

FIXING MARKETS, NOT PRICES

Policy Options to Tackle Economic
Cartels in Latin America and the
Caribbean

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Acronyms

ACED	WBG Anti-Cartel Enforcement Database
APEC	Asia Pacific Economic Cooperation
BTI	Bertelsmann Transformation Index
CPLG	Competition Policy and Law Group
CRCAL	Regional Competition Center for Latin America
EIU	Economist Intelligence Unit
GCI	Global Competitiveness Index
GCR	Global Competition Review
IADB	Inter-American Development Bank
ICN	International Competition Network
ILO	International Labor Organization
LAC	Latin America and the Caribbean
M&A	Mergers and Acquisitions
MCPAT	Markets and Competition Policy Assessment Tool
OECD	Organization for Economic Co-operation and Development
PMR	Product Market Regulation
PPP	Public-Private Partnership
PTA	Preferential Trade Agreement
PWT	Penn World Tables
RCC	Regional Center of Competition for Latin America and the Caribbean
SOE	State-owned enterprise
TFP	Total factor productivity
WEF	World Economic Forum

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Acknowledgments

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This publication was prepared by the World Bank Group (WBG) in close collaboration with the Regional Center of Competition for Latin America and the Caribbean (RCC) and its members. The team is particularly grateful for inputs provided by RCC members on their history of anticartel enforcement, as well as the feedback on preliminary results provided on several occasions by the RCC General Assembly.

During its inception and preparation, the report benefited from constructive comments provided by World Bank Group colleagues, including Tania Begaço, Augusto de la Torre, Eleanor Fox, Daniel Lederman, Anabel González, Graciela Miralles, Marialisa Motta, and Lucia Villaran. The authors would also like to thank Virginia Brandon, Ivo Gagliuffi, Mona Haddad, and Paul Phumpiu for their valuable input. Finally, the team received valuable feedback from Julian Peña and members of the *ForoCompetencia*.

The report was prepared under the strategic guidance of Yira Mascaró (Practice Manager), Caroline Freund (Director), Robert Taliercio (Director), and Felipe Jaramillo (Vice President).

This report is part of the World Bank Group's *Levelling Up* series, which highlights how different government approaches to nurture and protect market competition and contestability around the world are evolving amid rapidly changing markets and emerging areas of concern. These approaches go beyond the traditional enforcement actions of competition authorities, and cover topics where sharing emerging evidence and research is crucial to developing future practice. This evolution in practice is needed to ensure developing countries can support competitive market outcomes for the benefit of their citizens and their growth potential in light of global economic and technological trends. The series highlights key differences in approaches across regions—but maintains a focus on the fundamental institutions and capacities that are needed to implement these policies effectively and independently to help achieve development outcomes.

Executive Summary

Collusive agreements among firms slow productivity growth, undermine economic efficiency, and hinder poverty reduction. When competitors agree to limit competition by forming economic cartels, poor households may pay up to 50 percent more for essential goods. Meanwhile, the weakening of competitive pressure erodes productivity, public policies become less effective, and would-be entrepreneurs lose access to economic opportunities. Collusion damages public trust in market economies and in the role of the private sector as an engine of growth.

Despite their numerous adverse consequences, cartels remain common across many markets and might be increasing amid the COVID-19 pandemic. Cartels affect hundreds of markets from milk and poultry to oxygen and cement. Although economic cartels are present across all major economic sectors only a fraction of collusive agreements is detected each year. The COVID-19 crisis is likely to exacerbate the incidence of anticompetitive behavior, as corporate sectors are consolidating, while government intervention is intensifying. Increasing corporate market power is associated with diminished business dynamism,¹ and more-concentrated, less-dynamic markets offer fertile ground for cartels. Meanwhile, cartel detection has come to a virtual standstill since the start of 2020, as governments around the world have shifted focus to managing the immediate social and economic consequences of the pandemic and mobility restrictions have limited the ability to conduct on-site inspections that are key to gather evidence to detect cartels.

In many LAC countries, policies to foster competition and eliminate cartels are weakly enforced or nonexistent. One-third of LAC countries do not even legally prohibit collusive agreements, and only one-third has ever sanctioned a cartel. The institutions tasked with identifying and addressing cartelization often have limited capacity and operate in economies characterized by numerous small, concentrated, and largely closed markets that facilitate collusion. Moreover, in certain sectors such as agriculture and transportation, many governments still support or explicitly enable price-fixing agreements among competitors. Other government interventions indirectly facilitate cartelization. For example, regulatory barriers to market entry foster stable agreements among incumbents.

However, recent successes in cartel detection offer new insight into how to police and prevent collusive agreements. Over the last four decades, competition authorities in Brazil, Chile, Colombia, Mexico, and Peru have uncovered a total of 250 cartels, most in the last 10 years. Governments in these five countries have taken diverse actions to protect the independence of enforcement authorities, standardize effective investigation techniques, encourage cooperation during cartel investigations, and advocate against government interventions that facilitate cartel formation. All five pursued sequenced and gradual reform programs and fostered a high-level political consensus around the importance of detecting, addressing, and preventing the establishment of cartels.

As they implement aggressive and far-reaching post-pandemic recovery efforts, LAC countries have an opportunity to establish a foundation for competitive markets that incentivize efficiency and deliver broad-based gains in employment and income. A crucial element of the fragile social contract in many LAC countries is a market economy that delivers on its promise of affordable, high-quality goods and services, opportunities for entrepreneurship, and productivity-based income growth. Cartels undermine the well-func-

¹ (Akcigit, U., et al.)

Over the last four decades, over 300 cartels have been identified and dismantled across the LAC region. At least 21 percent of the cartels detected in LAC operated in markets for essential consumer goods such as sugar, toilet paper, wheat, poultry, milk, and medicines.

tioning of these three channels by raising consumer prices, barring the entry of new firms and entrepreneurs, and slowing productivity growth and job creation. Because cartelization harms consumer welfare and stymies progress on social and economic development outcomes, a commitment to eliminating existing cartels and deterring the formation of new ones should be a nonpartisan policy goal across the LAC region.

Economic cartels are pervasive in Latin America

Hundreds of cartels discovered between 1980 and 2020 are just the tip of the iceberg, but many more continue to go undetected. Over the last four decades, over 300 cartels have been identified and dismantled across the LAC region. Firms supplying critical goods and services such as milk, sugar, poultry, transportation, energy, and medicines agreed to fix prices at above-market levels, restrict total output, divide markets, rig public bidding processes, or obstruct the entry of new competitors. However, even mature competition authorities detect only an estimated 10-20 percent of actual cartel activity. Due to the incipient enforcement of competition policy in most of LAC, actual economic cartel activity is at least ten times the observed level. In the aftermath of the COVID-19 crisis, corporate consolidation and state intervention in markets may increase the risk of anticompetitive behavior.²

Cartels are not the only obstacle to competition, but they are especially harmful to poor households. At least 21 percent of the cartels detected in LAC operated in markets for essential consumer goods such as sugar, toilet paper, wheat, poultry, milk, and medicines.³ Global estimates suggest that the presence of a cartel increases consumer prices by an average of 49 percent, and prices can rise by as much as 80 percent when cartels are especially strong.⁴ In LAC, cartels have typically increased prices by 5-20 percent, but in at least 4 percent of cases anticompetitive agreements doubled consumer prices. Evidence from South Africa suggests that public resources spent on anti-cartel enforcement could be as much as 38 times more effective in reducing poverty than cash transfers, as a significant share of cash transferred to eligible households is captured by cartels.⁵

Unlike other forms of lack of competition, such as the market power wielded by individual firms, cartels offer no benefits in terms of efficiency and innovation; instead, they are unequivocally damaging to productivity and growth. Cartel activity has been associated with productivity differentials of 20 to 30 percent,⁶ and a failure to address cartel activity can limit total productivity growth across the economy.⁷ Cartelization can also harm export competitiveness by raising the cost of inputs, with negative implications for the development of both domestic and international value chains.

² (Goodwin & Barajas, 2020)

³ In total 65 cartels were identified and investigated across 9 countries in LAC. Mexico (15), Colombia (11) and Brazil (10) were the countries with the highest number of cases of cartels impacting basic consumption products. In 70% of these cases, the cartel had a national geographic impact. According to the WBG Cartel Enforcement database, in 23 out of the 65 cases where estimates of excessive prices are available and affected basic consumption products, consumer prices were 14% higher on average.

⁴ The most comprehensive international database of 1,530 cartel cases with overcharge estimates (Connor, 2014) reveals that the mean average overcharge is at least 49%, which is supported by estimates from other authors that find average or mean overcharges above 40% (Posner, 2001) (Levenstein & Suslow, What Determines Cartel Success?, 2006). The same database used by Connor also reveals that when cartels operate at peak effectiveness, overcharges are 60-80% higher than the cartel's average. Furthermore, overcharge estimates for individual cartels vary from 7% to 42% (Connor, 2020).

⁵ (Purfield, et al., 2016)

⁶ (OECD, 2014), (Bridgman, Qi, & Schmitz Jr, 2009)

⁷ (Petit, Kemp, & Van Sinderen, 2015)

Anticartel policies typically enjoy broad-based public support, and their effective implementation can bolster governmental legitimacy.

Cartel agreements can diminish the benefits of trade liberalization. Among the countries of the Pacific Alliance, which have the lowest trade barriers in the LAC region, at least 67 cartels operate in tradable sectors, and one-third of those cartels have been in place for more than five years.⁸ For example, even though Colombia is a highly open economy, regional sugar traders were able to access the Colombian market only after a decade-long cartel agreement by 12 domestic sugar producers was broken up in 2015.⁹ In the transportation sector, Chile and Mexico sanctioned the world's largest shipping lines for engaging in a series of collusive agreements.¹⁰

Cartels can undermine the provision of public goods and services and may even distort government bond markets. At least 30 percent of detected cartels formed among firms participating in the government procurement process. In such cases, taxpayers bear the burden of above-market prices. In Colombia, the government incurred losses of at least US\$11 million due to overcharges by a cartel involved in the construction of a major highway.¹¹ In Mexico, seven banks colluded to manipulate the price of the Mexican sovereign bond market, incurring losses to the government estimated at over US\$1.4 billion.¹²

While there are many ways to promote competition, tackling cartels can yield immediate and tangible benefits, especially for poor households, with little risks of unintended consequences for the business environment. Worldwide, much of the recent policy dialogue on competition issues has focused on information technology, especially social networks and online commerce platforms, as well as the broader rise of global corporate market power.¹³ Policies designed to address the potential anticompetitive impacts of these developments are complex and risk undermining the business environment by weakening incentives for firms to innovate and grow. By contrast, cartels can be identified and eliminated, or prevented from forming, through relatively simple, well-established policies and enforcement mechanisms. These efforts have been shown to yield concrete benefits, and even programs that merely destabilize cartels have shortened the duration of harmful collusive agreements and reduced the level of anticompetitive overcharging. A leniency program in the United States, which offered full or partial immunity to cartel members in exchange for cooperation with the authorities, increased the rate of cartel detection by 62 percent and reduced the rate of cartel formation by 59 percent.¹⁴ Similar programs also shortened the duration of cartel agreements in the Russian Federation and the Republic of Korea.¹⁵ In OECD countries, leniency policies were associated with a decrease in the industry-level price/cost margin of 3-5 percent.¹⁶

Anticartel policies typically enjoy broad-based public support, and their effective implementation can bolster governmental legitimacy. Recent developments in LAC suggest that economic cartels undermine public trust with deeply negative political ramifications. In a 2016 survey, 73 percent of respondents in Chile considered collusion to be more reprehensible than violations of labor laws.¹⁷

⁸ Member states include Chile, Colombia, Mexico, and Peru.

⁹ WBG Anti-cartel Enforcement Database. Find the link to the details of the sanctioning resolution of this cartel agreement: http://normograma.info/sic/docs/r_siyc_80847_2015.htm

¹⁰ (WBG-USAID, 2018)

¹¹ http://normograma.info/sic/docs/r_siyc_5216_2017.htm and <https://img.lalr.co/cms/2020/12/28075555/COM-92-SANCIO%CC%81N-RDS-1.pdf>

¹² <https://lexlatin.com/noticias/cofece-multa-siete-bancos-manipulacion-mercados-mexico>

¹³ (De Loecker, Eeckhout, & Unger, 2020) and (OECD, 2018)

¹⁴ (Miller, 2009)

¹⁵ (Yusupova, 2013), (Choi & Hahn, 2014)

¹⁶ (Klein, 2011)

¹⁷ <http://www.economiaynegocios.cl/noticias/noticias.asp?id=309952>

Governments can dismantle cartels and prevent new ones from forming

This report provides novel evidence on the prevalence of cartels in LAC and offers concrete policy options for identifying and breaking up cartels that reflect the country context and market realities. This report draws on a new, comprehensive dataset of cartel agreements uncovered in LAC over the last four decades¹⁸ and presents a sequence of policy options for dismantling cartels and preventing cartel formation. The report also offers tools to guide policymakers in deciding which policy options are most appropriate to the local context, including a taxonomy of factors that facilitate cartelization and an index to gauge the institutional independence of competition authorities.

In LAC, efforts to detect and deter cartels have accelerated rapidly in some countries but remain limited or nonexistent in others. The number of cartels detected in LAC increased by a factor of five between the 1980-2000 and 2000-2020 periods, and competition authorities in Brazil, Chile, Colombia, Mexico, and Peru were responsible for 82 percent of cartel detection. Meanwhile, 10 countries in the region still have no competition law in place, while 11 lack a national competition authority. Guatemala, Suriname, and French Guyana have neither a competition law nor a competition authority.¹⁹ In eight countries, only cartels that affect cross-border transactions may be prosecuted under the regional CARICOM competition law. In the countries that lack a domestic competition law, competitors can agree to fix prices, bar smaller competitors from accessing certain markets, or inhibit the entry of high-productivity competitors with no legal recourse for affected firms, consumers, or entrepreneurs.

Successful anticartel efforts have leveraged effective investigation techniques, as well as programs that destabilize cartels. Brazil, Chile, Colombia, Mexico, and Peru have strengthened the legal powers of their competition authorities, which are empowered to conduct surprise inspections of alleged cartel participants. These countries have also enhanced the market-intelligence tools and investigative techniques used by competition authorities, including their capacity to process electronic evidence and uncover more sophisticated cartel behavior. They also have established a successful leniency program that rewards firms that report on a cartel. These efforts have increased the probability of detecting cartels, but the disruptive effects of the COVID-19 crisis threaten to reverse the progress of even the region's most successful anticartel programs.

LAC agencies that have developed strong anticartel enforcement records can protect their gains by bolstering the institutional independence of their competition authorities. Recent successes among competition authorities in LAC are at risk of ending abruptly due to threats to their independence stemming from political influence. Argentina, El Salvador, and Peru have achieved significant gains in anticartel enforcement, but increasing the independence of the agencies that initiate cartel investigations (the prosecutorial units) and those that decide the cases (the adjudicatory units) could improve their effectiveness while reinforcing public confidence in the legitimacy of their decisions. Recent reforms in Mexico and Costa Rica demonstrate how to strengthen the procedural, financial, and political independence of competition authorities.

¹⁸ The new WBG Anti-Cartel Enforcement Database (ACED) includes information from public decision documents of judicial or administrative authorities that have confirmed the existence of cartels and sanctioned them in the first instance.

¹⁹ The analysis included the review of 32 countries in the Latin American and Caribbean region.

Merger control is also a complementary tool that can strengthen anticartel enforcement. In some cases, firms that cannot form or sustain a cartel agreement may decide to merge, which can enable them to coordinate their activities without violating anticartel laws. In fact, Davies et al. (2015) show that mergers are more frequent after cartel breakdown. However, these transactions may require clearance under the merger control laws and therefore, merger control plays a complementary role to anticartel enforcement. In recent years, M&A activity within the same industry across multiple countries has increased, heightening the risk of regional cartel formation. Authorities in LAC could pay particular attention to M&A in sectors with a history of cartel activity across the region.

The international evidence on cartel formation reveals several key factors that facilitate collusive agreements. Three types of cartels are common in LAC: (i) cartels in local markets that involve numerous firms briefly coordinating their activities through a trade association; (ii) long-term cartels among a small number of large firms operating in markets for standardized goods (e.g., oxygen, chemicals); and (iii) nationwide cartels operating in markets for staple foods and essential consumer goods (e.g., sugar, rice). Cartels are more common in certain markets and sectors because of structural factors (e.g., high entry barriers, inelastic demand, product homogeneity, regular and frequent transactions) or due to the prevalence of multimarket contact between firms in different countries, which underscores the importance of adopting a regional anticartel agenda backed by robust interagency cooperation.

In addition to breaking up cartels, governments can deter cartel formation by addressing factors that facilitate collusion. Governments determine the rules of the business environment, and in some cases, they directly participate as market players. Governments can shape competition incentives directly through the public procurement process and/or the activities of state-owned enterprises (SOEs). One in every four cartels detected in LAC involved rigged bids in a public procurement process. Governments can also indirectly influence market outcomes through economic regulation, industrial policies, and antitrust enforcement. Private associations between market participants can also enable cartelization: 94 identified cartels in LAC involved trade associations, which have been shown to make cartels more stable over time by limiting market entry or otherwise skewing the business environment in favor of incumbent firms. If governments consider the impact of their interventions on the competitive dynamics of markets, cartels are less likely to occur.

Robust pro-competition advocacy has enabled some LAC countries to adopt powerful tools for removing public and private restrictions on competition. Between 2013 and 2019, the annual WBG-ICN Competition Advocacy Contest honored eight competition authorities in LAC for 20 successful advocacy initiatives out of a total of 84. These awards recognize the progress that competition authorities in Mexico, Peru, Colombia, and elsewhere have made in changing how governments participate in markets. Some countries that have launched successful anticartel enforcement efforts have been able to further deter cartels and promote compliance through public outreach. For example, Chile issued guidelines on how business associations can avoid directly infringing the law or inadvertently facilitating cartelization.

Competition authorities in LAC can use market studies to signal that they are actively monitoring markets and to promote regulatory reform. Market studies can inform changes to policies and regulations that may facilitate cartels. Some LAC countries, such as Colombia, have obliged regulators to explicitly justify deviations

or dismissals of the recommendations issued by competition authorities via market studies or advocacy initiatives. They can also deter cartels from forming by alerting firms that the competition authorities are taking a proactive approach to investigating markets. However, market studies in LAC have been conducted erratically, and in most countries their recommendations have rarely been adopted. Prominent exceptions include a series of studies on the tortilla markets in Mexico that led to regulatory reform and the breakup of cartels, as well as a study of bread markets in Peru that changed how those markets functioned.

In LAC, anticompetitive product-market regulation facilitates cartelization. Among a group of 51 mostly high- and middle-income economies assessed in the WBG-OECD Product Market Regulation (PMR) Index, four LAC countries ranked among the top 25 percent in terms of regulatory barriers to competition. However, there are important differences within the LAC region. The Pacific Alliance countries have some of the lowest levels of state control worldwide, while the economies of the Bolivarian Alliance for the Peoples of Our America (Alianza Bolivariana para los Pueblos de Nuestra América, ALBA) have a regulatory environment less conducive to competition, with levels of state control surpassed only by the BRICS countries.²⁰ In LAC, Mexico has systematically embedded competition principles in all stages of the regulatory lifecycle, including ex ante impact assessment and ex post review, while legislation in Colombia has introduced similar good practices. Few other countries regularly use proactive advocacy outreach to promote regulatory reform.

Some competition agencies in LAC have adopted good practices for tackling bid-rigging in public procurement. Rules for public procurement in several LAC countries may undermine competition. In Mexico, for example, some goods and services can be contracted without a tender process. Moreover, most LAC countries allow the disclosure of reference prices, even though they can give cartel members a focal point for collusion. Fortunately, several agencies across the region are actively addressing bid-rigging. Competition authorities in Brazil and Colombia are using digital tools to combat bid-rigging, and Colombia's competition authority is also advocating for improved safeguards in tender design.

SOE-dominated markets in LAC may be particularly susceptible to collusive agreements, either now or in the future. Reforms that privatize SOEs or open state-dominated markets to private participation can create new opportunities for collusion if privatization and liberalization are not accompanied by effective anticartel enforcement. In several markets across the region, direct state participation has crowded out private competitors or sharply reduced the number of market players, even in commercial sectors where open competition would be viable. While scaling back state intervention can improve the functioning of markets, policymakers can consider steps to prevent SOE reforms from unintentionally facilitating collusion by simultaneously building anticartel enforcement capabilities.

LAC countries vary widely in their market institutions and in terms of how state participation in markets affects competition. Cartel enforcement requires an appropriate legal framework and an authority with basic investigative capabilities, yet many countries in the region lack one or both of these essential elements of competition policy. In some countries, price controls, low levels of trade openness, small domestic markets, and high regulatory barriers to market entry encourage the formation and persistence of cartels. In these cases, increased anticartel enforcement may be less effective than regulatory reforms that inhibit cartel formation. In each country, the relative sophistication of anticartel authorities, the strength of the legal

¹ More specifically, the dawn raids effective in providing reasonable indications of alleged collusive agreements that in turn have served as initial evidence to start prosecutions.

² Maritime container shipping (late 2014), where INDECOPI found minutes and other electronic documents involving a coordination platform for rates and surcharges in the Asia-Peru route between 2009 and 2013; diesel in Chimbote and Nuevo Chimbote (2016) and natural vehicular gas in Lima and Callao (2017), where emails and other electronic documents, evidencing coordination, were found.

³ The earlier competition law (Decree N° 1034), enacted in 2008 and later replaced by Decree N° 1205, already provided for the possibility to grant leniency, but it had never been applied.

²⁰ The four Pacific Alliance countries are Chile, Colombia, Mexico, and Peru. The ALBA countries include Antigua and Barbuda, Bolivia, Cuba, the Dominican Republic, Ecuador, Nicaragua, Saint Lucia, Saint Vincent and the Grenadines, and Venezuela. The BRICS countries are Brazil, Russia, India, China, and South Africa.

framework for competition, structural economic conditions, the degree of state intervention in markets, and the specifics of the local regulatory environment will determine both the prevalence of cartelization and the effectiveness of different strategies for eliminating cartels. The following table provides selected policy priorities tailored to specific country contexts.

Priority policy options for specific country contexts	
Core anti-cartel enforcement tools	Examples of opportunities for reform by country
Legal framework (Guatemala, Suriname, French Guyana, CARICOM states, Ecuador, Bolivia)	Limit exemptions from pro-competition laws (Bolivia) Establish hard-core cartelization as a per se violation of the law (Ecuador)
Investigative tools (Honduras, Paraguay, Argentina)	Develop the legal and institutional capability to conduct surprise inspections (Honduras , Paraguay) Adopt guidelines and checklists to ensure prosecutorial predictability, due process, and confidentiality (Honduras) Develop capacities to process digital evidence (IT forensics) and employ alternative screening tools to detect novel forms of collusion using digital platforms (Argentina)
Leniency programs (El Salvador, Ecuador, Peru)	Grant greater leniency benefits to the first applicant and lesser benefits to subsequent applicants Allow for oral applications and ensure confidentiality Establishing effective cooperation with public prosecutors if cartel members are subject to criminal sanctions (Peru) Increase predictability and legal certainty through regulatory development of leniency provisions
Other antitrust tools (e.g., merger control) (Jamaica, Dominican Republic, Uruguay, Venezuela, Bolivia, Panama, Peru, The Bahamas, Haiti)	Establish appropriate and clear definition of which transactions are subject to review; for mandatory notification regimes: establish proper notification thresholds (Jamaica , Dominican Republic , Uruguay , Venezuela) Adopt efficient M&A review procedures and provide guidelines for firms (Bolivia , Panama) Build institutional capacity for market analysis Ensure that available human resources are adequate to manage the expected volume of M&A notifications (Peru) Focus M&A review capacity on sectors that are susceptible to anticompetitive behavior
Institutional foundations (El Salvador, Panama, Bolivia, Ecuador, Peru, Uruguay, Bolivia, Nicaragua, Honduras)	Strengthen the political independence of competition authorities by: (i) appointing adjudicating officials through a merit-based appointment process; (ii) adopting two-stage appointment processes with independent bodies, (iii) creating fixed mandates, (iv) appointing a collegiate body, and (v) establishing conflict-of-interest rules and mandatory cooling-off periods (El Salvador , Panama) Strengthen the financial independence of competition authorities by allowing them to request budget allocations directly from the legislature or to self-finance by levying fees on merger notifications (Bolivia , Ecuador , Peru) Strengthen the procedural independence of competition authorities by ensuring that the adjudicating unit does not determine the budget or team composition of the prosecutorial unit, separating the technical teams of the two units, and limiting the influence of executive officials outside the authority (Ecuador , El Salvador , Nicaragua , Honduras)

Pre-competition government interventions	Examples of opportunities for reform by country
Advocacy Strategies (Argentina, Bolivia, Ecuador, Jamaica, Venezuela)	Anticipate potential anticompetitive impacts of new policies Leverage digital solutions to facilitate competition in regulated markets Narrow the scope of regulatory intervention and ensure close collaboration between public agencies
Market Studies (Argentina, Bolivia, Ecuador, Jamaica, Colombia, Venezuela)	Develop a legal framework for conducting market studies and requesting information from firms and public agencies Oblige regulators to explicitly justify any failure to adopt the recommendations issued by competition authorities Undertake regular market studies that have a scope and schedule consistent with the available resources (e.g., alternate between comprehensive assessments of emerging product markets and updates of analyses of priority markets) Prioritize market studies according to: (i) the relevance of the sector to the economy and the wellbeing of the population and (ii) the presence of market failures and distortions Design market studies to serve as communication and advocacy tools Be selective with requests for information and ensure respondent confidentiality
Regulatory Reform (Argentina, Chile)	Perform systematic ex ante assessments of how proposed regulatory changes may affect competition Conduct ex post evaluations of regulatory impact on competition
Competition in public procurement (Argentina, Bolivia, Ecuador, Peru, Chile)	Assess public procurement systems and identify opportunities to strengthen competition Recommend measures to promote competition in the tender design Recommend measures to promote competition in the tender-design process Evaluate mergers that may result from the awarding of a project to a specific bidder (Peru) Deploy advanced digital tools to screen for suspicious patterns (Peru , Chile)
Opening markets with proper competition safeguards (Venezuela, Bolivia, Barbados)	Ensure that the competition authority is properly empowered to investigate and sanction illegal cartels



Economic Cartels in Latin America and the Caribbean: Ubiquitous, Harmful, and Mostly Undetected

This report provides novel systematic evidence of the extent of economic cartels in LAC markets. While much of the global dialogue on competition issues has focused on information technology and the rise of corporate market power, many markets in LAC suffer from a more basic problem: firms explicitly agree not to compete, enabling them earn profits as if they were a monopoly. As a result, millions of households across the region are consistently overcharged by economic cartels, many of which operate in markets for essential consumer goods. Unlike other indications of lack of competition, such as market power, there is consensus that economic cartels produce no compensatory benefits in terms of efficiency or innovation. Instead, they cause unequivocal harm to productivity growth, economic efficiency, and household welfare. This report provides systematic evidence based on cases in which direct or indirect evidence has been found of unequivocal violations to the core mechanism of a market economy: independent price determination. Due to the far-reaching damage inflicted by cartels, the enforcement of competition policy plays a major role in advancing social and economic development objectives. This report provides insight into how LAC governments can more effectively disincentivize, destabilize, and break up cartels, which impose serious constraints on economic growth and poverty reduction across the region.

Cartels in LAC have affected hundreds of markets, and a large majority have gone undetected²¹

Over the last four decades, more than 300 economic cartels have been detected, mostly in markets that provide key inputs to firms or essential goods to households. Between 1980 and 2020, firms operating in markets for essential goods and services such as milk, sugar, poultry, transport, energy, and medicines were found to have colluded to fix prices, restrict total production, divide markets, rig procurement bids, or obstruct the entry of new competitors. Rather than attracting consumers with higher quality and lower prices, more than 2,500 firms and 153 trade associations in 19 different sectors were revealed to be engaging in cartel activity.

Cartels affect important markets and often involve large firms; in 2019, the total revenues of 89 cartelized firms were equivalent to the GDP of the 8th largest country in LAC. Evidence from 1990 to 2007 suggests that between US\$150 and 200 billion worth of sales in LAC were affected by discovered cartels, and consumers in the region paid at least US\$35 billion in higher prices due to the presence of cartels (Ivaldi, Jullien, Rey, Seabright, & Tirole, 2003).²² Based on newly available information, 89 of the firms that formed cartels in LAC had combined revenues of US\$81 billion in 2019—equivalent in size to the region’s 8th largest GDP.²³

Worldwide, cartels affect a significant share of economic activity in developing countries. Evidence from 1995 to 2013, indicates that affected sales of cartel members in developing countries can equal as much as 6.4 percent of GDP, and cartel agreements may affect between 3.4 and 8.4 percent of imports (Levenstein,

Suslow, & Oswald, 2003). Recent evidence shows that, despite its limited cartel-enforcement capacity, El Salvador’s competition authority detected seven cartels between 2006 and 2011 with affected sales totaling 0.4-0.8 percent of GDP. Moreover, this assessment does not include the impact of cartel agreements on downstream industries (e.g., the impact of wheat cartels on bread).

Actual economic cartel activity is at least ten times the observed level. Between 1980 and 2020, competition authorities in LAC detected and dismantled over 300 cartels, yet studies from advanced economies show that even the most sophisticated competition authorities detect only 10-20 percent of cartel activity (Box 1). As cartel enforcement in most of LAC is incipient, the real impact of cartels is at least an order of magnitude greater than the detected level would indicate. For example, among 84 large global cartels that were shown to have fixed prices in LAC at some point between 1990 and 2007, only four were investigated by national authorities (Connor, 2008).

Detection rates of cartel activity in LAC may be particularly low in certain sectors, such as banking and finance. In the European Union (EU), 28 percent of prosecutions for anticompetitive practices between 2013 and 2017 targeted the financial sector and revealed several high-profile price-fixing agreements in markets for financial derivatives linked to the Euro Interbank Offered Rate (EURIBOR), the Japanese Yen LIBOR, Swiss Franc interest-rate differentials, and the future Swiss Franc LIBOR. However, only one of seven mature competition authorities in LAC has opened antitrust investigations in the banking sector, and only one of those investigations—Mexico’s detection and prosecution of agreements to manipulate sovereign bond prices—was related to cartel activity (WBG, 2020). In Colombia, two banking associations, 14 banks, and two payment-network providers made reform commitments to the competition authority, ending an investigation into an agreement among banks to fix interchange fees.²⁴

Box 1. Estimating the Prevalence of Undetected Cartels

Cartels are, by nature, mostly unobserved. Several methodologies can be used to infer the actual amount of cartel activity. Quantitative estimates suggest that the probability of detection is just 10-20 percent in jurisdictions with mature market economies and sophisticated enforcement capacity, and detection rates in LAC may be even lower. Garcia-Verdugo, Merino Troncoso, & Martin (2020) analyze evidence from cartels detected by the Spanish competition authority and estimate that the annual probability of a cartel being detected between 2011-2019 was 11.5 percent. Using a Bayesian approach, Park, Lee, & Ahn (2018) estimate that the probability of cartel detection and penalization in the US between 1970-2019 was 11-17 percent, and they find that the implementation of leniency programs increased the probability of detection by 65 percent. These results are consistent with those of Bryant & Woodrow (1991), who estimate the probability of uncovering a price-fixing agreement at 13-17 percent. Using capture-recapture methods, Ormosi (2014) estimates that cartel-detection rates in the EU ranged from 10-20 percent over the 1985-2009 period and finds evidence that cooperation agreements between EU and US competition authorities increased the detection rate even more effectively than the introduction of leniency programs. Combe, Monnier, & Legal (2008) use detection-duration models to analyze 86 cartels that affected at least two EU member states between 1969 and 2007 and find that the probability of detecting a cartel ranged from 12.9-13.2 percent per year.

Source: Authors’ elaboration based on Bryant & Woodrow (1991), Combe, Monnier, & Legal (2008), Ormosi (2014), Park, Lee, & Ahn (2018), Garcia-Verdugo, Merino Troncoso, & Martin (2020).

²⁴ This comparison is for illustrative purposes. The authors recognize that comparison between revenues (output) and GDP (value added) is imperfect. Revenues of such firms at the time when the cartel was operating may have been different from their revenues in 2019. Revenues of those firms are not representative of the size of the market affected.

²¹ For the remainder of the report, the term “economic cartels” and “cartels” will be used synonymously.

²² As is discussed later in the report, markets with many small players can also be cartelized, often with the support of trade associations.

²³ This comparison is for illustrative purposes. The authors recognize that comparison between revenues (output) and GDP (value added) is imperfect. Revenues of such firms at the time when the cartel was operating may have been different from their revenues in 2019. Revenues of those firms are not representative of the size of the market affected.

Cartels hurt the poor, stifle growth and limit policy effectiveness

Cartels are particularly harmful for economic development objectives. By eliminating competition among firms, cartels raise prices above market levels while weakening firms' incentives to innovate and become more productive. Inflated prices diminish consumption, impacting disproportionately the poorest households, slowing poverty reduction, and undermining human-capital development. In addition to its adverse impact on consumers, cartelization can slow job growth and inhibit entrepreneurship, as cartels strive to maintain their position by barring the entry of new firms. Cartels undermine the effectiveness of public policies, especially market liberalization and trade openness, the benefits of which do not materialize when firms collude to divide markets or block imports. Finally, cartels can also sap state resources and erode the quality of public services by rigging government procurement processes (e.g., medicine, public works, school supplies).

Economic cartels directly and disproportionately affect poor households. Cartels are especially common in markets for basic consumer goods. At least 21 percent of the cartels detected in LAC between 1980 and 2000 involved essential products such as sugar, toilet paper, wheat, poultry, milk, and medicines.²⁵ Global estimates suggest that consumers pay 49 percent more, on average, when buying from cartels, and 80 percent more when cartels are stronger.²⁶ In LAC, 65 percent of the cartels detected over the last four decades for which price information is available overcharged consumers by between 5-25 percent, and in at least 4 percent of cases cartel activity doubled consumer prices. A simple comparison of public expenditure efficiency in South Africa suggests that public resources spent on cartel enforcement would be 38 times more effective in tackling poverty than cash transfers, as a share of the cash transferred to eligible household is effectively diverted to cartels through above-market prices (Purfield, et al., 2016).

Collusive agreements slow economic growth by discouraging productivity-enhancing measures and reducing competitiveness. Anticompetitive agreements weaken efficiency incentives, and the presence of cartels can cut the growth of labor productivity by as much as 20-30 percentage points when compared to industries without cartels (OECD, 2014). Evidence from observing a 40-year cartel in the United States suggests that sectoral output declined by 22 percent over the counterfactual (Bridgman, Qi, & Schmitz Jr, 2009). Systematic tolerance of cartel activity can curb productivity growth economy-wide (Petit, Kemp, & Van Sinderen, 2015).

In LAC, economic cartels distort value chains by altering prices in key market segments. During 1980-2020, 34 percent of collusive agreements detected in LAC were in the manufacturing sector, while another 15 percent of cartels were active in wholesale and retail trade and transportation (Figure 1).²⁷ Within the manufacturing sector, cartels across LAC region are particularly frequent in the meat-processing subsectors in Brazil, Chile, and Panama, as well as in the manufacturing of basic chemicals in Argentina, Brazil, Colombia, Panama, and Peru.²⁸ Within the wholesale and retail trade sector, cartels operating in pharmaceutical markets have been found in Brazil, Chile, Honduras, and El Salvador. In the transport sector, Chile imposed a US\$95 million fine on six shipping lines for colluding in multiple tender processes to provide maritime transport services to manufacturers and consignees of imported cars, while Mexico sanctioned seven shipping lines for forming nine agreements to divide the car-transport market between them. Some of the sanctioned firms were also investigated in Chile and Peru (WBG-USAID, 2018).

²⁵ In total, 65 cartels were identified and investigated across nine LLAC countries. Mexico (15), Colombia (11), and Brazil (10) had the highest number of cases of cartels impacting basic consumption products. In 70% of these cases, the cartel had a nationwide impact. According to the WBG Cartel Enforcement database, in 23 out of the 65 cases for which estimates of overprices are available and affected basic consumption products, consumers paid 14 percent more on average than they would have in the absence of a cartel.

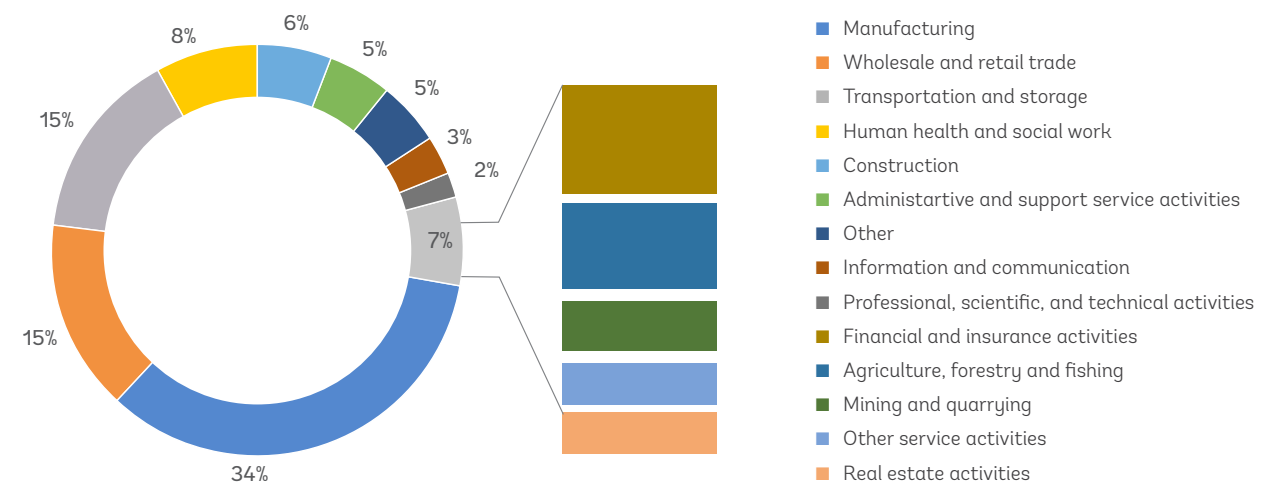
²⁶ The most comprehensive database of 1,530 cartel cases for which overcharge estimates are available at the international level (Connor, 2014) reveals that the mean average overcharge is at least 49%, which is consistent with estimates from other authors that put mean overcharges above 40 percent (Posner, 2001) (Levenstein & Suslow, 2006). The same database used by Connor also reveals that when cartels operate at peak effectiveness, overcharges are 60-80 percent higher than the average for the whole cartelization episode. Furthermore, individual cartel estimates present a wide range of overcharges (Connor, 2020).

²⁷ A study of 55 OECD and non-OECD countries (OECD, 2020) also finds a preponderance of cartels in the manufacturing sector.

²⁸ Meat-processing activities include the production of fresh, chilled, or frozen meat (excluding poultry and fish), as well as the production of pulled wool. The production of basic chemicals includes manufacturing of liquified or compressed industrial or medical gases (e.g., oxygen).

Cartel agreements undermine the benefits of trade openness and market liberalization. Among the countries of the Pacific Alliance, which have the lowest trade barriers in the region, at least 67 cartels were detected in tradable sectors, and one-third of those had operated for more than five years. Even though Colombia is an open economy, sugar traders from the region were unable to sell in Colombian markets until 2015, when the government broke up a decadelong cartel agreement by 12 domestic sugar producers to obstruct sugar imports.²⁹ However, import competition does not preclude the formation of cartels in tradable goods, and such agreements can operate at the regional or even the global level. For example, in Chile, Peru, and Colombia, three international firms jointly raised prices for toilet paper by up to 30 percent for over 10 years (Dinamo, 2015). In smaller LAC economies such as those of the Caribbean Community (CARICOM), where connectivity is central to economic growth, cartels have been uncovered in shipping services and other trade-related sectors.³⁰

Figure 1. Cartels prosecuted in LAC 1980-2020, by sector



Within the manufacturing sector, cartels across LAC region are particularly frequent in the meat processing activity in Brazil, Chile, and Panama, and in the manufacturing of basic chemicals in Argentina, Brazil, Colombia, Panama, and Peru.



²⁹ WBG Anti-cartel Enforcement Database. The details of the sanctioning resolution of this cartel agreement are [here](#).

³⁰ In 2010 the Barbados Fair Trading omission sanctioned the members of the Shipping Association of Barbados for agreeing to introduce and fix the prices of a "local administration charge". See: [https://one.oecd.org/document/DAF/COMP/LACF\(2016\)23/en/pdf](https://one.oecd.org/document/DAF/COMP/LACF(2016)23/en/pdf)

The involvement of cartels in government procurement constrains the supply of public goods and services, and in some cases, cartels may even distort the market for government bonds. Between 1980 and 2020, at least one in four LAC cartels formed among firms participating in government procurement processes, where taxpayers bear the burden of overcharges. In Peru, 31 providers of hemodialysis services rigged the public health administration's bidding process by abstaining from participating in public tenders in order to increase reference prices for subsequent tenders. Between 2010 and 2012, this scheme led to overcharges of approximately US\$10 million per tender.³¹ In 2014, Peru sanctioned a cartel among engineering firms involving US\$50 million in contracts for the expansion of the public highway network (Martinez Licetti & Goodwin, 2015).³² In Mexico, seven banks entered into at least 142 agreements to manipulate the price of the Mexican sovereign bond market between 2010 and 2013 by limiting sales and acquisitions of bonds. This scheme resulted in losses on the market of over US\$1.4 billion.³³ In Colombia, an anticompetitive agreement that favored a particular group of firms in the concession process for the construction of a major highway (Ruta del Sol II) cost the government—and ultimately taxpayers—at least US\$11 million in overcharges.³⁴

Recent developments in LAC suggest that cartels undermine public trust in market economies. In a 2016 survey, 73 percent of respondents in Chile described collusion between firms as even more reprehensible than violations of labor law.³⁵ This survey was conducted after several years of successful cartel breakups, as well as the Supreme Court's historic validation of a government decision to fine a group of poultry producers for colluding to limit output. Widespread protests in 2019 were partly motivated by discontent with the private sector (Freire, 2020), and the government's response included draft legislation designed to strengthen enforcement of laws against white-collar crimes, including cartel behavior.

Effective anti-cartel enforcement can generate enormous benefits for consumers and firms. Leniency programs have proven especially successful in destabilizing cartels. These programs offer immunity or reduced penalties to cartel participants that voluntarily cooperate with authorities. Because each member has an incentive to turn against the cartel and reveal its existence to the authorities, leniency programs shorten the duration of harmful cartels, render agreements less stable, and can also reduce the level of anticompetitive overcharges. Miller (2009) finds empirical support for these effects: a leniency program in the United States increased the rate of cartel detection by 62 percent and reduced the rate of cartel formation by 59 percent. Yusupova (2013) finds that a 2009 revision to the Russian leniency program was effective in reducing the size and duration of cartels. Choi & Hahn (2014) show that the leniency program in Korea shortened the average cartel duration. Leniency programs can also accelerate the process of breaking up cartels, and Brener (2009) finds that leniency speeds up the sanctioning process by 1.5 years on average. In Europe, nearly 60 percent of detected cartels have been discovered through leniency programs (Jaspers, 2020). Leniency programs can have significant effects on competition intensity: Klein (2011) reviews data from 23 OECD countries and finds that leniency policies were associated with a decrease in the industry-level price/cost margin of 3-5 percent.

Despite their demonstrable efficacy and considerable social and economic benefits, many LAC countries have no mechanisms in place to prevent or detect economic cartels. A full 28 percent of countries in the region lack an operational legal framework for competition. Moreover, only five of the 15 countries with a legal framework for competition have also adopted effective anticartel enforcement tools.

³¹ Resolution of the Defense of Free Competition Commission 019-2016/CLC-INDECOPI, p. 161.

³² The competition authority fined the Engineer's Professional Association for agreeing to increase prices for engineering consulting services in projects executed to develop the public highway network. The Association introduced a mandatory minimum fee scheme, and enforced it with sanctions to its members according to professional ethics rules.

³³ <https://lexlatin.com/noticias/cofece-multa-siete-bancos-manipulacion-mercados-mexico>

³⁴ http://normograma.info/sic/docs/r_siyc_5216_2017.htm and <https://img.lalr.co/cms/2020/12/28075555/COM-92-SANCIO%CC%81N-RDS-1.pdf>

³⁵ <http://www.economiaynegocios.cl/noticias/noticias.asp?id=309952>

During the COVID-19 crisis, markets became more vulnerable to cartelization, yet cartel detection ground to a halt

In many countries, agreements among competitors during the COVID-19 pandemic have been treated under exceptional rules. The unprecedented disruption of global supply chains during 2020 required extraordinary coordination among firms to ensure the delivery of essential goods and services. Several countries explicitly allowed coordination or information-sharing among competitors that might otherwise have been unlawful, though other agreements such as price-fixing and bid-rigging remained prohibited. In LAC, no cartel-related investigation initiated during the pandemic has yet concluded, and some countries have ceased conducting investigations, especially surprise onsite inspections ("dawn raids"), while accessing evidence has become increasingly difficult.³⁶

The economic consequences of the pandemic and the associated policy response may have increased the risk of anticompetitive behavior. For instance, expedited procurement processes may increase the risk of bid-rigging when they are not properly designed or monitored. Meanwhile, pandemic-induced changes in consumption patterns and the exit of competitors in financial distress could increase market concentration, facilitating the establishments of cartels. Finally, emergency government interventions could have negative effects on competitive and contestable markets over the medium-to-long term. Going forward, the adoption of new digital business models—a process accelerated by the pandemic—could also increase competition risks. Algorithms present a detection challenge for enforcers, as they replace the need for ongoing communications and coordination between individuals, making collusion harder to identify. In a worst-case scenario, pandemic-related changes to market structures, business models, and the regulatory environment could permanently diminish competition even after temporary measures such as price controls are lifted (Goodwin & Barajas, 2020).

Box 2. Legal and Economic Definitions of Collusion

In general, cartel refers to an unlawful agreement among businesses. The International Competition Network (ICN) concludes that most jurisdictions use three common elements to define a cartel, namely (1) the agreement, (2) the parties to the agreement (competitors) and (3) the objective (to restrict competition).

The existence of an express agreement differentiates cartels (or 'overt collusion') from tacit collusion, conscious parallelism, or independent parallel behavior. In terms of economic theory, cartels are considered a subgroup of collusive practices. Collusive practices allow firms to exert market power they would not otherwise have, and artificially restrict competition and increase prices, thereby reducing welfare. Cartels refer to 'explicit agreements among competitors', and are different from instances in which firms do not 'overtly collude' (Motta, 2004). Most jurisdictions do not consider tacit collusion (such as parallel conduct which is common in oligopolistic market structures) to be an unlawful practice. The difference with overt (or explicit) collusion is the coordination and communication among competitors (Motta, 2004). Such coordination or communication to collude can take various forms (oral or written). If the coordination or communication has purposes other than to agree to collude (e.g., price transparency for customers), it can still facilitate collusion, but may not be considered unlawful (see, for example, the decision by the European Court of Justice in the *Woodpulp* case). The US developed a standard of proof that requires direct or indirect evidence of a "conscious commitment to a common scheme".³⁷

Cartels generally involve agreements among horizontal competitors. This means that the parties to the agreement compete against each other at the same level of the supply or value chain (producers or retailers). However, some jurisdictions include certain types of vertical restrictions, such as exclusive dealing, resale price maintenance or vertical territorial restrictions in the same statutory prohibitions as horizontal price fixing agreements among competitors.

³⁶ Some authorities are exploring options for conducting virtual dawn raids or limiting the number of physical participants.

³⁷ See *Monsanto Co. v Spray-Rite Service Corp.*, 456 U.S. 752 (1984).

Box 2. Legal and Economic Definitions of Collusion (continued)

Cartel agreements typically encompass specific conduct in the market. According to the ICN, the most common prohibited cartel behaviors are a) price-fixing, b) output restriction, c) market allocation, and d) bid rigging. But not all agreements are unlawful. The OECD, for example, specifically refers to “agreements, concerted practices, or arrangements that are reasonably related to the lawful realization of cost-reducing or output-enhancing efficiencies”. (Motta, 2004) also identifies some specific types of agreements among competitors that should not necessarily be unlawful, such as joint ventures, research joint ventures, cross-licensing or standard setting. These can constitute a cartel in the extreme case that their “only purpose is to set prices or quantities in the final market”, but usually they have other activities and objectives. Hence, their efficiency effect should be weighed against the increase in market power.

The term “hard-core cartels” reflects an international consensus among jurisdictions regarding the definition of cartels that are considered unlawful and particularly harmful. In 1998, the OECD Council defined a hard-core cartel as “an anticompetitive agreement, anticompetitive concerted practice, or anticompetitive arrangement by competitors to fix prices, make rigged bids (collusive tenders), establish output restrictions or quotas, or share or divide markets by allocating customers, suppliers, territories, or lines of commerce”. The 2000 OECD report abridged the definition to “anticompetitive agreements by competitors to fix prices, restrict output, submit collusive tenders, or divide or share markets”. In 2005, the ICN established an interchangeable use of “cartels” and “hard-core cartels.” In addition to defining a cartel (see above), it acknowledged the consensus on four types of conduct as constituting hard-core cartels: price fixing, output restrictions, market allocation, and bid rigging.

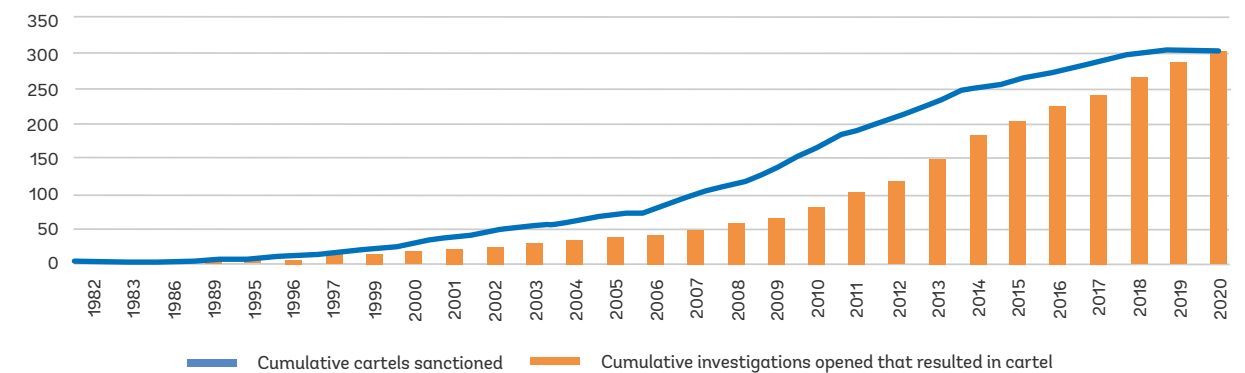
See also: (International Competition Network, 2005): *Building Blocks for Effective Anti-Cartel Regimes*, Vol.1, Part I: Defining hard core cartel conduct; and (OECD, 2000): *Hard Core Cartels*



Some countries in LAC have shown early signs of success in tackling cartels

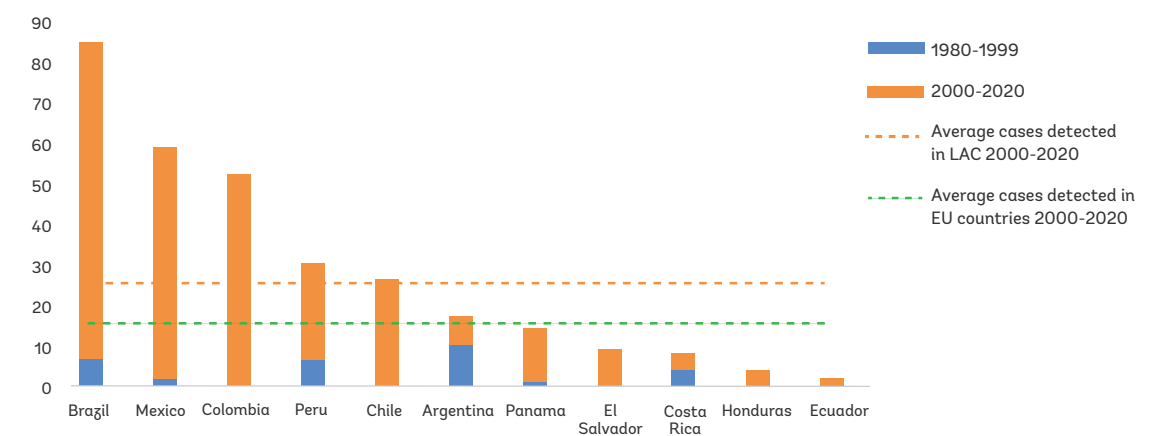
The detection and elimination of cartels in LAC has increased rapidly. The average number of cartels detected in LAC increased by a factor of five between 1980-2000 and 2000-2020 (Figure 2). During the latter period, the average number of cartels detected in LAC was 66 percent higher than the EU average. Brazil, Mexico, and Colombia lead the region in cartel detection, with a combined total of over 50 cartels identified over the last four decades (Figure 3).

Figure 2. Cumulative Number of Cartels Detected across the LAC Region, 1980-2020



Source: Authors' elaboration based on WBG ACED database³⁸

Figure 3. Number of Cartels Detected by Country and Period, 1980-2020



Note: The average number of cases detected in EU countries is estimated from the OECD Cartels database (2020). The average number of LAC countries is estimated from the WBG ACED database.

Source: Authors' elaboration

³⁸ The database includes information for Argentina, Brazil, Chile, Colombia, Costa Rica, El Salvador, Honduras, Mexico, Panama, and Peru. Central American and Caribbean countries with a legal framework for competition such as Nicaragua and the Dominican Republic were also analyzed, but no cartels have been identified by the authorities in those countries.

The sharp increase in cartel detection in LAC followed the rapid and sustained implementation of pro-competition legal reforms in five countries. Competition authorities in Brazil, Chile, Colombia, Mexico, and Peru together accounted for 81 percent of all identified cartels. For over a decade, these countries steadily worked to build their anticartel enforcement capabilities as part of a broader agenda of second-generation micro-structural reforms. Legislative changes were enshrined at the highest levels, such as Mexico’s constitutional amendments to protect the independence of enforcement authorities, and were backed by practical enforcement guidelines, including checklists designed to mainstream effective investigation techniques in Peru. Across the region, successful pro-competition reform efforts were marked by gradual, sequenced implementation supported by a high-level consensus around the importance of independent cartel investigations. For example, competition was one pillar of Mexico’s flagship governance program Everyday Justice (*Justicia Cotidiana*) during the Peña Nieto administration. Colombia’s government under President Santos declared competition a necessary condition for a more equitable country and strongly backed politically contentious but effective cartel enforcement actions.³⁹ Since the increase in the cartels observed coincides with a period of stronger enforcement, it does not necessarily mean an increase of occurring cartels.



³⁹ http://wp.presidencia.gov.co/Noticias/2015/Octubre/Paginas/20151021_08-Palabras-del-Presidente-Juan-Manuel-Santos-en-el-III-Congreso-Internacional-de-Libre-Competencia-Economica.aspx

However, in many LAC countries unequivocally anticompetitive agreements are still not illegal or would be impossible to prosecute. Ten countries in the region lack a competition law, and 11 have no national competition authority (Figure 4). One out of every three countries in LAC has neither a competition law nor a competition authority. Most of these are small island states, but they also include Guatemala, Suriname, and French Guyana. In these countries, competitors can agree to fix prices, prevent smaller competitors from accessing certain market segments, or undermine the performance of the market by inhibiting the entry of high-productivity firms and there are no legal and institutional instruments to deter or sanction these practices. Moreover, de facto impunity for anticompetitive practices prevails in countries where the competition authority lacks either the legal or institutional capability to prosecute anticompetitive agreements (e.g., underfunded or understaffed agencies). In El Salvador, Honduras, and Costa Rica, no more than six cartels have been identified over the past two decades.⁴⁰ Paraguay has conducted just two cartel investigations since its competition law came into force in 2013, and no sanctions have yet been imposed.⁴¹

Figure 4. Competition Laws and Authorities in the LAC Region



⁴⁰ Between 2010 and 2020, two cartels were detected in Costa Rica, three in Honduras, and six in El Salvador.

⁴¹ Although no decision has yet been taken, the investigation report has already been made public.

Successful cartel detection has revealed the conditions under which they typically form

A novel World Bank Group database sheds light on the circumstances in which cartels form and persist and what governments can do to protect consumers and businesses. The World Bank Group's Anti-Cartel Enforcement Database (ACED) identifies anticompetitive agreements in specific product markets and records information (as available) on the number of firms and individuals prosecuted, the duration of the agreement, its geographical extent, the market shares involved, and the resulting overcharges (when available). The database was constructed from information published by judicial or administrative authorities involved in identifying cartels and sanctioning them in the first instance. Prosecutions in the first instance may be undertaken by administrative commissions (as in Peru and Honduras), superintendents (Colombia and El Salvador), or specialized tribunals (Chile). The database does not include information on appeals.



Box 3. The World Bank Group's Anti-Cartel Enforcement Database (ACED)

Previous initiatives have collected and exchanged information on confirmed cartel cases. The Regional Competition Center for Latin America (CRCAL),⁴² the Competition Authority of Chinese Taipei under the purview of the Competition Policy and Law Group (CPLG) of the Asia Pacific Economic Cooperation (APEC),⁴³ and UNCTAD under its COMPAL program⁴⁴ have all created websites where Competition Authorities can upload final resolutions. In 2017, the OECD introduced a database of international hard-core cartels⁴⁵ covering the 2012-2018 period (OECD, 2020), and the Global Competition Review (GCR) led the Enforcer Tracker initiative to collect information from competition authorities in the United States, the European Union, Brazil, Spain, Mexico, Germany, and France and provide an overview of enforcement trends (for both mergers and cartels) over the last five years (Global Competition Review, 2020).⁴⁶

Individual researchers have also collected information on cartel cases.⁴⁷ However, these samples are often limited by the availability of data on key variables of interest, such as overcharges, and thus their coverage in developing economies is limited. Even in the extensive cartel database created by Connor (2020), which includes 485 individual cartel observations, only 84 are from developing economies (44 of which are from the Republic of Korea) and just three observations are from Latin American countries. The most comprehensive database to date for developing economies was compiled by Ivaldi, Jullien, Rey, Seabright, & Tirole (2003) and covers 249 cartels between 1995 and 2013. However, this is still a sample of all cartels that have been sanctioned and therefore does not allow for inferences regarding the effectiveness of cartel enforcement. For example, their database entries for Brazil cover just 18 cartels, while the ACED database has information on 84 cartels since the mid-1980s.

To fill this gap in the literature, the ACED database compiles information on hardcore cartels detected by competition authorities in the LAC region over the last four decades. It captures data on cases detected, prosecuted, and sanctioned, which are organized according to the type of anticompetitive behavior, the sector involved,⁴⁸ the number and types of agents involved in the agreement (e.g., firms, trade associations, natural persons), the geographic scope of the cartel, and other variables. In contrast with previous data-collection efforts, which suffer from sample-selection bias, the ACED is the first comprehensive database of all cartel agreements detected and prosecuted. In contrast to previous data collection efforts, the ACED database is the first comprehensive database of all cartel agreements detected and confirmed with evidence.

To ensure comparability across countries, the ACED includes only those cases that meet specific thresholds and inclusion criteria. Additional anticompetitive practices may have been investigated and confirmed by competition authorities in LAC but are excluded from the ACED due to inadequate publicly available documentation to meet the format of this database or the absence of adequate legislative and jurisprudential standards for defining hard-core cartels. For example, Bolivia's competition authority does not publish the results of investigations into anticompetitive agreements, and until recently Ecuador's legal framework lacked a sufficiently clear definition of "hard-core cartel activity."

Source: Martínez Licetti, M., Goodwin T., Sanchez Navarro, D., Carreras, N., International Anti-Cartel Enforcement Database (forthcoming)

⁴² <http://base.crcal.org/>

⁴³ <http://www.apeccp.org.tw/browse2.html>

⁴⁴ UNCTAD Database on Competition Cases

⁴⁵ https://qdd.oecd.org/subject.aspx?Subject=OECD_HIC

⁴⁶ <https://et.globalcompetitionreview.com/>

⁴⁷ <https://purr.purdue.edu/publications/2732/2>

⁴⁸ The ACED uses the 4-digit ISIC (rev. 4) classification of economic sectors.

Three types of cartels are common in LAC: local ad hoc cartels, recurring cartels with usual suspects, and large national cartels. Based on a cluster analysis, 3 types of cartels emerge. First, local ad hoc cartels are limited in scope and duration and often involve the participation of trade associations. Cartels of this type are common in the trucking industry. Second, recurring cartels tend to involve a larger number of members who may simultaneously collude in multiple markets and countries. Cartels of this type are persistent and affect homogeneous goods such as medical oxygen, marine hose, or basic chemicals. Finally, large national cartels typically involve a small number of major firms operating in markets for basic consumer goods such as flour, sugar, or rice (Table 1).

The clustering of cartels can be explained by factors that facilitate their formation and survival over time. Though cartels are both morally objectionable and detrimental to consumers, from the industrial organization perspective they are also a rational profit-maximizing response to specific incentives and circumstances. Some of the conditions that facilitate cartel formation are structural (e.g., network effects or high sunk costs), while others are rooted in policy interventions that can be removed or mitigated over time (e.g., regulatory barriers to entry or weak procurement oversight) or in the organizational structure and operations of certain firms (e.g., multimarket contact or cross-ownership). Analyzing the factors that have played a role in cartel formation in LAC can inform government strategies for eliminating cartels (Box 4).

Table 1. Cartel characteristics and Cluster Analysis for Cartels detected in LAC 1980-2020

Cluster	Average number members	Average duration (months)	Agreements involving trade association (%)	Share of basic consumption goods in all affected products (%)	Largest geographic scope
Local Ad Hoc	7.94	14.96	44.3	12.7	Local
Recurring (Usual suspects)	11.9	107	8.3	14.2	International
Large National	6.28	51.39	21.1	31.5	National

Source: Authors' elaboration based on WBG ACED database



Box 4. Market, Policy, and Firm-Level Factors that Facilitate Cartel Behavior

Structural Factors (i.e., inherent to the industry)

- Large sunk costs involved in firm startup or market entry
- Network effects that increase the power of incumbents relative to new entrants
- Product homogeneity
- Inelastic demand
- Limited buyer power
- Regular and frequent transactions

Policy Factors

- Anticompetitive regulation or a history of anticompetitive regulation (e.g., price controls)
- High regulatory barriers to market entry (e.g., stringent licensing requirements)
- Regulatory constraints on competition (e.g., zoning laws limiting the number of similar establishments in a defined area)
- Import restrictions (e.g., tariffs, quotas, or import bans affecting foreign competitors)
- Constraints on access to public infrastructure (e.g., preferred access to telecom networks for incumbents)
- Direct state involvement in economic activities (e.g., crowding-out effect of SOEs in shallow capital markets)
- Weak public procurement oversight (e.g., unaddressed bid-rigging)

Market-Level Factors

- Excess capacity
- Firm symmetry
- Multimarket contact
- Cross-ownership and links with other firms
- Information-exchange mechanisms

Source: Authors based on Purfield et al. (2016) and Motta (2004).

Certain sectors in LAC appear to be especially prone to collusive agreements. Across all countries, more cartels are detected in the meat-processing industry and in the transportation sector than in other sectors. Similarly, almost all countries with mature anticartel enforcement capabilities have detected a cartel in the cement, medical oxygen, and sanitary-product subsectors. These markets feature structural characteristics that facilitate collusive agreements (Table 2). For example, product homogeneity in the oxygen market reduces the possibility to increase margins by differentiating products, making collusion especially profitable.

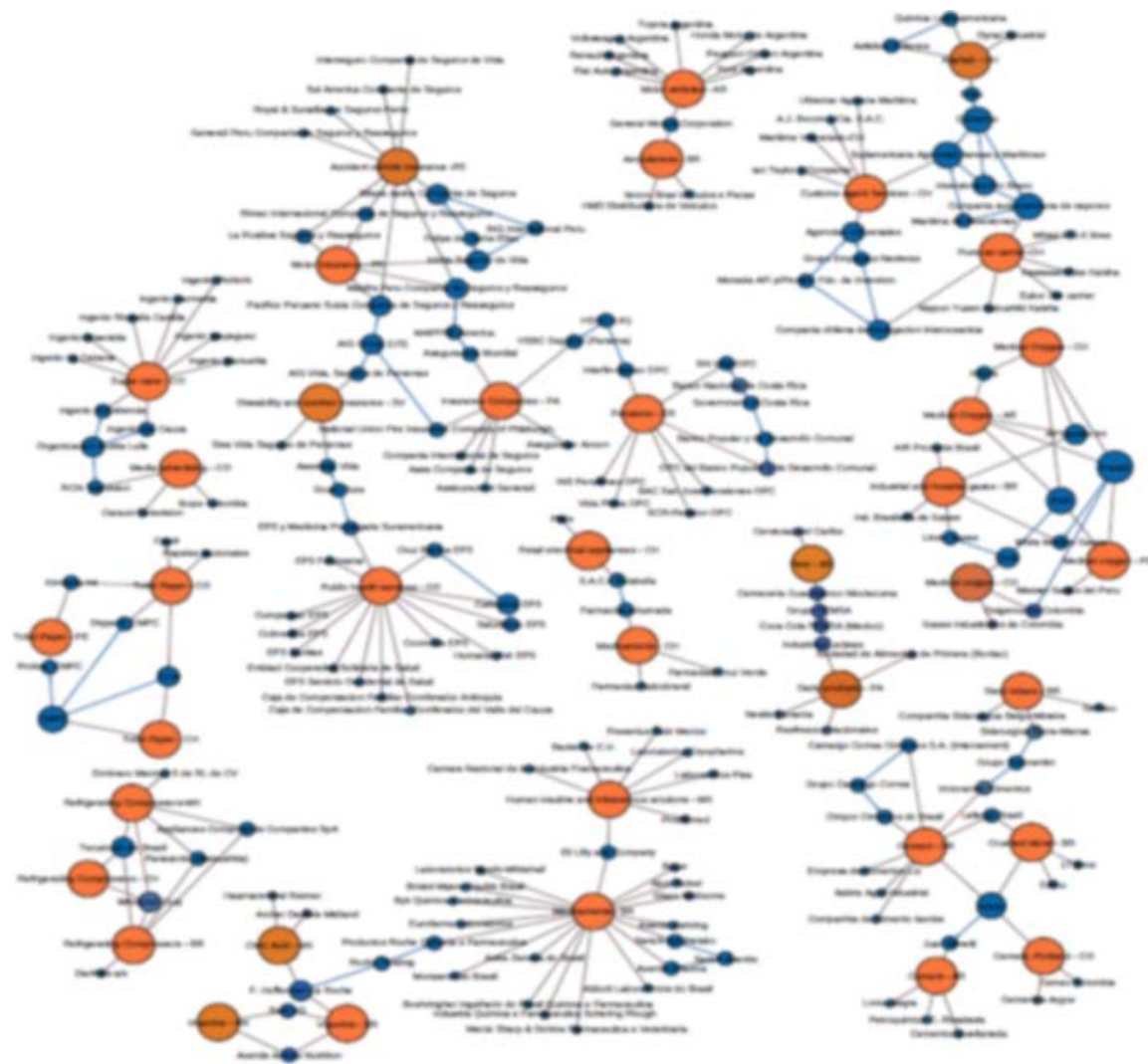
Table 2. Examples of Cartels and facilitating factors in LAC

	High entry barriers	High concentration	Product homogeneity	Inelastic demand	History of anti-competitive regulation
Cement (5 cases in Argentina, Brazil, Colombia, and Honduras)	X	X	X		
Oxygen (5 cases in Argentina, Chile, Colombia, Panama, and Peru)	X	X	X	X	X
Medicines and vitamins (12 cases in Argentina, Brazil, Chile, Ecuador, El Salvador, Honduras, and Peru)	X		X	X	X

Source: Authors' elaboration based on WBG ACED database

In many cases, the same set of firms has colluded across multiple countries, and a recent WBG analysis revealed at least 11 “cartel networks” in the LAC region. When the same group of firms compete in different countries and product markets—known as “multimarket contact”—they may be more likely to form cartels in otherwise contestable markets (Figure 5). In LAC, there have been at least 11 networks of cartels that span across several products and/or countries. For instance, some insurance companies involved in a cartel in Panama were also connected to a vehicle-insurance cartel in Peru and a life-insurance cartel in El Salvador. Similarly, several companies involved in anticompetitive agreements for providing medicines in Brazil were also involved in cartels for vitamins and medicines in Mexico. Given the substantial degree of multimarket contact among firms in LAC, there is considerable scope for national and regional competition authorities to increase their impact by adopting a regional perspective when assessing cases within their jurisdictions.

Figure 5. Networks of Cartels across Markets and Countries in LAC



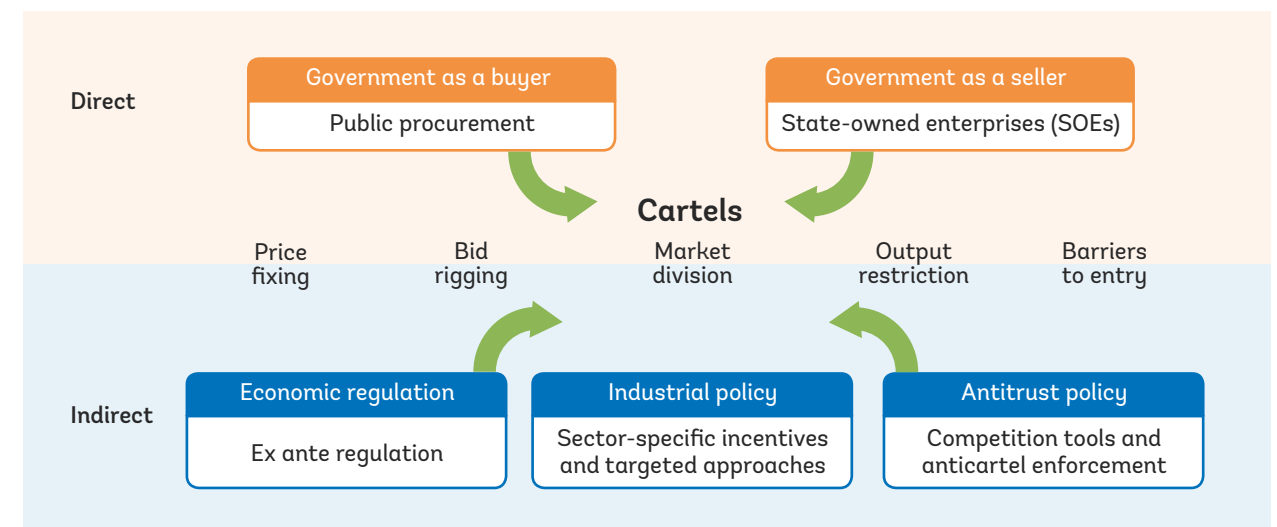
Note: Orange circles show the individual market-country pairs in which cartels formed, and blue circles show the companies participating in these cartels as well as their ownership links. Only the compressor, toilet paper, and vitamin cases were expressly identified as multi-jurisdictional cartels by the authorities.

Source: Authors' elaboration based on information in WBG ACED.

Government participation in markets can facilitate the creation of economic cartels. Governments determine the rules of the business environment, and in some cases, they actively participate in certain markets. Governments can shape competition incentives directly as a buyer through the public procurement process and/or as a seller through SOEs. Governments can also indirectly influence market outcomes through economic regulation, industrial policies, and antitrust enforcement (Figure 6).

Cartel agreements have been detected in cases where governments directly participate in the market as a buyer or seller. Without proper safeguards, government procurement processes can facilitate anticompetitive agreements, as the limited number of firms submitting bids and the predictability of the transactions involved facilitate coordination among competitors. This risk is aggravated if the procuring entity lacks an adequate commitment to a competitive process or faces incentives to abet coordination. Similar challenges apply when SOEs operate as major sellers in their respective markets (Figure 6).⁴⁹

Figure 6. How Government Policies Can Inadvertently Encourage Cartel Formation



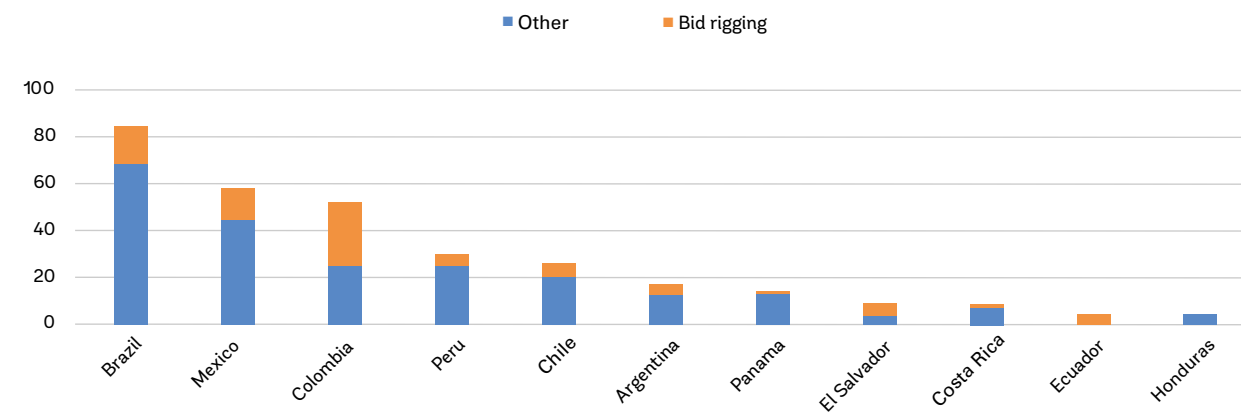
Source: Authors' elaboration



⁴⁹ Collusion and corruption are common in public procurement and frequently occur in tandem, with a mutually reinforcing effect. See: <https://www.oecd.org/competition/cartels/46235884.pdf>.

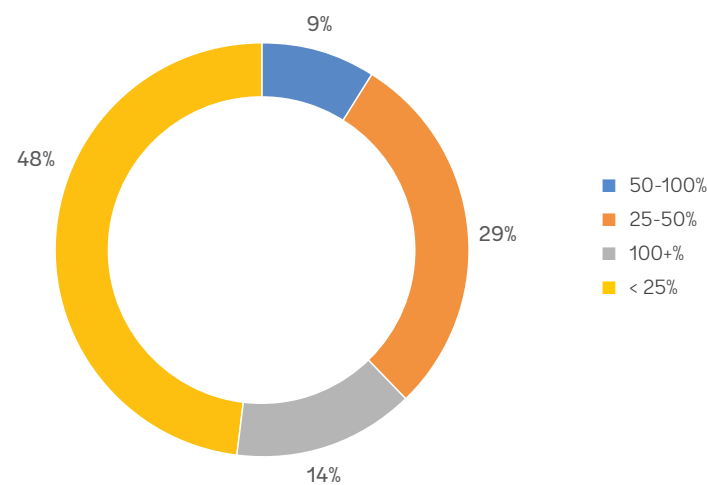
At least 445 firms were found to have rigged bids in at least 81 public procurement processes across LAC. Between 1980 and 2020, three out of every ten cartels detected in the region involved government procurement. In Colombia and El Salvador, half of detected cartels were engaged in bid-rigging (Figure 7). Cartels involved in public procurement typically consist of large companies with average annual revenues of over US\$37 million. For example, large travel agencies in El Salvador fixed prices for providing travel services to the government by manipulating tender procedures, doubling the cost to the taxpayer. In Argentina, at least four firms colluded during the bidding process to increase prices for medical supplies and distribute contracts among the cartel members in different hospitals, resulting in overcharges of more than 16 percent. In 14 percent of bid-rigging cases, cartels doubled the price of public procurement relative to the counterfactual in a competitive scenario (Figure 8).

Figure 7. Total Number of Cartels Discovered and Number of Cartels involving Rigging Bids by Country 1980-2020



Source: Authors' elaboration based on WBG ACED database

Figure 8. Estimated Overcharges Due to Bid-Rigging⁵⁰



Source: Authors' elaboration based on WBG ACED database

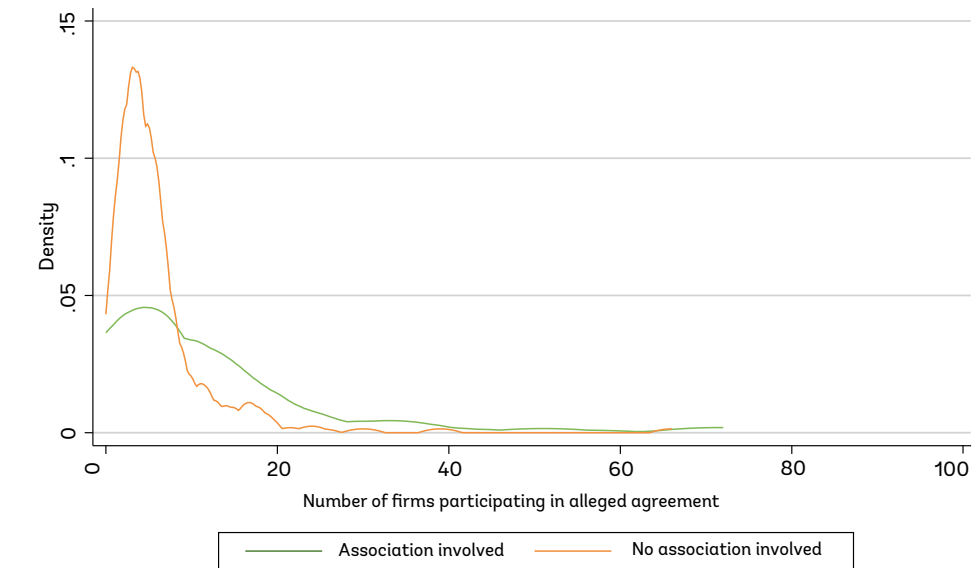
⁵⁰ Based on the 23 bid rigging cases with information available of overcharges in the WBG ACED database.

Strong indirect government participation in markets can also increase the risk of cartelization. When governments intervene in markets through regulatory or industrial policies, they may inadvertently create barriers to entry, distort the competitive playing field, or otherwise facilitate collusion.⁵¹ Structural market features may exacerbate policy distortions, resulting in anticompetitive behavior, higher prices, greater concentration, lower rates of firm entry, and slower productivity growth (MCPAT).⁵²

Anticompetitive regulations have enabled cartels across the LAC region. A comprehensive analysis of subnational regulations in three key sectors across Mexico's 32 federal entities⁵³ revealed over 2,400 instances in which government-issued rules had adversely affected markets, including by facilitating cartelization⁵⁴ (Box 6). In Peru and Panama, excessively strict quality standards for medical oxygen created a barrier to entry that encouraged cartel agreements among a small group of firms. Municipal-level regulation in Mexico has been associated with several price-fixing agreements among tortilla producers.⁵⁵ In Colombia, a price-stabilization mechanism enabled price and output coordination among a cartel of sugar refiners that blocked sugar imports.

Trade associations may facilitate cartelization even in markets with a relatively large number of players. Trade associations often define entry requirements and influence other elements of the business climate. In principle, the role of these associations in setting standards for their respective industries is a key form of self-regulation, but in practice the self-defined rules of trade associations can insulate their industries from competition and help stabilize cartels. During the 1980-2020 period, 94 identified cartels involved a total of 151 trade associations, and cartels linked to trade associations appeared to sustain an especially large number of participants (Figure 9).

Figure 9. Number of Firms Involved in the Alleged Cartel Agreement by Involvement of Trade Associations



Source: Authors' elaboration based on the ACED database⁵⁶

⁵¹ Some rules that can be conducive to collusive outcomes include price controls, restrictions on the type of products and services/format and location, and rules that strengthen the role of trade associations as key players to allow entry in the market, or that enhance powers of co-regulation of business associations.

⁵² WBG's Market and Competition Policy Assessment Toolkit. See WBG, 2019. "Reducing Market Distortions for a More Prosperous Ukraine". Available at: <https://documents1.worldbank.org/curated/en/368301553112891891/pdf/135463-WP-P169603-PUBLIC.pdf>; also WBG, 2018 "Strengthening Argentina's Integration into the Global Economy", Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/29645/9781464812750.pdf?sequence=2&isAllowed=y>

⁵³ Mexico's federal entities include 31 states and the Federal District.

⁵⁴ <https://documents1.worldbank.org/curated/en/750671539354775059/pdf/AUS0000133-WP-REVISED-P164185-OUO-9.pdf>

⁵⁵ Idem

⁵⁶ The number of firms participating in the alleged agreement is statistically significant at 10%, 5% and 1% significance level with a p-value of 0.0001.

Box 5. Regulatory Provisions and Multimarket Contact in a Regional Cartel

At least six LAC countries have detected cartels in the medical-oxygen market. A mapping exercise reveals that four companies have repeatedly been identified as parties to these anticompetitive agreements. At least two of these countries had regulatory provisions in place that restricted competition, specifically the participation of oxygen providers that used a new production technology that yields a slightly lower grade of oxygen purity at a much lower cost. Restrictions in Peru and Panama required a 99.5 percent purity level, which limited the number of competitors in the market. In at least three of the countries involved, the industry took steps to prevent the entry of the new technology, including via purity standards.

Country	Combined market share of the four largest firms*	Total number of active firms*	Tender-design barriers to new technology	Conduct barriers to new technology
Argentina	97	4	0	1
Brazil		3		
Chile	95	4	0	0
Colombia	72	2	0	1
Peru	98	3	1	0
Panama		0	1	1

* Not all firms were necessarily part of the cartel in these countries

Box 6. Government interventions often support price-fixing or market-division agreements

In the agricultural sector, governments often play a public role in encouraging, mediating, and approving price-fixing agreements among competitors. In March 2017, the Honduran Minister of Agriculture and Minister of Economic Development endorsed an agreement between agroindustry representatives and rice producers that fixed a national price for a particular rice variety.⁵⁷ In 2007, Argentina's Interior Commerce Secretary established that individuals and firms selling milk or dairy products had to register with a state body and provide evidence of having bought their raw milk at administratively determined prices. This regulation also granted state aid to producers that charged prices established by producer associations and the government. In 2009, Argentine cereal exporters were compelled to provide pig breeders with maize and cattle breeders with all cereals at a daily price set by the state.⁵⁸

In the transportation sector, local authorities have directly facilitated cartel agreements.⁵⁹ In 2015, the Mexican Competition Authority (COFECE) fined seven local passenger-transport companies for engaging in eight different agreements to fix prices and restrict supply between 2010 and 2014 on various routes in Chiapas. COFECE determined that public officials from the Municipality of Teopisca had been directly involved in one of the agreements and applied a more moderate fine to the company in question. These agreements incurred an estimated at 43.8 million Mexican pesos (about US\$2.4 million) in overcharges for users of the affected routes in Chiapas, a state where over 50 percent of the population is below the extreme poverty line.

⁵⁷ <http://www.latribuna.hn/2017/03/14/agroindustria-gobierno-establece-l420-precio-del-quintal-arroz-granza/>

⁵⁸ Resolution 550/2009 and Resolution 17/2009.

⁵⁹ <https://www.cofece.mx/sanciona-cofece-a-empresas-de-transporte-de-pasajeros-del-estado-de-chiapas-por-incurrir-en-practicas-monopolicas-ab-solutas/>

Taking Action to Eliminate Cartels

While many governments in LAC recognize the importance of promoting competition, few have a comprehensive strategy for achieving this objective. Explicit national competition policies are rare, and they require formal institutional arrangements linking multiple agencies to clearly defined goals and a concrete implementation plan. Competition is a dynamic process, rather than an outcome, which complicates the process of defining targets and measuring progress. Quantitative proxies for competition, such as market-concentration levels or price markups, make poor policy targets. For example, a government plan designed solely to reduce market concentration could hinder competition by slowing the growth of efficient firms that leverage economies of scale.

Eliminating cartels is a clear, measurable goal around which policymakers can design a coordinated competition strategy and action plan, but progress indicators require careful formulation. Reducing the prevalence of cartels is a clear and tangible outcome to which policy actions can be clearly attributed. Unlike other anticompetitive practices (e.g., concentration) where there might be positive side-effects on efficiency, innovation, or job creation, cartels unequivocally harm the economy and societies. Because cartels are secret by nature, actions designed to eliminate them may not necessarily reduce the number of cartels observed. Indeed, improving anticartel enforcement is likely to increase the number of cartels observed in the short run, as greater oversight will reveal the existence of previously hidden agreements. Cartel deterrence is especially difficult to measure, but methodologies for quantifying the probability of cartelization can effectively assess the actual prevalence of cartels against counterfactual scenarios. Despite these obstacles, cartel deterrence is still a pragmatic policy objective.

To eliminate cartels, governments can increase likelihood of detection, destabilize agreements, and deter their formation. Firms collude when it is profitable to do so. When two or more competing firms believe that coordinating to fix prices, divide markets, or rig bids will yield higher profits, they weigh those benefits against the perceived probability of detection and the sanctions it would entail. Economic literature indicates at least two conditions to favor the viability of a cartel: (i) the possibility to reach an agreement (i.e., coordination), and (ii) the mechanism to enforce the agreement (i.e., mechanisms to monitor members and ability to punish). Therefore, competition authorities can heighten the risk of detection through enhanced enforcement, raise the cost of detection through more stringent penalties, and reduce the anticipated benefit of cartelization by heightening incentives for cartel members to defect from the agreement (e.g., leniency programs).

Anticartel enforcement and compliance tools supported by complementary policy actions can make cartelization less feasible, desirable, and achievable. Harrington (2015) identifies three necessary conditions for cartel formation. The stability of the agreement makes collusion *feasible*, the participation of competitors makes collusion *desirable*, and coordination between participants makes collusion *achievable*.⁶⁰ Understanding these three conditions can enable policymakers to devise an effective strategy and design tools to prevent those conditions from being met (Figure 10).

⁶⁰ https://www.oecd.org/competition/globalforum/Harrington_OECD_10%2015.pdf

Figure 10. The Role of the Stability, Participation, and Coordination Conditions in Anticartel Enforcement and tools to address them



Source: Authors' elaboration based on (Harrington, 2015).

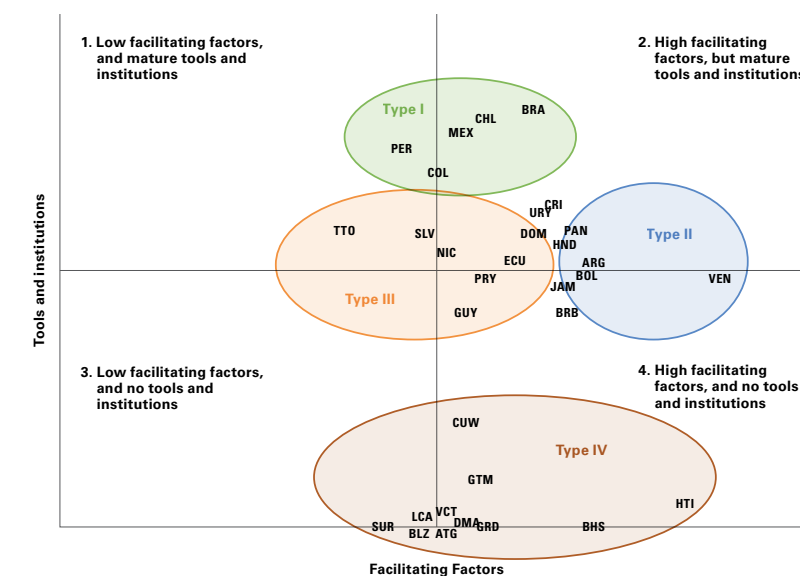
Enforcement and compliance tools directly affect the incidence of cartels. For example, leniency programs can effectively destabilize cartel agreements by incentivizing defection. More severe penalties can offset the anticipated profits from collusion, while enhanced investigative tools—including IT forensics and other advanced solutions—can raise the likelihood of detection and punishment. Together, these measures can help deter and eliminate cartels by simultaneously compromising the three conditions necessary for their formation and endurance.

How does the policy agenda vary across countries in LAC?

While most facilitating factors are specific to a given market, some are common across markets within the same country. For example, market concentration depends on numerous factors, including the characteristics of the product or service, but the size of the economy and the country's degree of trade openness will tend to affect the concentration of all markets in a similar way. Likewise, the government's overall regulatory restrictiveness, as well as its propensity for direct involvement in markets, will likely impact competition across the economy.

The optimal balance of enforcement and compliance measures with reforms to address facilitating factors will depend on the market involved and the country context. LAC countries vary widely in terms of their market institutions and relative degree of government participation in the economy. In some countries, establishing a competition law and functioning competition authority will be necessary first steps toward an effective anticartel policy. Countries with more sophisticated institutional capabilities may choose to adopt advanced investigative techniques (e.g., IT forensics) or strengthen their economic analysis to assess merger control.⁶¹ Finally, in economies that exhibit many facilitating factors for cartelization, such as price controls, low levels of trade openness, small domestic markets, and high regulatory entry barriers, stepped-up anticartel enforcement may be less effective than policy reforms designed to foster a more competitive business environment. Given these country-level differences, a taxonomy of country characteristics can identify priority areas for pro-competition policy (Figure 11).

Figure 11. Distribution of LAC Countries According to Facilitating Factors for Cartelization and Relative Development of Anticartel Tools and Institutions



Note: Quadrant 1 (Northwest) shows countries where there is a relatively lower presence of facilitating factors, and which feature developed anti-cartel enforcement tools (e.g., leniency programs, IT forensics, dawn raids). Quadrant 2 (Northeast) shows countries with more presence of facilitating factors (e.g., price controls, product market regulation, state control), but that count with more mature tools for anti-cartel enforcement. In these cases, it is expected to find more sophisticated cartels exploiting the facilitating factors. Quadrant 3 (Southwest) shows countries where there is relatively less presence of facilitating factors, but also where institutions and instruments to fight against cartels are incipient or inexistent. Finally, quadrant 4 (Southeast) shows economies where there is a high presence of facilitating factors and limited tools and institutions.

Source: Authors' calculations based on WBG-OECD PMR (2013, 2020), WDI indicators, Competition team policy checklist (MCPAT), WBG enterprise surveys.⁶²

⁶¹ While much analysis has been devoted to the risks posed by corporate consolidation (IMF, 2021), strengthening merger control may not be the most effective way of addressing market power in all jurisdictions in LAC.

⁶² Indicators of facilitating factors include the share of manufacturing sectors with monopoly and duopoly structures (WBG Enterprise surveys), the size of the market (WDI), the degree of trade openness (WDI), product-market regulation indexes that measure state intervention, public procurement, and price controls (WBG-OECD). Anticartel enforcement tools and institutions include competition law, specialized competition authorities, competition policy index (BTI) scores, elements of the institutional environment (e.g., process independence, budgetary independence), and leniency programs, among others.

Table 3. Effective Anticartel Enforcement Instruments in Different Institutional and Market Contexts.

Factors that Facilitate Cartelization	Preconditions for collusive agreements			Institutions, tools, and anti-cartel enforcement instruments to tackle facilitating factors.			
	Stability Condition	Participation Condition	Coordination Condition	Country Type I: Highly developed anticartel institutions combined with numerous facilitating factors	Country Type II: Less developed anticartel institutions combined with numerous facilitating factors	Country Type III: Less developed anticartel institutions combined with few facilitating factors	Country Type IV: Less developed anticartel institutions combined with numerous facilitating factors
Small number of firms (e.g., due to the high prevalence of monopoly/duopoly structures)	X		X	Strengthen advocacy tools	Promote private sector participation		Pass a competition law consistent with international best practices
Regular, frequent public procurement transactions and opaque procedures	X		X	Strengthen coordination between the competition authority and public procurement agencies and mainstream competition principles into the procurement process	Implement safeguards against collusion and corruption in the procurement process; eliminate exemptions for SOEs from standard procurement requirements		Designate or establish a dedicated competition authority tasked with enforcing anticartel laws and policies
High barriers to market entry and/or import restrictions		X		Include competition provisions in trade agreements and foster interagency coordination to enhance surveillance and share information on potential anticompetitive practices	Promote private-sector participation and foster a pro-competition approach to regulation to attract private investment, including foreign investment	Strengthen advocacy tools to address restrictive regulations	Build institutional capacity to enforce anticartel laws and policies and allocate adequate organizational resources to enforcement agencies
Restrictive product-market regulations (e.g., price controls)		X		Strengthen advocacy tools to address restrictive regulations, including at the subnational level	Strengthen advocacy tools to tackle restrictive regulations, mainstream competitive neutrality principles (e.g., promote the separation of SOEs from regulatory functions)		Strengthen networks with regional peer countries to share experiences and disseminate best practices
Frequent cross-ownership arrangements (e.g., vertical integration)	X		X	Tighten merger control to prevent anticompetitive coordination	Improve monitoring and coordination with other agencies	Build merger-control capabilities	
Presence of information-exchange mechanisms (e.g., price lists) and/or trade associations to facilitate information-sharing			X	Curb self-regulation, proactively engage with trade associations (e.g., on information exchange), limit the use of price lists or price announcements.			

Source: Authors' elaboration based on (Harrington, 2015)

Effective strategies to address the factors that facilitate cartelization will be unique to each country and the new taxonomy helps to identify priority areas. While Figure 10 discusses general approaches to undermining the stability, participation, and coordination conditions necessary for cartel formation, Table 3 discusses specific priorities for the country groups identified in Figure 11. Given that institutions are unique to countries and some countries feature many markets with facilitating factors, a new taxonomy is proposed to distinguish among group of countries and policy options in each case. Some countries may exhibit certain overlapping conditions within the taxonomy, and countries may move quickly along either of the figure's dimensions during reform periods or policy reversals. For example, Ecuador and Costa Rica could rapidly move towards the Type I country group (stronger anticartel tools and institutions and fewer facilitating factors) by maintaining their current reform trajectory. While reducing all barriers to market entry can create a less enabling environment for cartels, many countries in the Type II group (stronger anticartel tools but many facilitating factors) could achieve faster progress by focusing on basic trade openness and the removal of import tariffs and quotas, while many Type I countries could promote deeper trade integration by addressing nontariff barriers and behind-the-border obstacles to the entry of foreign firms.

Box 7. Pro-Competition Provisions and Enforcement Mechanisms in Preferential Trade Agreements

While most anticartel reforms target the domestic legal and institutional environment, trade agreements can provide a key platform to develop and foster pro-competition policies. To strengthen economic integration and ensure a level playing field, preferential trade agreements (PTAs) can be a powerful platform to foster market-based competition principles, and progressively more are adding detailed pro-competition provisions. As of 2016, 83 percent of PTAs included pro-competition provisions, and this share has increased over time. While most PTA sharply reduce or eliminate tariff barriers, key bottlenecks to trade integration may persist in national regulations, SOEs activities, or anticompetitive practices by domestic firms. PTAs have progressively focused on these obstacles to competition, and of the 238 PTAs that incorporated competition provisions in 2016, 188 included objectives related to the promotion of fair competition and the prevention of anticompetitive practices within member states.

In 2016, one of every four PTAs negotiated worldwide involved at least one LAC country, and 71 percent of these agreements included competition-related provisions. The World Bank Group's Deep Trade Agreement database revealed that 71 out of the 283 PTAs analyzed included at least one signatory from LAC. Of these, 53 PTAs included at least one pro-competition provision, with the regulation of monopolies and limits on anticompetitive behavior among SOEs the most common. The LAC trade agreements with the most comprehensive competition-related provisions were the European Union's agreements with Chile and Mexico.

Multiple PTAs encompass institutional obligations such as a competition policy and/or the setup of a competition authority. As of 2016, at least 10 LAC's PTAs explicitly required the introduction of a competition policy, notably multilateral PTAs such as CARICOM and the agreement between the European Free Trade Association and Chile. Additionally, 23 mostly bilateral trade agreements signed by LAC countries contained provisions regarding the establishment of a competition authority, including the PTAs between Japan and Peru (2012), Canada and Panama (2013), Canada and Costa Rica (2002), the United States and Chile (2004), Peru and China (2010), the United States and Peru (2009), Costa Rica and Colombia (2016), Panama and Peru (2012), Peru and Singapore (2009), and the Republic of Korea and Colombia (2016).

Additional mechanisms strengthen the enforcement of competition law by promoting coordination and information exchange between competition agencies in PTA member states. In LAC, 30 percent of PTAs contain specific provisions for enhancing coordination among competition agencies, including the establishment of notification systems for potentially anticompetitive practices. In addition, 42 percent of PTAs with a LAC signatory contain commitments to foster the exchange of information among competition agencies. Examples include the bilateral agreements between Australia and Chile, Korea and Colombia, the European Free-Trade Area and Chile, Peru and Chile, Costa Rica and Peru, and Costa Rica and Colombia, as well as the multilateral CARICOM, CAN, and MERCOSUR agreements.

Source: Martinez, Miralles, & De Aguiar (2016), Mattoo, Rocha, & Ruta (2020), Martinez, Miralles, De Aguiar, Monago, & Ringeling (2020)

Countries that already have mature anticartel tools and institutions (Type I and Type III) can scale up successful enforcement activities and expand pro-competition advocacy. Countries with sophisticated enforcement capabilities such as Colombia and Peru can further consolidate the institutional independence of their competition authorities and increase their resources to protect the gains achieved to date and scale up future investigations. Because many countries with strong anticartel institutions still feature restrictive regulations in specific markets, including at the subnational level, further progress in cartel deterrence could be achieved through pro-competitive regulatory reform and advocacy (Table 3).

In several ALBA countries and MERCOSUR member states, increasing anticartel enforcement capacity will be vital to realize the full benefits of expanded private-sector participation in the economy. In some Type II countries, such as Venezuela and Bolivia, a minimally adequate competition framework is in place, yet levels of state control and regulatory barriers to competition are far higher than those of other regional peer countries. In such markets, deregulation and liberalization will not be sufficient to ensure efficient market outcomes. A history of price controls is especially likely to facilitate collusion, and highly concentrated markets with a high degree of state intervention are prone to anticompetitive agreements. For example, many markets in Venezuela, even those in which competition would typically be viable, are often dominated by a single SOE or a few private firms, creating barriers to entry and exacerbating the risk of anticompetitive behavior. Thus, along with market liberalization, granting competition authorities the powers and autonomy to investigate and sanction hard-core cartels should be carefully considered. Type II countries would also benefit from mainstreaming competitive-neutrality principles (e.g., the separation of SOEs from regulatory functions), leveraging pro-competition regulation to attract private investment, and increasing market dynamism to weaken the stability and coordination that cartels require.

In Type I countries, sophisticated pro-competition legal and institutional frameworks need to be complemented by stronger advocacy work, whereas Type III countries that already have relatively open and contestable markets can concentrate on developing more sophisticated anticartel enforcement tools. For example, prices and service standards for regulated professions in Honduras are often determined by trade associations rather than by the market, and even without regulating prices directly, these associations can create barriers to entry that facilitate cartelization. The Honduran government has responded by embracing a comprehensive outreach strategy to inform associations of what constitutes an anticompetitive agreement. Raising awareness among market players while signaling the government's commitment to anticartel enforcement can inhibit coordination and destabilize cartels. Countries across the region have implemented structural reforms and opened their economies, often as part of a trade-integration process. Given an adequate institutional foundation for anticartel enforcement, those countries can build their capacity to deter collusion among both domestic and regional market players. For example, El Salvador's competition authority has achieved considerable success in tackling important cartels during its initial years of operation, and it already has the legal mandate to establish a leniency program. El Salvador and comparable countries can learn from Peru's successful experience with consolidating anticartel enforcement capacity (Box 8).

Box 8. A Sequenced Approach to Building Anticartel Enforcement Capacity: Evidence from Peru

Between 2013 and 2014, the Peruvian competition authority (INDECOPI) strengthened its investigative techniques for uncovering cartels. First, the competition authority trained its staff to conduct surprise inspections ("dawn raids") on the premises of alleged cartel members. INDECOPI used guidelines and checklists to systematize procedures and ensure consistent institutional practices, and it developed the capability to analyze and screen electronically stored evidence for incriminating information ("IT forensics"). The total number of dawn raids steadily increased, and the number of raids conducted outside the capital quadrupled between 2014 and 2015.

Following 2014, INDECOPI was better able to analyze materials and data collected during dawn raids and find incriminating evidence.ⁱ A regional price-fixing agreement for paper products was sanctioned in March 2017 on the

Box 8. A Sequenced Approach to Building Anticartel Enforcement Capacity: Evidence from Peru (continued)

strength of evidence that INDECOPI uncovered through dawn raids. INDECOPI also opened three investigations based on indications of potential collusive agreements found during dawn raids.ⁱⁱ

After successfully deploying enhanced investigative techniques, INDECOPI built a modern leniency program. Between October 2014 and May 2015, INDECOPI received support from the World Bank Group to design and implement measures to ensure due process and legal security for whistleblower firms and to roll out its leniency program.ⁱⁱⁱ The program debuted in September 2015, and within three months two firms had applied for leniency.

In the wake of this sequenced strategy, INDECOPI has been increasingly active in detecting and prosecuting illegal collusion. In recent years, INDECOPI has dismantled dozens of cartels, and in 2017 alone its activities saved Peruvian households an estimated US\$250 million. INDECOPI's work has been highly efficient, generating an estimated US\$124.64 in savings for every dollar that the government invested in enforcement activities. Many of the products that INDECOPI revealed to be subject to price manipulation are essential consumer goods such as pharmaceuticals, toilet paper, fuel, and transportation services, and many of the collusive agreements discovered had persisted for years (for example, the price-fixing scheme for toilet paper was ten years old). Most of these cartels were prosecuted following leniency applications, which have more than doubled in recent years (Figure 12). A rising number of prosecutions has resulted in the total value of fines imposed increasing more than six-fold in the two years following the full implementation of the leniency program.

However, INDECOPI's success in eliminating cartels may be threatened by the increased criminalization of such behavior. The international experience shows that the criminalization of anticompetitive conduct is usually limited to hard-core cartels and bid-rigging schemes, and mechanisms exist to coordinate administrative and criminal enforcement to ensure a predictable application of the competition framework. For example, the competition authority is typically empowered to determine whether criminal sanctions are sought, and to grant full or partial immunity under leniency program. However, in August 2020, the Peruvian Congress passed Law 31040, which modified the criminal code to define abuse of dominance and anticompetitive agreements as criminal offenses. This law could significantly undermine INDECOPI's ability to detect and deter cartels via the leniency program and may also disrupt wider enforcement activities against anticompetitive practices. A lack of predictability as to whether leniency agreements could shield parties against criminal liability greatly reduces incentives for collaboration, while inadequate clarity on the scope of criminalized practices and the relevant standard of proof could disrupt an enforcement framework that has enabled the successful prosecution of cartels. This new law could thus potentially bring the Peruvian program to a halt.

Figure 12. Leniency-Program Applications, 2007-2014

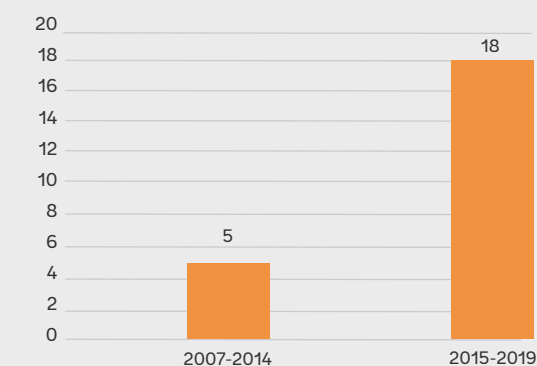
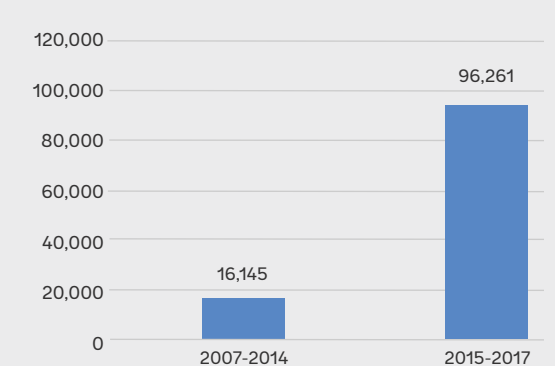


Figure 13. Fines Imposed by INDECOPI (UIT*)



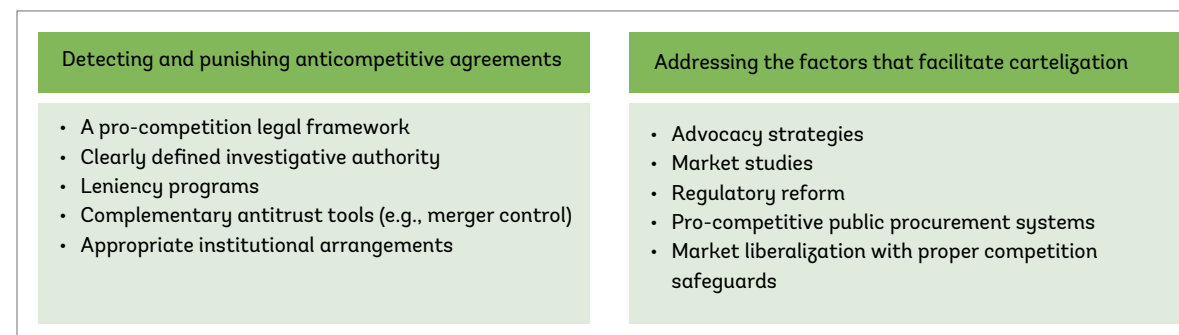
Note: Fines on the right panel are measured in Peru's Tax Unit (Unidad Impositiva Tributaria -UIT)
Source: INDECOPI⁶³ Evaluación de Desempeño de las Agencias de Competencia que participan en el Programa Compal, en Términos de Impacto en los Mercados.

⁶³ https://indecopi.gob.pe/noticias/-/asset_publisher/E4hIS8IHZWs9/content/el-indecopi-genero-un-ahorro-de-mas-de-mil-millones-de-soles-a-las-familias-peruanas-durante-el-2017-por-la-desarticulacion-de-carteles-empresariales-?inheritRedirect=false

A significant number of LAC countries are Type IV and have yet to formally outlaw cartels. In several smaller island states, as well as Haiti and Guatemala, fixing the prices of goods or services does not entail any legal consequences. In these jurisdictions, promulgating a competition law that bars price-fixing agreements among competitors at a minimum would constitute an important first step in promoting efficient markets. Such a law can designate an existing government entity as the primary enforcement institution until a dedicated competition authority is established. Allocating adequate resources and building institutional capacity are essential to ensure that the competition authority is able to effectively address the stability, participation, and coordination conditions on which cartels depend.

The international experience offers important lessons regarding each of the core elements of anticartel enforcement. For government strategies focused both on detecting cartels and on removing facilitating factors, the LAC experience provides insights into the effectiveness of alternative tools and approaches (Figure 14). The following section outlines the state of anticartel enforcement in LAC and highlights opportunities for improvement.

Figure 14. Tools for Detecting and Eliminating Cartels



Source: Authors' elaboration based on (World Bank, 2016)

How governments can strengthen anticartel enforcement and deter cartel formation

1. Developing and implementing the core anticartel enforcement toolbox

Several LAC countries exclude specific sectors from the competition law. To deter cartel formation, governments can limit the scope of such exemptions. For example, Colombia's Ministry of Agriculture can authorize certain anticompetitive agreements to "stabilize" the sector that would otherwise be prohibited. The Dominican Republic's telecommunications sector is also subject to specific exemptions from the competition law. In Jamaica, markets for real estate and financial securities are exempted from the competition law, as are the regulatory bodies for the legal profession and the stock exchange. In Nicaragua, certain state policies designed to promote public health and food security are exempted from the competition law.

An adequate legal framework for competition is a necessary first step toward effective anticartel enforcement. If firms expect that their anticompetitive agreement will not be prosecuted, they will have greater incentives to collude. In addition, scope for political interference or official discretion can give politically connected or economically important firms disproportionate incentives to collude. Governments should consider establishing cartelization as a per se violation of the law and prohibit the granting of legal exemptions. Other concerted practices can be treated on a rule-of-reason basis.

Successful anticartel enforcement requires the institutional capacity to uncover secret agreements. To prosecute cartels, competition authorities usually strive to uncover direct evidence of an agreement via emails, physical files, or recordings. When competition authorities rely solely on indirect evidence to support a hypothesis or decision, their actions are more likely to be annulled by the judiciary (Martinez Licetti, 2013). Surprise inspections at the premises of the alleged cartel member, so-called 'dawn raids', can help competition authorities gather sufficient evidence to successfully prosecute and fine cartel members. In these unannounced visits, investigative teams often find crucial pieces of "hard" evidence of cartelization (e.g., physical documents, emails). Around the world, competition authorities are increasingly investing in IT forensics, applying screening tools to digital platforms, and using advanced technologies to identify new forms of collusion (e.g., algorithmic collusion). Brazil's competition authority has developed a tool to gather digital evidence on cartels and an algorithm to identify similar features in digital documents, reducing the amount of data analyzed with forensic software. Colombia's competition authority uses digital tools and machine learning to collect online information on important goods and services. By analyzing thousands of records each day, the system can identify prices for the same product in different stores and alert the prosecution team to suspicious price movements (OECD, 2020).

In addition to launching proactive investigations, competition authorities can create programs that destabilize cartels. Leniency agreements or whistleblower protections encourage cartel members or third parties to cooperate with the authorities.⁶⁴ Leniency programs reinforce the ability of the competition authorities to deter and detect cartels by: (i) weakening incentives to form or remain within cartels, (ii) increasing the likelihood of cartel detection while making enforcement more cost-effective, (iii) allowing the prosecuting body to collect hard evidence on multiple cartel participants, and (iv) providing essential information on cartel activity and enhancing the competition authority's ability to detect cartels. Leniency programs are proving to be an effective tool in cartel detection in some countries in LAC such as Brazil, Mexico, and Colombia where this program helped to unveil at least 20% of the cases investigated and sanctioned (Figure 17).

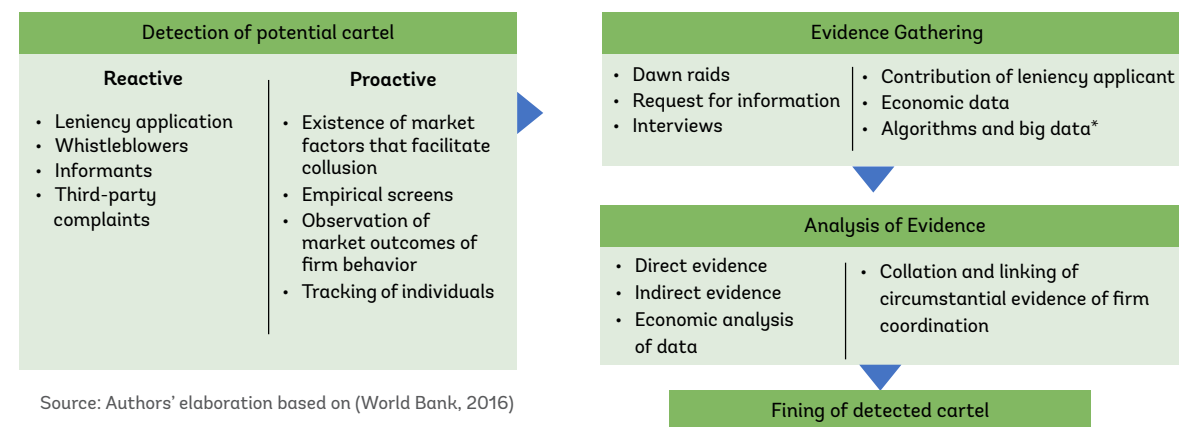
Few LAC countries can uncover secretive cartel agreements, and the pandemic has further diminished their capabilities. During the last decade, only the competition authorities in Brazil, Chile, Colombia, Mexico, and Peru had access to IT forensics, as well as the legal power to perform unannounced dawn raids and offer full-fledged leniency programs. Mexico's competition authority was granted the power to conduct unannounced dawn raids in 2011, and this capacity was critical to the success of its anticartel program (OECD, 2016). Brazil's competition authority launched a highly successful leniency program in 2008, which it expanded through interinstitutional cooperation with other government agencies and augmented with sophisticated intelligence tools and investigative techniques (OECD, 2019). Colombia's competition authority developed IT forensics capabilities in 2013, enabling it to uncover more sophisticated cartels. Reforms introduced in 2011 enhance the effectiveness of Chile's leniency program, and Peru's competition authority introduced a leniency program complemented by IT forensics capabilities between 2014 and 2015. However, the COVID-19 pandemic adversely affected these efforts, and until widespread vaccination allows for the end of social-distancing measures, regular investigative activities have been suspended, making incriminating evidence of cartels much more difficult to uncover.

⁶⁴ Settlement programs can be complementary to leniency programs and can efficiently bring investigations and sanctioning procedures to a close.

LAC competition authorities rely heavily on formal complaints of collusion or leniency applications, while proactive ex officio investigations are relatively rare. Since 1980, 47 percent of all cartel discoveries were triggered by a formal complaint or leniency application (Figure 16). Argentina, Brazil, Colombia, and Mexico relied more heavily on complaints, while Peru, Panama, Honduras, El Salvador, Ecuador, and Costa Rica pursued more proactive with ex officio investigations. Overall, LAC agencies tend to employ market screening tools and observations of market outcomes—particularly outcomes of public procurement processes—which formed the basis for at least 150 ex officio investigations during the period. Competition authorities both worldwide and in the region are adopting new digital techniques based on data analysis, machine learning, and algorithms (ICN, 2020). In some jurisdictions where cartel enforcement is at a nascent stage, evidence of cartel agreements can still be found online (e.g., in minutes of business association meetings).

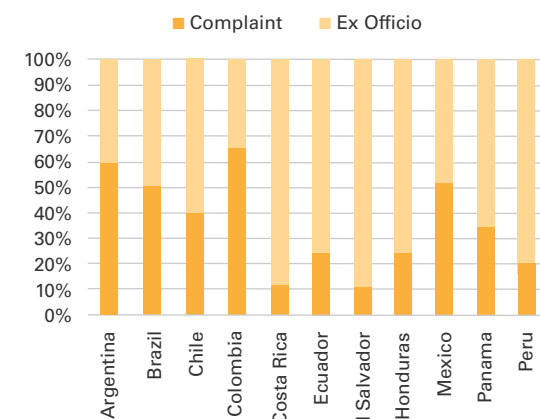
Many competition authorities in LAC face challenges to undertake sophisticated investigations, apply IT forensics or other digital tools, and undertake dawn raids. While Costa Rica’s competition authority is legally empowered to carry out dawn raids, firms cannot be fined for obstructing these investigations and have no incentive to cooperate with them. The agency also lacks the IT equipment necessary to process evidence. Due to capacity limitations and weaknesses in the legal framework, the competition authorities in Costa Rica, Paraguay, and Honduras have not yet carried out any dawn raids. El Salvador’s authority has prosecuted only one cartel based on evidence collected in a dawn raid; the legality of the search warrant authorizing the raid was challenged before the Supreme Court, which ultimately upheld the agency’s original decision eight years later.

Figure 15. Key Elements of Cartel Investigations



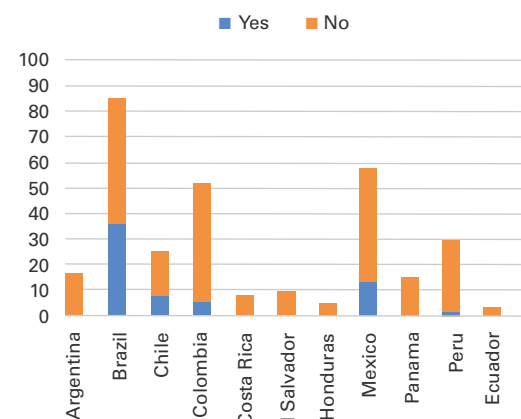
Source: Authors' elaboration based on (World Bank, 2016)

Figure 16. Share of Anticartel Cases by Investigation Type, 1980-2020



Source: Authors' elaboration based on WBG LAC cartels database

Figure 17. Number of Cartels Prosecuted through Leniency Programs, 1980-2020

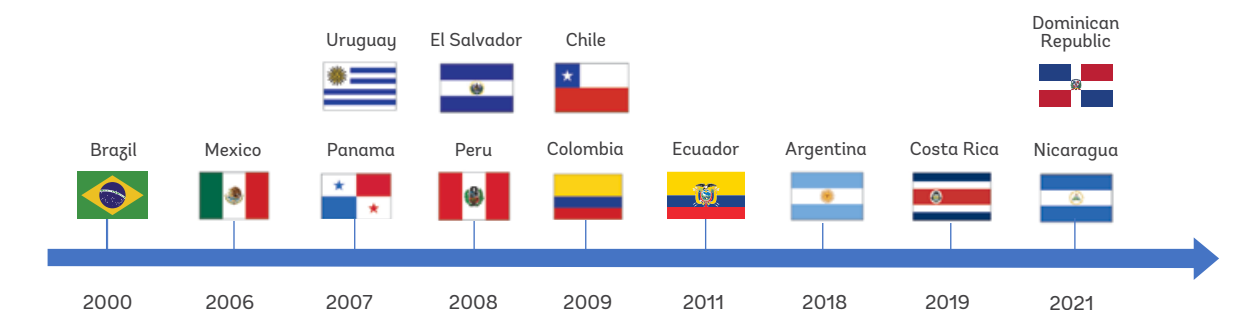


The development of investigative tools should be proportionate to the resources and capabilities of the competition authority, as well as the relative sophistication of cartel activity in the country. Developing and deploying investigative tools is costly, and applying new tools without adequate procedural fairness and confidentiality standards can weaken the business and investment climate. Future investigations may be placed at risk when a dawn raid causes undue harm to companies or individual employees. Procedural guidelines and checklists can help ensure the consistent, professional, and effective implementation of dawn raids. Screening tools can be useful to test a hypothesis on whether, when and amongst whom a cartel may have occurred. However, success of screens⁶⁵ (especially structural screens)⁶⁶ is mixed. Well-targeted behavioral screens and price-variance screens have been relatively more successful, in particular in auctions and public procurements. Such economic evidence is still almost always insufficient to prove an unlawful conspiracy.

Across LAC, administrative fines are too small to deter cartels. A back-of-the-envelope simulation based on the ACED database suggests that fines represented only 3 percent of the expected benefits that cartel members gained by colluding. Considering the low probability of a cartel being detected, firms face little risk that cartel activity will result in a financial loss. Fines fixed as a percentage of turnover rather than as nominal amounts, makes them a closer proxy for the harm caused by collusion.

Only four countries in the region have functioning leniency programs. While 13 LAC countries have established leniency programs in principle, only Brazil, Chile, Mexico, and Peru have sustained a steady flow of applications over several years. Colombia’s leniency program enjoyed some early success in uncovering longstanding cartels, but cooperating firms were not adequately shielded from liability, and information filed with the competition authority was used in judicial procedures against them (Marquez & Castiblanco, 2019). In Ecuador, the previous administration used information provided by a leniency applicant to file charges against the firm before a regional body, the Andean Tribunal. This approach to the leniency program threatened Ecuador’s anticartel enforcement efforts and jeopardized leniency programs elsewhere in the Andean region.⁶⁷ In 2019, Ecuador’s government strengthened confidentiality safeguards under the leniency program and introduced procedural reforms to strengthen cooperation with the party applying for leniency. El Salvador has a leniency program, but has not received an application yet. In El Salvador, leniency provisions have been embedded in the legal framework for 12 years, but these provisions allow only for partial exoneration at the discretion of the superintendent, and there is no formal procedure for submitting leniency applications (OECD-ADB, 2020).⁶⁸

Figure 18. Introduction of leniency programs in LAC countries



⁶⁵ For an overview, see Harrington (2006). For specific examples see Bajari and Ye (2003) for seal coating auctions, Baldwin Marshall, and Richard (1997) for timber auctions, Banerji and Meenakshi (2004) for wheat auctions, Porter and Zona (1999) for milk auctions, and Porter and Zona (1993) for highway construction.

⁶⁶ See Abrantes-Metz and Sokol (2012).

⁶⁷ See: Mena-Labarthe, C., Barahona, J., Marques V. & Frade, E., 2018. "The end of leniency programs in the Andean Region?". Available at: <https://www.competitionpolicyinternational.com/the-end-of-leniency-programs-in-the-andean-region/#>

⁶⁸ <https://globalcompetitionreview.com/leniency/nicaragua-enacts-central-americas-first-leniency-programme>

For mature institutions with the capacity to implement leniency programs, success will depend on cartels facing a credible threat of detection and consistent prosecution. In developing economies, the risk of detection is often small, the costs of being detected are limited to modest fines, and the credibility of leniency programs is threatened by the unpredictable use of official discretion. In these cases, competition authorities need to increase both the risk of detection and cost of prosecution while ensuring that leniency applicants are protected to the greatest extent possible. This could be done by extending the leniency benefit to subsequent cooperators on a diminishing basis and setting evidence thresholds comparatively low for first applicants. Leniency programs should also allow for verbal applications, with special measures to ensure confidentiality. Competition authorities should coordinate with prosecutors in cases where cartel members may be subject to criminal sanctions, while working to steadily increase the predictability of both criminal and administrative penalties.

2. Strengthening merger control as a complementary tool

Merger control is a complementary tool to anticartel enforcement that can address important obstacles to competition that are not covered by anticartel enforcement. In some cases, firms that cannot form or sustain a cartel agreement decide to merge, and as a consolidated entity can coordinate its actions in a manner that would be prohibited for multiple separate firms. For example, in 2016 the Peruvian Competition Authority fined five pharmacy chains involved in a price-fixing agreement, and in 2018 one of the former cartel members acquired two of the members. At the time, Peru’s merger-control regime applied only to the electricity sector, and thus the acquisition was not evaluated or cleared by the authorities.

Across LAC, M&A activity has been especially common in industries with a history of cartelization. LAC has recorded more M&A activity than the Middle East and North Africa (MENA) or East Asia and the Pacific (EAP). Mergers occurring within the same 4-digit industry classification (i.e., horizontal mergers) account for almost 40 percent of total mergers in LAC, versus about 25 percent in other regions. Of the over 8,600 M&As that took place between 2011 and 2019, 657 occurred in manufacturing subsectors such as food processing, chemicals, and industrial machinery—markets that have been shown to be particularly susceptible to cartelization (Figure 19 and Figure 20).⁶⁹

Many M&As within the same industry have involved firms in multiple LAC countries, which heightens the risk posed by multimarket contacts. In over 3,000 M&A deals, a single firm acquired three or more firms across multiple LAC countries, often in the same business line. These acquisitions may have been strategic attempts to expand the firms’ regional market share by absorbing cross-border competitors. In around 60 of these simultaneous acquisitions, the acquired companies belonged to the same regional parent company, suggesting the consolidation of pan-regional conglomerates. In almost half of the cases, the firms involved were acquiring subsidiaries of a current or potential rival operating in the same business line (Figure 21). Another third of these cross-border mergers consisted of firms from outside LAC acquiring more than one subsidiary of a competing LAC company in the same business line. These acquisitions took place primarily in business-to-business (B2B) services markets and received relatively little attention in the public discussion.

Many of these intra-industry consolidation M&As are not reviewed by any public entity, and their impact on competition is not evaluated by government regulators. Some of the countries with the highest levels of M&A activity relative to their economic size, including Nicaragua, Peru,⁷⁰ The Bahamas, Haiti, and Jamaica, do not require any official review or approval of these transactions.

⁶⁹ The M&A transactions are retrieved from Thomson & Reuters database (Refinitiv).

⁷⁰ Peru introduced economy-wide merger control through Law 31112 published on January 7th, 2021.

Figure 19. Number of Intra-Industry M&As Involving Change of Control or Gain of Full Control by 2-Digit Industry Classification

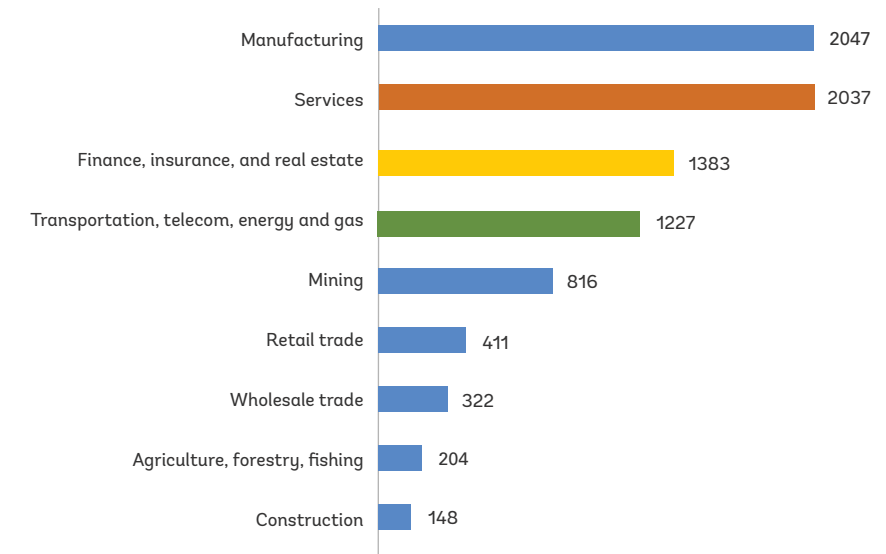
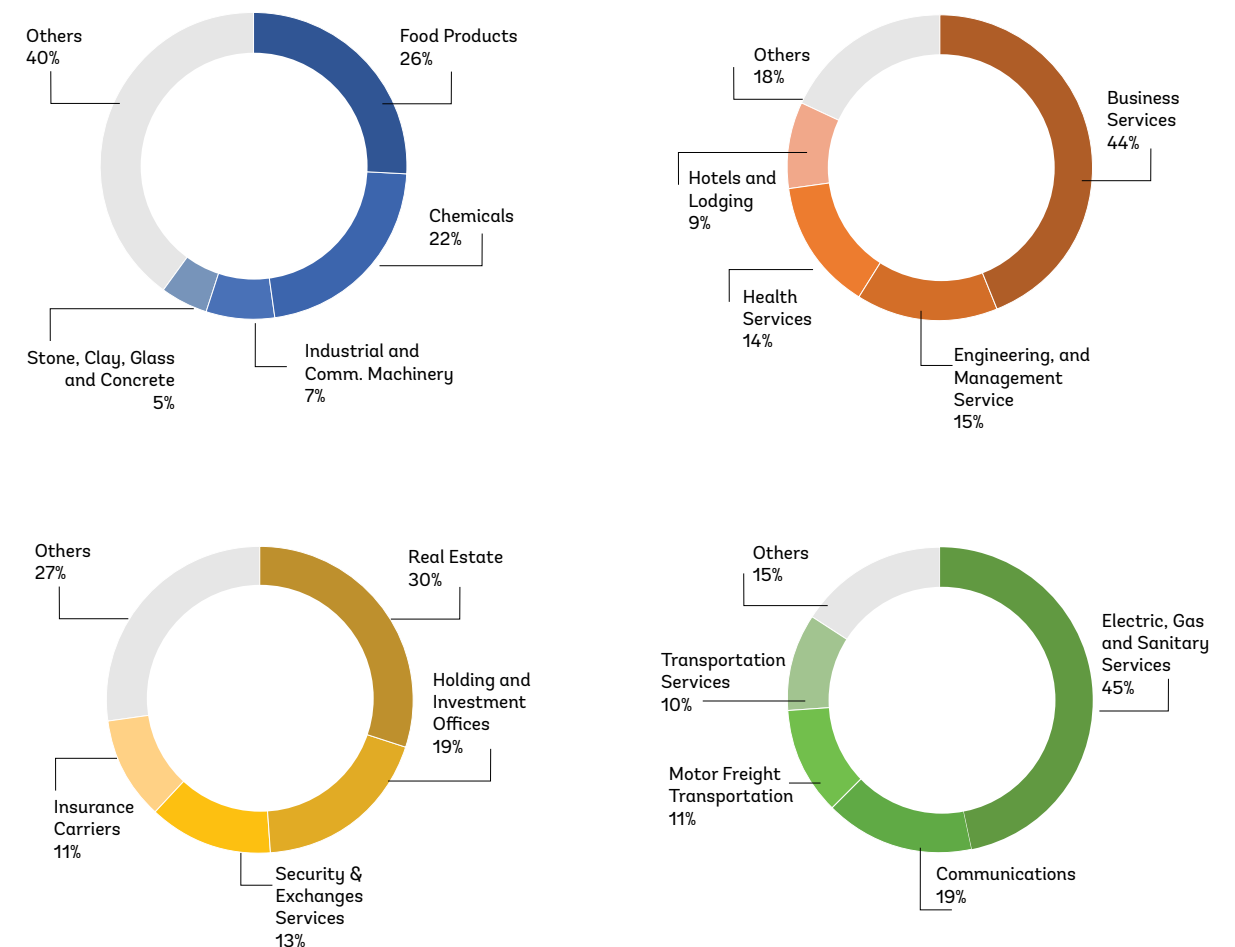
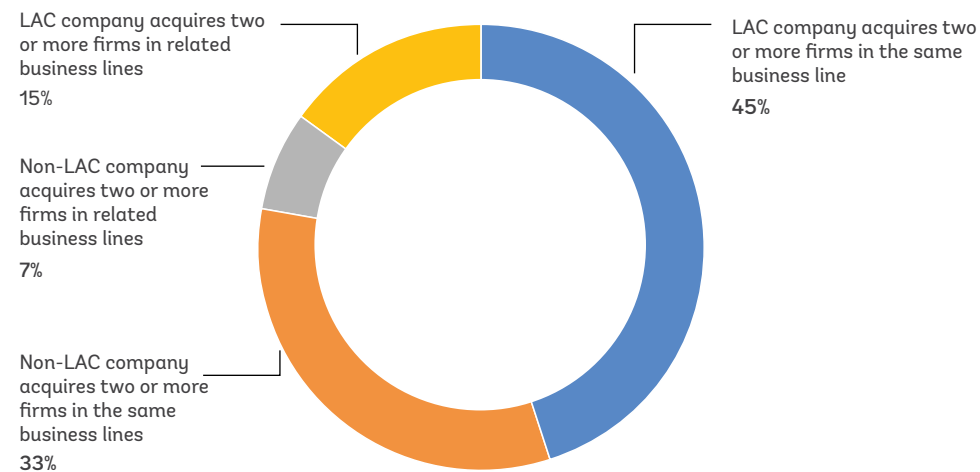


Figure 20. Decomposition of M&As in the Four Main 2-Digit Industry Classifications by 4-Digit Subcategories



Source: Authors’ elaboration from reports by Thompson Reuters

Figure 21. Cross-Border Mergers



Source: Authors' elaboration from reports by Thompson Reuters

LAC governments could pay particular attention to mergers in sectors that have a history of cartel activity in the region. An effective framework for merger control consists of four main components: (i) a clear and appropriate definition of which transactions are subject to review; (ii) well-defined and efficient review procedures; (iii) a robust technical and economic analysis framework; and (iv) adequate human capital in a context of sound institutional arrangements (World Bank, 2016). These four components enable competition agencies to prioritize the allocation of resources and focus on M&As that are most likely to have a significant economic impact. This approach would allow the relevant agencies to minimize the regulatory burden on firms while enabling efficient merger control. One option is to first establish a system without mandatory M&A notifications, as was the case in Chile prior to 2016,⁷¹ then progressively introduce notification requirements, beginning with the largest prospective transactions.

3. Developing an Institutional Framework for Anticartel Enforcement

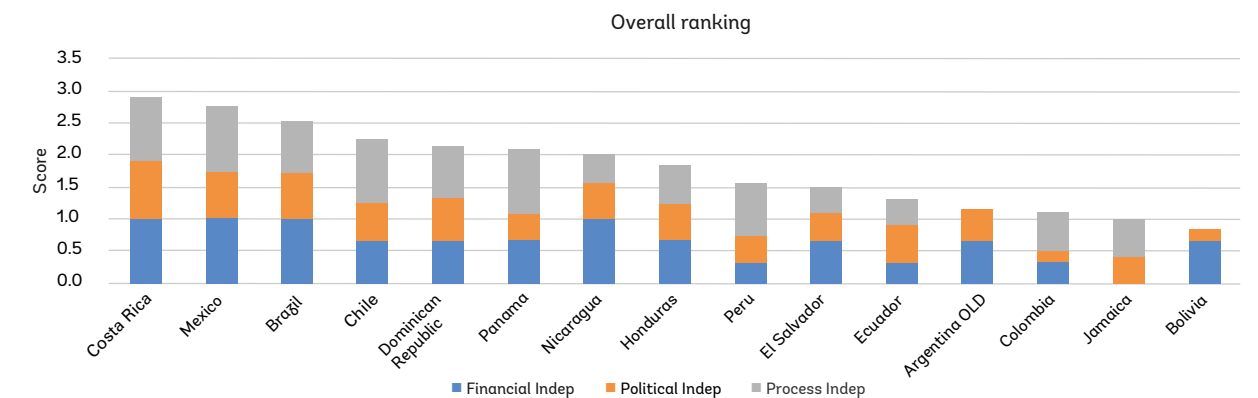
Effective anticartel enforcement requires institutions to carry out investigations and make decisions with an adequate degree of independence. First, ensuring that cartel investigations and decisions are not unduly influenced by public officials outside the competition authority requires ensuring the authority's *political independence*. Similarly, to prevent discretionary political protection from prosecution to certain firms, it is key that the process for appointing and removing the staff of competition authorities be insulated from political interference. While officials must remain accountable, the legitimacy and impartiality of their operations requires that they have the autonomy to act without political considerations, which also provides a heightened legitimacy to decisions issued by the agencies (e.g., perceptions that decisions are not arbitrary, and thus parties should be obliged to comply with them). Because effective anticartel enforcement can be undermined by conflicts of interest between officials and private-sector participants, mandating that decisions be made by collegiate bodies rather than by the individual heads of institutions may provide a better safeguard against undue influence. Second, *procedural independence* requires checks and balances to guarantee the fairness of the investigative and decision-making processes. This fairness is particularly important to attract leniency applicants. Third, *financial independence* requires that the budget of the competition authority be shielded from arbitrary interference by the executive branch to prevent defunding the unit that investigates cartels and minimize the power to influence its decisions.

⁷¹ Article 18.2 of Decree No. 211, before the modifications introduced by the Law to Improve the System for the Defense of Competition enacted in 2016.

Costa Rica has especially robust legal and institutional arrangements for ensuring the independence of the competition authority. Since 1995, Costa Rica's competition authority (COPROCOM) has prosecuted anticompetitive conduct and regulated excessive market concentration through its competition law (Law 7472). A subsequent law, which entered into force in 2019 (Law 9736), established new guarantees of institutional independence for COPROCOM. The law explicitly indicated that COPROCOM has administrative, functional, and budgetary independence, and reformed its governance system to include new procedures for appointing and removing high officials. The law also introduced: (i) a self-financing system for COPROCOM; (ii) a merit-based, two-stage process for appointing COPROCOM board members that involves both the legislative and executive branches; (iii) fixed criteria for removing board members; and (iv) a cooling-off period for former board members. Though structurally independent, COPROCOM remains under the purview of the Ministry of Economy, Industry, and Commerce.

In LAC, periods of success of competition authorities prosecuting cartels are at risk of ending abruptly due to a decreasing level of independence. An assessment of the relative political, procedural, and financial independence of competition authorities in LAC provides an overview of the relative independence without making any judgement as to the legal validity of their decisions (Figure 22).⁷² Despite periods of successful cartel enforcement in Argentina, El Salvador, and Peru, the independence of the agencies that initiate cartel investigations (the "prosecutorial units") and those that decide cases (the "adjudicatory units") shows opportunities for improvement, particularly with regard to how the public perceives the legitimacy of their decisions. In Peru, the Technical Secretary that leads the prosecutorial unit and the commission that leads the adjudicatory unit are politically appointed via the managerial board of the competition authority and ultimately, by the President of the Cabinet and the Ministries of Economy, Commerce, and Production. In Mexico, by contrast, the competition authority has been granted constitutional autonomy, and bodies outside the executive branch participate in appointing board members. Likewise, in Brazil, board members are appointed by the President of the Republic and approved by the Senate.⁷³ In Argentina, the authority in charge of implementing the competition law is a ministerial unit, while decisions on cartel sanctions are reviewed and signed by officials in the Ministry of Production, which is separate from the competition authority. In El Salvador, the Superintendent in charge of prosecution is also a board member of the adjudicatory board. In Chile, the competition authority is structured under a bifurcated judicial model: the National Economic

Figure 22. Institutional and Legal Arrangements for Anticartel Enforcement in LAC



Note: Financial independence reflects the allocation of the budget and self-financing sources; political independence encompasses ministerial oversight, the nomination/appointment process, and the rules against conflict of interest, inter alia; procedural independence covers the separation of powers between prosecutorial actions and first-instance decisions. This graph shows Argentina's institutional framework prior to the 2018 reform, as this reform was not implemented and is in the process of being reverted. In all other countries, the information reflects the latest legal framework, including Costa Rica's 2019 reform. The Y-axis shows a score of 0-1 for each of the three components, with the maximum score of 3 indicating the best performer in terms of financial, political, and process independence.

Source: Authors' calculations based on an analysis of the relevant regulatory frameworks.

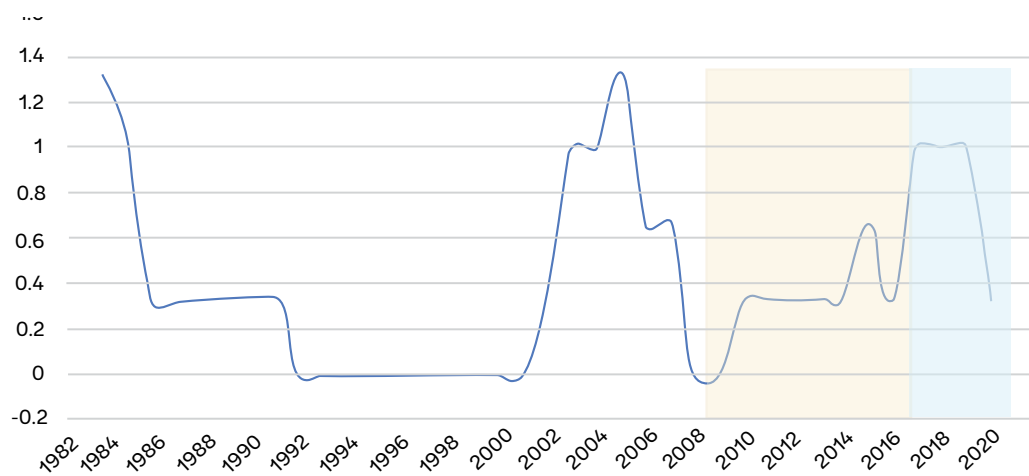
⁷² Note that the assessment of the level of independence for each agency under the criteria defined in this report is separate from the purely legal considerations applicable in each country on whether decisions made by the agencies comply with due process guarantees and standards, as well as criteria under which the validity of a given decision can be challenged.

⁷³ In Mexico, board members are selected by a committee composed of the head of the Central Bank and the Statistics Institute, after which the candidate chosen by the President is sent to the Senate for ratification through a qualified majority.

Prosecutor (*Fiscalía Nacional Económica*, FNE), which exercises investigative and prosecutorial functions, is part of the executive branch, while the Tribunal of the Defense of Free Competition (*Tribunal de Defensa de la Libre Competencia*, TDLC) is a specialized court tasked with adjudication under the oversight of the Supreme Court (Box 11). There have been notable differences in the number of cartels detected in Argentina and Peru during different legislatures (Figure 23 and Figure 24).

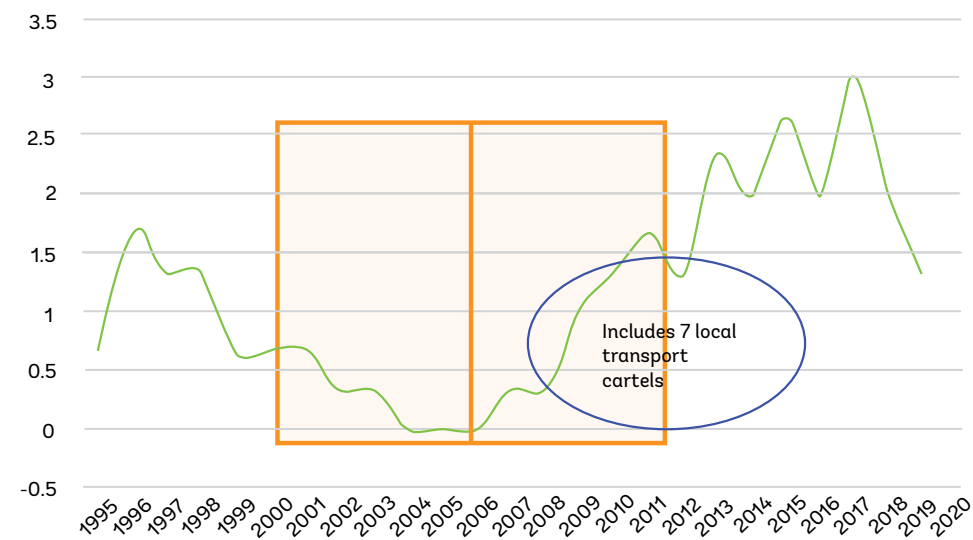
An improved degree of independence of the competition authority is a necessary but not sufficient condition for success in tackling cartels. Competition authorities in the Dominican Republic, Nicaragua, and Honduras feature important elements of financial, political, and procedural independence. Their prosecutorial and adjudicating bodies are functionally separate, and each has a collegiate body that renders verdicts on cartel cases. Panama has a fully bifurcated adjudicatory model in which the competition authority prosecutes suspected anticompetitive behavior before specialized civil courts. However, these countries have a relatively

Figure 23. Argentina: Three-Year Moving Average of the Number of Cartels Detected, 1982-2020



Source: Authors' calculations based on the WBG ACED
Note: The X-axis shows year of decision; shaded areas represent different government periods

Figure 24. Peru: 3-Year Moving Average of the Number of Cartels Detected, 1995-2020



Source: Authors' calculations based on the WBG ACED
Note: The X-axis shows the year of the decision

weak record of anticartel enforcement by regional standards. While the Dominican Republic's competition law was passed in 2008, it did not enter into force until 2017, when the Executive Director of the competition authority (*ProCompetencia*) was appointed.⁷⁴ Established in 2007, the competition authorities of Honduras and Nicaragua have thus far prosecuted fewer than five cartels. Some evidence suggests that LAC countries have not necessarily moved towards more independence. For example, in Bolivia a reform implemented in 2009 represented a set-back for the country's competition institutional framework (Box 12).

LAC agencies that have developed strong anti-cartel enforcement records can protect these gains over time by strengthening the institutional independence of their competition authorities. Actions that strengthen political independence include: (i) expanding the process for appointing the competition authority's leadership to include institutions outside the executive branch; (ii) adopting merit-based appointment procedures; and (iii) establishing two-stage appointment processes with independent bodies. Fixed mandates help ensure that officials cannot be removed discretionally or pressured with the threat of removal, while a collegiate body

Box 11. Institutional Models for Unbundling Competition Enforcement Functions

While competition-related laws and institutions vary widely between countries, there are two common basic models of competition law enforcement. In the *prosecutorial model*, the competition authority prosecutes cases before a separate adjudicatory body, which is typically either a general or specialized court. In this model, the prosecutorial and adjudicatory functions are unbundled. In the *administrative model*, the competition authority investigates, prosecutes, and adjudicates all cases itself. This model consolidates the prosecutorial and adjudicatory functions within a single agency. In LAC, countries that use the prosecutorial model include Chile and Panama, while countries that use the administrative model include Colombia and Peru (Figure 25).

Even within the administrative model, a degree of unbundling can be achieved within the competition authority by tasking different units with prosecutorial and adjudicatory responsibilities (e.g., Mexico). This separation of mandates can help assuage concerns over the legitimacy of the authority's decisions. The degree of separation between investigation and adjudication differs across countries. In some cases, investigations and prosecutions are performed by a dedicated unit, while the administrative board of the institution renders the decision. In other cases, different units are tasked with addressing separate aspects of the same case.

Unbundling the prosecutorial and adjudicatory functions can help minimize errors, strengthen incentives to disclose information, enhance the perception of impartiality and legitimacy, and reduce the risk of confirmation bias. However, unbundling may also increase costs, create administrative redundancy, or weaken the quality of investigations (Jenny, 2016).

Source: Authors' elaboration based on Jenny (2016)

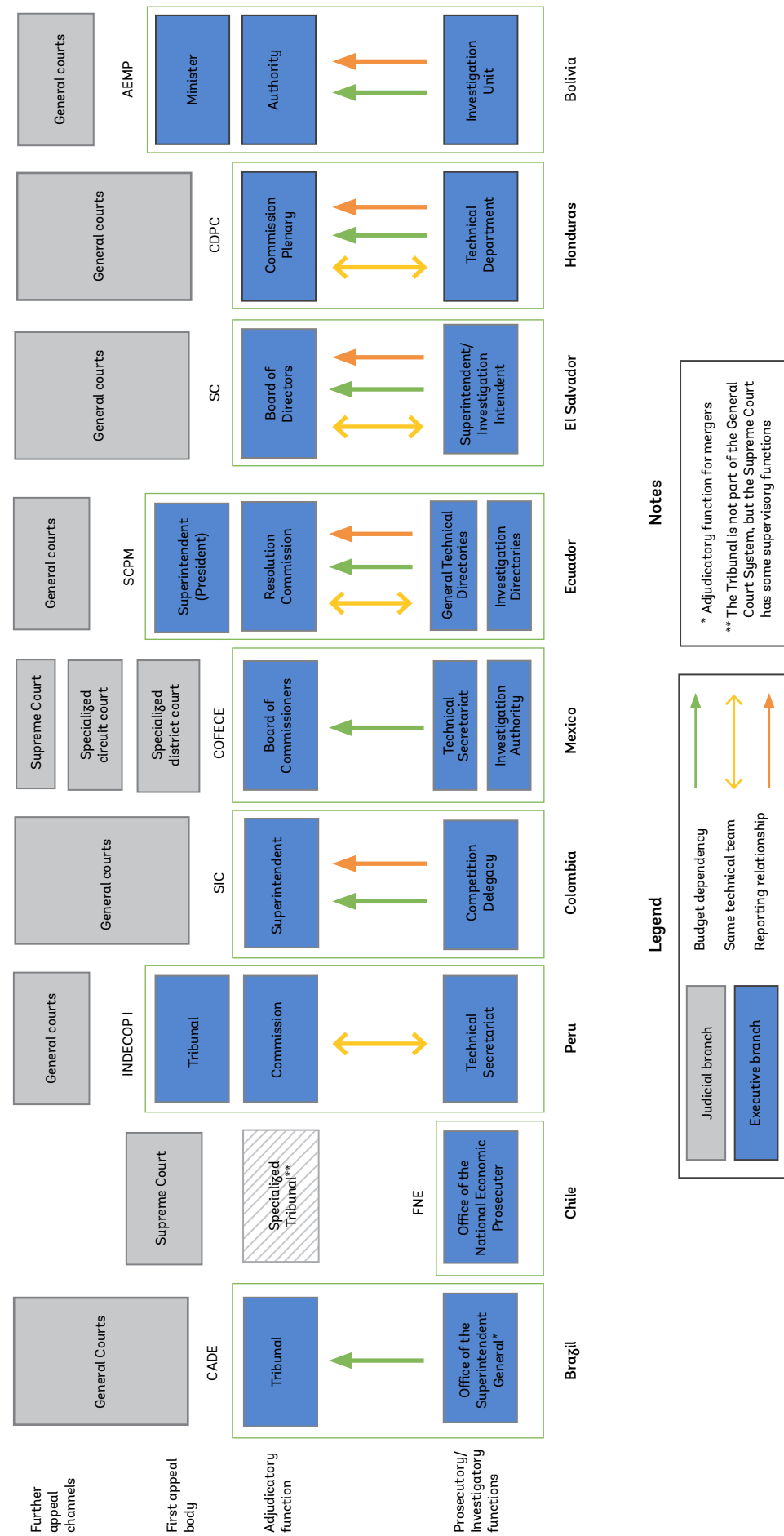
Box 12. The Declining Independence of the Competition Authority in Bolivia

LAC countries have not always progressed consistently towards greater independence for their competition authorities. In Bolivia, the legal frameworks of 1994 (Law 1600) and 2002 (Law 2427) entrusted the enforcement of competition-related provisions to independent government agencies (*Superintendencias Sectoriales*) for each regulated sector, as well as a single agency for non-regulated sectors (*Superintendencia de Empresas*). All decisions by these agencies were reviewed by a separate independent authority. However, a 2009 reform (Decree 0071) weakened this institutional framework, and the *Superintendencias Sectoriales* are now directly supervised by a ministry, which is typically the same one that governs the incumbent SOE in the sector. Meanwhile, non-regulated sectors are now under the oversight of the Business Audit Authority (*Autoridad de Fiscalización de Empresas*) which is hierarchically dependent on the Ministry of Productive Development and the Plural Economy.

Source: Government of Bolivia Supreme Decree 0071, Law 2427 of 2002 and Law 685 of 2015

⁷⁴ Decree No. 5-17 dated as of January 6th, 2017

Figure 25. Overview of Prosecutorial and Adjudicatory Roles in Selected LAC Countries



Source: Authors' elaboration based on analysis of regulatory framework and institutional settings.

with staggered members can further dilute any remaining political influence. Conflict-of-interest rules and cooling-off periods can limit the ability of private-sector players to unduly influence public officials. Enabling the competition authority to request budget allocations directly from the legislature and/or to self-finance through merger-notification fees or other revenue streams can strengthen their financial independence; however, self-financing through fines can create perverse incentives and may bias sanctioning decisions. To ensure procedural independence adjudicatory units should not have authority over the budget or team composition of prosecutorial units, and the two units should have separate technical teams. Finally, both the prosecutorial and adjudicatory units should be shielded from interference by executive officials outside the agency.

How governments can address factors that facilitate cartelization

1. Developing effective advocacy strategies tailored to the local legal and economic context

Advocacy activity by competition authorities can raise awareness among policymakers of their effect on cartel formation and inform private-sector players on compliance with competition law. Advocacy can help avoid or amend policies, regulations, or government actions that facilitate cartel agreements. Competition authorities can provide recommendations on establishing the conditions for competitive procurement systems, public-private partnerships, and privatization processes. Advocacy can aim to change the behavior of firms and promote compliance by clarifying the types of behaviors that do and do not comport with competition law. However, the effectiveness of such outreach efforts hinges on a credible threat of cartel detection and prosecution.

Following successful advocacy efforts, some LAC countries have adopted powerful tools to address restrictions that facilitate cartel formation.⁷⁵ Between 2013 and 2019, the annual WBG-ICN Competition Advocacy Contest recognized eight competition authorities in Latin American that were responsible for a combined 20 out of 84 successful advocacy initiatives.⁷⁶ This reflects the progress of competition authorities across the region in changing the way that governments intervene in markets. Countries such as Mexico, Peru, and Colombia have used their available policy and institutional instruments to significantly enhance competition in key markets. For example, under its broader mandate to advise on tender design and procurement processes, the Mexican Competition Authority partnered with the Institute of Social Security to tackle bid-rigging, which saved consumers an estimated US\$4.5 billion between 2006 and 2011. In Peru, the competition authority has a unique mandate to eliminate government-imposed obstacles to market access, and during 2018-19 alone the authority eliminated over 12,000 bureaucratic barriers.⁷⁷ In Colombia, the competition authority advised the telecom regulator on designing competitive spectrum auctions and enabled two new operators to enter the bidding process, saving consumers US\$56 million in mobile internet charges. Competition authorities in Mexico and Peru expanded their explicit legal mandates following their advocacy efforts. In 2014, reforms in Mexico granted the competition authority express constitutional autonomy and reinforced its extensive powers to issue *ex officio* opinions on policies, regulations, and legislation and to support market analysis. The authority now issues over 100 opinions each year on proposed regulations, tenders, government permits, and concessions. In many cases, successful results have been achieved not by broadening the mandate of the competition authority but by strategically combining its available tools.

⁷⁵ Martínez Licetti, M., Villarán, L., Goodwin, T., "Trends and developments in competition advocacy in Latin America (Chapter 6) in, *da Silveira, P.B. ed., 2017. Competition Law and Policy in Latin America: Recent Developments.*

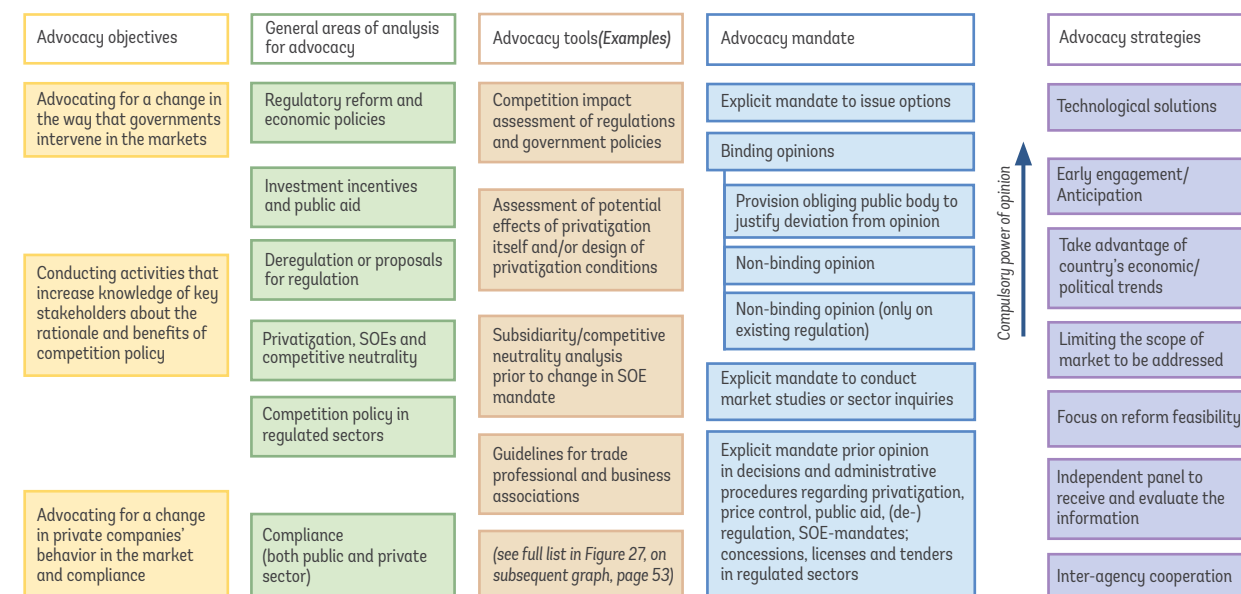
⁷⁶ Argentina, Brazil, Chile, Colombia, El Salvador, Honduras, Mexico, and Peru. This contest is jointly hosted by the International Competition Network (ICN) and the World Bank Group (WBG) and has so far received close to one hundred submissions from competition authorities in developing and since 2014 also advanced economies.

⁷⁷ <https://andina.pe/agencia/noticia-indecopi-logro-70-entidades-publicas-eliminadas-6147-barreras-burocraticas-783165.aspx>

Several countries with records of successful anticartel enforcement have been able to further deter cartels and promote compliance through advocacy. For example, after a series of Chilean business associations were proven to have directly or indirectly abetted cartelization in markets for local transportation, healthcare, and other essential goods and services, Chile's competition authority issued guidelines on how business associations can avoid infringing the law or facilitating cartel formation. The private sector initially resisted the action, with business leaders complaining that the competition authority was overstepping its mandate. However, the issuance of the guidelines was followed by the unveiling of several more high-profile cartels involving business associations (e.g., chicken market). As public opinion rapidly turned in favor of greater anticartel enforcement, business associations eventually adopted stronger internal compliance measures. In a follow-up survey, 84 percent of antitrust practitioners indicated that they knew of clients who had changed how they exchanged information in response to the new guidelines.⁷⁸

In countries with markets that still feature many facilitating factors for cartels, effective advocacy can help lay the groundwork for broader pro-competition mandates. Advocacy efforts have been particularly relevant for anticipating anticompetitive policies, as demonstrated by Colombia's outreach efforts prior to its recent spectrum auction. Digital solutions can enhance the scope and power of advocacy efforts, such as the interactive mobile app used by El Salvador to raise public awareness of competition problems. Offering advice on critical but narrow market segments where reforms are especially feasible can increase the likelihood of incremental success, and close interagency cooperation can bolster the institutional resources of the competition authority. Advocacy and anticartel enforcement can be mutually reinforcing, as inquiries into public and private competition restrictions can enable cartel investigations, and those investigations can then clarify which facilitating factors enabled the cartel in the first place. For example, key design flaws in Mexico's social security tender process were detected during the bid-rigging investigation described above.

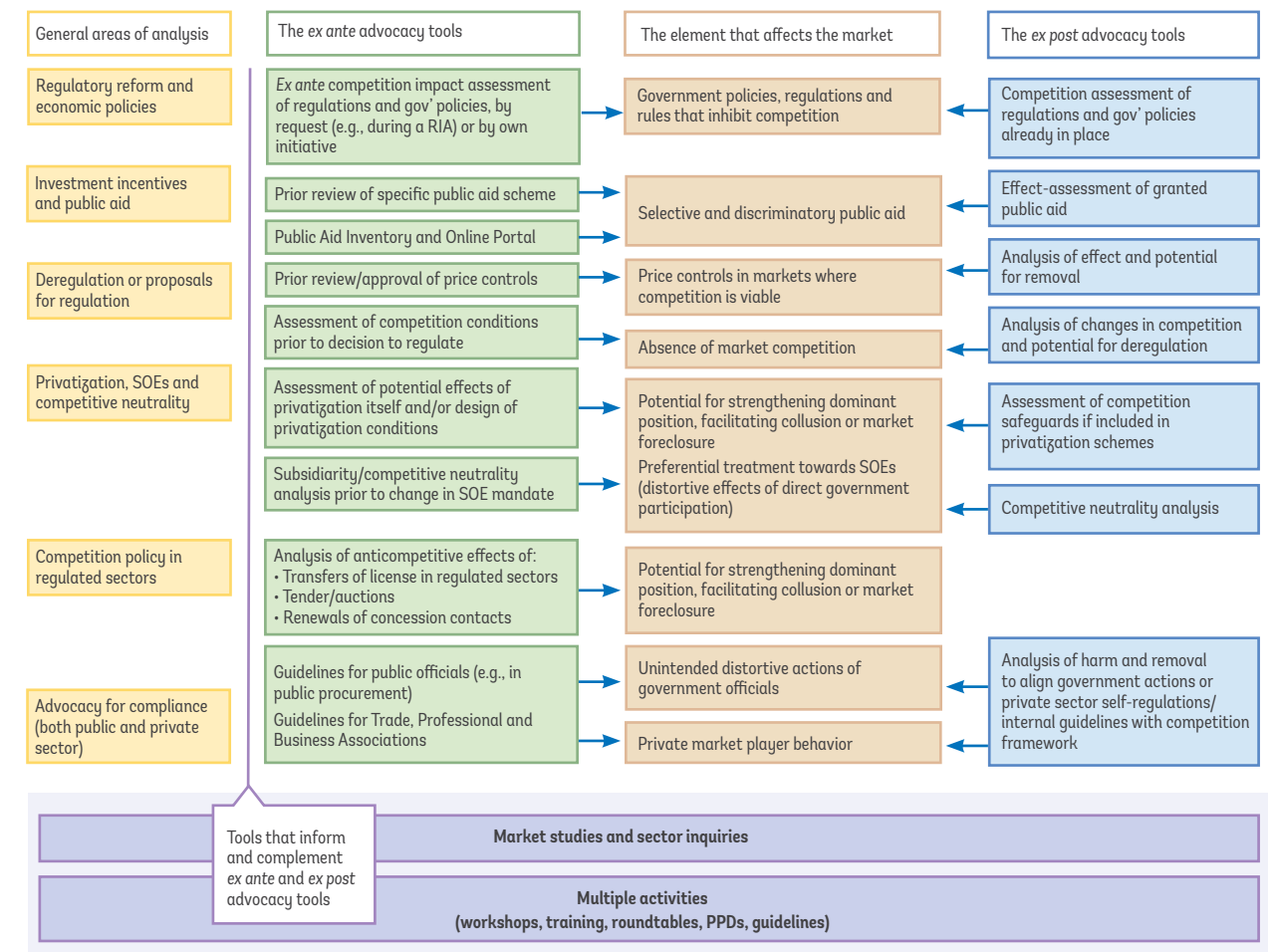
Figure 26. A Framework for Advocacy Initiatives



Source: Goodwin & Martineg Licetti (2016)

⁷⁸ <https://cdn.www.gob.pe/uploads/document/file/1814834/Conferencia%20en%20el%20d%C3%ADa%20de%20la%20competencia%20%28presentaciones%29.pdf>

Figure 27. sector participation in market studies by LAC competition authorities



Source: Goodwin & Martineg Licetti (2016)

2. Using market studies to gather intelligence and inform pro-competition policies

Market studies are a widely used advocacy tool that can promote regulatory reform and even serve to destabilize cartels. Market studies allow competition authorities to gather information on competitive dynamics, understand how markets function, and examine the behavior of key players. Market studies can inform efforts to address policies and regulations that facilitate cartels, and countries such as Colombia require agencies to explicitly justify deviations or dismissals of recommendations issued by the competition authority through market studies or advocacy initiatives. Market studies can reveal indications of potential anticompetitive behavior and justify initiating an investigation. Market studies can also alert private-sector players that the competition authority is supervising competitive conditions and thereby discourage anticompetitive practices, especially if the competition agency has a strong enforcement record.

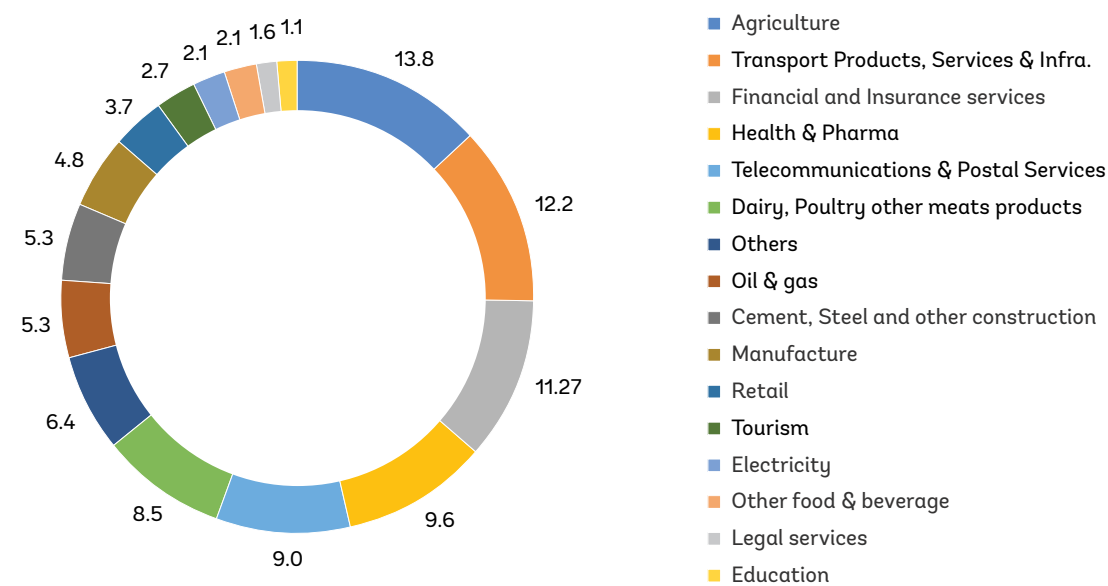
Market studies have been conducted irregularly in LAC, with multiple studies often undertaken at once as opposed to a continuous commitment to market monitoring. LAC competition authorities conducted fewer than 10 studies per year in 2010 and 2011, then published almost 40 in 2017. Honduras's competition authority conducted 15 studies within the first four years of its operation but only three over the last six years. After not producing any studies for several years, Argentina's competition authority published 11 studies following a change in leadership in 2016. In most cases, market studies tend to focus on agriculture, transportation,

financial and insurance services, and healthcare and pharmaceuticals, suggesting that authorities generally focus appropriately on markets that are prone to anticompetitive practices (Figure 28). However, in countries such as Ecuador, Brazil, and Colombia, most studies do not include explicit recommendations for enhancing competition. In Honduras and El Salvador, recommendations are made, but are seldom adopted (Figure 29).

LAC countries can make a strategic commitment to continually monitor key markets. In their early years of operation or after an important change in the economic or policy context, competition authorities have typically launched a comprehensive set of market studies to build their in-house expertise and gather intelligence on how markets function. However, competition authorities can also establish a longer-term analytical plan that includes routine market studies and regular intelligence collection. These studies can alternate between comprehensive sectoral assessments on emerging product markets (e.g., digital financial technology) and updates or follow-up analyses on priority industries and market segments (e.g., mobile payment systems). The international experience shows that carefully targeting market studies can increase the chance that they will yield actionable results. Priority sectors can be selected for analysis based on: (i) their relevance to the economy and the public welfare and (ii) the demonstrated or suspected presence of market failures and distortions.⁷⁹

Market studies will be crucial to understand how the COVID-19 pandemic altered market dynamics and its implications for cartel formation. The pandemic has prompted massive turnover in numerous markets, induced temporary and permanent shifts in consumer demand, and occasioned a range of government interventions that may have facilitated coordination among firms. Market studies can send a powerful signal that a vigilant competition authority is proactively gathering information on potential cartel activity.

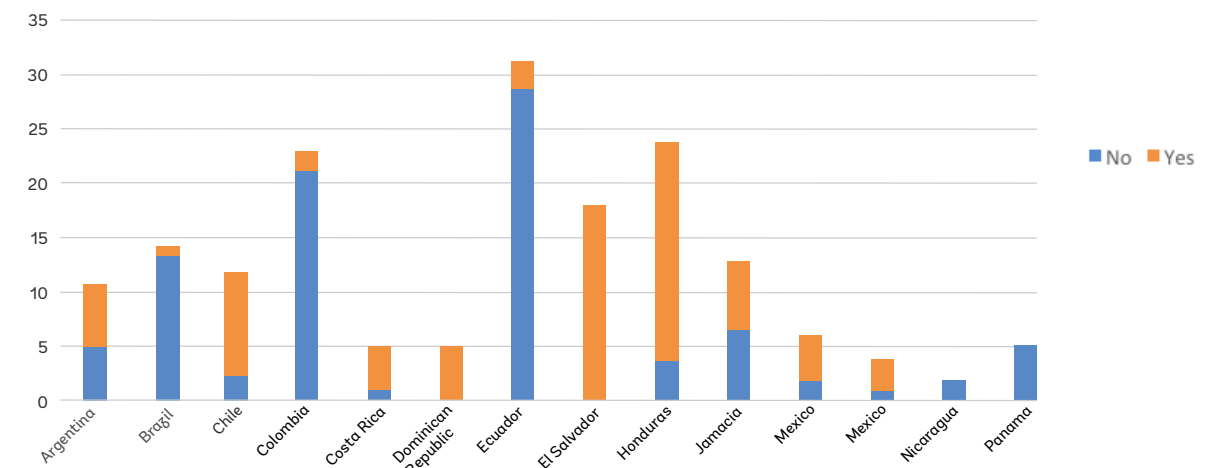
Figure 28. Sectoral Focus of Market Studies by LAC Competition Authorities



Source: Authors' elaboration based on WBG LAC market studies database

⁷⁹ For further details, see MCPAT

Figure 29. Inclusion of Explicit Advocacy Recommendations in Market Studies



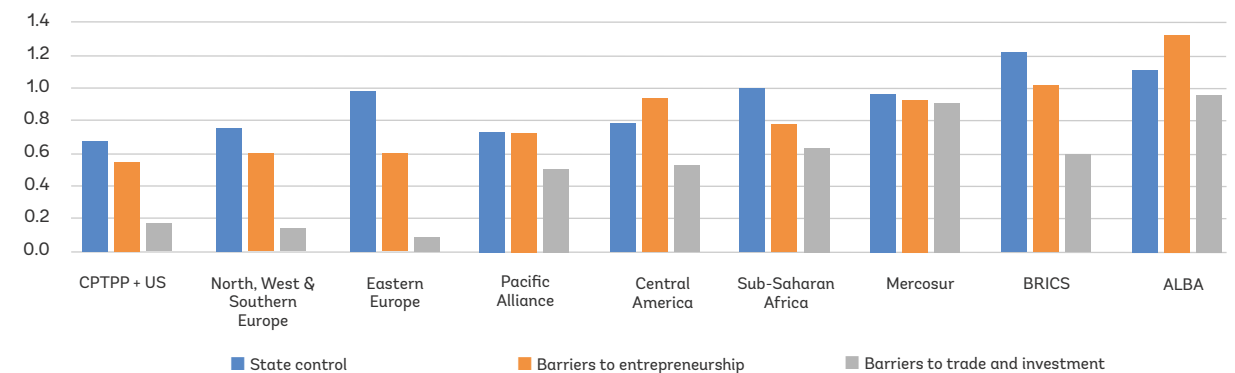
Source: Authors' elaboration based on WBG LAC market studies database (2020)

3. Promoting pro-competition regulatory reform

Informing regulatory reform and economic policies is one of the most direct ways in which competition authorities can address the conditions that facilitate cartels. Systematically integrating competition principles into regulatory governance can prevent and eliminate anti-competitive rules that encourage cartelization. Removing regulatory obstacles to competition requires a proactive approach by sectoral regulators working in close collaboration with competition authorities in the context of a national competition policy framework that effectively enables and incentivizes pro-competition reforms.

In LAC, anti-competitive product market regulation frequently contributes to cartel formation. The OECD-WB Product Market Regulation (PMR) Index captures the presence of regulatory barriers to competition (e.g., limits on licenses and permits) or the absence of features that are necessary for competition (e.g., nondiscriminatory access to essential infrastructure). Regulatory barriers vary across sub-regions within LAC: Pacific Alliance countries have some of the lowest levels of state control worldwide, even compared to OECD economies, while the ALBA economies have some of the most restrictive regulatory environments in the world, surpassed only by the BRICS group (Figure 30). Among a sample of 51 mostly high- and middle-income economies, four of the 10 countries most restrictive to competition were in the LAC region (Figure 31).

Figure 30. PMR Index Components by Country Group and Region, 2013-17⁸⁰



Source: Authors' elaboration using the OECD PMR Database and OECD-WBG PMR Database

⁸⁰ Note: ALBA (Bolivarian Alliance for the Peoples of Our America) includes Ecuador, Bolivia and Venezuela (Nicaragua is included in Central America). Northern Europe: UK, Denmark, Estonia, Finland, Ireland, Norway, Iceland, Lithuania, Sweden, Latvia; Western Europe: Netherlands, Germany, Austria, Belgium, Luxembourg, France, Switzerland; Eastern Europe: Slovak Republic, Hungary, Czech Republic, Bulgaria, Poland, Romania, Russia; Southern Europe: Italy, Portugal, Spain, Cyprus, Slovenia, Greece, Croatia, Turkey. Sub-Saharan Africa: Kenya, Rwanda, South Africa. CPTPP (Comprehensive and Progressive Agreement for Trans-Pacific Partnership), and includes Canada, New Zealand, Australia, and Japan.

Data from 2018-2020 suggest that the overall quality of product market regulation in LAC has not improved relative to the OECD average. With the notable exception of Chile, all LAC countries continue to feature regulatory environments that are less conducive to competition than those of their OECD peers. However, Mexico's sustained reform efforts between 2014 and 2018 have helped make it one of the LAC countries most open to competition.

Few LAC countries systematically incorporate competition principles into the design of new regulations. Only a few countries have embedded competition principles in all stages of the regulatory lifecycle. Mexico is one example of systematic ex ante impact assessments and ex post reviews, which it accomplished by establishing a cooperation agreement between the regulatory improvement agency and the competition authority. Colombia has introduced several best practices for competition considerations in regulatory design, and both Colombia and Peru have adopted tools to allow agencies to consider a regulation's effects on competition before it is issued (Colombia's advocacy mandate) and after it is in place (Peru's mandate to eliminate barriers to market access). However, other countries do little to integrate competition into regulatory reform.

Figure 31. PMR Scores Across Countries 2018-2020

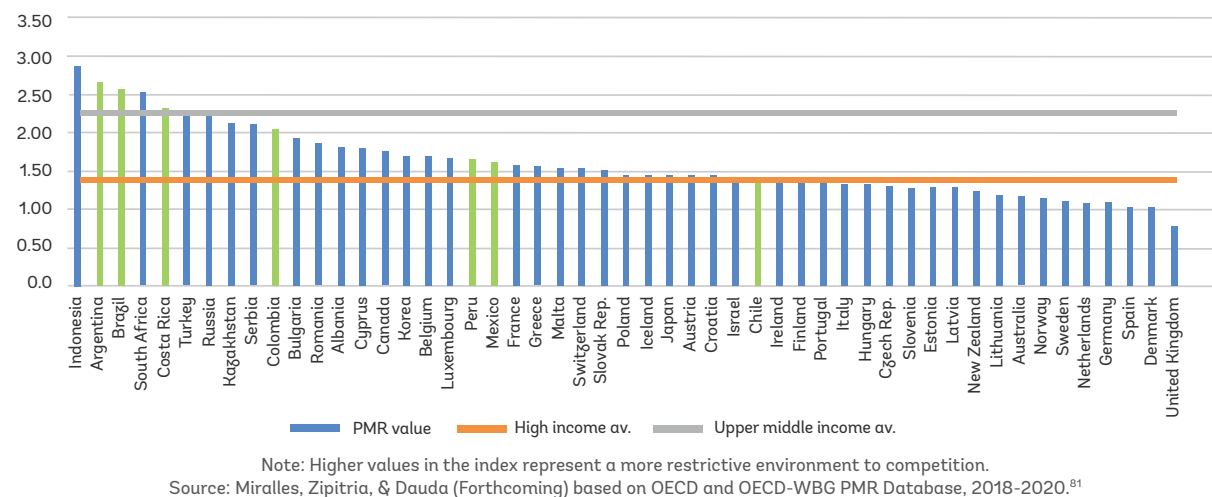
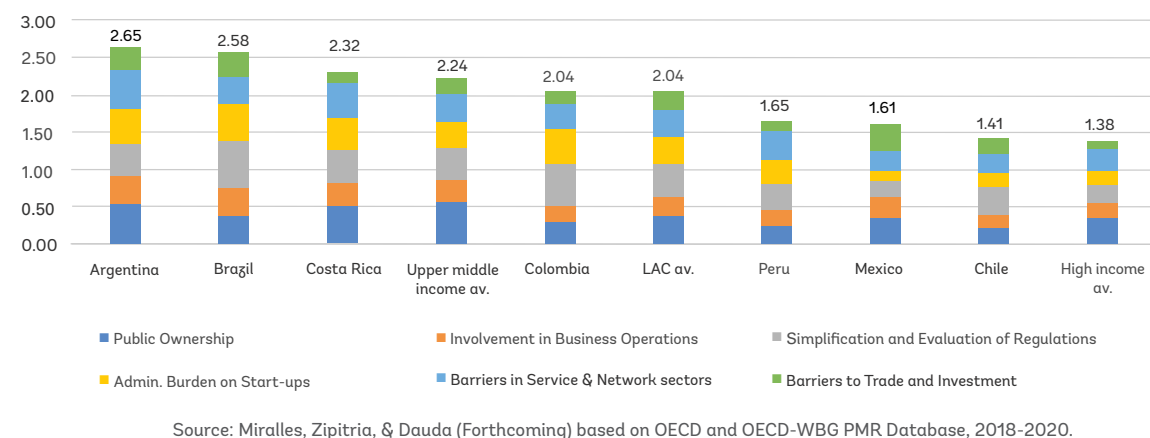


Figure 32. Decomposition of PMR Scores by Sub-Indicators, LAC Countries and Comparators



⁸¹ The high-income group includes Australia, Austria, Belgium, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, and United Kingdom. The upper-middle-income group includes Albania, Bulgaria, Indonesia, Kazakhstan, Russia, Serbia, South Africa, and Turkey. The LAC group includes Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, and Peru. At the time of the analysis, complete PMR data for the United States (high income) were not available, and though subsequent updates by the OECD now include such data, the averages for the high-income group do not include values for the United States.

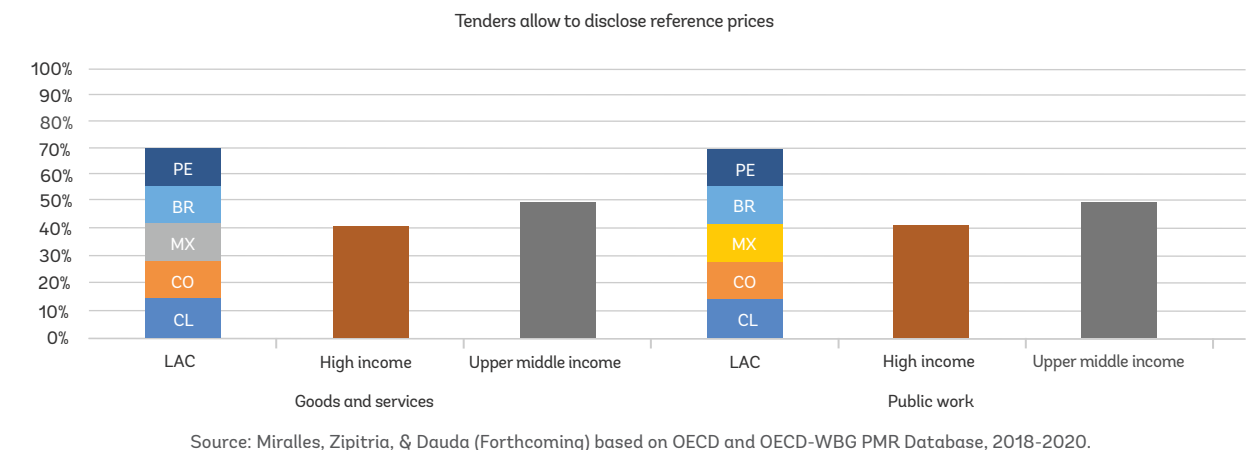
LAC governments can leverage the WBG-OECD PMR Index, the Markets and Competition Policy Assessment Tool (MCPAT), and other analytical instruments to systematically review their regulatory frameworks and identify reform opportunities. The PMR sub-index on the regulation of professional services, for example, offers entry points to address factors that may facilitate cartel agreements among professional associations. Similarly, the PMR sub-index on price controls can highlight the persistence of measures that have fallen out of widespread use, laying the foundation to address one of the most notorious facilitating factors for cartels. Tools such as the WBG MCPAT, which have already been applied to promote pro-competition reform at the subnational level in Mexico, could be leveraged to introduce a systematic assessment of regulatory barriers to competition.

4. Embedding pro-competition rules in public procurement processes⁸²

Public procurement markets are particularly susceptible to cartel agreements. Government contractors typically compete against each other repeatedly and across multiple processes for different goods and services. Their continual interaction and multi-market contact facilitate the adoption of anticompetitive strategies such as "bid rotation," in which cartel members take turns allowing one another to win by deliberately presenting less attractive offers. Members of the cartel among contractors can also share the profits of bid-rigging by having the winning firm subcontract to other cartel members. Moreover, many goods and services that the government procures are standardized (e.g., school lunches, textbooks, medical supplies, etc.), and product-homogeneity can facilitate cartelization. Finally, the government often sets requirements for firms to participate in procurement processes and these may pose natural barriers to entry.

While the design of public procurement systems in LAC often facilitates bid-rigging, some competition agencies have begun adopting good-practice principles for competitive procurement. Public procurement in LAC accounts for up to 20 percent of GDP in some countries, far above the OECD average of 13.2 percent,⁸³ yet public procurement rules in LAC frequently undermine competition. In Mexico, some goods and services can be contracted without a tender process, and most LAC countries allow the disclosure of reference prices even though they can provide a focal point for collusion. Although e-procurement can become a tool to enable entry and facilitate bidding, online systems can be further implemented across the region. For example, while Brazil has adopted some sophisticated digital tools for identifying collusion, its procurement rules do not require that tender documents be published online, and bids cannot be submitted online.

Figure 33. Share of Public Procurement Tenders Allowed to Disclose Reference Prices, LAC, and Comparator Groups



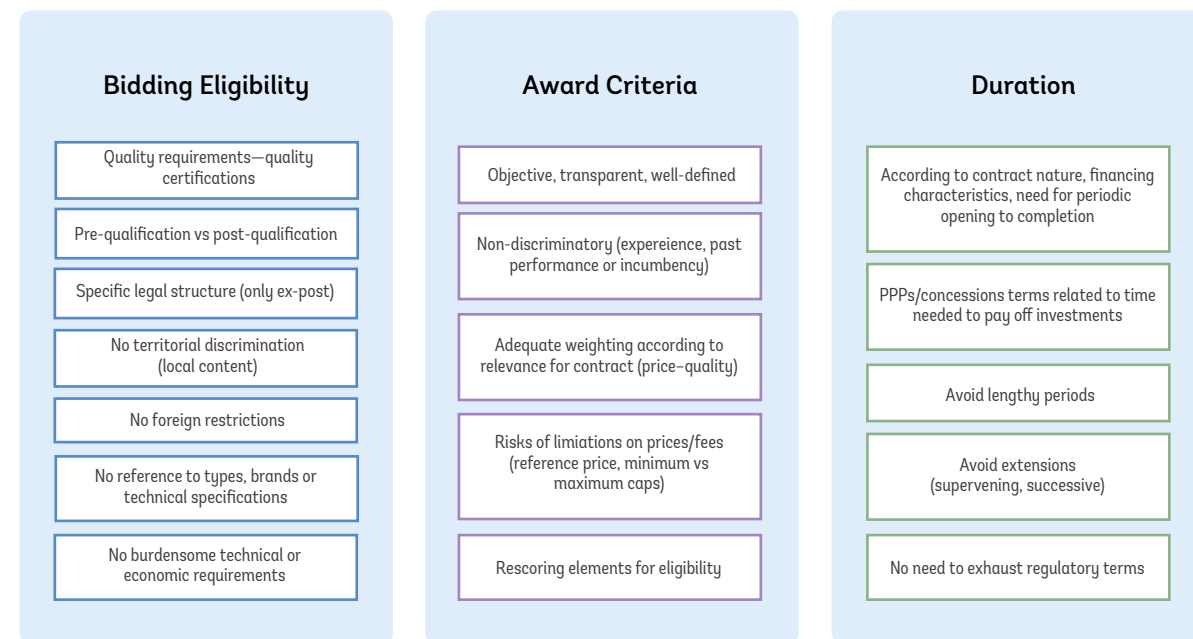
⁸² This section leverages findings of the background paper "Barriers to Competition in Product Market Regulation: New Insights on Latin American Countries" (Miralles, Zipitria, & Dauda, Forthcoming).

⁸³ This figure is for 2015. See (IDB, 2016) Spurring Innovation-led Growth in Latin America and the Caribbean through Public Procurement. Available at <https://publications.iadb.org/publications/english/document/Spurring-Innovation-led-Growth-in-Latin-America-and-the-Caribbean-through-Public-Procurement.pdf>

Several agencies have begun actively addressing bid-rigging. Competition authorities in Brazil and Colombia are using digital tools to prevent government contractors from rigging bids, and Colombia's authority is advocating for the introduction of safeguards in tender design. Colombia's competition authority has also advised policymakers on how to increase the number of participants in auctions for power-purchase agreements for renewable energy and tenders for electricity-generation projects, among other forms of procurement.⁸⁴

Governments can take action to reduce the risk of bid-rigging and bolster the ability of competition authorities to uncover and sanction such behavior. As a first step, all LAC governments can begin screening their public procurement rules for opportunities to strengthen competition (Figure 34). LAC countries with advanced anticartel enforcement tools can deploy advanced digital technologies, such as those used in Brazil and Colombia, to detect suspicious behaviors and patterns. Competition authorities can proactively investigate potential cartel behavior in the tender process and recommend measures to embed competition in tender design. For example, Mexico's competition authority can issue opinions on the design of public-private partnership proposals or bids. Competition authorities can also examine whether awarding a project to a specific bidder could result in mergers or joint ventures that may increase market concentration.

Figure 34. Embedding Competition in Public Procurement Tender Design



Source: Connecting public procurement and competition policies: the challenge of implementation, presentation (WBG Competition Policy team, 2017)

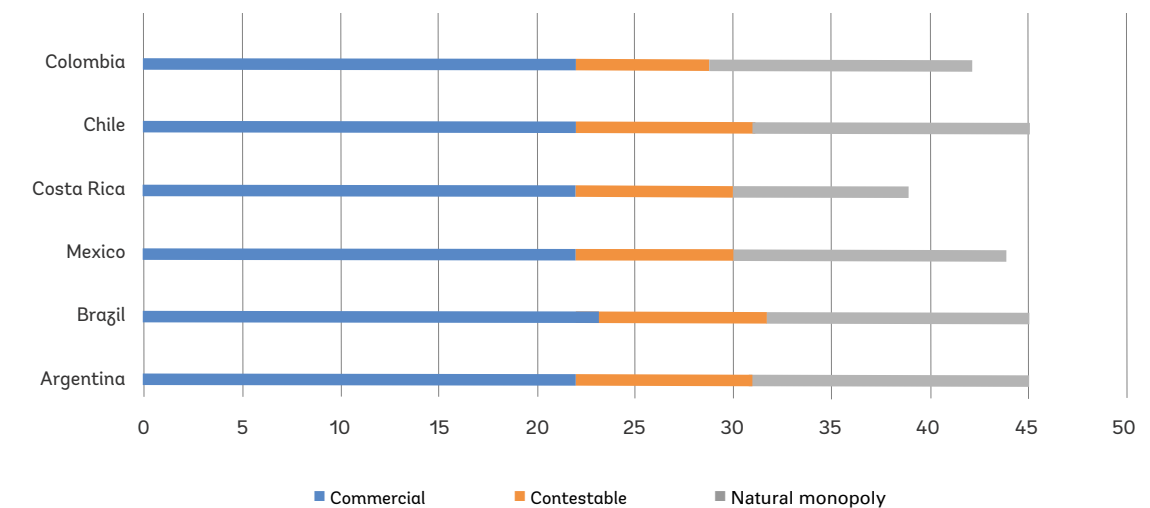
⁸⁴ The authority has also recommended utilizing competitive processes for future energy projects, introducing limits on the energy that each participant can acquire through an auction, and leveraging competition mechanisms to allocate any unsatisfied demand after the auction. OECD, 2019. "Annual Report on Competition Policy Development in Colombia 2019", pp.16-17. Available at [https://one.oecd.org/document/DAF/COMP/AR\(2020\)41/en/pdf](https://one.oecd.org/document/DAF/COMP/AR(2020)41/en/pdf)

5. Safeguarding competition during market liberalization

Fully or partially opening markets to private participation can enable collusive agreements if the liberalization process is not properly designed or regulated. The presence of SOEs does not necessarily affect the ability of competitors to collude: evidence of a link between SOEs and cartel activity is limited, and cartels may or may not include SOEs. In other world regions, SOEs have been found to be central actors in networks of cartels.⁸⁵ In LAC, SOEs have participated in cartels linked to fuel distribution, sand production and distribution, and mechanical and technical evaluation services. However, reforms that privatize SOEs without appropriate safeguards or that abruptly open state-dominated markets to private participation can create opportunities for cartelization when these programs are not coupled with an effective anticartel program. Markets with SOEs tend to be more concentrated, and SOEs are especially likely to be involved in sectors with network effects, natural monopolies, or other inherent limits on competition. However, even in sectors where competition is viable, the presence of SOEs—along with distortive policies that favor SOEs—may tend to limit the participation of private firms.

Certain markets in LAC that frequently involve SOEs may be particularly susceptible to collusive agreements. As of 2015, at least 367 national SOEs operated in LAC countries, most of them in Brazil (134), Mexico (79), Argentina (59) and Colombia (37) (OECD, 2017). Across the region, SOE revenues represent an estimated 8-15 percent of GDP (IDB, 2019). The PMR data for 2018-2020 reveal that the government controls at least one firm in 45 sectors encompassing 48 economic activities in countries such as Argentina, Brazil, and Chile (Figure 35). Moreover, most SOEs are present in commercial sectors where open competition would be viable.

Figure 35. Number of Sectors with at Least One SOE by Market Type



Note: The graph represents the number of sectors where an SOE controls at least one firm in the sector. The PMR covers in total 48 different market segments. Commercial sectors refer to competitive sectors characterized by small entry barriers; contestable sectors are characterized by moderate entry barriers, public goods, or externalities; and natural monopoly sectors are those that exhibit high entry barriers, economies of scale, or sub-additivity cost structures.

Source: Author's elaboration based on (OECD, 2020)

⁸⁵ <https://documents1.worldbank.org/curated/en/917591468185330593/pdf/103057-WP-P148373-Box394849B-PUBLIC-SAEU8-for-web-0129e.pdf>

In markets across LAC, SOEs have crowded out private competitors or reduced the number of market players, even in sectors where completion would be viable (WBG-IFC, 2021). For example, in Venezuela's cement sector, various private companies were merged into a single SOE, which benefits from massive economies of scale and can exercise significant market power. These features will bar any new market entrant from gaining significant market share in the foreseeable future, and the risk of collusion among smaller firms will remain elevated.

To prevent SOE privatization programs from unintentionally creating private monopolies or facilitating cartel formation, LAC governments can build core anticartel enforcement capacities in parallel with SOE reform. A comprehensive anticartel policy requires an institution to lead investigations and issue sanctions. However, institution-building takes considerable time, while the window of opportunity for reforming SOEs is usually brief. Privatization does not need to wait until institutions are fully established, though there may be some deterrent effect if the unit in charge of implementing competition policy has the legal power to investigate and sanction cartels.



Sources of Market Power Other Than Cartels

This report has discussed which sectors and markets are most susceptible to cartels, the damage they can cause to social and economic development objectives, and how they can be identified and eliminated or prevented from forming. Cartels are deeply harmful to consumer welfare and economic efficiency, and they have never been shown to produce any positive side effects. While measures to combat other sources of market power can risk stifling entrepreneurship and undermining efficiency, anticartel enforcement is an unalloyed good so long as the enforcement process itself is not corrupt.

However, significant market power arising from sources other than cartels can adversely affect consumers and slow economic growth. Several factors that facilitate cartels can also encourage the abuse of market power by a single firm. Regulatory barriers to entry can allow a single market player to reap excess profits through the exercise of market power rather than advantages in quality or efficiency. Public policies that tilt the economic playing field, such as state aid granted to an SOE, can undermine market outcomes. Even the absence of government interventions can entail market power. For instance, a lack of proper regulations for accessing essential infrastructure in natural monopoly segments could enable owners to abuse their dominant position and undermine the quality of service delivery.⁸⁶

Merger control and enforcement policies against abuse of dominance are antitrust tools complementary to cartel enforcement, but in many cases, they are even less developed and standardized. Several LAC countries still do not have an operational economywide merger-control system in place. While most mergers are efficiency-seeking, some are designed to obtain or expand market power. In the absence of effective controls on abuse of dominance, large firms may seek to exclude competitors, especially in smaller and structurally concentrated markets. However, antitrust enforcement entails a significant risk that competition authorities will unintentionally prevent firms from legitimately competing for a greater market share or outperforming their competitors based on quality and efficiency. Countries with less mature competition authorities may need to build their capacity for economic analysis to weigh tradeoffs between anticompetitive behaviors and potential efficiency gains. Homogenizing concepts and jurisprudence would help increase legal certainty for regionally operating companies.

More frequent and expansive updates on the status of product market regulations, including at the subnational level, could provide the foundation for a concerted and more systematic reform agenda in the region. While the joint World Bank-OECD PMR Index discussed above has already provided valuable insights into regulatory barriers in LAC, additional country-level observations and better coverage of non-OECD or OECD-accession economies in LAC—especially Caribbean countries—could offer a platform to engage competition authorities and other regulators in concerted, region-wide advocacy for pro-competitive reform. Furthermore, evidence from Mexico and Peru suggests that product market and administrative regulations at the subnational level constrain competition in key sectors.⁸⁷ Countries such as Argentina, Brazil, Chile, and Colombia could benefit from a systematic analysis of subnational regulatory restrictions to competition.

⁸⁶ The extent to which significant market power arises from sources other than cartels merits further research and policy options can be similarly tailored as those for anticartel-enforcement.

⁸⁷ (World Bank, 2018)

In LAC, policies that promote specific investments or encourage economic activity in targeted sectors are seldom scrutinized for distortive effects, but these policies have accelerated rapidly in response to the COVID-19 pandemic. Few countries in LAC have specific frameworks that public agencies must adhere to when granting state aid; competition assessments are rarely required; and the advice of competition authorities regarding state aid often goes unheeded.⁸⁸ Given the widespread use of direct support to individual firms during the COVID-19 crisis and recovery period, further analysis of the potential distortive effects of those policies, as well as mechanisms to alleviate the resulting distortions, will help establish a level competitive playing field while supporting rapid and sustainable fiscal consolidation.

The anticompetitive effects and potential distortions of market concentration and political influence require further analysis. Political connections have been shown to confer undue competitive advantages on certain firms. In Haiti, firms linked to elite families have benefited from lower customs duties.⁸⁹ In Brazil, firms that donate to winning political candidates are more likely to receive loans from the state-owned development bank.⁹⁰ More generally, the concentration of market shares and assets does not seem to be strictly related to merit-based growth. In LAC, almost half of all billionaires inherited their wealth from the extraction of natural resources, from political connections, or from financial transactions involving limited government regulation or even outright corruption. Moreover, one-third of those billionaires' total wealth is invested in non-tradable sectors such as retail, media, and telecommunications.⁹¹

Corporate ownership data on SOEs and other forms of state participation in the market—can be used to further explore potential distortions in commercial sectors. In some countries such as Bolivia and Costa Rica, SOEs are not subject to competition law to the same extent as private competitors, while in Brazil and Chile SOEs can receive financing that is not available to private firms.⁹² State involvement in commercial markets may crowd out private-sector participation or create an uneven playing field that systematically disadvantages private firms. By comprehensively mapping state participation in the market while distinguishing between natural monopolies and fully commercial sectors, a new WBG SOE Global Landscape database can shed new light on the impact of SOEs in key sectors in LAC.⁹³

Finally, there is a need to better identify and address sources of market power and other competitive distortions in rapidly evolving sectors such as finance and information technology. While technological innovation generally promotes competition, new market features can also give rise to economies of scale, network effects, infrastructure bottlenecks, winner-take-all dynamics, and new sources of significant market power. The impact of disruptive technologies in LAC countries has not been studied as thoroughly as it has in the United States and Europe, and policy solutions may vary according to the relative degree of institutional maturity and market conditions. The World Bank's new Digital Antitrust Database can allow for a more detailed analysis of competition issues arising in rapidly changing markets.

⁸⁸ State aid refers to any transfer of state resources that provides an economic advantage to certain private or state-owned firms. State aid encompasses investment incentives, tax exemptions, loan guarantees, grants, subsidies, cash transfers, access to publicly owned resources such as land, water, or electromagnetic spectrum at below-market prices, accelerated depreciation allowances, and capital injections, among others. State aid can facilitate anticompetitive behavior by protecting or creating dominant players, and it can generate market inefficiencies by discouraging investments in productivity among recipients. Ecuador's competition law establishes that the authority must evaluate state aid to determine whether it is consistent with the purpose for which it was granted; the authority can recommend measures for encouraging competition in sectors that receive state aid; and if state aid restricts competition, the authority can advocate for its amendment or elimination. In Bolivia, the competition law does not establish a specific framework or procedure for granting state aid, but it does vest the authority with the power to issue opinions as to the effects of state aid on the market.

⁸⁹ Pop, G. (2015). Haiti - Let's Talk Competition: A Brief Review of Market Conditions. Washington, D.C. World Bank.

⁹⁰ See Laggarini, S. G. et al (2015). "What do state-owned development banks do? Evidence from BNDES, 2002–09. World Development 66 (2015): 237–253.

⁹¹ Freund, C. (2016). Rich people, poor countries: The Rise of Emerging-Market Tycoons and Their Mega Firms. Peterson Institute for International Economics.

⁹² While Article 173 of the Brazilian Constitution stipulates that public enterprises may not receive any tax benefits that are not available to private enterprises, this does not extend to other forms of financial transfers (such as loans) and the article does not apply to any enterprise that provides a public service (Article 175 of the Constitution and Supreme Court decisions relating to "Casa da Moeda", "ECT" and "Infraero").

⁹³ Dall'Olio, A., Goodwin, T., Martineg-Licetti, M., Orłowski, J., Patino, F., & Sanchez-Navarro, D., (Forthcoming). SOE Global database methodological note. WBG

A major cross-cutting theme in competition policy is the importance of a robust political consensus, strong institutional buy-in, and close intragovernmental collaboration. High-quality research and analysis are fundamental to build political consensus and inform an appropriate policy response to anticompetitive behavior. This can inform and lead to more targeted competition activities by competition authorities in partnership with sectoral regulators and line ministries that ultimately can increase awareness of the relevance of the competition policy in the economic policy agenda.



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Annexes

Annex 1. Leniency Programs in LAC

Brazil: It was the pioneer in the LAC region introducing the leniency program through the Law 10149 of 2000. This program strengthened the power of the agency to prosecute of cartels since its implementation. This program applies on hard-core cartels and other type of cartels and has a strict policy to apply only on “the first in” member of the cartel that approaches the competition authority. The program includes the ‘amnesty plus’ concept such that subsequent informants could benefit of reduction on fines in case they admit their participation and offer information to prosecute a secondary cartel. The program includes amnesty of potential penal sanctions established by the Law 12529 of 2011.

Chile: The leniency program (Programa de Delacion Compensada) grants full immunity to the first member that approaches the competition authority and satisfies the requirements of the program including the provision of evidence of the existence of the cartel. The subsequent members can obtain a fine reduction of up to 50%. In 2009, Chile also published the leniency program guidelines to explain the program, the benefits, legal framework, and to grant the legal certainty to the economic agents that could be interested in participating.

Colombia: Introduced the leniency program (Programa de Beneficios por Colaboración) for first time through the Law 1340 of 2009 and reformed with the Decree 1523 of 2015 that reduced the amnesty benefits for the subsequent members approaching the competition authority. Before 2015, the first informer could benefit from a fine reduction up to 70%, the second member up to 50%, and the subsequent up to 30%. However, the SIC proposed the reform to set the fine reduction percentages that could increase the probability and incentives to reveal the agreements. Now, the second informers can benefit of a reduction between 30-50%, and the subsequent only up 25%. In Colombia, only bid-rigging cartels are sanctioned with penal charges, and in that case the leniency program can only reduce up to 1/3 of the penal sanction.

El Salvador: The article 39 of the competition Law of 2007 introduced the leniency program in El Salvador, which includes only the potential reduction of administrative fines but not the full exemption of the fine. The program benefit only to the first informant of the cartel, who has to demonstrate the existence of the cartel, the participation of the member/informant and full cooperation with the Superintendencia in the prosecution.

Peru: The current leniency program is regulated through the Decree 1205 that modified the Decree 1034 of 2009 with several amendment including the specification of the exact percentages for reduction of the fine of subsequent informers of the cartel. In 2017, INDECOPI published the first guideline for the participation in the program and in 2020 approved and published the guideline for the leniency program focused on the telecom sector. Overall, the program establishes 3 levels of exemption: Type A -100% to the first informant if the agency has not detected the cartel, Type B – exoneration between 50-100% after the cartel is detected and Type C – 50% after the initiation of the sanctioning procedures.

In 2018, Brazil, Mexico, Peru, Argentina and Chile signed a joint statement to tighten the relationship between the competition agencies to foster exchange information on monthly basis and share updates on changes, align the principles of the leniency programs across, and strengthen the tools for unveiling cross-border cartels.

Annex 2. Facilitating Factors for Cartels

Markets where collusion is likely are those that are characterized by the following factors:

Structural factors

1. **High entry barriers and import barriers.** Entry or expansion by outsiders to the cartel – including importers - can undermine the strategy of the cartel (for example by undercutting the collusive price) and spark deviations from cartel members. Moreover, the success of a cartel in the form of high prices in fact increases the likelihood of entry over time. In a case study of 19 cartels, (Levenstein & Suslow, What Determines Cartel Success?, 2006) found that entry was one of the most common causes of cartel failure.

2. **High market concentration and a small number of firms.** Reduces the number of negotiating partners thus making it easier to reach an agreement and raises incentives to collude by increasing potential profits per firm. A small number of firms also makes it easier to detect deviations from the collusive agreement.⁹⁴
3. **Product homogeneity.** Facilitates the ability to reach a mutually agreeable price for the product and reduces scope for competition in other dimensions, such as quality.⁹⁵ Firms producing homogenous products are also more likely to have symmetric costs as discussed in point 7. This characteristic reduces the possibility to increase margins by differentiating products and collusion might result highly profitable.
4. **Inelastic demand.** Increases the potential profits from setting a collusive price.
5. **A lack of buyer power.** Higher buyer bargaining power reduces cartel stability since, for example, large buyers will be more effective at encouraging members to deviate from the agreed price.
6. **Regular and frequent transactions.** Increases the effectiveness of punishment threats by increasing the present value of the cost of future punishments.
7. **Firm symmetry.** Symmetry in market size and cost structure amongst firms increases the ability to reach agreements and monitor deviations.
8. **A history of anticompetitive regulation, including price controls.** Regulated industries have often limited entry and protected incumbents in the past, leading to concentrated markets today. In addition, the prior imposition of price controls can provide a “focal point” for cartel members and facilitates the ability to reach an agreement.

Factors affected by the behavior of cartel members

9. **Excess capacity.** Can be used as an entry deterrence mechanism and lends credibility to punishment threats by allowing firms to engage in predatory behavior or price wars⁹⁶
10. **Multimarket contact.**⁹⁷ Can increase firm symmetry across markets (see point 7) and allows market power to be spread across markets, making it easier to reach an agreement. Multi-market contact also makes it easier to punish defectors as punishment can be implemented in various different markets.
11. **Cross-ownership and links with other firms.** Facilitates information sharing, making it easier to reach an agreement and coordinate. Cross ownership also reduces the incentive to deviate from the agreement.

Information exchange mechanisms: Industry trade associations are the key example of this. The information collected and disseminated by these association can help to ensure coordination and to monitor deviations. Between a quarter and a half of the cartels in US cross-section studies report the involvement of trade associations in cartel organization (Levenstein & Suslow, What Determines Cartel Success? 2006).

Whilst a distinction has been made here between structural factors (i.e. those that are inherent to the industry) and factors which are affected by cartel members, in some cases the line is not completely clear cut. A prime example is entry and import barriers. First, vertically integrated cartel firms could use exclusionary conduct to erect barriers to entry for non-members. Second, through lobbying and political influence, cartel members could influence the imposition of tariffs, anti-dumping measures and other barriers to import.

Annex 3. M&A data using Thomson Reuters

We use mergers and acquisitions (M&A) data from the Eikon Thomson Reuters⁹⁸ M&A database, a database of global public and private M&A activities since 1979 for US transactions and 1985 for non-US transactions. The database tracks changes in economic ownership at ultimate parent level involving a purchase of at least a 5 percent stake (or 3 percent with a value of at least US\$1 million) in active companies. The covered transactions include mergers and acquisitions, leveraged buyouts, tender offers, reverse takeovers, asset sales and divestitures, stake purchases, stock swaps, spinoffs and split offs (i.e. demergers), privatizations, repurchases, rumored and seeking buyer transactions, and bankruptcy liquidations. Thomson Reuters sources the data through direct deal submissions from global banking and legal contributors complemented with extensive research by its analysts. We only use completed M&A transactions (i.e. we disregard transactions where the target is “seeking a buyer” and those involving “rumored deals”).

⁹⁴ Fraas and Greer (1977).

⁹⁵ Hay and Kelley (1974).

⁹⁶ Lübbers, 2009, Dixit (1979).

⁹⁷ Where firms meet in several different product or geographic markets. See, for example, Bernheim and Whinston (1990).

Analysis sample

We consider separate but concurrent M&A deals with the same effective/unconditional date to be part of one “merger” when the target, the target ultimate parent, the acquirer, and the acquirer ultimate parent profiles are the same.⁹⁹ Similarly, concurrent M&A deals with the same announced date but with different effective/unconditional dates are viewed as part of one “merger” when the target, the target ultimate parent, the acquirer, and the acquirer ultimate parent profiles are the same.¹⁰⁰ We also consider separate but concurrent M&A deals with the same effective/unconditional date to be part of one “merger” when the target ultimate parent, the acquirer, and the acquirer ultimate parent profiles are the same but different target names in the same target nation.¹⁰¹

For analysis at the regional level, we consider transactions between the same target and acquirer in different countries to be part of one merger. For analysis at the national level (i.e. comparing the number of mergers in several countries), we consider transactions with the same target and acquirer name, but different target and/or acquirer nations, to be separate mergers.

We define an additional variable “Change in degree of control”, and classify the remaining M&A transaction as a:

- a. “Change of control” if the acquiring company owned at most 50 percent of the target company before the transaction and owned more than 50 percent of the target company at the effective date of the transaction, and
- b. “Gain of full control” if the percent of shares acquired was at least 20 percent and the percent of shares owned after transactions was 100 percent at the effective date of the transaction.

If there are subsequent transactions between the same target and acquirer (but with different dates), we consider these as separate “mergers” for each transaction that involves either a *change of control* or a *gain of full control*.

For the LAC region analysis, we focus on the set of M&A transactions covering the period 2011-2019 in which a LAC region company was the target entity.

⁹⁸ Thompson Reuters is now Refinitiv.

⁹⁹ These are mostly the acquisition of remaining interests, the deals structured in multiple stages (e.g., first a merger and then the acquisition of remaining interest) or the acquisition of the same target and target ultimate parent profiles in multiple locations within the target nation.

¹⁰⁰ These are mostly the acquisition of remaining interests of deals structured in multiple stages.

¹⁰¹ These are mostly the acquisition of multiple companies in different locations within the same target nation with the same target ultimate parent profiles.

