*Based on CCJ V5.1-2 2020

CYRUS CHRONICLE JOURNAL (CCJ):

Contemporary Economic and Management Studies in Asia and Africa

An imprint of the CYRUS Institute of Knowledge (CIK)

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Contemporary Economic and Management Studies in Asia and Africa
An imprint of Cyrus Institute of Knowledge
http://www.cyrusik.org
October 2020

ISSN 2573-5691

2020 – Vol. 5, No.1 (Papers 1-3) & No. 2 (Paper 4-6&BR)

Forty Years in Crises: Understanding the Underlying Causes of Financial Crises in Latin America and How Coronavirus Positions the Region Today

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[1] The authors would like to thank anonymous reviewers for their helpful comments on earlier drafts of this paper. Any errors are the authors' responsibility.

- Guidelines for submission to CCJ - http://www.cyrusik.org/ccj/submission-guidelines/

CYRUS CHRONICLE JOURNAL (CCJ):
Contemporary Economic and Management Studies in Asia and Africa

The flagship journal of the CYRUS Institute of Knowledge

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The CYRUS Institute of Knowledge (CIK) Journal is a refereed interdisciplinary journal. The editorial objective is to create opportunities for scholars and practitioners to share theoretical and applied knowledge. The subject fields are management sciences, economic development, sustainable growth, and related disciplines applicable to the emerging economies in Asia, Africa, and other regions. Being in transitional stages, these regions can greatly benefit from applied research relevant to their development. **CCJ** provides a platform for dissemination of high quality research about these regions. We welcome contributions from researchers in academia and practitioners in broadly defined areas of management sciences, economic development, and sustainable growth. The Journal's scope includes, but is not limited to, the following:

- Business Development and Governance
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- International Economics
- International Finance
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- Organization and Cultural Issues
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Professor Tagi Sagafi-nejad is the editor of **CCJ**. Dr. Sagafi-nejad is ex-editor of International Trade Journal, the author, in collaboration with John Dunning of The UN and Transnational Corporations: From Codes of Conduct to Global Compact, (2008) and "The Evolution of International Business Textbooks" (2014). He was the Radcliffe Killam Distinguished Professor of International Business, founding Director of the PhD Program in International Business, and Director and Center for the Study of Western Hemispheric Trade at Texas A&M International University (2003-2013). Dr. Sagafi-nejad is well known internationally and has outstanding credentials to develop The Cyrus Chronicle into a high quality publication.

Submission Process:

For more information on the Institute, please contact: Editor@Cyrusik.org; Sagafinejad@loyola.edu; Nasgary@Cyrusik.org. *CYRUS Institute of Knowledge (CIK), Box 380003, Cambridge, MA 02238-0003, USA*

He will be assisted by an editorial board consisting of distinguished members from world-class institutions of higher learning, practice and industry.

We invite authors to submit their papers and case studies to Editor@Cyrusik.org. We will have a quick turn-around review process of less than two months. We intend to begin with two issues per year consisting of about 5-8 papers and case studies per issue, with fall 2015 being the first issue. A selected number of papers submitted to the CIK conference will be double-blind reviewed for inclusion in **THE CCJ**. We intend to have special issues on themes that are within the scope of Journal. Also, we will have invited guest issues.

THE CCJ: An imprint of the CYRUS Institute of Knowledge (CIK)

Background:

This is a historical time for developing and emerging markets, and The Cyrus Chronicle Journal intends to offer what is most urgently needed. There is no question that organizations and businesses that are capable of analyzing and applying advanced knowledge in management sciences and development are in high demand, especially during transitional periods. It is an unusual time in the target regions and the world. A time which requires active intellectual participation and contributions. It is the era of revolution in terms of advances in communication, technology. It is a time for intellectuals, entrepreneurs, and philanthropists to help enlighten minds, and therefore enrich the quality of life for millions. It is a time to focus intensely on the historical characteristics, achievements, human and natural resources, and the significant deficit in development, management sciences, and democracy in these regions. CIK's vision, "to cultivate the discourse on human capital potentials for better living," is the appropriate response to current challenges, and the journal is a platform for sharing the perspectives of scholars and practitioners with a wider audience.

CIK associates tend to have a foot in two worlds. First, most of the associates possess a wealth of intellectual and experiential knowledge, which is enhanced by their active involvement in business, consulting, scholarly research, and collegiate teaching. Second, some associates are sons and daughters of the afore mentioned regions and possess an ethnic identity, language skills, and the insights only embraced by insiders. Third, most of the CIK board of directors' members and associates are well-known scholars, members of editorial boards of journals, and editors. CIK possesses depth, breadth, and a competitive edge to successfully manage a reputable, double blind peer-reviewed journal. CIK is committed to developing knowledge that positively contributes to the life of the world's

citizens. CIK is a charitable, educational, and scientific organization that has been in operation since 2011. CIK is a secular and non-partisan organization and has many scholars and practitioner as member.

Editor's Introduction

Since inception in 2012, the ***Cyrus Institute of Knowledge*** has held five annual meetings. Three years ago, we published the first volume of its flagship journal, ***Cyrus Chronicle Journal (CCJ): Contemporary Economic and Management Studies in Asia and Africa in conjunction with the 2016 annual conference.***
The Institute has had seven successful international conferences since its inception. These conferences have been hosted at institutions in the United States (MIT, Harvard, Hult), and internationally (Hult - UAE, American University in Cairo, and ESCA in Morocco). Several institutions of higher education have collaborated and supported these conferences. Please see CIK website for information about these institutions. We greatly appreciate their support! *The CIK 2020 Conference was held* ***Online*** *and in collaboration with International Symposium on Project Management, Innovation and Sustainability (SINGEP) during Oct. 1-3.*
Generally, conference participants come from at least 15 different countries and 35 institutions, organizations, and companies. Please see CIK website for details. Some of plenary sessions had up to 150 participants. The best papers presented at these conferences have traditionally been accepted for publication in the Journal, along with additional articles by prominent scholars.
The acceptance rate of *CCJ* is generally less than 20%. Our aim is to publish the highest quality papers after they pass through our strict review process. CIK colleagues and conference participants have proposed and suggested special issues of the journal, which is based on core topics (i.e., entrepreneurship, innovation, ethics, and sustainable development) and/or country specific ones. Therefore, we welcome articles that meet these characteristics.
Now we welcome you to read the fifth volume issue 1(CCJ.V5.1). The journal intends to cover scholarship pertaining to emerging economies in Asia, Africa, and other emerging economies. Scholarship dealing with these regions tends to be either ignored or misunderstood, and there are limited outlets for scholars who work in these countries to share their scholarly outputs. Focusing on these two continents will help researchers from these regions - which together account for the largest portion of the world population and growth. The *CCJ* intends to fill these gaps. An examination of our mission may shed some light on this question. The primary purpose of the journal is four-fold:

1. To share and promote knowledge of economic, management, and development issues facing countries of Asia and Africa and other emerging markets. Focusing on assessment, evaluation, and possible solutions help advance these countries, which also have the largest populations. Development challenges are global; virtually all countries face challenges concerning economic development, sustainability, food and water, population and environmental degradation. Yet no country gains by shunning opportunities that globalization can provide, with the possible exception of a few countries whose leaders lack a full understanding of the opportunities that globalization can offer. To take advantage of such opportunities, knowledge is the primary requisite.This journal aspires to make a contribution to this body of knowledge.

2. To encourage the generation and dissemination of knowledge by local scholars whose access to mainstream academic outlets may be limited. There are many scholars from academic, public and private sector organizations whose first-hand knowledge of problems and solutions is not being shared for lack of an appropriate outlet for dissemination. The *CCJ* seeks to provide an opportunity for spreading such knowledge.

3. Academic scholarship emanating from the region under the journal's coverage tends to get lost in the academic jungle where the pressure of "publish or perish" leaves behind the younger and less experienced members. This journal will provide a venue for the scholars with first-hand knowledge of these areas. By publishing in *CCJ*, they could make important contributions to the body of management and development scholarship on which the journal will continue to concentrate. The *CCJ* will provide a platform for established as well as younger scholars who might collaborate with them in their research.

This fifth volume, issue 1, of the *Cyrus Chronic Journal*, contains three articles. Articles from established scholars and policymakers that cover the gamut from Asian to Latin America. As part of our mission to advance knowledge we will continue to include reviews of major scholarly books relevant to the Journal readers.

On the journal's operational side, we want to make the publication more accessible to a wide audience across the world, and so, consistent with the 21st -century trend toward electronic media, we will continue to publish this journal online. To maintain rigor and originality, articles submitted to the journal will nevertheless undergo the standard double blind review process. Reviewers' anonymous comments are shared with authors, as appropriate. Submission guidelines and procedures are delineated on the journal's website: http://www.cyrusik.org/research/the-cyrus-chronicle

As the first editor of the journal, I am pleased and proud to accept this challenge. I bring some experience; my first editorial assignment was as an undergraduate student at the then Pahlavi University in Shiraz, Iran, a top-ranking institution in the region. A few students and I founded and published *Danesh-Pajouh* (knowledge seeker). In those days when freedom of expression was severely limited, we managed to publish one issue in March 1965 before the censors put a stop to the enterprise.

Years later, while directing a doctoral program in international business in Texas in the early 2000's, I also served as the co-editor - and eventually editor - of the *International Trade Journal* (ITJ) until my retirement in 2013. Under my leadership, the *ITJ* acceptance rate fell below 10%.

Publishing an academic journal is simply a labor of love. The rewards are many-fold and include working alongside a dedicated team of colleagues – Nader Asgary, Alf Walle, Nancy Black Sagafi-nejad, Dina Frutos-Bencze, reviewers, and the entire editorial Board. In addition, of course, we thank our contributors who have trusted their work of scholarship to be published in a new but growing and promising publication. They have spent many hours working to polish and prepare for the journal for publication.

In this fourth issue, we have already reached a threshold of about 20% in acceptance. Still, *CCJ* needs your support and so I ask for your help in the following ways:

- **We are interested to offer special issues based on themes and country case studies. Your support, suggestions, and contributions are welcomed;**
- **Contribute articles, case studies, and book reviews and commentaries;**
- **Encourage your colleagues to do the same;**
- **Encourage promising young scholars – especially those from developing and emerging economies from China to the northern tip of Africa – to submit their works to our journal;**
- **Spread the word, especially in countries where CCJ can be most effective;**
- **Cite the articles published in this journal in your own research when applicable;**
- **Attend the annual conferences of the Institute (http:/www.Cyrusik.org the physical platforms that serves as an annual spawning ground for articles that may ultimately be published in this journal;**
- **Give us your feedback by telling us how we can further promote and improve the journal.**

Welcome to *ITJ*, and thank you.

Tagi Sagafi-nejad, Editor

Abstract
This paper is an attempt at identifying the causes and commonalities of financial crises in Latin America over the past forty years. This identification is carried out through an extensive review and analysis of the literature on the precipitating factors of 12 major financial crises in six major nations in Latin America. Through the literature review, we find three major commonalities among the Latin American financial crises: over-dependence on commodities, ineffective macro and currency policies, and overall political instability. Political instability is often the impetus for self-serving, politically motivated economic decisions, accentuating an existing crisis or contributing to a new one, such as the region's current struggles with the Covid-19 pandemic. Our analysis show that these crises are associated with significant shifts in the commodity prices, exchange rates and interest rates.
JEL Classification Numbers: C33; E52; F44
Keywords: financial crises, external shocks, macroeconomic policy

1. Introduction

Latin America is a diverse region in the Western Hemisphere that stretches from the tip of South America to the borders of the United States. The entire region was colonized by European nations, primarily Spain and Portugal, in the decades following the arrival of Christopher Columbus in 1492. Despite this shared linguistic and cultural influence, since then the region's nations have had varied histories with many being marred by political and social unrest and numerous ideological shifts in the ruling power. This has played a significant role in the variance in their economic and financial growth throughout the past 120 years.

This paper will focus on drastic downturns in economic growth and financial conditions throughout the different countries of Latin America, generally labeled as economic or financial crises. Following Kindelberger and Aliber (2005), we define a financial crisis as any situation in which some or all financial assets suddenly lose a large part of their nominal value. Throughout Latin America and the world, most financial crises are associated with banking panics or large-scale recessions. These recessions and panics have had increasingly wide geographical scopes as the world has become more and more interconnected. Due to data constraints, our study will focus predominantly on the past 40 years, covering 12 major financial panics throughout Latin America, starting with the region-wide Latin American debt crisis of the 1980s and continuing through the ongoing Venezuelan crisis that began in the early 2010s. The purpose of the study is to determine common underlying causes across these crises and apply the lessons learned to the region's current economic and political climate.

The motivation for the study is derived from the authors' interest in the region in light of the economic, political and social challenges the region is facing. Late in 2019, there was an unusual surge in political turmoil in many Latin American countries, including Colombia and Peru, two countries perceived as being politically stable. This year, the region is facing serious economic challenges due to a large decline in oil revenues and the Coronavirus pandemic. Brazil, the largest economy in the region, is currently in the midst of a crisis that includes serious public health issues, political uncertainty and fiscal predicaments. Policy mistakes in a country like Brazil can easily turn the current economic slowdown into a deep and protracted economic crisis, with serious social and political fallout for the entire region. For these reasons, we think a re-examination of past crises is warranted at this time.

Latin America's many financial struggles can be traced far back to the time of imperialism and colonial rule. However, this paper focuses on the more recent struggles, starting with the Latin American debt crisis of the 1980s. This crisis was region-wide and effected almost every country within Latin America. It was kicked off by Mexico announcing that it could not meet its foreign debt payment obligations in 1982 (Hershberg and Rosen, 2006). This in turn discredited most Latin American economies throughout the decade, leading to the popular Lost Decade name.

Since the 1980s, there have been eleven more financial crises, directly effecting eight of the largest economies in Latin America with Venezuela being the most heavily effected country over this period.

The financial crises examined in this paper are as follows: the Latin American debt crisis of the 1980s; the Chilean crisis of 1982; the Special Period in Cuba of the 1990s; the Mexican peso crisis; the Venezuelan banking crisis of 1994; the Ecuadorian financial crisis of 1998-99; the Argentinian Great Depression of 1998-2002; the Brazilian crisis of 1999-00 (known as the Samba Effect), the 2002 Uruguay banking crisis; the Venezuelan general strike of 2002-03; the Venezuelan banking crisis of 2009-10; the 2014 Brazilian economic crisis; and the ongoing Venezuelan calamity.

2. An Overview of the Crises

The Latin American debt crisis of the 1980s is often credited as having initiated the recent spree of crises in Latin America. This crisis has been labeled as La Década Perdida, or the Lost Decade, because of its decade-long negative impact on the region's economies. Most experts agree, with few but notable exceptions, that the crisis was caused by the excess debt taken on by Latin American countries in the prior two decades. At the time, most Latin American economies were soaring, especially after the surge in oil price in the mid to late 1970s. Countries borrowed initially through public routes, as well as the World Bank, but later through private banks to finance infrastructure programs and other industrialization needs, with the loans often backed by future oil revenues that were priced in U.S. dollar.

As interest rates rose in the late 1970s, these countries found it difficult to make payments on their ballooning sovereign debts. The situation turned into a crisis, with the crisis ultimately culminating when world trade contracted in 1981 and crude oil prices dropped precipitously. Mexico was one of the largest culprits. On August of 1982, Mexico's finance minister announced that due to the sharp drop in the oil price the nation would not be able to service its debt and that it would not be restructuring this debt with lenders. (Figure 1 in the Appendix gives a graphic illustration of the change in the oil price going back to 1986.) This announcement essentially froze Latin America's ability to secure money to fund new projects or service its outstanding debt. Faced with a slumping economy and unable to refinance their maturing short-term debt, Latin American countries had no choice, but to default.

This was the most serious financial crisis Latin America had faced, forcing many of the countries to seek out loans from the International Monetary Fund (IMF), accepting stringent covenants for the loans. These covenants forced countries to halt spending on social initiatives, channeling all revenues to the repayment of debt. Income and imports were heavily affected, as economic growth stagnated for years, while unemployment reached recessionary highs. Over the following decade (i.e., 1980s), real wages dropped between 20 and 40 percent while there was a marked rise in crime. (Felix, 1990). So, the intervention by the IMF in essence forced most countries to put on austerity measures, including the cutting of key social programs, that could have arguably helped to prevent or at least mitigate some of the societal issues the region continues to face even today, i.e., drug trade, prostitution and terrorism.

Many analysts attribute this crisis largely to the incentives provided by and the requirements of the IMF loans, as they forced most countries to abandon their import substitution industrialization models for an export-oriented industrialization. This change in policy saw them focus less on self-reliance through local production in favor of exporting what they had a comparative advantage in and importing everything else. This new path adhered to basic ideas of neoliberal economics that promoted privatization, globalization, free trade and austerity.

Interestingly, the shift away from neoliberal economic policies is thought to have been one of the driving factors for the Chilean crisis of 1982. Occurring just about at the same time as the Latin American debt crisis and sometimes referenced as an extension of that crisis, the Chilean crisis of 1982 was the nation's worst economic crisis since the Great Depression of the 1930s. The crisis stemmed from the pegging of the Chilean peso to the U.S. dollar, deviating from the neoliberal policies of the "Chicago Boys" that were adopted in many regional countries in the 1970s and 1980s (Valdés, 2008). Critics of neoliberal economics are quick to argue that the adopted neoliberal policies were themselves the cause of the Chilean crisis, citing these policies as causes of bank collapses and subsequent bailouts by the government throughout the two years leading up to the crisis (Salazar and Pinto, 2002). It is nearly impossible to draw a direct causation from the shift away from neoliberal economic policies to the Chilean crisis. The crisis was most likely brought on by interconnectedness of Latin American economies also suffering crises at the beginning of the 1980s, together with the pegging of the Chilean peso, which caused a significantly overvaluation of the peso and hampered investment into the country.

The Special Period in Cuba between 1991 and 2000 was drastically different in causes and in repercussions than both of the previous crises discussed above. While all three crises were associated with significant economic stagnations in the country in question, the Special Period in Cuba was brought on by an extreme shortage of sugar, as well as the collapse of the Soviet Union, which had made up roughly 80% of Cuba's imports and exports (Deere, 1991). This drastic reduction in imports and exports caused a roughly 34% decline in GDP over the nine-year period and reshaped Cuban life, as many citizens were required to live without goods they had for decades prior. Oil imports dropped to 10% of the pre-crisis levels, causing major industries to grind to a halt. The crisis kicked off a self-dependency movement throughout the country. The societal impacts were drastic, as waiting for a bus could take three hours, power outages could last up to sixteen hours and the average Cuban lost about twenty pounds (Donovan et al., 2008).

The Special Period in Cuba could be considered an outlier in terms of the Latin American financial crises, as it was brought on by an overdependence on an outside country due to political ideologies and global allies being few and far between for the small communist regime.

The Mexican peso crisis was another example of currency induced crisis, however it had its differences from the Chilean crisis of the early 1980s. In short, this crisis was caused by the sudden devaluation of the Mexican peso against the U.S. dollar in late 1994. To curb the capital flight out of the country, the Mexican central bank issued short-term debt in pesos with the promise of repayment in U.S. dollar. This action, coupled with Mexico's signing of the North American Free Trade Act, caused investors to have renewed confidence in Mexico until political unrest during the 1994 election caused investors to demand higher risk premium on Mexican assets. The Mexican central bank then implemented a series of moves with the intention of maintaining the peso's peg to the dollar, including hiking interest rates to 32 percent and devaluing the currency by as much as 15 percent. The central bank also used up all of its reserves to defend the currency's value and keep the peso pegged. However, these moves were ineffective, as foreign investors fled Mexican assets, causing increased downward pressure on the peso. This soon led to the central bank's inability to sell new public debt or purchase U.S. dollar with a severely devalued peso, forcing the bank to let the peso float freely. This caused a further depreciation of the currency. Eventually Mexico accepted a $50 billion bailout from the U.S. and the IMF, which brought stability to the peso.

The economic and financial repercussions were severe. Mexico's GDP declined by roughly 6% and there were many banks failures due to heavy loan losses. Interest rates rose to keep up with inflation, which was then at 52% a year, and a devaluing currency. A combination of high interest rates and high unemployment rate made it difficult for the citizens to keep up with mortgage payments, forcing many borrowers to default. Labeled as the Tequila Effect, the run on peso prompted renewed loss of confidence in emerging markets, with many of the countries in

the region experiencing capital outflows. Mankiew (2013) and many other studies find poor monetary policy response by Mexico as the major cause of the ensuing crisis.

In the same year as the Mexican peso crisis, another financial crisis was unfolding in Venezuela, their first of three we will be exploring from this country. The 1994 Venezuelan banking crisis can for the most part be attributed to financial liberalization, lax banking supervision and downright fraud. By the end of the crisis, the Venezuelan government had bailed out 10 Venezuelan banks after 17 of the country's 49 commercial banks failed, representing over 50% of the banking system's assets (Molina, 2002). Investigations of the failed banks revealed that some of the banks had used the same asset as collateral for multiple loans that collectively had a far larger notional value than the asset used as the collateral.

Fast forward four more years and the next financial crisis in Latin America was unfolding, this time in Ecuador. What was unfolding in Ecuador at this time was nothing short of a perfect storm for the country, as they experienced a banking crisis, currency crisis, sovereign debt and political crisis all at roughly the same time. The country had undergone significant financial sector liberalization throughout the 90s, which had produced the same results as in Venezuela's experiment, promotion of risky lending practices backed by the belief that well-connected recipients would be bailed out by their government connections. The liberalization did allow easier access to international capital markets, but much of the external borrowing was denominated in U.S. dollar, leaving the country susceptible to exchange rate fluctuations.

The shocks that ultimately tested these weaknesses were a sharp drop in oil prices and a strain on the agricultural sector due to an unusually strong El Niño. Revenue declines from these two commodity sources caused massive defaults, totaling close to 13% of the country's GDP, as well as runs on the banks, placing major strain on the banking sector (Fisher, 2020). Problems in Ecuador caused capital flights from emerging markets into stronger currencies, causing the Ecuadorian Sucre to depreciate heavily against the dollar. The government defaulted on its sovereign debt while also failing to support deposit guarantees.

This first crisis was different from the previous five crises only in that it was largely caused by a strengthening weather pattern in the shape of a significantly more pronounced El Nino, which led to serious droughts throughout the country. However, this crisis shared some of the same catalysts that were present in the previous five crises. Financial corruption, currency manipulation and poor economic policy left Ecuador in a recession for the better half of two years.

The late 1990s and early 2000s would shape up to be a tumultuous few years for Latin American financial markets, as Ecuador would soon be followed by Argentine, Uruguay and Brazil, all in somewhat of a financial contagion. Argentina was the next economy to succumb to the struggles, as the Argentinian Great Depression of 1998-2002 kicked off in the third quarter of 1998. Argentina had struggled over the previous two decades since the aforementioned Latin American debt crisis of the 1980s to stabilize its economy and regularly dealt with extreme hyperinflation. The widely cited three main contributors to the financial crisis in Argentina were the fixed exchange rate between Argentine peso and the U.S. dollar, large amounts of borrowing by the government, and reduced tax revenues due to the decrease in oil prices (Luna, 2001). Compounding the problems was a lack of fiscal discipline by the government, as well as financial contagion due to the crisis in other Latin American economies, Russia, and Asia, all putting pressure on the Argentinian peso, further crippling the government's ability to pay down their sovereign debt. The pegging and unpegging of the Argentinian peso added significant stress to the exchange rate during the crisis that is wildly cited as uneducated and unnecessary strain to the economy. Overall, Argentina's economic troubles all convened at an inconvenient time and crippled the economy.

The crisis in Argentina quickly spilled over into Uruguay, as Uruguay suffered a large banking crisis in 2002. The crisis was mostly attributed to the run on deposits mainly from foreign investors from Argentina. The crisis showed Uruguay's overdependence on Argentina, which caused a deep contraction in the economy. Approximately

33% of the country's deposits were taken out of the financial system and five financial institutions were left insolvent (Tagliaferro, 2012). Uruguay was criticized for their response as it was deemed inadequate and slow in restoring stability to the financial system. With the country not having adequate depositors' insurance or protection at the time, this crisis left many depositors in Uruguay and neighboring Argentina, as well Brazil, in dire economic conditions.

The final crisis of the late 90s and early 2000s was what would later be known as the Samba Effect in Brazil. Much like the Tequila Effect explored earlier during the Mexican peso crisis of the early 1990s, the Samba Effect was a plunge in the value of the Brazilian real due to capital outflows beginning in 1999. This crisis can be traced to the financial contagion that originated in Asia and Russia, initially affecting Brazil, the largest economy in the region, but then quickly spilling over to the entire Latin America. During the crisis, Brazil took various measures to curb the decline in the value of real, e.g., raising interest rates, hiking tax rates and cutting spending. However, these measures proved to be ineffective in brining stability to the nation's currency. Fears that the other emerging market crisis would quickly spread further into Latin America led Brazil to adopt austerity measures and accept a $40 billion bailout from the IMF. The Samba Effect is largely regarded to have dissipated by the turn of the new millennia, as had many of the contagious crisis of the 1990s.

After the contagion crises of the 1990s and early 2000s, Venezuela began to take center stage again, beginning with their general strike of 2002-2003. In response to political unrest and the desire for then President Hugo Chavez to step down, 18,000 state oil employees staged a strike lasting three months. Oil, much like in other Latin American countries, plays a main role in Venezuela's economy and strikes cost the oil industry $13 billion in revenues, forcing the country's GDP to fall 27% in the start of 2003 (Jones, 2008). Unemployment neared 20% and Venezuela defaulted on their oil contracts for the first time ever. Luckily, this crisis was short lived and did not have the far-reaching implications the last few had. It still shows a perfect example of how dependence on commodities and poor political stability have been an overarching theme throughout Latin America's financial and economic history.

The General Strike of 2002-2003 was only the tip of the iceberg for Venezuela as a few years later they would suffer another financial crisis of the banking kind that would persist in some aspects to this day. The Venezuelan banking crisis of 2009-2010 saw the government takeover twelve Venezuelan banks totaling over 12% of total deposits (Cancel, 2010). The takeovers were largely due to financial liberalization, corruption and poor oversight within the financial sector. The repercussions from this crisis remain largely unknown because shortly after, the current Venezuelan crisis began that has been affecting the country and economy for an entire decade. The crisis has been likened to a wartime economy, with major economic, financial and humanitarian downfalls. Many foreign firms have pulled out entirely out of Venezuela for safety reasons. Most airlines with the exception of those from Turkey and Russia have pulled out of the country and international capital has all but seized entirely due to capital constraints imposed by foreign governments. People have fled the country, with estimates showing that over 13% of the country's population has emigrated from Venezuela since the conflict began (UNHCR, 2019). Though deeper and harsher than the other crises discussed in the paper, this crisis largely encompasses the same elements of political risk inherent with Latin America over the past four decades that have caused many of the crisis.

The final financial crisis is the 2014 Brazilian economic crisis. Between 2015 and 2016, Brazil saw their GDP shrink by over 6% due to a number of economic, financial and political reasons. The crisis started when commodity prices for a number of Brazilian exports fell drastically, along with the foreign demand for these commodities specifically from China. The new political regime in power responded to the economic situation by adopting a set of ill-advised contractionary policies, including cutbacks on spending. These policies did exactly the opposite of what the country needed at the time, hence adding to the economic slowdown already underway. According to (Veloso, 2016), about 30% of the problem was caused externally due to demand and price decreases in exports and the remaining 70% was caused by political instability between new regimes and poor macroeconomic policies).

3. Literature Review

There has been a remarkable outpouring of books, journal articles, and conference presentations on Latin America dealing with both crises and the overall structure of the region's economies. Reviewing each individual piece of literature would be next to impossible. For this paper, we focus a handful of relevant works. The works span over thirty years from various points of view in an attempt to capture as wide a range of ideas and studies as possible.

Sachs (1989) gives a detailed account of the region's economic policy failures in the1980s, brought about by populist policies across Latin America. The main hypothesis of the paper is that high income-inequality often drives macroeconomic policy in the region, with policy aiming at raising the incomes of lower income groups, but ending up in failure. Based on a detailed review of past policies across major Latin American countries, Sachs (1989) finds that while many of the region's economic problems originate from external factors, such as sudden changes in interest rates or commodity prices, internal country-level policies bear major responsibility for the prevalence of ongoing crises in the region. Sachs (1989) questions the use of fiscal expansionary measures, including lax lending standards, aimed at solving economic inequality and poverty.

Using evidence from past failures, Sachs (1989) reaches a conclusion that populist measures often result in excessive and unmanageable debt creation, causing inflationary pressures, declines in both real and nominal wage levels, and disastrous economic outcomes. (For further discussions of the economic and political limitations of populist policy cycles, see Dornbusch and Edwards, 1991).

Molano (1997) examines the fiscal and monetary responses to Latin American financial crises throughout the 1990s, citing liberalization of the banking sector and a surge in capital inflow to a banking system too loosely regulated and susceptible to shocks as major causes of instability in the 1990s. Molano (1997) argues that governments that led pro-market policy responses registered the lowest fiscal and macroeconomic costs, while those pursuing non-market responses incurred the highest costs. The Argentine government implemented a pro-market approach and spread the cost of the bailout across shareholders and depositors, ultimately preventing worse macroeconomic outcomes that would be seen in Mexico and Venezuela due to their non-market approaches.

In *Banking Crises in Latin America: Experiences and Issues*, Rojas-Suarez, Hausman and Weisbrod (1996) argue that the financial crises in Latin America are significantly different from those in other parts of the world due to regional nuances that create specific circumstances needed for more frequent and severe crises. According to the authors, the differences consist of lower financial intermediation, investors being less willing to commit long-term funds, and higher volatility within deposit markets. Additionally, the accounting standards are weak to nonexistent, and the legal framework of financial markets is years behind other established regions. The biggest takeaway from this work is the importance of liberalization, together with effective regulation and the necessity for Latin American specific solutions to Latin American financial crises.

Talvi (2015) discusses the rise of the Washington consensus in the early 1980s for Latin America, built on the pillars of "macroeconomic discipline, trade and financial openness of the economy, market deregulation, and privatization of state-owned enterprises". The article goes on to argue that a pillar has been missing and that there should be an international lender of last resort for emerging market economies because the large flight of capital that comes with minor shocks to the regional economies makes the crises far worse than they need to be. Nonetheless, Talvi (2015) recognizes that over the years changes to the international finance architecture have allowed Latin America to make giant leaps in terms of their ability to deal with future financial crises.

Frieden and Stein (2002) explore the relationship between politics and economic policy in Latin America, focusing specifically on currency and interest rate policies. While the authors show clear patterns between economic stability and currency and interest rate decisions, they also find elections and special interests often play a larger role in these decisions. Frieden and Stein (2002) highlight how politics can easily interfere with monetary and fiscal

policies in the region, making a strong case for conducting further researching into the impact of politics on economic development in Latin America.

Camacho and Perez-Quiros (2014) examine the role of commodity prices on GDP growth and business cycle formation in the largest seven Latin American exporting economies: Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela. Using a Markov-switching function, this study finds major asymmetries in how output growth responds to commodity price shocks, with the response being significantly time-dependent, size-dependent and sign-dependent. Put differently, the response to a commodity shock varies considerably across business cycle regimes, whether expansionary or contraction. Based on these findings, Camacho and Perez-Quiros (2014) conclude that monetary and fiscal policies designed to stabilize economic movements in the region should take into account the business cycle regime of the time.

Given the prior literature, there appear to be three main causes common to the financial crises covered in this paper. The first commonality is the prevalence of unstable governments. The Latin American region is well known for having a tumultuous political history over the past century, and the unrest has led to constant financial and economic problems. Government instability contributes to and compounds the second commonality of poor fiscal and monetary policy decisions. This can be seen in the Mexican peso crisis, among other crises, where the central bank and government took steps that inadvertently made the crisis far worse than it needed to be. The final commonality is the region's overdependence on commodity exports. Large swings in commodity prices have made it a challenge for the countries in the region to design and implement effective counter-cyclical policy measures to stabilize their economies.

The commonalities we discussed above manifest themselves in a number of key financial variables, such as commodity prices, exchange rates, and interest rates. The next section of the paper is a quantitative measurement of the association between and the impact of these variables on the financial crises reviewed above.

4. Assessing the Impact of Commodity Prices, Interest Rates and Exchange Rates

In this section, we use a logit binary regression model to measure the likelihood of a financial crisis, specified as a binary dependent variable, as a function of changes in commodity prices (crude oil, copper, gold and iron) and financial variables closely related to commodity prices, interest rates and currency exchange rate.

$$\boldsymbol{ln}\,(\boldsymbol{Crisis}\,/\,(\mathbf{1}-\boldsymbol{Crisis})) =$$

$$\boldsymbol{\beta 0} + \boldsymbol{\beta 1\ Oil} + \boldsymbol{\beta 2\ Copper} + \boldsymbol{\beta 3\ Iron} + \boldsymbol{\beta 4\ Gold} + \boldsymbol{\beta 5\ Int.\ Rate} + \boldsymbol{\beta 6\ Currency}$$

This model treats a crisis as a yes/no binary choice and produces an odds ratio for each independent variable that shows the percentage change in the likelihood of a financial crisis corresponding to a percentage change in the independent variable. These variables were chosen because the region is heavily dependent on commodity exports and that both interest rates and currency exchange rates are important to commodity-based, exporting economies.

The years covered in the analysis were 1970-2020. For this period, monthly price data was obtained from a variety of sources. Bloomberg was the source for historical prices data for the prices of gold, iron, copper and crude oil. The U.S. Federal Reserve Economic Data database (FRED) was the source for currency exchange rates. Sovereign debt interest rates were sourced from individual country's central banks. Table 1 presents the results.

Table 1. Explaining Latin American Crises as a Function of Economic and Financial Variables Using Logit Regression: 1980-2020

Variable	Odds Ratio	Std. Error	P-Value

Crude Oil	1.041	0.009	0.000
Copper	1.011	0.002	0.000
Iron	0.951	0.011	0.000
Gold	1.001	0.001	0.119
Interest Rates	1.086	0.021	0.000
Currency	2.527	0.402	0.000
Constant	0.000	0.000	0.000

The table reports the odds ratio and the corresponding P-value associated with each independent variable included in the study. As can be seen from the table, except for gold, the odds ratios are all statistically significant at any reasonable testing level. Gold would be significant as well at a more liberal testing level of 12%. As we noted earlier, a given odds ratio reflects the percentage increased likelihood of a financial crisis given an increase in the corresponding independent variable. Crude oil, copper, iron, interest rate and currency (U.S. dollar exchange rate) have exceptionally strong explanatory power in predicting the binary outcome of crisis versus no crisis.

A few caveats of the model are in order. Firstly, the model specifies a contemporaneous relationship between the independent variables and financial crises. This can be remedied by including lagged or lead values of the independent variables in the model. Another option would be to use a multivariate causality model, as in Granger (1969). As such, the analysis above does not prove the causality of the observed commodity price fluctuations in the changing risk of financial crisis. Secondly, the data we sourced from central banks had missing values we had to approximate for use in the model.

5. Discussion

While our quantitative analysis illustrates the importance of commodity prices as a predictor of crises in Latin America, our examination of prior research into the recent economic history of the region leads to our conclusions on the other main factors. Financial crises in Latin America are caused by a mixture of political instability within the region, inept currency and macroeconomic policy, and an overreliance on commodity exports that puts the regional economies at risk of financial contagion.

The first commonality in Latin American crises has been political instability. Instability was arguably more prevalent in the earlier crises covered in this study, but continues to manifest itself in most, if not all, of the more recent crises. This instability can be a democratic change in power that coincides with another catalyst for chaos or more serious upheaval, such as the impeachment that led to three presidents (and a drastic political shift) in Brazil between mid-2016 and the start of 2019. This observation is somewhat predictable, as instability within politics makes foreign investors slow to be willing to increase their exposure in fear of regime changes or drastic shifts in the treatment of foreign investors by the current regime. Regime change is not a necessary ingredient; Venezuela as of late is a perfect example of how political instability without regime changes can have drastic effects on crises within the country.

The second commonality is a general ineptitude of leading politicians in making appropriate macro and currency based economic decisions. The easiest place to see this is in the region's general lack of understanding of the trilemma of international finance that states that it is impossible to have a fixed foreign exchange rate, free capital movement and an independent monetary policy at the same time (Boughton, 2003). The Latin American region is a perfect area to see this theory in action, as over half of its crises stemmed from poor monetary policy. This started with the Mexican peso crisis in the late 1980s, as Mexico tried to peg its currency to the U.S. dollar,

maintain free capital flow into and out of the country and fend off recessionary signals through independent monetary policy. These policies ultimately failed to bring confidence back to the markets.

The final major commonality we found in prior research is the over-dependence on commodity exports. This is not unique to Latin America, but applies to almost most emerging market economies. Much of Latin America is resource rich in many high demand commodities such as crude oil, copper, iron and gold with large percentages of each country's GDP attributed to these industries. This leaves this region's economies susceptible to sudden decreases in commodity prices which in turn affect the banking and financial systems through factors including loan defaults. Sudden declines in commodity prices erode the borrowers' capacity to service their debts and repay their bank loans. Almost every financial crisis observed in this paper was either affected by or coincided with a price collapse in commodity prices, from the Latin American debt crisis in the 1980s to the most recent Brazilian financial crisis of 2014.

However, we note that over the years Latin America as a whole has become increasingly more diversified in its exports, with non-commodity exports from the region now growing at a faster rate than commodity exports. This is especially true for Mexico and Central America. In contrast, Venezuela, Columbia and Ecuador continue to rely heavily on crude oil, while Chili and Peru on metals. Hence, these countries remain more vulnerable to commodity price shocks.

6. Conclusions

After extensive research, this paper puts forth the argument that Latin American financial crises can be attributed to a variety of causes but tend to share some commonalities. Many crises are caused by political upheaval, whether through regime changes or through military intervention.

Crises can also be started or worsened by poor macroeconomic policy decisions, specifically when it comes to a nation's currency exchange rate, monetary, and fiscal policies. Another strong front runner of crises in Latin America is a major shock to the prices of commodities that the region exports, such as crude oil. Finally, turbulence in international financial markets could often cause a crisis, especially for countries with a weaker domestic financial position and infrastructure. Other factors could easily lead to a crisis, but amongst the crises we reviewed in this paper, these causes stand out as repeat offenders.

These findings are important to both international investors and domestic policy makers. A basic knowledge about these causes could help foreign investors know when to pull out or lessen exposure to the region with greater confidence. The knowledge could also help policymakers in the region better protect against future financial crises. Our review of the past crises indicates that support from outside donors such as the United States has not addressed the underlying causes, rather merely temporarily stabilizing heavily indebted nations. The region can reduce domestic vulnerabilities and mitigate the risks of future crises through applications of domestic, Latin American tailored policies, such as shifting away from such a heavy dependence on commodity exportation or working to understand the trilemma of international finance and sticking to just two mandates.

In terms of where the region stands now, the answer would be much different if this paper was being written six months ago. As it stands, many commodity prices took sharp declines immediately following the shutdown of major developed markets in February and March as the COVID-19 pandemic began to spread. Since the onset of the pandemic and the lows hit by many commodities, there have been notable rebounds for many of these commodities, such as gold and silver, with both having recently hit record highs. Oil prices, on the other hand, continue to be depressed for reasons outside the Latin American sphere. Political stability in some countries has

never been stronger while some countries such as Venezuela, Chile and Brazil have had internal divisions exacerbated because of the pandemic, with Brazil and Venezuela continuing to be the most worrying.

Unfortunately, the region has become one of the major epicenters for the coronavirus in terms of economic and health effects. Not only do many countries in the region share many commonalities amongst their economic drivers, they also share two things the virus builds off of poor healthcare systems and extreme poverty with over 1/3 of the region currently living in poverty. The largest economies have been hit the hardest, with Brazil reportedly having the second most cases globally behind the United States. Mexico, Venezuela, Chile and Peru all have sizable outbreaks that are suppressing economic activity as well. Many researchers believe the official numbers underreport both cases and deaths in the region mostly because of the low levels of testing (Horton, 2020). For example, a study by the University of Sao Paulo Medical School projects the number of infections in Brazil to be up to six times higher than the official numbers (Alves, 2020).

These massive outbreaks only add another element to the economic problems the region has seen over the past forty years. Currently, the IMF forecasts that output from Latin America will decline by roughly 10% in 2020, three times worse than the projection for all emerging market economies as a group. This is on top of some countries such as Mexico seeing minor contractions at the end of 2019 before the pandemic started, indicating the region already had a weaker economy than other emerging market regions entering 2020. Unfortunately, as these Latin American countries work to reopen their economies to alleviate their economic struggles, it must be noted that the bulk of the exports from the region go to developed economies like the United States. As such, the Latin American economies are unlikely to fully recover until developed countries are able to corral the virus.

In the coming months, it would not be surprising to see many countries in Latin America enter the market to raise new debt capital. The IMF and World Bank have already taken steps to promote debt relief in emerging markets so that central governments can be less constrained in combatting the economic effects of the virus. Some Latin American central banks are also greenlighting the practice of quantitative easing, wherein the central bank buys securities, usually government bonds, to inject more money into the economy. This practice, if properly calibrated, has the potential to help emerging economies survive this trying time. The path that Latin American governments decide to take in the next six to twelve months could have an outsize impact on the economic health of the region over the next decade.

References

Alves Domingos, et al. (2020), “Estimativa de Casos de COVID-19”, University of São Paulo Medical School, https://ciis.fmrp.usp.br/covid19-subnotificacao.

Anderson, Sarah and John Cavanagh (2000), "Bearing the Burden: The Impact of Global Financial Crisis on Workers and Alternative Agendas for the IMF and Other Institutions", Institute for Policy Studies, 733 15th St. NW, #1020, Washington, DC 20005.

Boughton, James M. (2003), “On the Origins of the Fleming-Mundell Model”, IMF Staff Papers. 50 (1): 1–3, International Monetary Fund.

Cancel, Daniel and Corina Rodriguez Pons (2010), “Venezuela Seizes Banco Federal for ‘Grave’ Weakness”, Bloomberg.com, June 14, 2010.

Deere, Carmen Diana (1991), “Cuba's Struggle for Self-Sufficiency - Aftermath of the Collapse of Cuba's Special Economic Relations with Eastern Europe”, Monthly Review, July 1, 1991

Dornbusch, Rudiger and Sebastian Edwards (1991), “Macroeconomics of Populism”, NBER (URL: http://www.nber.org/books/dorn91-1), 1050 Massachusetts Avenue, Cambridge, MA 02138

Donovan, Sandy, Sujay Rao and Alexa L. Sandmann (2008), Teens in Cuba, Capstone Publishing. p. 26. ISBN 9780756538514.

Felix, David (1990), “Latin America's Debt Crisis”, World Policy Journal, 7 (4): 733–71.

Frieden, J. A. and E. Stein (2002), The Currency Game: Exchange Rate Politics in Latin America, Washington, D.C.: Inter-American Development Bank.

Fischer, Stanley (2020), "Ecuador and the IMF”, International Monetary Fund, www.imf.org, May 19, 2020.

Granger, Granger C. (1969), “Investigate Causal Relations by Econometric Models and Cross spectral Methods”, Econometrica, 37, pp. 424-438.

Hershberg, Eric, and Fred Rosen (2006), eds., Latin America after Neoliberalism. New York: North American Congress on Latin America.

Horton, Jack (2020), “Coronavirus: What are the numbers out of Latin America?,” https://www.bbc.com/news/world-latin-america-52711458.

Jones, Bart (2008), Hugo!: The Hugo Chavez Story from Mud Hut to Perpetual Revolution, London: The Bodley Head.

Kindleberger, Charles P. and Robert Aliber (2005), Manias, Panics, and Crashes: A History of Financial Crises, 5th ed. Wiley, ISBN 0-471-46714-6.

Luna, Daniel (2001), “Argentina's Crisis Explained”, TIME, December 20, 2001.

Mankiew, N. Gregory (2013), Macroeconomics, 8th Edition, New York, NY: Worth Publishers, ISBN 978-1-42-924002-4.

Marois, Thomas (2012), States, Banks and Crisis: Emerging Finance Capitalism in Mexico and Turkey, Cheltenham: Edward Elgar. ISBN 9780857938572.

Maximo Camacho and Gabriel Perez-Quiros (2014), “Commodity Prices and the Business Cycle in Latin America: Living and Dying by Commodities?”, Emerging Markets Finance and Trade, 50:2, 110-137.

Molano, Walter Thomas (1997), “Financial Reverberations: The Latin American Banking System during the Mid-1990s”, https://ssrn.com/abstract=52066

Molina, Carlos (2002), "Predicting Bank Failures Using a Hazard Model: the Venezuelan Banking Crisis", Emerging Markets Review, Volume 3, Issue 1, 31-50.

Tagliaferro, Gerardo (2012), “Repasamos ‘Las 40’ De Alejandro Atchugarry”, July 30, 2012, www.montevideo.com.uy/Noticias/Repasamos-Las-40-de-Alejandro-Atchugarry-uc173672.

Quandl.com (2019), “Crude Oil Prices from 1861 to Present”, British Petroleum, August 19, 2019.

Rojas-Suárez, Liliana and S. R. Weisbrod (1996), “Banking Crises in Latin America: Experience and Issues”, Washington, D.C.: Inter-American Development Bank, Office of the Chief Economist.

Sachs, Jeffrey D. (1989), “Social Conflict and Populist Policies in Latin America,” Working Paper No. 2897, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138.

Salazar, Gabriel and Julio Pinto (2002), Historia Contemporánea de Chile III: La economía: Mercados Empresarios Y Trabajadores, 49-62.

Talvi, E. (2015), "Thirty-five Years of Recurring Financial Crises in Latin America: Toward a New (and Better) Paradigm?", Brookings Institution, Thursday, June 4, 2015.

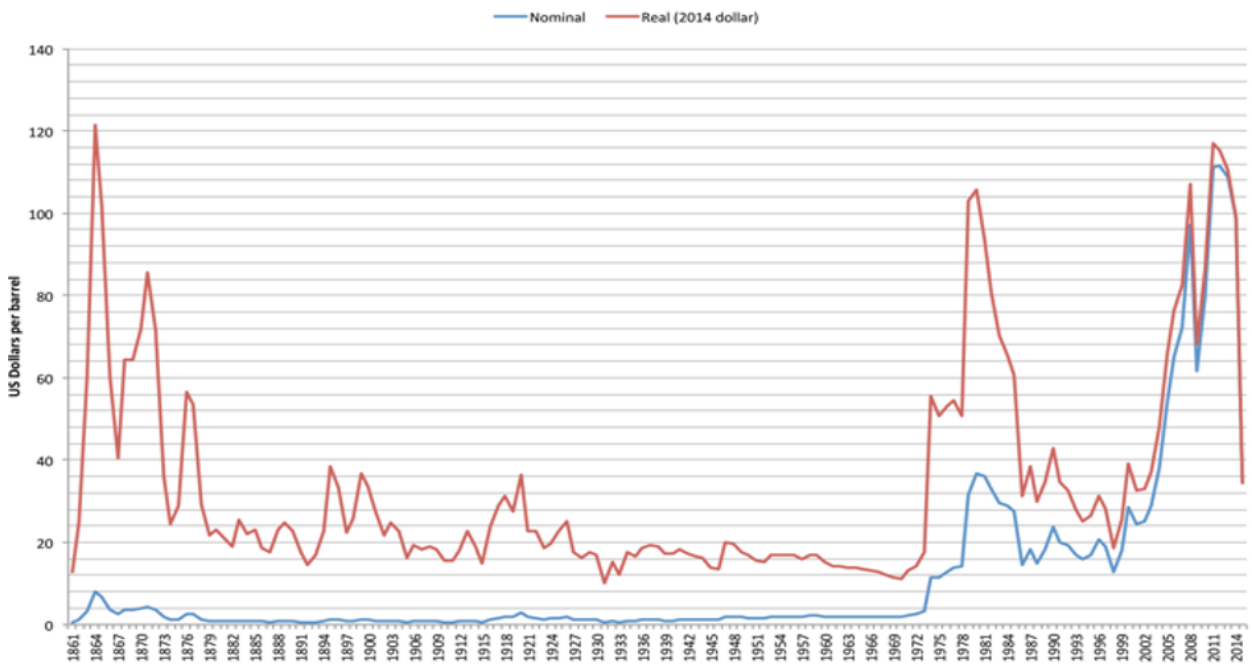
UNHCR | USA (2019), "Refugees and Migrants from Venezuela Top 4 million: UNHCR and IOM", June 7, 2019.

Valdés, J. G. (2008), Pinochets Economists: The Chicago School in Chile, Cambridge: Cambridge University Press.

Veloso, Fernando (2016). A Crise de Crescimento do Brasil (in Portuguese), Elsevier Brasil.

Appendix

Figure 1: Mexican Crude Oil Prices*



*: Data was sourced from Quandl.com