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# 23-7 Rare macroeconomic disasters and lost decades in Latin America

## The COVID-19 experience in a historical context

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**ABSTRACT**

COVID-19 led to the single largest year-over-year decline in Latin America's GDP per capita in more than 100 years. Although the region has endured several macroeconomic shocks before, mostly related to financial dislocations, none has been so deep and synchronized. Our analysis of the COVID-19 experience for the region and eight economies with available historical data reveals the extent of the damage. Through 2020, four economies suffered "rare disasters" (cumulative contractions by 10 percent or more): Argentina, Mexico, Peru, and Venezuela. Tragically, Venezuela's macroeconomic collapse matches the largest contraction registered by any country in modern history. In addition, Argentina, Brazil, Mexico, and Venezuela, together with the Latin America regional aggregate, are undergoing "lost decades" (prolonged periods of stagnation) which are unlikely to end soon. While Brazil, Chile, Colombia, and Uruguay did relatively better with COVID-19, they still suffered significant recessions, and their economic performance has lost steam compared to prior decades. Overall, COVID-19 will cast a long shadow in Latin America even as economic growth rebounds. The shock also offers opportunities for a reset, with the appropriate set of macroeconomic policies, advances on microeconomic reforms, and the strengthening of institutions. Whether this set of policies will materialize in the midst of challenging political contexts remains an open question.

**JEL codes:** F43, O47, N16

**Keywords:** Rare macroeconomic disasters, economic history of Latin America, COVID-19, lost decades, long-run growth

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**Section 1: Introduction**

The COVID-19 pandemic drove the world economy to its worst recession in almost a century. Latin America was the region of the world most affected, both in terms of public health and economic outcomes. In 2020, GDP per capita fell by nearly 8 percent at the regional level, and considerably more in various countries. Over the past 100 years, Latin America has endured several macroeconomic shocks, but none has been so deep and synchronized. This is the single largest year-over-year decline in Latin America's GDP per capita since at least the early 20th century and the largest yearly drop compared to the most important global regional aggregates. All the large economies in the region saw sharp recessions, with the minimum decline in GDP per capita at 4 percent. Latin America had not seen contemporaneous recessions of this magnitude in decades.

COVID-19 is a special shock in at least three ways. First, it is a natural disaster with severe economic consequences—a type of shock not seen by the region since the Great Influenza Pandemic of 1918-20. However, as opposed to other natural disasters, pandemics destroy human capital (not physical capital), and they lead to policy actions or behavioral changes specifically aimed at minimizing contagion. Second, although country-specific outcomes have differed markedly—a reflection of profound idiosyncrasies that prevail in terms of vulnerabilities, policy preferences, and resilience—the synchronicity of regional economic activity was unparalleled in history. Third, it compounds years of economic underperformance prior to the shock—a factor that increases the risk of "lost decades" for various countries and further distances Latin America from other regions.

In this paper, we compare the recessions triggered by COVID-19 to the various negative shocks that have hit Latin America over the past 100 years. We look at the largest drops in economic activity, either in a single year or cumulatively over multiple years (known in the literature as "rare disasters"), and at long periods of stagnation (which we call "lost decades"). Our analysis relies on historical GDP per capita data available for eight Latin American countries (that represented 87 percent of regional GDP in 2022) and 31 additional countries in other regions starting in 1870 (Barro and Ursúa 2008). The eight Latin American countries are Argentina, Brazil, Chile, Colombia, Mexico, Peru, Uruguay, and Venezuela. Because COVID-19 is the materialization of a prototypical rare disaster—a low probability event with severe macroeconomic consequences—our analyses require taking the broadest possible perspective in time and space. We also make use of economic growth projections from IMF staff (IMF, 2023). While not set in stone, these are helpful guides of what may follow COVID-19 if inertial trends and policy directions continue as expected.

In Section 2, we take a regional perspective and compare the COVID-19 shock to previous macroeconomic disasters in Latin America and other parts of the world—stemming from financial crises, wars, or other causes. For Latin America, some of those past shocks were more severe from a multi-year peak-to-trough perspective, but none was as severe on a yearly basis. In contrast, COVID-19 led to sharp recessions in other regions, but it paled in comparison to their worst disaster experiences during the 20th century. Moreover, despite Latin America's familiarity with recurrent crises, these had mostly occurred in specific countries at differentiated times. Instead, COVID-19 imposed additional strains on the region because of its simultaneity, to an extent the region had not ever experienced before.

In Section 3, we focus on country-specific experiences. The largest yearly contractions due to COVID-19 happened in Venezuela, Peru, Argentina, Colombia, and Mexico, which are also the countries with the largest cumulative contractions if we consider sequential negative growth rates in years prior to 2020—mostly related to policy decisions and political developments. These COVID-19 contractions meet the typical threshold used to define rare disasters—a peak-to-trough decline in GDP per capita by 10 percent or more.[1] But they are not amongst the largest the region has ever seen, as they are smaller than experiences during the Great Depression and the debt crises of the 1980s. That said, it is the first time that Latin American countries have suffered such a major macroeconomic hit from a natural phenomenon, surpassing the impact from the Great Influenza Pandemic of 1918-20. All in, we identify 53 GDP per capita disasters in Latin American countries from the late 1800s through 2020. Their mean and duration—at 19.5 percent and 3.4 years, respectively—are similar to global averages. However, the probability of a Latin American country transitioning from a state of normalcy to disaster is 5.9 percent per year—somewhat higher than the global average. While sometimes related to global events, like COVID-19, most of Latin America's disasters are of its own making. Latin America matches the top position in the ranking of global GDP per capita disasters—with Venezuela's 73.0 percent collapse from 2008 through 2020 bordering Germany's fall by 73.6 percent from 1943 through 1946.

In Section 4 we discuss how COVID-19 compounded Latin America's economic underperformance relative to other regions and its own history. In the seven years before the pandemic, Latin America's GDP per capita shrank by nearly 5 percent, while some other regions grew at double digits. No Latin American country did better in 2011-2020 than it did in the previous two decades, and those who managed to grow at positive rates did so at disappointingly low rates. Going forward, a key concern for Latin American countries is that they continue to fall further behind Emerging Market peers in Asia or Eastern Europe.

In Section 5, we build on those observations to explore Latin America's experience with lost decades—which we define as periods lasting at least eight years when smoothed GDP per capita was lower at the end of the episode than at the beginning.[2] Lost decades have been pervasive in Latin America's history and are often, but not always, related to the materialization of rare disasters. As a whole, we find that Latin America has undergone four such episodes: 1910s, 1930s, 1980s, and 2010s. Across countries, we find 30 episodes—including ongoing ones in Argentina, Brazil, Mexico, and Venezuela. These episodes, and the weakening of growth trajectories in other countries, represent legitimate long-run risks for Latin America. COVID-19 compounded those risks by affecting economic policies in ways that may not be conducive for sustained long-run growth and reigniting concerns of populist cycles (Dornbusch and Edwards 1990; Velasco and Brieba 2019). The ongoing erosion of microeconomic and institutional foundations in Mexico and erratic macro and microeconomic policies in Argentina are good examples, as they have reduced

[1] This threshold accords with our goal to study extreme contractions of economic activity. Although arbitrary, several papers studying these events have adopted it following Barro and Ursúa (2008). These include papers studying asset pricing puzzles, the relationship between consumption and asset prices, and the properties of economic recoveries, among others. From an empirical standpoint, the threshold captures a segment of the distribution of outcomes (probability mass) that accords with intuitive notions of extreme (tail-risk) events. In cases that are a few decimal points below the threshold, but would easily round up to it, we exercise some discretion and consider them as proper rare disasters.

[2] This definition is also admittedly arbitrary. But we think it yields an intuitive parametrization of this type of events, at least as they're commonly conceptualized by researchers, journalists, and policymakers.

potential growth and increased vulnerabilities to shocks. An extreme version of that weakening is Venezuela, where over the past eight years GDP per capita has fallen nearly to the same level it had a century ago. The speed and magnitude of Venezuela's economic collapse is unprecedented. It matches the worst economic disaster of any country in our sample (not only Latin America) in more than 100 years.

We conclude with a discussion on how the COVID-19 shock could cast a long shadow. Since the onset of the pandemic, concerns emerged over cumulative costs of foregone output (Gopinath 2020). Despite economic growth rebounds seen over the course of 2021, ensuing dynamics over the course of 2022 muddled the recovery and added a number of challenges. These include repercussions from the Russia-Ukraine conflict, the significant rise in global interest rates, the drops in equity markets, and the strengthening of the US dollar.

On the positive side, the shock can offer opportunities for a reset—with the appropriate set of macroeconomic policies (Werner et al. 2021), Latin American countries could jolt their growth path away from stagnant trends since the mid-2000s. This requires advances on microeconomic reforms and strengthening institutions—especially those aimed at improving capital accumulation, productivity growth, human capital, and the rule of law. These would complement progresses that most Latin American countries have attained in terms of improving monetary and fiscal frameworks over the past few decades.

On the negative side, the legacy from COVID-19 is likely to leave serious problems to deal with. In an effort to address the shock, most Latin American countries responded with a combination of support programs and restrictions on activity, not always optimizing around tradeoffs emphasized in the literature (Hausmann and Schetter 2022). Forceful uses of public and private balance sheets will eventually need to be repaired. Even in countries with lesser debt overhang, social demands have intensified, and political systems are under pressure. Pandemic-related backlogs in health care, and education will also need to be addressed. This has opened the door to populist policies that are likely to make structural problems even worse, especially when they look at the wrong set of historical experiences for inspiration. Whether the coin will ultimately fall on the resetting side or the breaking side of this debate is an open question to be shaped by policy choices (Goldfajn and Levy Yeyati 2022). The long-run data we analyze show that the region has recovered from similar and even worse experiences, but it still has not found a way to lay the foundations of a self-sustaining growth process.

All in, our historical analyses show that:

- The COVID-19 economic crisis was Latin America's largest annual contraction of GDP per capita in history. At the country level, however, all countries except for Colombia have had at least another year in which the economy shrank by more.

- Including uninterrupted periods that end in 2020, four countries in our sample experienced a macroeconomic disaster during this period (defined as cumulative declines in GDP per capita by 10 percent or more): Argentina, Mexico, Peru and Venezuela. Outside of Latin America, only three other countries in our sample saw COVID-19 related disasters: Philippines, Spain, and the UK.

- Since the early 20th century, the eight Latin American countries studied in this paper suffered a total of 53 macroeconomic disasters. Although the frequency of these disasters dropped after 1950, it did so by less than in the rest of the world. About two-thirds of rare disasters in the region are of their own making, as they are associated to domestic idiosyncratic, political, economic, or financial debacles. Colombia is the only country in our sample that has never experienced a macroeconomic rare disaster (although it came close to it during COVID-19).

- Latin America will have suffered another lost decade in the 2013-2025 period due to the negative terms of trade shock, the COVID-19 shock, the unraveling of macroeconomic disequilibria in some countries, and the inability to weather a variety of additional shocks emerging in 2022. In half of the countries in our sample, a lost decade is already unfolding or is extremely likely, including in Argentina, Brazil, Mexico, and Venezuela.

- From 2008 to 2020, Venezuela experienced an economic tragedy as its GDP per capita dropped by 73.0 percent. This matches the largest macroeconomic contraction registered by any country in modern history—the 73.6 percent fall observed in Germany from 1943 to 1946.

**Section 2: A severe and simultaneous shock**

Rare disasters, by definition, happen infrequently. They entail the realization of low probability events that have dramatic consequences. A sprawling research agenda aims to study these shocks based on historical macroeconomic data (Barro and Ursúa 2012). Gauging the key characteristics of rare disasters, including their probability distribution and key statistical moments, requires capturing enough realizations of these events. In turn, these can be found by analyzing the longest possible time series for the largest possible number of countries (Ursúa 2011).

To position COVID-19 in the taxonomy of shocks that have hit Latin America over the past 100 years, we exploit available historical data on GDP per capita since at least the early 20th century (Barro and Ursúa 2008), extended to the present using data and projections from the IMF (2023). Throughout the paper, we refer to GDP per capita data in real terms (based on constant international dollars). There are eight Latin American countries for which these series are available: Argentina, Brazil, Chile, Colombia, Mexico, Peru, Uruguay, and Venezuela. Fortunately, these countries represented around 87 percent of the "Latin America and the Caribbean" aggregate commonly used by the IMF in 2022—with the rest of countries entailing smaller economies in the continent and the Caribbean. This means that our analyses for the regional aggregate are satisfactorily representative. Table 1 lists those countries and 31 additional ones that we include in our regional comparisons. Data for all countries start since at least World War I. For Latin America, we have data for all countries starting in 1905, and even earlier in most cases.[3]

[3] Regional aggregates are based on historical population estimates, adjusted for war-related border changes. Starting dates for regional aggregates require that at least 2/3 of constituent countries have available data (except aggregates with four constituents, where all of them are required given their small number). As additional countries enter an aggregate, growth series are "smooth pasted" around the incorporation year to avoid artificial jumps. For additional methodological details, see Ursúa (2011).

**Table 1**: GDP per capita coverage and starting years for historical country aggregates

| Latin America | S. East Asia | Others | Western Europe | | Western Offshoots |
|---|---|---|---|---|---|
| Argentina [ARG] 1875 | China [CHN] 1890 | Egypt [EGY] 1894 | Austria [AUT] ° 1870 | Italy [ITA] ° 1861 | Australia [ASL] ° 1820 |
| Brazil [BRA] 1850 | Japan [JAP] ° 1870 | India [IND] 1872 | Belgium [BEL] ° 1846 | Netherlands [NET] ° 1807 | Canada [CAN] ° 1870 |
| Chile [CHL] 1860 | Indonesia [INO] 1880 | Russia [RUS] 1860 | Denmark [DEN] ° 1818 | Norway [NOR] ° 1830 | New Zealand [NZL] ° 1860 |
| Colombia [COL] 1905 | Malaysia [MAL] _1900*_ | South Africa [SAF] 1911 | Finland [FIN] ° 1860 | Portugal [POR] ° 1865 | United States [USA] ° 1790 |
| Mexico [MEX] 1895 | Philippines [PHI] _1902*_ | Sri Lanka [SRL] 1870 | France [FRA] ° 1820 | Spain [SPA] ° 1850 | |
| Peru [PER] 1896 | Singapore [SIN] _1900*_ | Turkey [TUR] 1875 | Germany [GER] ° 1851 | Sweden [SWE] ° 1800 | |
| Uruguay [URU] 1870 | South Korea [KOR] 1911 | | Greece [GRE] ° 1833* | Switzerland [SWZ] ° 1851 | |
| Venezuela [VEN] 1883 | Taiwan [TWN] 1901 | | Iceland [ICE] ° 1870 | United Kingdom [UKG] ° 1830 | |

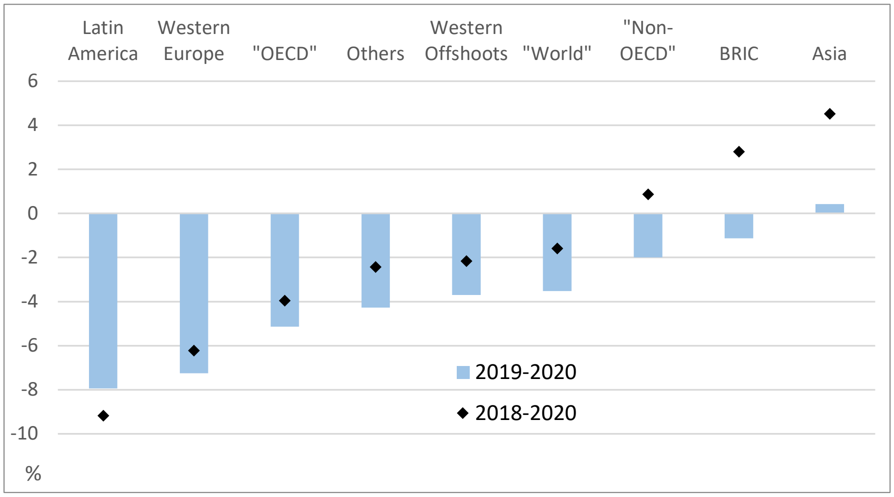
Note: The symbol * next to a starting date means that the series has missing years or periods: Greece (1944), Malaysia (1943-46), Singapore (1940-49), and Philippines (1941-45). Italics for the starting year means the series was not used in most analyses because it did not have fully-continuous time series since at least before WWI (GDP for Greece was included because it was only missing a single year and this does not affect the level comparison between segments). The superscript symbol ° next to the country code indicates inclusion in what we call "OECD" sample (which excludes recent members). Overall, the table includes 42 countries, of which 39 are used in our exercises (21 OECD, 18 Non-OECD).
Source: Barro and Ursúa (2008, 2012).

COVID-19 has been a devastating shock globally, but especially so for Latin America. From an economic standpoint, we can assess the damage by looking at 2020 changes in GDP per capita. Figure 1 compares the region's historical aggregate performance to that of other country aggregates. No region was spared from the impact of the pandemic. Latin America heads the list, however, with a decline by 7.9 percent from 2019 to 2020. In fact, it is the only region whose change in GDP per capita is even worse from 2018 to 2020, with a decline by 9.2 percent. This stands in stark contrast with wealthier economies, captured in our historical aggregate called "OECD," not to mention Asian economies, who fared significantly better.[4]

We now compare the COVID-19 shock to the historical record. Figure 2 ranks historical GDP per capita growth since 1905 for different country groups, with bands depicting plus and minus one standard deviation. It is clear that the past 100 years were not Latin America's century. The lower table in Figure 2 shows key statistics by region. With an average growth of 1.7 percent, Latin America ranks second-to-last compared to other historical aggregates. The Asia historical aggregate, in contrast, leads the pack with an average growth rate of 3.3 percent.[5] Simply put, at those rates, it takes Asia nearly 21 years to double its GDP per capita, but it takes 42 years for Latin America to do the same.

[4] For reference, the broader "Latin America and the Caribbean" regional aggregate published by the IMF shows a decline by 8.0 percent in 2019-2020, and by 9.0 percent in 2018-2020. In turn, the "Advanced Economies" aggregate shows a decline by 4.7 percent in 2019-2020, and by 3.5 percent in 2018-2020.
[5] Median growth for Latin America is higher, at 2.1 percent. However, medians are also higher than means for other regions (e.g., Asia's median at 4.2 percent); and the ranking order ends up about the same.

**Figure 1**: COVID-19 GDP per capita declines in historical country aggregates: 2019 through 2020, and 2018 through 2020

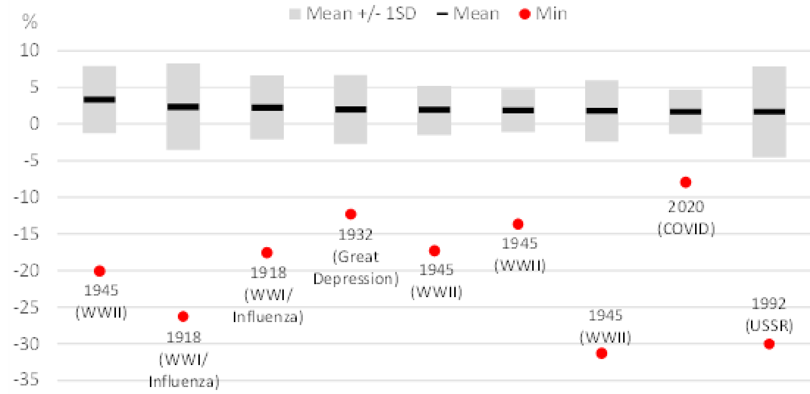



Note: Country aggregates are as defined in the note to Table 1.
Source: Barro and Ursúa (2008, 2012), IMF (2023).

On the one hand, Latin America's growth has been relatively less volatile than it has been for other regions. Of the regional aggregates shown in Figure 2, Latin America's growth displays the lowest standard deviation across regions, at 3.0 percent. This compares to Asia's 4.6 percent, for example. Moreover, until COVID-19 Latin America had not seen the depths of macroeconomic depressions observed elsewhere—generally associated to world wars or great dislocations. This is reflected in considerably lower tail-risk estimates for the region (with excess kurtosis at 1.1 vs. Asia's 10.6). On the other hand, growth per unit of volatility has recently been poor for Latin America. This is reflected in the second highest coefficient of variation for the post-1950 period across sample groups.

Intuitively, the tumultuous first half of the 20th century has a large impact on growth statistics across regions, as it encompasses major events like the world wars, the Great Influenza Pandemic, and the Great Depression. The lower table in Figure 2 reproduces the exercise for the 1950-2020 period. Descriptive statistics for Latin America do not change as much as they do for other regions. In this restricted time period, Latin America shows the lowest average growth, but it is no longer the least volatile, nor the one least prone to tail-risks. If anything then, the post-World War II period casts Latin America's economic performance in an even less favorable light compared to other regions.

**Figure 2**: 2020 GDP per capita declines in historical country aggregates vs. historical distributions and record minimum yearly changes since 1905




| | Asia | BRIC | "Non-OECD" | Western Offshoots | "OECD" | "World" | Western Europe | Latin America | Others |
|---|---|---|---|---|---|---|---|---|---|
| **1905-2020** | | | | | | | | | |
| Mean | 3.3 | 2.3 | 2.2 | 2.0 | 1.9 | 1.8 | 1.8 | 1.7 | 1.6 |
| Median | 4.1 | 3.1 | 2.8 | 2.0 | 2.4 | 2.2 | 2.4 | 2.0 | 2.5 |
| SD | 4.6 | 5.9 | 4.4 | 4.7 | 3.4 | 2.9 | 4.2 | 3.0 | 6.2 |
| Min | -20.1 | -26.3 | -17.6 | -12.3 | -17.3 | -13.7 | -31.3 | -7.9 | -30.0 |
| Max | 14.5 | 13.1 | 10.3 | 17.0 | 8.3 | 7.2 | 7.6 | 7.5 | 16.6 |
| Exc. Kurt. | 10.6 | 7.8 | 5.0 | 2.1 | 9.1 | 6.5 | 32.9 | 1.1 | 8.3 |
| SD/Mean | 1.4 | 2.5 | 1.9 | 2.4 | 1.8 | 1.6 | 2.4 | 1.8 | 3.8 |
| **1950-2020** | | | | | | | | | |
| Mean | 4.8 | 2.9 | 2.7 | 1.9 | 2.3 | 2.2 | 2.3 | 1.6 | 1.7 |
| Median | 4.7 | 3.0 | 2.7 | 2.0 | 2.4 | 2.3 | 2.4 | 2.0 | 2.3 |
| SD | 2.1 | 4.4 | 2.9 | 2.2 | 2.0 | 1.6 | 2.2 | 2.6 | 4.8 |
| Min | -1.9 | -24.7 | -13.4 | -3.7 | -5.1 | -3.5 | -7.3 | -7.9 | -30.0 |
| Max | 10.4 | 10.1 | 8.3 | 6.6 | 7.0 | 5.8 | 6.2 | 5.8 | 9.5 |
| Exc. Kurt. | 2.0 | 22.4 | 13.5 | 0.2 | 2.6 | 2.2 | 5.0 | 1.3 | 28.0 |
| SD/Mean | 0.4 | 1.5 | 1.1 | 1.1 | 0.9 | 0.7 | 1.0 | 1.7 | 2.8 |

Note: Country aggregates are as defined in the note to Table 1. Statistics shown in the table are computed for samples starting in 1905 (the first year of full data availability for all constituents of the Latin American aggregate).
Source: Barro and Ursúa (2008, 2012), IMF (2022).

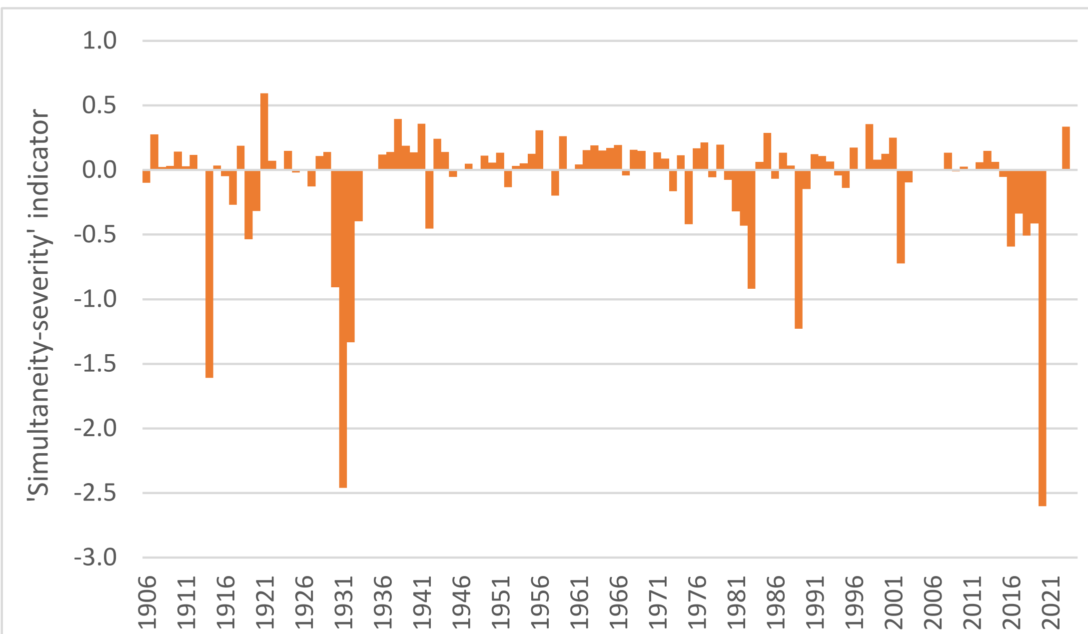
COVID-19 was the worst yearly growth experience on record for Latin America. Despite the region's familiarity with recurrent financial crises, these had mostly occurred in specific countries at differentiated times—Chile in 1973, Brazil in 1990, Mexico in 1995, or Argentina in 2001. Even compared to the Great Depression, when Latin America saw consecutive contractions in each year from 1930-1932, the COVID-19 contraction in 2020 surpasses them as the largest yearly decline on record.

The COVID-19 shock imposed additional strains on Latin America because of its simultaneity. Most crises of the 20th century hit the region's economies idiosyncratically. Instead, the COVID-19 shock was not only severe but also happened at the same time across countries. Figure 3 shows two ways to measure this from a statistical perspective. Panel A plots an indicator that accounts for the pervasiveness of negative growth rates and their depth in each year since we have full data for all countries. In turn, Panel B shows a measure of the commonality of the shock based on principal components analysis. The takeaway is that COVID-19 surpassed the Great Depression on both accounts. World War I and the 1980s crises come at distant third and fourth places, respectively.

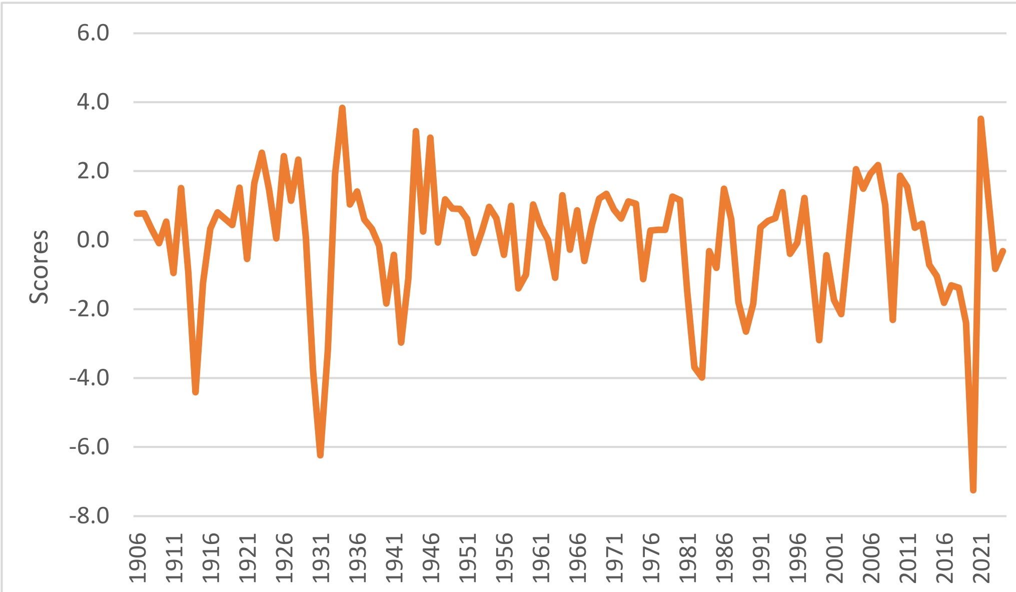
Simultaneity adds at least four challenges from a crisis management standpoint. First, it prevents an economy suffering a crisis to find a release valve in other economies that may be doing well; for example, by softening the blow through import demand or cross-border labor/remittance flows. Second, it prevents the type of shock absorber that would commonly stabilize an economy; for example, FX depreciation relative to trading partners boosting exports or FDI flows in search of the relative cheapening of a country's assets. Third, it might raise the bar for the type and size of international support that can be activated when crises are ring-fenced; for example, due to competing demand on multilateral institutions. Fourth, in a state of global commotion, local policy mistakes are less noticeable, and may go uncorrected; for example, misguided approaches to dealing with the pandemic itself or the lack/excess of fiscal response. Altogether, and even if to varying extents across Latin American countries, these issues made the COVID-19 crisis worse than it would have been in isolation.

**Figure 3**: Assessing the simultaneity of the COVID-19 shock in Latin America

*Panel A: Simultaneity-severity indicator*



*Panel B: First principal components scores*




Note: The simultaneity-severity indicator in Panel A corresponds to the z-score of cross-country averages of negative growth observations each year, adjusted by the share of countries experiencing negative values in that year. Years with no negative growth observations are assigned a zero. In turn, Panel B shows the scores series for the first principal component of the group's yearly percentage changes in GDP per capita (normalized loadings). The underlying series start in 1906 (the first year of full data availability for all constituents of the Latin American aggregate, although these computations are based on individual-country series) and end in 2024.
Source: Barro and Ursúa (2008, 2012), IMF (2023).

**Section 3: Differing country-specific outcomes**

The history of economic collapses in Latin America is unfortunately extensive; but there are important differences at the country level. In that sense, the heterogeneous impact from COVID-19 is not different from past episodes of global crisis. The earliest macroeconomic records that allow assessing the characteristics of these events from a statistical standpoint start in the mid-to-late 19$^{th}$ century. In this section, we use these data to make a few observations about individual country histories and comparisons.

All eight Latin American countries in our historical sample saw sizeable GDP per capita contractions in 2020. Some countries did significantly worse than others, or with respect to their own history. The group of underperformers includes Venezuela (-30.3 percent), Peru (-11.9 percent), Argentina (-10.8 percent), Mexico (-8.9 percent), and Colombia (-9.1 percent). Venezuela's contraction is the second largest in its history, only surpassed by 2019. Argentina and Peru had not seen yearly contractions of this magnitude since their crises in the early 2000s and late 1980s, respectively. For Mexico, the 2020 contraction was the sharpest since the Great Depression, and noticeably worse than the "Tequila crisis" of the mid-1990s. For Colombia, the contraction was the sharpest ever. In turn, the group of overperformers includes Chile (-7.8 percent), Uruguay (-6.4 percent), and Brazil (-4.0 percent). Despite the relatively more benign outcomes compared to peers, these yearly contractions were the worst in nearly three decades for Chile, Uruguay, and Brazil.

Figure 4 shows COVID-19 crises in the eight Latin American countries for which there are historical data, in the context of their previous “rare disasters.” We follow the literature in defining these as peak-to-trough contractions in GDP per capita by 10 percent or more. While these can be the result of a single year’s collapse, they more often span multiple years associated to one or more historical events. Altogether, we identify 53 GDP per capita disasters in Latin America: Argentina (10), Brazil (5), Chile (6), Colombia (none), Mexico (4), Peru (5), Uruguay (13), and Venezuela (10).

In the case of COVID-19, four contractions in 2020 combined with previous years of negative growth to properly classify as macroeconomic rare disasters. These are:

1. *Argentina 2015-2020* (-17.8 percent; its 6th largest disaster since at least 1875): Including the transition from the last year of Kirchnerism to the Macri administration and its financial crisis and subsequent confidence crises ahead of the start of the Fernandez administration.

2. *Mexico 2018-2020* (-9.9 percent; its 4th largest disaster since at least 1895): Spanning the first two years of unfavorable policy decisions under the López administration, experiencing negative per capita growth in each year.

3. *Peru 2018-2020* (-12.6 percent; its 4th largest disaster since at least 1896): Including the tumultuous end of the Kuczynski administration and the sequence of four more presidents, three of them over the course of a week.

4. *Venezuela 2008-2020* (-73.0 percent; its worst disaster since at least 1883; -47.6 percent from 2018-2020): Including the last two terms of Chávez’ presidency, and the succession to the ongoing Maduro administration.

Interestingly, in all four cases, political transitions and events compounded the severity of the COVID-19 shock—either by debilitating starting conditions or by implementing policies during the pandemic that aggravated the crisis. As discussed in the introduction, policy choices during the pandemic are important to explain the heterogeneous impact of COVID-19 on the economies of the region. The case of Venezuela is particularly lamentable. The extent of its macroeconomic decline since 2008 not only ranks as the country’s worst in recorded history since the 19th century, but also nearly matches the world’s largest GDP disaster. The collapse of Venezuela’s economy by 73.0 percent from 2008 through 2020 closely approximates Germany’s fall by 73.6 percent from 1943 through 1946, the worst GDP disaster recorded in modern history (Barro and Ursúa 2008).

In contrast to those four cases, Brazil, Chile, Colombia, and Uruguay did not reach the threshold of a rare disaster during the COVID-19 pandemic, at least not in terms of GDP per capita declines.[6]

[6] Colombia is interesting because it is the only Latin American country in the sample that has never suffered a GDP per capita disaster in recorded history (although it has suffered private consumption per capita disasters), at least as defined by thresholds commonly used in the literature. However, it came close to it during COVID-19.

Contractions in Chile and Colombia were noticeably larger than in Brazil and Uruguay. In Brazil's case, this is partly explained by the magnitude of fiscal support, which was by far the largest of the eight countries. Of course, the flipside of that support is that Brazil's overall public indebtedness is today much larger than any of its Latin American peers as a share of GPD (with the exception of Venezuela). In Uruguay's case, the relative efficiency of health policy responses, trust in government, and ease of border closures probably helped its macroeconomic decline avoid the disaster threshold.

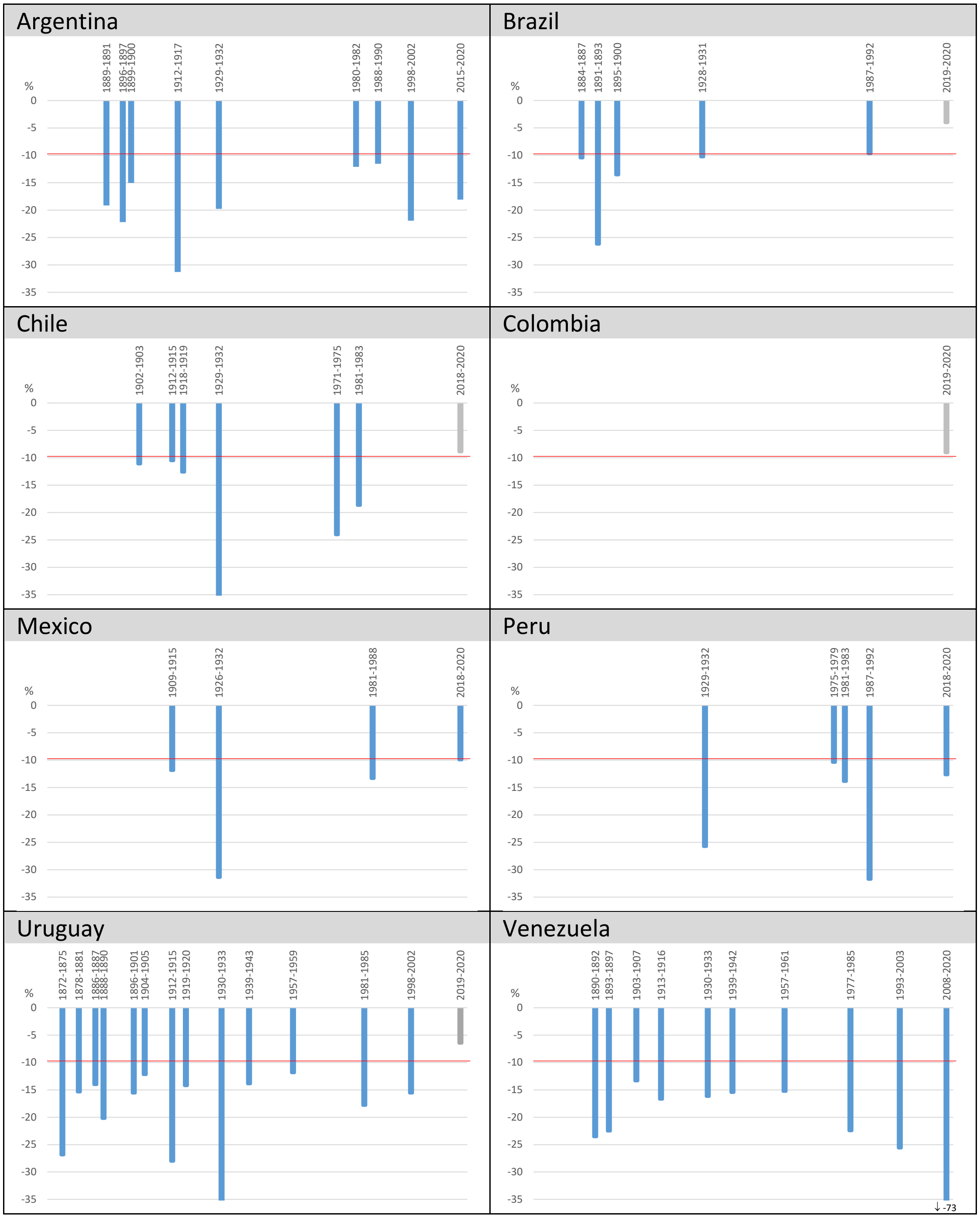
At the country level, Latin America's underperformance during COVID-19 is noteworthy. In the historic sample of countries listed in Table 1, only three other countries saw rare disasters associated to the pandemic: Philippines (-10.7 percent), Spain (-11.8 percent), and the UK (-11.4 percent), all between 2019-2020. The broader IMF database for additional countries not included in our comparisons because they lack historical data corroborates our observation about the region's relative weakness. Of the 56 disasters related to COVID-19 that we find in that sample, five are in Latin America (Belize, Bolivia, Ecuador, Honduras, and Panama) and 12 more correspond to Caribbean nations (see full table in the Appendix). The rest are mostly low-income, commodity, or tourism dependent countries in the Middle East and Africa. Accordingly, countries in Latin America and the Caribbean bore a disproportionate impact from the pandemic compared to the rest of the world. In fact, almost two thirds of countries in the IMF's regional aggregate suffered rare disasters associated with COVID-19.

A full taxonomy of rare disasters—in terms of whether and how they are related to banking, external, inflation, debt, war, or other types of crisis—is outside the scope of this paper. But we can use the ranking of Latin America's rare disasters since the 19th century shown in Table 2 to make a few observations. The table presents the largest peak-to-trough GDP per capita declines found in our historical sample of countries, together with indicators characterizing these events along seven non-exclusive dimensions depending on whether the disaster can be associated with:

- Significant domestic or external conflicts (e.g., Mexico's Cristero War of 1926-29).
- Natural phenomena (e.g., Great Influenza Pandemic of 1918-20).
- Major worldwide events (e.g., Great Depression of 1929-33).
- Significant commodity price declines (e.g., Unwinding of the boom post-2010).
- Significant benchmark yield increases (e.g., Fed rate hikes during 1976-1981).
- Other causes, the majority of which would be localized economic or financial crises (e.g., Uruguay's 2002 banking crisis).
- Post-World War II era, which we define simply as beginning after 1950 (excluding prior tumultuous global events and the immediate aftermath of World War II).

As mentioned before, Latin America's top macroeconomic disaster—Venezuela's 2008-2020 experience, with a cumulative decline by 73 percent—matches the world's largest disaster ever recorded. The smallest for Latin America would be Mexico's from 2018-2020 and Brazil's from 1987-1992, both only a touch below 10 percent. In the first case, it relates to unfavorable policy choices by the López Administration before and during the COVID-19 shock, while the second involved a turbulent transition from dictatorship to democracy. Of course, there are many other bad experiences, but they are farther from the 10 percent threshold. Altogether, the 52 GDP per

**Figure 4**: COVID-19 crises compared to rare disasters of GDP per capita in Latin American countries with available historical data




Note: Disasters are defined as peak-to-trough declines in GDP per capita of at least 10 percent (red line). COVID-related contractions are marked in grey when they don't surpass that threshold. All charts start in 1870 and run through 2022; but starting dates of the underlying data vary by country (see Table 1). Source: Barro and Ursúa (2008, 2012), IMF (2023).

capita disasters have a mean peak-to-trough contraction of 19.2 percent and a mean duration of 3.5 years. These numbers are similar to global averages—at 20.8 percent and 3.6 years, respectively, as computed for a much larger number of countries in Barro and Ursúa (2012), but before COVID-19 disasters materialized. Accordingly, Latin America's GDP per capita rare disasters are not special compared to those of the rest of the world in terms of average magnitude and duration.

Latin American rare disasters are special, however, in happening relatively more frequently. Following previous work, we compute the probability of an economy moving from a state of normalcy to a state of disaster as the number of disasters divided by the number of normalcy years (in turn, given by subtracting the number of years spent in disaster from the overall number of annual observations). This calculation yields a probability of 5.6 percent per year (applying as a constant over time and across Latin American countries). This is higher than the 3.7 percent probability obtained for a global sample in Barro and Ursúa (2008), again computed before COVID-19 disasters materialized. In turn, the probability of moving from a state of disaster to a state of normalcy turns out to be 28 percent for Latin America, which roughly coincides with the global figure. In sum, Latin American economies are somewhat more likely than the average country to fall into a state of disaster, but their probability of recovery per year is the same as for other countries.

Latin American rare disasters are also special in being less likely to be associated to wars than they have been for other regions. Of the four disasters that can be directly connected to wars, three of them stemmed from domestic strife (Mexico's Revolution in the 1910s and Cristero War in the 1920s, and Chile's 1973 *coup d'état*) and one related to a bilateral confrontation (Falklands war between Argentina and the UK in the early 1980s).

Instead, most Latin American rare disasters have tended to occur in the context of financial turmoil during peacetime—usually involving banking, debt, external, or inflation crises. Many of these happened in the post-WWII era. Effectively, nearly 40 percent of rare disasters in Latin America have occurred after 1950. This shows some improvement relative to the region's history, at least in the sense that the bulk of its rare disasters happened in earlier decades. However, it is discouraging compared to the global average, which shows only about a fifth of GDP rare disasters have occurred after WWII (Barro and Ursúa 2012). Accordingly, the rest of the world has done significantly better at avoiding disasters in recent decades compared to Latin America.

At the country level, the two contrasting experiences of Uruguay and Colombia are illustrative of intra-regional heterogeneity. On the one hand, Uruguay has suffered more disasters than any other country in the region (with a total of 13 experiences, heavily skewed to the beginning of the sample period), perhaps related to its relative vulnerability to recurring crises in Argentina and Brazil. On the other hand, Colombia has managed to avoid GDP per capita disasters altogether, although it came close during COVID-19. This is no small feat, considering that all developed markets in the global sample have actually suffered GDP per capita disasters, including multiple events in the United States, for example.

**Table 2**: Ranking of GDP per capita disasters in Latin America since the 19th century, and selected key characteristics

| Rank | Size | Country | Period | War | Nature | Global | Commodity | Yields | Other | Post-WWII |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 73.0 | Venezuela | 2008-2020 | | N | G | C | Y | | M |
| 2 | 36.7 | Uruguay | 1930-1933 | | | G | C | | | |
| 3 | 36.1 | Chile | 1929-1932 | | | G | C | | | |
| 4 | 31.7 | Peru | 1987-1992 | | | | C | | | M |
| 5 | 31.4 | Mexico | 1926-1932 | W | | G | C | | | |
| 6 | 31.0 | Argentina | 1912-1917 | | | G | C | Y | | |
| 7 | 28.0 | Uruguay | 1912-1915 | | | G | | Y | | |
| 8 | 26.9 | Uruguay | 1872-1875 | | | | | | O | |
| 9 | 26.2 | Brazil | 1891-1893 | | | | | | O | |
| 10 | 25.8 | Peru | 1929-1932 | | | G | | | O | |
| 11 | 25.6 | Venezuela | 1993-2003 | | | | C | | | M |
| 12 | 24.0 | Chile | 1971-1975 | W | | | C | | | M |
| 13 | 23.5 | Venezuela | 1890-1892 | | | | | | O | |
| 14 | 22.5 | Venezuela | 1893-1897 | | | | C | Y | | |
| 15 | 22.5 | Venezuela | 1977-1985 | | | | C | | | M |
| 16 | 21.9 | Argentina | 1896-1897 | | | | | | O | |
| 17 | 21.6 | Argentina | 1998-2002 | | | | C | | | M |
| 18 | 20.2 | Uruguay | 1888-1890 | | | | | | O | |
| 19 | 19.5 | Argentina | 1929-1932 | | | G | | | O | |
| 20 | 18.9 | Argentina | 1889-1891 | | | | C | | | |
| 21 | 18.7 | Chile | 1981-1983 | | | | C | | | M |
| 22 | 17.8 | Uruguay | 1981-1985 | | | | C | | | M |
| 23 | 17.8 | Argentina | 2015-2020 | | | | C | | | M |
| 24 | 16.7 | Venezuela | 1913-1916 | | | G | C | Y | | |
| 25 | 16.2 | Venezuela | 1930-1933 | | | G | C | Y | | |
| 26 | 15.6 | Uruguay | 1998-2002 | | | | | | O | M |
| 27 | 15.6 | Uruguay | 1896-1901 | | | | C | | | |
| 28 | 15.4 | Venezuela | 1939-1942 | | | G | | | O | |
| 29 | 15.3 | Uruguay | 1878-1881 | | | | | | O | |
| 30 | 15.2 | Venezuela | 1957-1961 | | | | | | O | M |
| 31 | 14.7 | Argentina | 1899-1900 | | | | | Y | | |
| 32 | 14.2 | Uruguay | 1919-1920 | | N | G | | | O | |
| 33 | 14.0 | Uruguay | 1886-1887 | | | | | Y | | |
| 34 | 13.9 | Peru | 1981-1983 | | | | C | | | M |
| 35 | 13.9 | Uruguay | 1939-1943 | | | | | | O | |
| 36 | 13.5 | Brazil | 1895-1900 | | | | | | O | |
| 37 | 13.3 | Venezuela | 1903-1907 | | | | C | Y | | |
| 38 | 13.3 | Mexico | 1981-1988 | | N | | C | | | M |
| 39 | 12.6 | Peru | 2018-2020 | | N | G | | | O | M |
| 40 | 12.6 | Chile | 1918-1919 | | N | G | C | Y | | |
| 41 | 12.2 | Uruguay | 1904-1905 | | | | | | | |
| 42 | 11.9 | Mexico | 1909-1915 | W | N | G | | Y | | |
| 43 | 11.8 | Uruguay | 1957-1959 | | | | | | O | M |
| 44 | 11.8 | Argentina | 1980-1982 | | | | C | Y | | M |
| 45 | 11.2 | Argentina | 1988-1990 | W | | | | Y | | M |
| 46 | 11.1 | Chile | 1902-1903 | | | | C | Y | | |
| 47 | 10.5 | Chile | 1912-1915 | | | G | | | O | |
| 48 | 10.5 | Brazil | 1884-1887 | | | | C | | | |
| 49 | 10.4 | Peru | 1975-1979 | | | | | | O | M |
| 50 | 10.3 | Brazil | 1928-1931 | | | G | | | O | |
| 51 | 9.9 | Mexico | 2018-2020 | | N | G | | Y | | M |
| 52 | 9.7 | Brazil | 1987-1992 | | | | | Y | | M |
| 53 | 9.1 | Colombia | 2019-2020 | | N | G | | | | M |
| 54 | 8.9 | Chile | 2018-2020 | | N | G | | | | M |
| 55 | 6.4 | Uruguay | 2019-2020 | | N | G | | | | M |
| 56 | 4.0 | Brazil | 2019-2020 | | N | G | | | | M |

Note: "Size" corresponds to the absolute value of the peak-to-trough decline in GDP per capita, for the country and periods indicated. "War" refers to significant domestic or external conflicts for each country. "Nature" refers to natural phenomena, like pandemics or major earthquakes. "Global" refers to episodes coinciding or related to major worldwide events, like the world wars or the Great Depression. "Commodity" refers to large declines in global commodity prices. "Yields" refers to instances when global yields (using the US 10y yield as a proxy) increased significantly, as described in the text. "Other" refers to causes not primarily related to the previous five, including the majority of localized economic or financial crises. These categories are non-exclusive and merely indicative; they do not attempt to present a thorough taxonomy of rare disasters in the region. Cells in grey represent COVID-related dislocations that did not satisfy the 10 percent threshold to classify as rare disasters.
Source: Barro and Ursúa (2008), Sarkees et al. (2010).

The COVID-19 crises appear to be the most severe occasion when economies in the region suffered rare disasters linked to natural phenomena. In a more localized fashion, Chile, Mexico, and Uruguay all saw GDP per capita disasters around the time of the Great Influenza Pandemic of 1918-20. None of the three countries were combatants in World War I, which is a likely confounding factor of crises found around that time in other countries (Barro, Ursúa, and Weng 2022). Mexico did endure a long Revolutionary war period that officially ended until 1920, so the 1909-1915 disaster may be related to it. In any case, outside of these three countries, the region had been mostly spared the GDP growth impact from pandemics until COVID-19 happened.[7]

The ranking also shows that Latin America's rare disasters have often happened independently of global events. The Great Depression is related to many disasters in the region, but not the two world wars (especially not World War II, which at a global level is related to some of the largest disasters on record). A crude estimate is that about a third of Latin America's disasters can be directly related to global events. In contrast, excluding wars, natural and global events, still leaves about 60 percent unrelated to those major categories. Accordingly, most of Latin America's macroeconomic disasters have been, unfortunately, of its own making.

Idiosyncratic disasters in Latin America have generally involved political, economic, or financial debacles. These often happen in the midst of challenging contexts for either external accounts or financial conditions. To quantify the share of disasters associated to each of those contexts, we applied the methodology of rare disasters in two specific areas:

- First, we looked for instances of significant commodity price declines since 1900, using a threshold of at least 30 percent for the peak-to-trough contraction and allowing for multi-year durations that did not recover to the original level for at least three years.[8] Figure 5 Panel A shows the resulting five episodes spanning the periods 1920-1921, 1928-1932, 1980-1986, 1996-1998, and 2007-2020, with an average decline of 47 percent and average duration of 5.2 years. All in, we find that about 50 percent of Latin America's rare GDP disasters in our sample have happened in the midst of these large commodity price declines. In addition, the average disaster associated to large commodity price declines has been relatively larger than the general average (at 22.2 percent vs. 19.2 percent). Therefore, sizeable falls in terms of trade appear to have to either led or at least

[7] The connection between rare disasters and other types of natural phenomena appears more tenuous than for pandemics. Latin America does have a history of floods, storms, droughts, and earthquakes, but their impact on national-level GDP in the large economies is usually small or temporary (what is lost in one or two quarters is usually recovered in subsequent quarters). One exception could be Mexico's 1985 earthquake, which caused significant loss of life (disputed estimates circle at around 10,000 deaths) and costly damages in the capital of the country. That year's contraction in GDP per capita was small (0.06 percent), but it may have contributed to destabilizing forces that eventually built-up the 1981-1988 disaster experience. However, Peru's Ancash earthquake in 1970 was stronger in magnitude and is estimated to have led to a significantly higher numbers of deaths (with estimates as high as 70,000 people), but it does not appear to have dented national GDP because it did not primarily affect urban or industrial areas.

[8] The commodity price index we used for the 1900-1960 period is based on work by Grilli and Yang (1988), Geronimi et al. (2018), and Ocampo and Parra-Lancourt (2010), as described in the Appendix. We use the Bloomberg's commodity price index (BCOM) to extend the series through 2020. We use the resulting nominal index to identify periods of sharp declines, but using versions in constant prices (deflated for example by US CPI or available manufacturing unit value indices) yields similar results.

contributed (surely in combination with other factors) to many of the largest of Latin America's GDP disasters.

At the country level, there seems to be no significant correlation between GDP per capita changes during large commodity prices declines and a country's openness to trade.[9] Conditioning on the change being an actual disaster (i.e., GDP per capita falling by at least 10 percent) yields a positive correlation of about 35 percent. This may signal that higher openness to trade has been associated with worse outcomes in face of terms of trade shocks, but the sample is limited (less than 10 country-specific episodes) and warrants more careful analysis in future work.

- Second, we identified periods of significant tightening of financial conditions, proxied by trough-to-peak increases in the US 10-year yield by at least 35 percent without reversion to its original level in at least 3 years. Figure 5 Panel B shows the resulting five episodes spanning the periods 1916-1920, 1949-1959, 1966-1969, 1976-1981, and 2012-2016, with an average increase by 85 percent (or 315bp on average across episodes) and average duration of 5.2 years. All in, we find that about 30 percent of Latin America's rare GDP disasters in our sample have happened in the midst of large global interest rate increases. A bit less than half of the associated disasters emerged during or after the late 1970s episode culminating in the Volcker shock. This illustrates how vulnerable Latin American economies have been to financial conditions abroad, especially in contexts of rigid exchange rate regimes, non-independent central banks, and high shares of external or hard-currency debt.

  The ongoing increase in global interest rates will eventually classify as an episode of the type considered here. Over the course of 2022 alone, the Federal Reserve hiked the federal funds rate by 425 basis points, but most Latin American central banks started their own hiking cycles considerably earlier. Whether this tightening of financial conditions is ultimately associated with the materialization of any rare disasters remains to be seen. But it certainly increases the region's vulnerability.

**Section 4: Compounded economic underperformance**

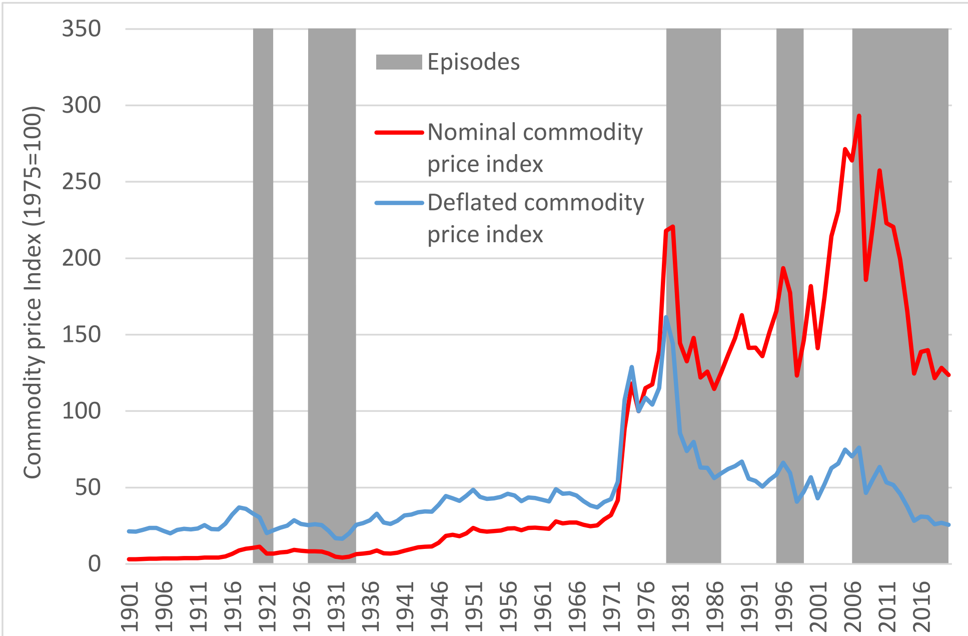
The COVID-19 shock hit Latin America in an already precarious position. Figure 6 shows that for nearly a decade, the region had been underperforming in terms of GDP per capita growth compared to other regions. In fact, Latin America's GDP per capita in 2019 was nearly 5 percent lower than it was in 2013. This contrasts with the rest of global aggregates, all of which saw robust expansions during the 2010s. For example, the Asian aggregate's GDP per capita increased by nearly 30 percent over the same period that Latin America's was shrinking.

The causes behind Latin America's underperformance since the Global Financial Crisis are related, but not fully explained, by fluctuations in commodity prices. Aggregate indices of commodity prices rose by nearly 70 percent from their trough in 2009 through 2011 and then fell by more than 50 percent through late 2019 (see Figure 5 Panel A). But average commodity

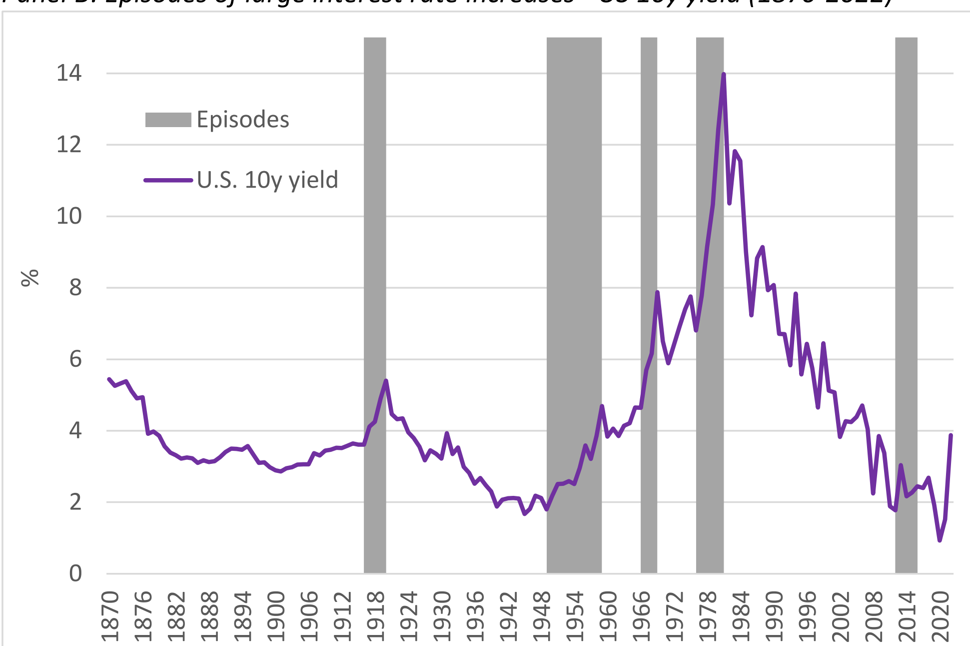
[9] To measure openness to trade, we used export to GDP ratios assembled by Federico and Tena (2018) for 1900-2008, extended with data from the World Bank's *World Development Indicators* thereafter.

**Figure 5**: Challenging episodes for eternal accounts or financial conditions

*Panel A: Episodes of large commodity price declines (1900-2020)*

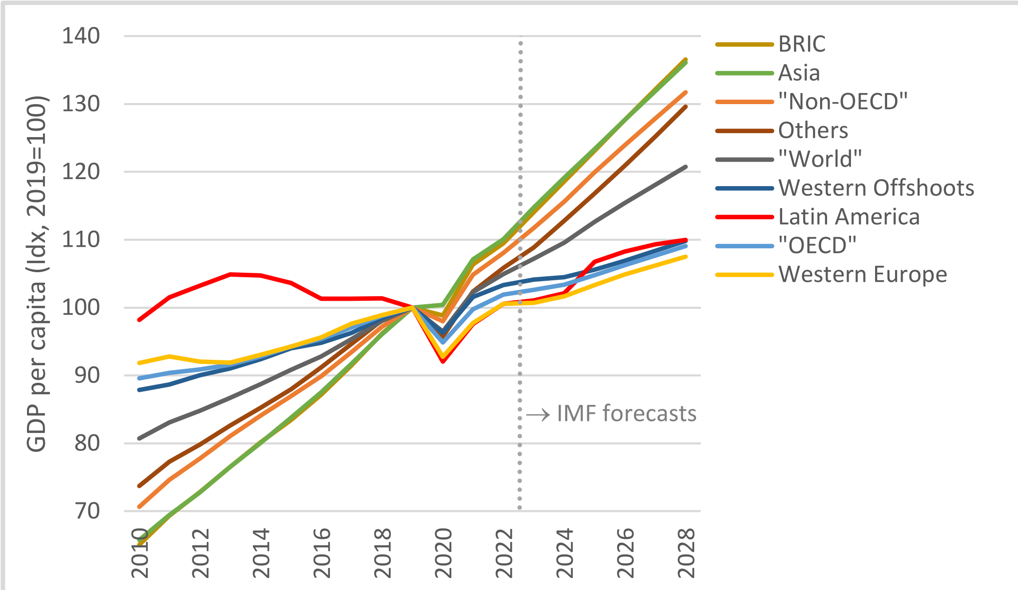



*Panel B: Episodes of large interest rate increases - US 10y yield (1870-2022)*




Note: See text and Appendix for details on the construction of the commodity price index. The deflated index is based on the US CPI.
Source: Bloomberg, Federico and Tena (2018), Geronimi et al. (2018), Grilli and Yang (1988), Ocampo and Parra-Lancourt (2010), US Federal Reserve, World Bank (2023).

**Figure 6**: GDP per capita evolution since 2015 with IMF forecasts




Note: Country aggregates are as defined in the note to Table 1.
Source: Barro and Ursúa (2008, 2012), IMF (2023).

prices during 2010-2019 were in a similar nominal level to those during 1980-2009, when Latin America managed to grow at higher rates. Also, other emerging markets have been exposed to the same commodity price volatility, but have managed to grow faster than Latin America. It is also not true that Latin America has grown more slowly because it started at more advanced stages of development, as theories of growth convergence predict.[10] In fact, Latin America has underperformed compared to richer nations (even the aggregate for "Western Europe" managed to grow faster than Latin America from 2011-2019).

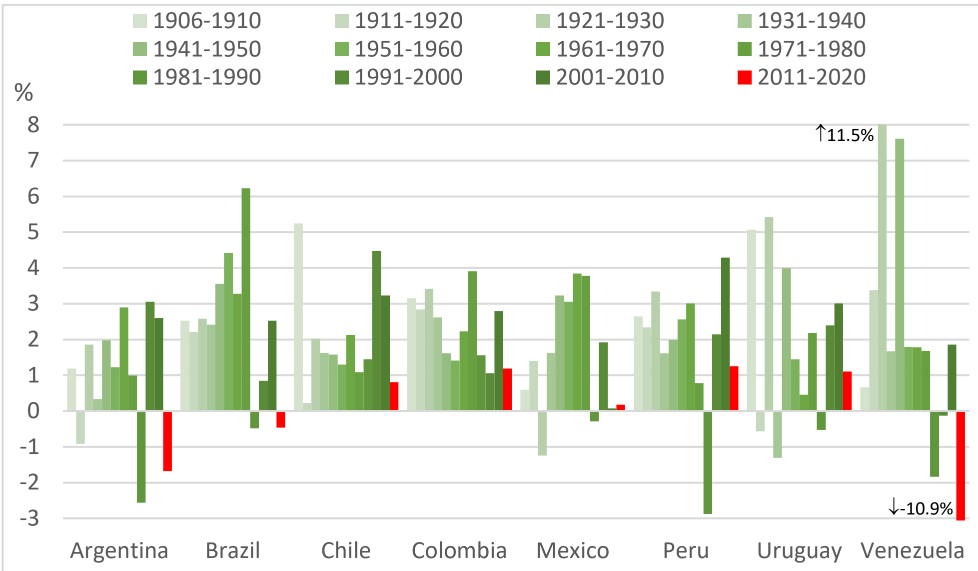
Therefore, the explanation for Latin America's recent underperformance must be broader, likely encompassing lower quality institutions, lack of investment, and poor human capital. Our goal is not to discuss these complicated set of factors, but simply to highlight how COVID-19 compounded Latin America's underperformance compared to other regions since the Global Financial Crisis. This leaves the region further behind and with uncertain prospects of ever catching-up to peers, let alone developed markets.

Latin America not only has underperformed compared to other regions, but also relative to its own history. This can be better appreciated at the country level. Figure 7 shows average GDP per capita growth rates by decade for the historical set of countries since their common time series begin in 1905. No country did better in 2011-2020 than it did in the previous two decades combined. For Argentina and Venezuela, the last 10 years turned out to be a *decade horribilis*. Brazil comes next, with negative growth matching the turmoil of its experience in the 1980s.

[10] The subject of economic convergence is more nuanced than this statement reflects, partly because of the distinction between absolute (i.e., unconditional, and applying mostly to sufficiently homogenous countries) and conditional convergence (i.e., controlling for differences in long-run characteristics of countries). For a discussion using the long-run data we use in this paper, see Barro (2015).

Mexico follows with nearly nil growth for 20 years. And in much better shape—not entirely offsetting the drag from the previous four countries, but at least with positive average growth rates—we find Chile, Uruguay, Peru, and Colombia. Note, however, than even in the latter two "best" cases, their average growth rate over the past decade was only somewhat above 1.2 percent.

**Figure 7**: Average GDP per capita growth rates by decade ( percent)

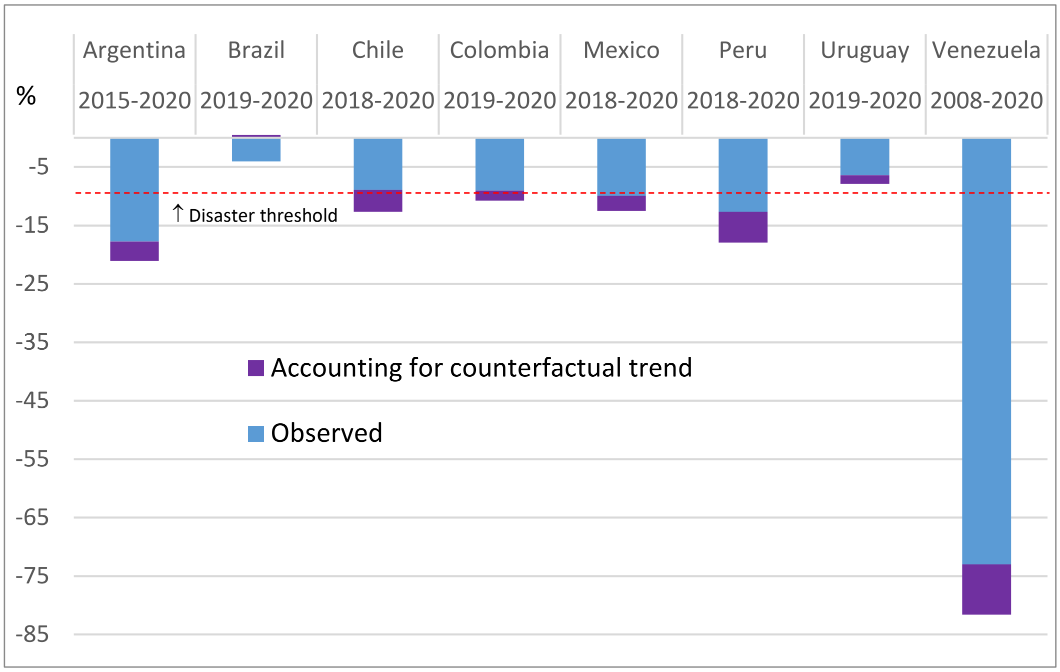



Note: The chart shows arithmetic averages of yearly GDP per capita growth rates for the indicated time-periods.
Source: Barro and Ursúa (2008, 2012), IMF (2023).

Unfortunately, relative to trends, the hit from COVID-19 was even worse than observed across the eight countries in our historical sample. It is always more art than science to draw useful counterfactuals; but a simple approach suffices to make the point.[11] Figure 8 shows the additional decline in GDP per capita that obtains when comparing 2020 observed levels with hypothetical levels based on pre-peak trends (defined as average growth in the previous eight years, roughly the duration of a full business cycle). For example, as discussed before, Mexico's recent macro disaster reflects a nearly 10 percent decline in GDP per capita from 2018 through 2020. That decline is what was actually observed. However, if growth in 2019 and 2020 had been equal to the average over the 2011-2018 period (what we call the pre-peak trend), then the "true" disaster is larger by 2.6pp for a total decline of 12.6 percent. Outside of Brazil, where the pre-peak trend was actually negative, "true" disasters are larger than what was actually observed for all countries by an average of 3.8pp. In fact, by this metric, both Chile and Colombia would have also crossed the disaster threshold due to COVID-19 in 2020.

[11] For an alternative approach focused on studying inequality trends following the pandemic see Filippini and Levy Yeyati (2022).

**Figure 8**: 2020 GDP per capita declines as observed vs. accounting for the counterfactual trend before peak date




Note: "Observed" corresponds to the declines shown in Figure 4. "Accounting for counterfactual trend" adds the extra decline relative to the level of GDP per capita that would have been observed if growth during the years of disaster had matched the trend in the eight years prior (e.g., since Mexico's disaster peak is 2018, the hypothetical level results from applying the 2011-2018 average growth rate during 2019-2020).
Source: Barro and Ursúa (2008, 2012), IMF (2023).

**Section 5: Lost decades as a long-run risk**

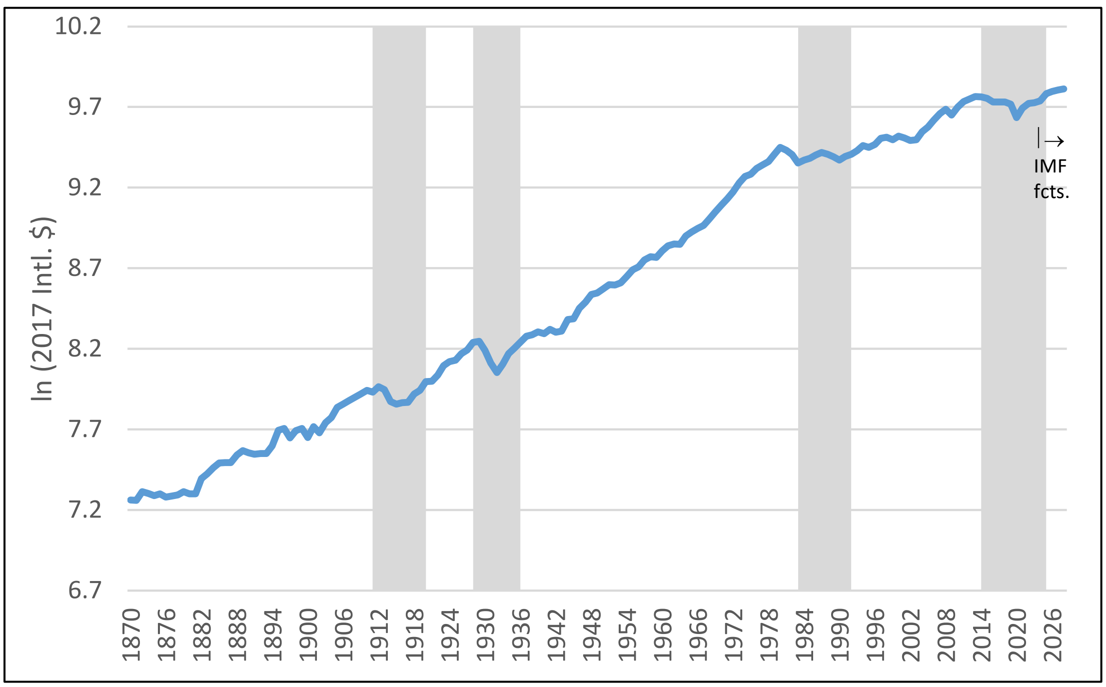
A key concern regarding the COVID-19 shock is that it has likely plunged Latin America into another lost decade. The concept emanated from the experience of economic stagnation in Japan in the 1990s, but the experience it describes has been observed in many other countries, including Latin America in the 1980s. Generally speaking, lost decades are understood as relatively long periods of time when economies or regions make no progress in growing GDP or improving standards of living. As discussed in the previous section, Latin America has been underperforming since the aftermath of the Global Financial Crisis, both compared to other regions and its own history. This underperformance already represents a lost decade according to our extended long-run data.

To formalize that statement, we define lost decades as periods lasting at least eight years when smoothed GDP per capita was lower at the end of the episode than at the start. Smoothing the GDP series is desirable to filter-out crises (a short-lived crisis, no matter how deep, does not accord with the more medium-run idea of a lost decade). For our purposes, we used the 5-year moving average of the GDP per capita series. Figure 9 shows the long-run series of Latin America's GDP per capita in natural logarithms (so that movements of 0.1 in the scale are roughly equivalent to 10 percent moves in the underlying series). As explained before, we extended the series through 2028 using IMF (2023) forecasts. In turn, earlier years of the series have different numbers of constituents (with all countries present starting in 1905). The chart also shows periods satisfying our lost decade criterion. For Latin America as a whole, we find four lost decade episodes: 1911-1920, 1928-1936, 1983-1992, and 2014-2025f.

The last episode has not fully concluded, but it has already lasted long enough to classify as a lost decade. Growth in 2023-2025 would have to be considerably higher than currently forecasted by the IMF to prevent it from lasting even longer. The average yearly growth forecasted over that last period has been declining given various shocks started in 2022, and currently sits at 2.0 percent (compared with an average of 0.7 percent in the decade prior to COVID). Therefore, upside surprises to an extent that would quickly end Latin America's ongoing lost decade seem implausible.

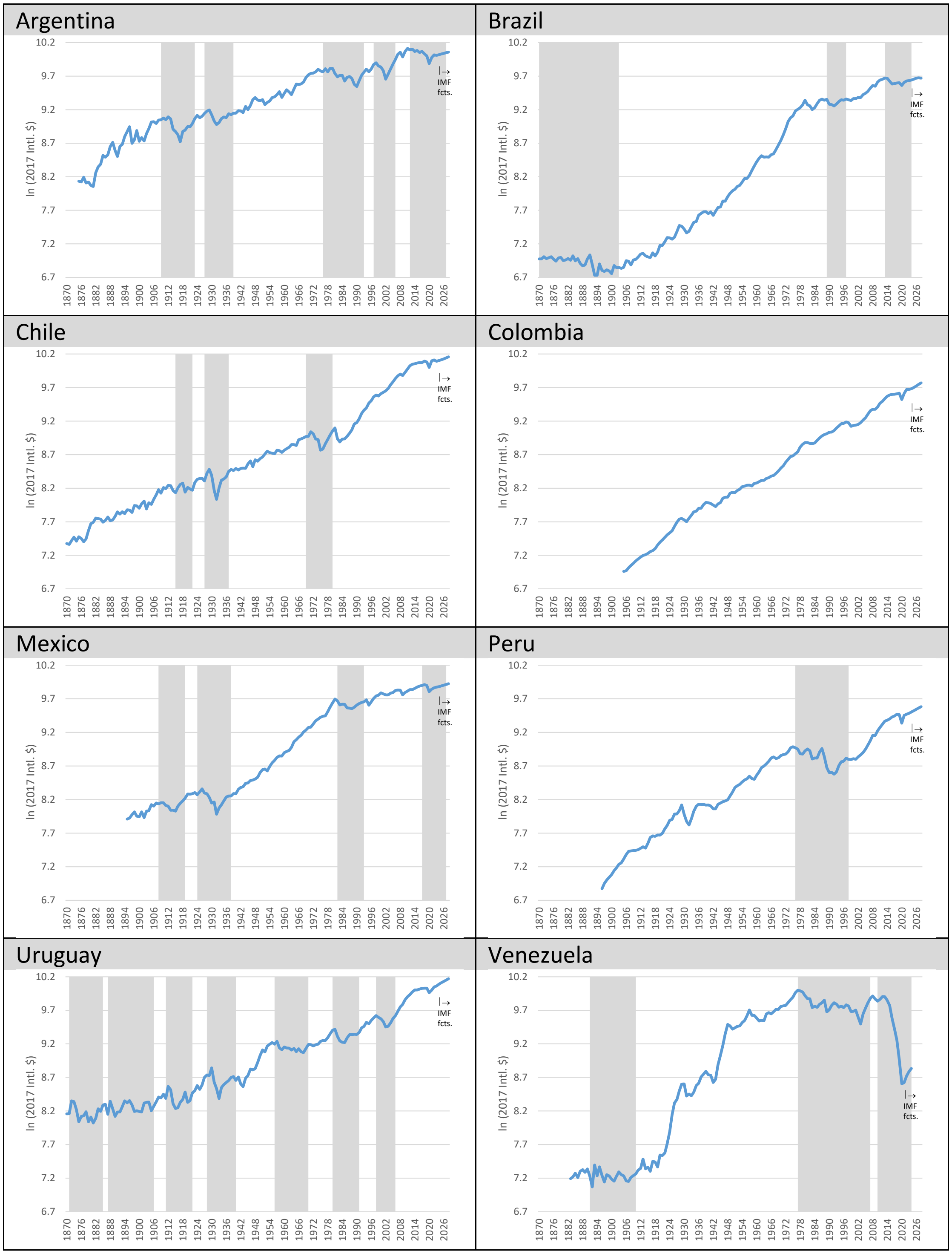
Accordingly, COVID-19 coming immediately after the adjustment the region went through as a consequence of lower terms of trade effectively did plunge Latin America into what has already become the fourth lost decade episode in a century.

**Figure 9**: GDP per capita for the historical Latin American aggregate (Levels in 2017 International $; logs), with lost decades indicators




Note: The series is extended through 2028 using IMF forecasts (available for all countries, except for Venezuela, which ends in 2023). Starting dates differ across the aggregate's constituent countries (see Table 1 for details). The first year for which all constituents are present in the regional aggregate is 1905. Shaded areas correspond to lost decades (defined as periods lasting at least eight years when smoothed GDP per capita levels were equal or lower than at the start of the episode).
Source: Barro and Ursúa (2008, 2012), IMF (2023).

**Figure 10**: GDP per capita in historical sample of Latin American countries (Levels in 2017 International $; logs), with 'lost decades' indicator




Note: The series are extended through 2028 using IMF forecasts (available for all countries, except for Venezuela, which ends in 2023). Starting dates differ by country (see Table 1 for details). The first year for which all constituents are present in the regional aggregate is 1905. Shaded areas correspond to "lost decades" (defined as periods lasting at least eight years when smoothed GDP per capita levels were equal or lower than at the start of the episode).
Source: Barro and Ursúa (2008, 2012), IMF (2023).

Figure 10 reproduces the exercise for the eight Latin American countries forming the historical aggregate. All in, we find 26 episodes of lost decades, listed as follows (bold for episodes involving a rare disaster as discussed in Section 2):

- Argentina (five episodes): **1909-1923**, **1927-1939**, **1976-1993**, **1997-2006**, **2012-2027f**.
- Brazil (three episodes): **1870-1903**, **1989-1997**, 2013-2024f.
- Chile (three episodes): **1915-1922**, **1927-1937**, **1969-1980**.
- Colombia (zero episodes): ∅
- Mexico (four episodes): **1908-1919**, **1924-1938**, **1982-1993**, **2017-2027f**.
- Peru (one episode): **1976-1998**.
- Uruguay (seven episodes): **1871-1885**, **1887-1906**, **1911-1922**, **1928-1940**, **1956-1970**, **1980-1991**, **1998-2006.**
- Venezuela (three episodes): **1891-1910**, **1977-2007**, **2010-2024f**.

There is a clear connection between macroeconomic rare disasters and lost decades in Latin America. All but one of the lost decade episodes involve at some point in their timespan a rare disaster. The opposite happens less often, as only about 70 percent of disasters coincide with lost decade episodes. While the overall number of lost decade episodes is smaller than the overall number of disasters, this says nothing about their relative time frequency. In fact, our data show that Latin American countries spend about 16 percent of their time in a state of disaster (that is, going from a peak to a trough decline by at least 10 percent) and about 34 percent of their time in the midst of a lost decade episode. In other words, the unconditional probability that a Latin American country will be undergoing a lost decade episode—in any random year—is more than twice as high as the unconditional probability that it will be undergoing a rare disaster.

A particularly harmful effect of lost decade episodes is that they can erode a country's wealth in stealth but might not trigger the sense of urgency needed to generate the political consensus to undergo a deep process of economic, political and institutional transformation. Disasters are often devastating, but a flipside is that it sometimes shakes the foundations of the political equilibrium to unleash a process of adjustment that can lead to significant corrections in institutions or policy. Over time, these can be beneficial for growth, like many of the liberalization policies that Latin American countries adopted in the 1990s following crises in the 1980s. Independent central banks, flexible exchange rate regimes, and openness to global trade are some of the trademarks of that creative destruction era. In contrast, lost decade episodes can go unnoticed, taking a long time to reach a breaking point that will set a country's course in a better direction.

Of course, lost decades and rare disasters are tightly linked and have been pervasive in Latin America. In the next paragraphs we put everything together and analyze what we consider to be the most salient episodes of the last century's economic performance in the region.

- **Venezuela** is on a class of its own. After a remarkable period of expansion in the first half of the 20$^{th}$ century, its economy began to fall apart in the 1960s. Recurrent lost decade episodes since then, plus a significant number of disaster shocks, have left the Venezuelan economy in a state of collapse. In 1905, Venezuela had 55 percent of the average GDP per capita of the Latin America aggregate; but today it has 37 percent. Even worse, Venezuela today has roughly the same level of GDP per capita it had in the 1930s. Incredibly, the destruction of nearly a century's worth of income has occurred in only seven years. To paraphrase Lenin, Venezuela's collapse demonstrates that there are centuries when nothing happens; and there are decades when centuries happen.

- **Argentina** and **Uruguay** exemplify the harmful long-run effects of recurring lost decade episodes intertwined with disasters, of which they both have many. Their growth trajectories have been continuously battered by bouts of instability and underperformance. Fortunately for Uruguay, that underperformance was relatively more front-loaded over the past century, whereas for Argentina it has been a continuous story. As a result, Argentina lost its place as the richest amongst the eight nations, while Uruguay remained second place (see Figure 11 Panel A). In addition, Argentina today has nearly the same GDP per capita it had 15 years ago, but Uruguay's has risen by more than 40 percent over the same period.

- **Peru** and **Chile** are similar in having spent relatively few years in lost decade episodes, and to have avoided them altogether since the 2000s. As a reflection of that, they have grown the fastest amongst the eight nations over the past 30 years. For Chile, this has meant moving from the fourth to the first place in the GDP per capita ranking over the past century; and for Peru, to have grown its income level by a factor of around 9 (see Figure 11 Panel A).

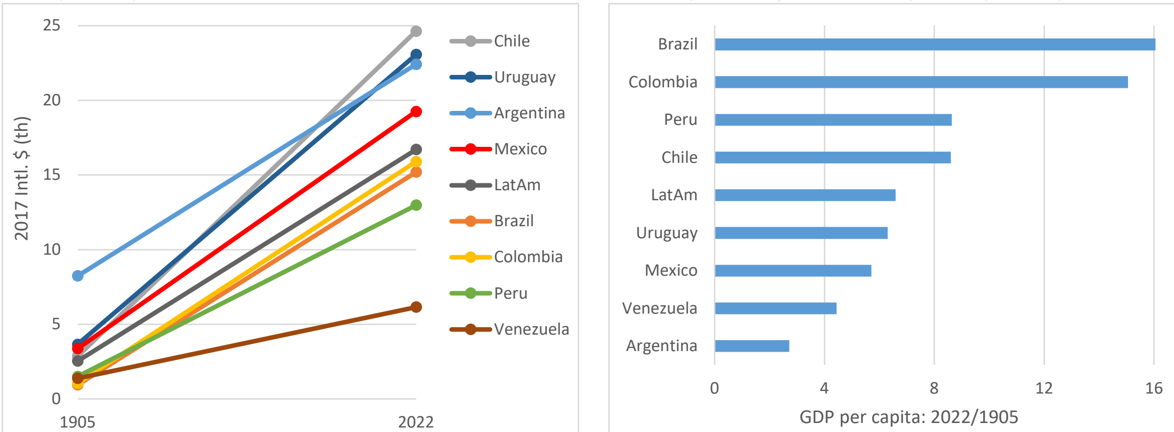
- **Brazil** and **Colombia** are remarkable stories in different ways. Brazil has had three lost decade episodes, "wasted" nearly 50 years before World War I where GDP per capita remained flat and has been undergoing a lost decade episode since 2013 (exceptional in not being directly related to a disaster). However, it still has managed to grow its level of GDP per capita by a factor of 16 since 1905. This impressive feat is closely followed by Colombia, which managed to grow its GDP per capita by a factor of nearly 15 over the same period. Importantly, Colombia is the only Latin American country that has not had a single rare disaster, nor a single lost decade episode, since at least 1905. In both cases, economic performance weakened since 1950 relative to prior decades, with relatively flatter growth trajectories (see Figure 11 Panel B). Still, together with Chile, they remain the top three Latin American economic performers, both since 1905 and since 1950.

- **Mexico** shares elements with most of the previous stories, and it is not surprising that its experience follows closely the Latin American average. With four disasters and four lost decade episodes, it is in the middle of the number of peer experiences. However, it has underperformed significantly in terms of its ability to increase GDP per capita—only by a factor of less than 6 since 1905, the third worst after Argentina and Venezuela. In recent decades, Mexico's growth trajectory ranks fourth compared to Latin American peers, but it has not taken off despite significant macroeconomic improvements. Unfortunately, policies since 2018 have eroded microeconomic and institutional foundations for long-run growth—especially those related to capital accumulation, productivity growth, and improvements in human capital. Investment/GDP fell to 19 percent in 2020, a 40-year low, and is expected to only moderately recover. With COVID-19 and ensuing shocks in 2022, this potential growth erosion makes it unlikely that Mexico will escape the fourth lost decade in its history any time soon.

**Figure 11**: Summary of Latin America's economic progress since the early 1900s and 1950

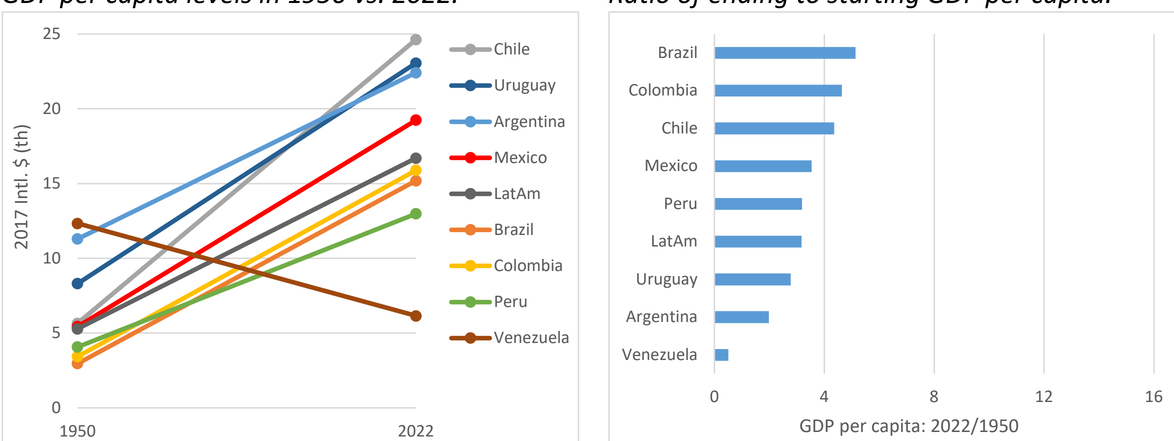
*Panel A:*

*GDP per capita levels in 1905 vs. 2022.* *Ratio of ending to starting GDP per capita.*




*Panel B:*

*GDP per capita levels in 1950 vs. 2022.* *Ratio of ending to starting GDP per capita.*




Source: Barro and Ursúa (2008, 2012), IMF (2023).

**Section 6: Conclusion**

Latin America growth path has been a struggle for more than a century. Its underperformance relative to other regions, especially Asia, is a major disappointment given its much stronger starting point in the early 1900s. In this paper, we documented two key ways in which the COVID-19 pandemic aggravated this picture:

- First, the pandemic pushed some of the region's largest economies—Argentina, Mexico, Peru and Venezuela—into painful macroeconomic rare disasters, with contractions in GDP per capita of at least 10 percent. Tragically, Venezuela's decline matches the world's largest macroeconomic GDP disaster in modern history.

- Second, the pandemic also compounded years of underperformance by pushing the region into a lost decade. At the country level, this is presently affecting Argentina, Brazil, Mexico, and Venezuela. Other countries may be avoiding stagnation, but none did better in the 2010s than in the previous two decades.

One of the ways in which COVID-19 wreaked havoc in Latin America was by exacerbating existing vulnerabilities, including weak health infrastructure, depleted fiscal buffers, tenuous social safety nets, nationalistic tendencies, and political dysfunction. Unfortunately, new challenges have emerged at the global level—including the Russia-Ukraine conflict and the dramatic rise in world interest rates—that will not make it any easier for the region to find its footing.

In the end, however, our analyses show that—while affected by outside events—most of Latin America's rare disasters are attributable to its own making, as they relate to domestic political, economic, or financial debacles. In fact, there may be positive side effects for the region stemming from certain global developments. For example, intensified China-US competition should benefit Mexico through nearshoring, if only Mexico had policies in place to attract private investment instead of deterring it. The problem is not global developments, but domestic policy choices.

Long-run outcomes hinge on the ability of policy makers to generate adequate conditions for growth—including stable macro and external balances, confidence for investment, incentives for productivity growth, quality education to increase labor value added, openness to trade, and secure property rights, among others. These could compound structural strengths in terms of sizeable working age populations, ample natural resources, and geographic advantages to benefit from global trade. Latin America's decline, especially since the 1980s, is likely attributable to insufficient progress in these policy directions while other regions have remained steadfast. The challenge is immense, but not insurmountable.

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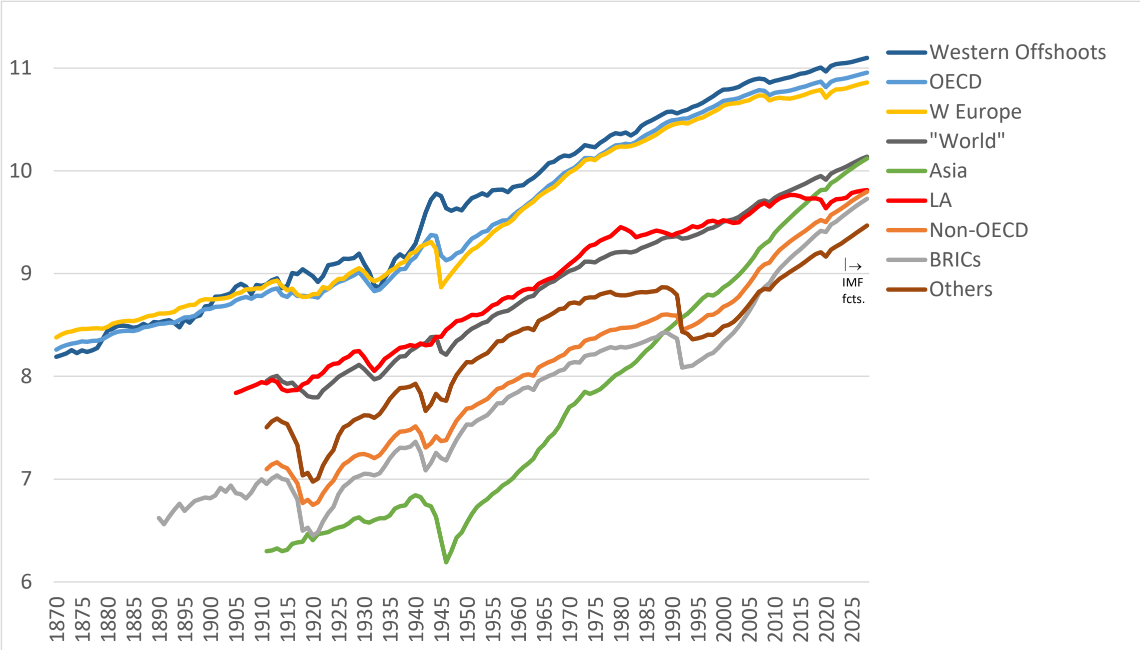
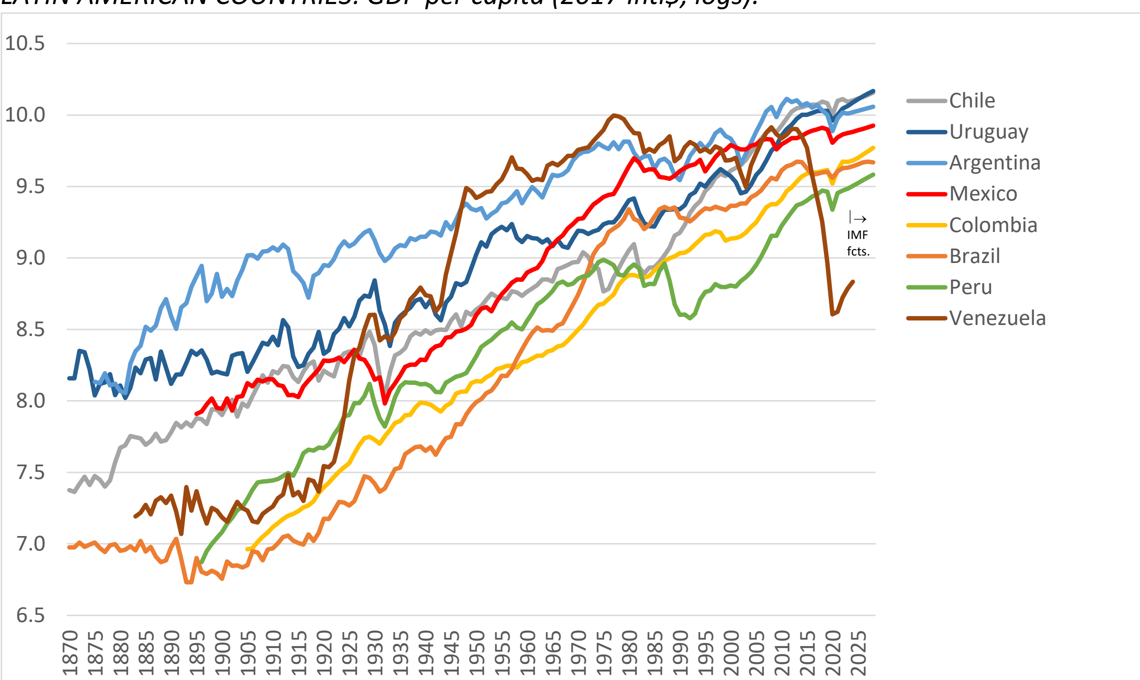
**Appendix**

*REGIONS: GDP per capita (2017 Intl$; logs).*




Note: Chart uses IMF forecasts for 2023-2028 period.
Source: Barro and Ursua macro database, IMF (2023).

*LATIN AMERICAN COUNTRIES: GDP per capita (2017 Intl$; logs).*




Note: Chart uses IMF forecasts for 2023-2028 period (except for Venezuela, which ends in 2023).
Source: Barro and Ursua macro database, IMF (2023).

*Details on the construction of the commodity price index discussed in Section 4*

We created a weighted index of 31 commodities covering 1900-2020 by merging a historic index through 1960 and the Bloomberg Commodity Index thereafter. For the historic index, price data for the original 24 commodities in Grilli and Yang (1988) come from Geronimi et al. (2018), supplemented with data from the World Bank's Pink Sheet, the OECD, UNCTAD, and the St. Louis Federal Reserve for some commodities after 1987. While the merged composite index does not rely on the historic series after 1960, we used observations during overlapping years with the Bloomberg Commodity Index to assess overall compatibility. In the historic index, the weights for each commodity correspond to shares in world exports in 1974-1975. All commodity weights are obtained from Ocampo and Parra-Lancourt (2010), with the exception of crude oil, whose share we calculate using data mainly from Comtrade and the US Energy Information Administration. We rebalanced weights to sum to 100 as shown in the table below in descending order. Figure 5 Panel A in the main text shows the resulting commodity price index for the whole time period in nominal and real terms (deflated using US CPI).

| | Commodity | Original Weight | Re-indexed Weights | | Commodity | Original Weight | Re-indexed Weights | | Commodity | Original Weight | Re-indexed Weights |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Crude Oil | 14.4 | 12.8 | 11 | Sugar | 3.7 | 3.3 | 21 | Silver | 1.7 | 1.5 |
| 2 | Wheat | 11.5 | 10.2 | 12 | Palmoil | 3.7 | 3.3 | 22 | Zinc | 1.4 | 1.2 |
| 3 | Timber | 8.3 | 7.4 | 13 | Wool | 3.7 | 3.3 | 23 | Tin | 1.2 | 1.1 |
| 4 | Maize | 7.9 | 7.0 | 14 | Rubber | 3.3 | 2.9 | 24 | Nickel | 1.2 | 1.1 |
| 5 | Copper | 6.4 | 5.7 | 15 | Hides | 3.0 | 2.7 | 25 | Soybeans | 1.1 | 1.0 |
| 6 | Coffee | 6.0 | 5.3 | 16 | Aluminum | 2.7 | 2.4 | 26 | Tea | 0.9 | 0.8 |
| 7 | Iron Ore | 5.0 | 4.4 | 17 | Tobacco | 2.6 | 2.3 | 27 | Lamb | 0.8 | 0.7 |
| 8 | Soybean Oil | 4.7 | 4.2 | 18 | Rice | 2.5 | 2.2 | 28 | Banana | 0.8 | 0.7 |
| 9 | Cotton | 4.6 | 4.1 | 19 | Fish Meal | 2.2 | 2.0 | 29 | Lead | 0.7 | 0.6 |
| 10 | Beef | 4.0 | 3.5 | 20 | Cocoa | 1.9 | 1.7 | 30 | Chicken | 0.7 | 0.6 |
| | | | | | | | | 31 | Jute | 0.1 | 0.1 |

*Full list of COVID-related disasters for all countries available in the WEO IMF data base.*

| | | | | | |
|---|---|---|---|---|---|
| 1 | Andorra (2016-20: -13.4%) | 22 | Honduras (2019-20: -10.5%) | 43 | Panama (2019-20: -19.1%) |
| 2 | Angola (2014-22: -28.3%) | 23 | Iraq (2019-20: -17.8%) | 44 | Peru (2018-20: -12.6%) |
| 3 | Afghanistan (2013-21: -10.4%) | 24 | Jamaica (2019-20: -10.0%) | 45 | Phillipines (2019-20: -10.7%) |
| 4 | Antigua (2019-20: -21.4%) | 25 | Kuwait (2012-21: -24.2%) | 46 | Qatar (2011-20: -21.4%) |
| 5 | Argentina (2015-20: -17.8%) | 26 | Kyrgyz Republic (2019-20: -10.4%) | 47 | Republic of Congo (2014-21: -36.6%) |
| 6 | Aruba (2019-20: -18.1%) | 27 | Lebanon (2010-20: -44.4%) | 48 | Samoa (2019-22: -17.1%) |
| 7 | Bahamas (2019-20: -24.7%) | 28 | Lesotho (2016-20: -12.0%) | 49 | Solomon Islands (2018-22: -15.2%) |
| 8 | Barbados (2017-21: -15.3%) | 29 | Liberia (2013-20: -18.4%) | 50 | South Sudan (2011-20: -63.4%) |
| 9 | Belize (2015-20: -21.3%) | 30 | Lybia (2018-20: -38.6%) | 51 | Spain (2019-20: -11.8%) |
| 10 | Bolivia (2019-20: -10.0%) | 31 | Macao (2018-22: -62.7%) | 52 | St Kitts & Nevis (2019-21: -17.0%) |
| 11 | Botswana (2019-20: -10.4%) | 32 | Madagascar (2019-20: -9.9%) | 53 | St Lucia (2018-20: -25.8%) |
| 12 | Brunei (2011-22: -14.0%) | 33 | Maldives (2019-20: -34.5%) | 54 | Sudan (2016-22: -23.1%) |
| 13 | Burundi (2014-20: -16.8%) | 34 | Malta (2019-20: -12.3%) | 55 | Suriname (2018-21: -20.0%) |
| 14 | Cabo Verde (2019-20: -15.8%) | 35 | Mauritius (2019-20: -14.6%) | 56 | Trinidad & Tobago (2014-21: -22.6%) |
| 15 | Chad (2014-22: -22.7%) | 36 | Mexico (2018-20: -9.9%) | 57 | Turkmenistan (2017-20: -10.9%) |
| 16 | Dominica (2019-20: -17.9%) | 37 | Montenegro (2019-20: -15.2%) | 58 | U.K. (2019-20: -11.4%) |
| 17 | Ecuador (2017-20: -10.5%) | 38 | Myanmar (2020-21: -18.5%) | 59 | Vanatu (2019-22: -12.0%) |
| 18 | Equatorial Guinea (2012-22: -56.5%) | 39 | Namibia (2015-20: -16.9%) | 60 | Venezuela (2008-20: -73.0%) |
| 19 | Fiji (2018-21: -23.0%) | 40 | Nigeria (2014-20: -10.9%) | 61 | West Bank (2016-20: -16.2%) |
| 20 | Grenada (2019-20: -14.2%) | 41 | Oman (2009-20: -14.9%) | 62 | Yemen (2010-22: -60.2%) |
| 21 | Haiti (2018-22: -13.2%) | 42 | Palau (2016-22: -23.4%) | 63 | Zimbabwe (2018-20: -16.6%) |

Note: There are two additional countries near the 10 percent threshold: Tunisia (1919-20: -9.7 percent) and Nicaragua (2017-20: -9.8 percent).
Source: IMF (2023).