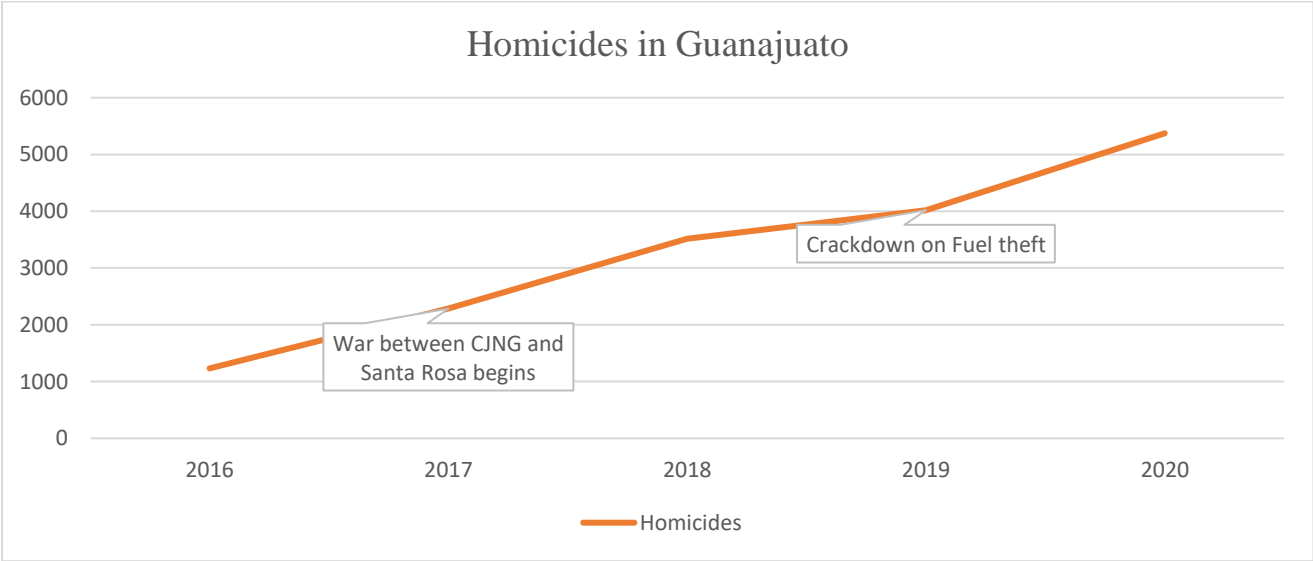
Homicides in Guanajuato recorded by Mexico's Instituto Nacional de Estadística, Geografía e Informática (INEGI, 2021).

There is information to suggest that Santa Rosa attempted to diversify its sources of revenue as the fuel crackdown wore on. The cartel attempted to begin deriving revenue from extortion in Guanajuato in 2019 (A. Torres, 2020). Considering that CJNG was actively extorting businesses in Guanajuato prior to 2019, Santa Rosa's incursion may help explain the uptick in violence.

Cartel Messaging During the Crackdown

Cartel communications to the public provide additional information regarding the impact of the fuel theft crackdown. From December 10, when measures were initiated, through the end of January, Mexican media reported two CJNG *narcomantas,*[13] both directed towards other cartels: Zetas Cartel remnants in Hidalgo, and Santa Rosa in Guanajuato (Anonymous, 2019a, 2019b). Rather than threaten Santa Rosa, CJNG's *narcomanta* stated that Santa Rosa had committed atrocities against the public and claimed that CJNG was not responsible for such actions (Anonymous, 2019a).

Santa Rosa messaging was directed towards the state. On January 31, 2019, police discovered a pickup truck containing a bedsheet *narcomanta* and a large quantity of explosives (Sullivan & Bunker, 2019a). The *narcomanta* read:

> Andrés Manuel López Obrador,
>
> I demand that you remove the Navy, Secretary of National Defense forces and federal
>
> forces from the state, otherwise I am going to start killing innocent people so that you see
>
> that this is not a game and that in Guanajuato we do not need them. I'm leaving you a

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[13] Publicly displayed message left by a Mexican cartel, often in the form of a banner.

little gift at my refinery so you can see how things are going to turn out, and even if you

let go of my people that were taken away, I don't give a fuck. Face the consequences.

Best, Señor Marro[14] [Sullivan & Bunker, 2019a]

The contrast between the public messaging of each group is stark. CJNG's messaging suggests that the group remained focused on its conflicts with other criminal groups during the crackdown. Santa Rosa, however, took a drastic measure against the state: a direct threat of terrorism directed towards the president of Mexico. Santa Rosa's decision to threaten terrorism suggests a preoccupation with the measures taken during the crackdown. The contrast between each group's messaging supports the possibility that crackdown efforts were far more effective on Santa Rosa than CJNG.

CJNG and Santa Rosa since the Crackdown

CJNG has continued to expand its presence nationally since the fuel crackdown and is considered the second-most powerful cartel in Mexico, behind only Sinaloa (Dittmar, 2020). Nemesio Oseguera Cervantes continues to lead the organizations and remains the D.E.A.'s most wanted fugitive (Dittmar, 2020).

Santa Rosa has lost its war against CJNG and is mostly defeated in Mexico (Dittmar, 2020). "El Marro" was arrested in 2020, along with his upper leadership, by state and federal authorities in Mexico (Dittmar, 2020; José et al., 2020). Santa Rosa has mostly faded since (A.

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[14] "Andrés Manuel López Obrador, te exijo que saques a la Marina, Sedena y fuerzas federales del estado, si no te voy a empezar a matar gente inocente para que veas que esto no es un juego y que en Guanajuato no los necesitamos. Ahí te dejo un regalito en mi refinería para que veas cómo se van a poner las cosas y si sueltas a mi gente que se llevaron y si haces caso no van a valer madre. Atente a las consecuencias. Atte. El señor marro"

Torres, 2020). CJNG now dominates the area in which the fuel crackdown was implemented (Dittmar, 2020).

The Future of Fuel Theft in Guanajuato

In April of 2019, AMLO declared fuel thieves in Guanajuato defeated: "…fuel theft has been prevented…an issue that appeared very difficult, complex to resolve, could be confronted"[15] (López Obrador, 2019). As aforementioned, the Santa Rosa cartel has fragmented. However, there is scant evidence to suggest that the crackdown would have had significant impacts on the overall capacity of Mexican cartels to extract stolen fuels.

CJNG remains a national cartel with increasing influence. Now, with the collapse of the Santa Rosa cartel, the group has control of illegal markets throughout the state of Guanajuato. If the crackdown did, in fact, have a significant effect in reducing the Santa Rosa Cartel's capacity, the *overall* capacity of Mexican organized crime to steal fuel still has not been reduced. As has been studied extensively, the market forces that create organized crime do not vanish with the destruction of a single group (Correa-Cabrera, 2017). With the elimination of Santa Rosa, the Mexican federal government likely didn't destroy the market—rather, the government handed the market to one firm acting within it: CJNG.

With such results being entirely predictable, the López Obrador administration's strategy comes into question. While the manner in which fuel theft was combatted appears unsustainable and impractical from a security standpoint, the administration's actions did likely result in substantial damage to the Santa Rosa Cartel, and as such may appear successful to the general

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[15] "…se ha evitado el robo de combustibles y cómo un asunto que parecía muy difícil, complejo de resolver, se pudo enfrentar" (López Obrador, 2019).

public. AMLO's decision to declare victory, rather than acknowledge an ongoing fight against fuel theft, may indicate that political appearances took a higher priority than public security.

A separate possibility is that the AMLO administration had an agenda that was hidden from the public's eyes. Increased violence in Mexico has been partly attributed to the fragmentation of, and resulting competition between, organized criminal organizations (Bunker, 2013; Correa-Cabrera, 2017). If the AMLO administration felt that violence in Guanajuato was the result of violent conflict between CJNG and smaller groups, such as Santa Rosa, strengthening CJNG in relation to smaller groups may have been a *goal*, rather than an unforeseen consequence.

Conclusion

AMLO began his crackdown on *huachicoleo* less than three weeks after taking office. As is discussed in Chapter 3, it was a political success. Economically, however, it was an insignificant gain at best and a disaster at worst. In its attempt to defeat *huachicoleros*, the crackdown likely did nothing more than reduce competition in one of many illegal markets. In addition, many of the crackdown's outcomes were entirely predictable. The López Obrador administration proceeded anyway.

As the president's first major political initiative, the crackdown offers clues into AMLO's motivations as a politician. His prioritization of popularity over practical repercussions is a worrisome forecast into the final years of his term. Will the president continue to use public funding on expensive political theater? Over three years of AMLO's term have now passed, and plenty of government initiatives so far suggest that similar activity will continue. Far more troubling is the possibility that similar policy will make its way into future administrations.

Many questions regarding the crackdown remain unanswered. Most notably, the possibility remains that the crackdown was *intended* to strengthen large cartels at the expense of small criminal organizations in a bid to reduce violence. Such a scenario would have major implications for international security and warrants empirical investigation.

As Mexican cartels rapidly expand from regional gangs to continent-spanning criminal corporations, so too grows the importance of Mexico's security policy. Every success and failure by Mexico's politicians, police, intelligence agencies, and military will reverberate across the globe. I hope this study contributes to this increasingly complex and important subject area.

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