The Financial History of Emerging Markets: New Indices

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Chapter One

Global Financial Data's Emerging Market Indices

Global financial Data has calculated an index for Emerging Markets that far precedes any indices that are currently available. MSCI's emerging market index begins in 1987. GFD's Emerging Market Index begins in 1602. GFD has been able to extend the history of Emerging Markets, both as a group and for individual countries, because we have collected data for companies from emerging markets that listed in London, Paris, Amsterdam and New York, and used the data from these individual companies to put together data on Emerging Markets that cover centuries, not decades.

Though few people may realize it, emerging markets are one of the primary reasons why stock markets came into existence 400 years ago. The desire of Europeans to explore the world and bring the riches of other countries to their shores provided sufficient motivation to investors in London, Paris and Amsterdam to raise capital for companies to explore the world.

During the 1800s, the British raised capital in London to fund companies not only in British colonies, but in South America and other parts of the world. The French provided funding for companies in its colonies in Africa as did Germany and Belgium. The two biggest engineering projects of the 1800s, the Suez Canal and the Panama Railroad were created by French and American companies that wanted to provide the world with cheaper international transportation. By collecting data from London, Paris, Amsterdam and New York, GFD has been able to produce indices of emerging markets that stretch back centuries, not decades, and enable us to chart the relative performance of emerging and developed markets.

A Brief History of Emerging Markets

Britain established its first trade monopoly in 1553 when Queen Elizabeth established The Fellowship of English Merchants for Discovery of New Trades to carry out business with Muscovy. This was followed by companies that were chartered to explore Guinea (1553), Senegal (1588), the Levant (1581), Hudson's Bay (1670), Africa (1662) and other parts of the world. The most famous English company, the East India Co., was chartered in 1600 and enabled Britain to import goods from India.

The Dutch established two large companies to explore the world, the Dutch East India Co. (1601) to explore Asia, and the Dutch West India Co. (1621 and 1674) to explore the Americas. The French established several companies, but consolidated them into the Compagnie des Indes under John Law in 1719. These companies dominated trading in equities during the 1700s. The two Dutch companies were taken over by the government in the 1790s and the French closed down all joint-stock companies during the French Revolution. The first era of multinational corporations came to an end in 1800.

Only the English companies survived the Napoleonic Wars, but in the 1820s, there was an explosion in investment in South American bonds and companies. South American countries gained their independence during the Napoleonic Wars and needed capital to build their economies. With the

prospect of profiting from the silver mines in the Americas, British investors poured money into American stocks and bonds only to see the bubble collapse in 1825.

During the rest of the century, money gradually flowed into British colonies and into South America. The world was at peace between 1815 and 1914 and this freed up capital to invest not only in Europe, but in the rest of the world. Although the majority of capital was invested in Europe or in the United States, British capital funded railroads, banks, mining companies, tea and rubber plantations, utilities, cables and canals throughout the world. Over 1000 companies from emerging markets traded in London between 1815 and 1914.

Two of the largest projects were the Suez Canal built by the French and the Panama Railroad built by the Americans. Both of these projects enabled international trade to speed goods around the world. Just as today, the stock market will boom when a new technology is introduced, in the 1800s, emerging markets flourished when new investment opportunities were discovered. During the 1800s, there were various investing booms that struck emerging markets, one of the largest of which was the South African mining boom, which occurred when gold was discovered there in the 1890s. South African shares traded simultaneously in London, Paris and Berlin.

The globalization of finance came to an abrupt halt in 1914 when World War I began. Capital was redirected to funding the war and capital flows to emerging markets dried up. Many emerging markets defaulted on their government bonds and governments restricted capital flows. For the next 60 years, emerging markets had to rely upon internally-generated capital to grow. Only in the 1980s when restrictions on capital flows began to lift did a sufficient amount of capital flow into emerging markets to establish them as a separate market unto themselves.

Historical Data for Emerging Markets

Global Financial Data has collected as much data as possible on companies in emerging markets that listed in Europe in order to create its index of emerging markets. Many emerging markets had no domestic stock exchanges where local companies could list and relied upon London and Paris to raise capital for domestic investments. It was only in the 1960s and 1970s that there was sufficient local capital that domestic stock exchanges could exist independently of European markets. Indices that tracked the performance of domestic shares were introduced in emerging markets and these provide invaluable insight into the behavior of emerging markets. By combining the historical data from emerging market shares that were listed in London with the domestic indices, we can provide a more complete historical picture of returns to emerging markets.

Using the data from London and other European exchanges, we were able to calculate national indices based upon companies that operated in emerging markets. Some countries such as South Africa, Malaysia or India had over 100 companies whose shares traded in London over time, allowing us to calculate reliable national indices, while other countries, such as Guatemala or Peru only had a handful of companies that listed in London. We collected data on prices, shares outstanding and dividends so we could create price and return indices that are market-cap weighted. Included in the GFD Indices are several hundred composite and sector indices, both price and total returns which aggregate data for individual countries using the data on companies from London and New York between the 1700s and 1980s.

Although we were able to create total return indices for stocks that traded in London, total return indices for emerging markets today only have a limited history, and in many cases, we were unable to connect the historical London returns to the current domestic returns and produce a consistent total return series. In some cases, the historical indices only included a handful of companies while the contemporary indices might include over 100 companies. For this reason, there are occasionally gaps between the GFD and the contemporary indices, but if possible, we have connected the two to produce a single, long-term series.

Calculation of the Indices

We wanted to make the indices as broad as possible and currently include 26 emerging markets in the indices. Market capitalization was recalculated every five years and the indices were rebalanced every five years to adjust for changes in the size of the equity markets in different countries. Before 1945, we used market capitalization based upon the underlying company shares to weight the indices. Data since World War II, where available, is based upon market capitalization for the overall domestic stock market. Market capitalizations for December 31, 1944 were used for data from 1945 to 1949, market capitalizations for December 31, 1949 were used for data from 1950 to 1954, etc.

Data is included for Argentina (1865-), Brazil (1825-), Chile (1930-), China (1900-1930, 1990-), Colombia (1855-), Czechoslovakia (1915-1945), the Czech Republic (1995-), Egypt (1860-1869, 1995-), Greece (1955-), Hong Kong (1865-1964), Hungary (1925-1948, 1995-), India (1792-), Indonesia (1985-), Israel (1950-), Korea (1965-), Malaysia (1890-), Mexico (1825-), Pakistan (1960-), Peru (1870-), Philippines (1910-), Poland 1921-1939, 1995-), Russia (1995-), South Africa (1835-), Sri Lanka (1865-), Taiwan (1970-), Thailand (1975-), Turkey (1856-1930, 1986-) and Venezuela (1855-). Tsarist Russia is treated as a developed market and the Russian Federation is treated as an emerging market. Hong Kong graduated from being an emerging market to a developed market in 1965.

The 26 emerging markets can be added to the 24 developed markets to give a total of 50 countries in GFD's developed and emerging market indices. Although we have data for other countries that we could have added to the global indices, the remaining countries were either too small or provided too little history to justify being included in GFD's indices. Since the indices are market-cap weighted, the addition of a country that has less than 1% of the total market cap would have had very little impact on the returns for the index. Therefore, we found no reason to add more countries to the GFD Global Indices and limited the indices to the 50 countries we have chosen. Figure 1.1 compares the relative performance of developed and emerging markets since 1792 and as can be seen, developed markets represent such a large share of the total market capitalization (over 90%) that the two indices track each other very closely.

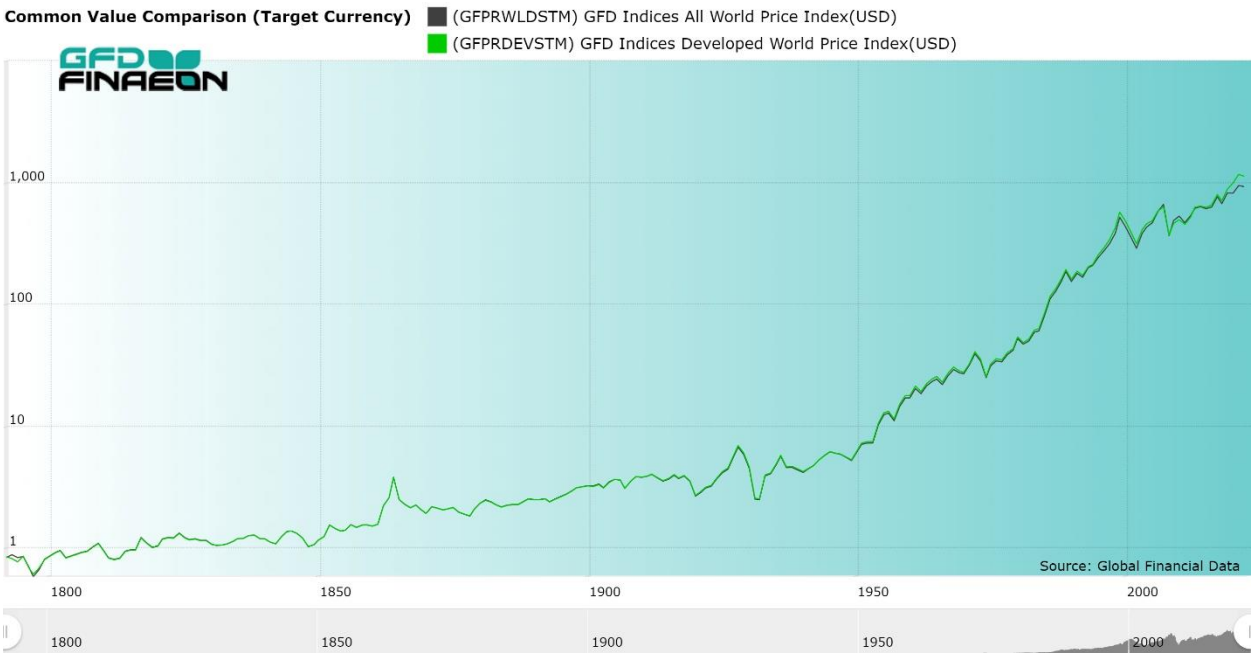

Figure 1.1. All-World (Black) and Developed Market Indices (Green), 1792 to 2022

Returns to Developed and Emerging Markets

A comparison of the price performance of Developed and Emerging Markets over the past 400 years is provided in Table 1.1.

Time	Era	Emerging	Developed
1694-1720	Glorious Revolution	14.05	5.39
1720-1792	Mercantilism	-2.83	-1.09
1792-1848	Transport Revolution	-2.02	0.31
1848-1914	Free Trade	2.2	1.87
1914-1945	World Wars	1.91	1.62
1945-1981	Keynesianism	3.04	5.68
1981-2021	Globalization	6.11	8.29
1699-2021	Full History	1.75	2.36

Table 1.1. Annual Returns to Developed and Emerging Markets 1694 to 2021

As Table 1.1 shows, returns have varied from one era to the next. Emerging markets outperformed developed markets during the eras of the Glorious Revolution, Free Trade and World Wars. During other periods, developed markets outperformed emerging markets. Moreover, Developed Markets had a lower risk profile between 1792 and 2021. The standard deviation of annual returns for developed markets was 13.86% while the standard deviation of annual returns for emerging markets was 17.50%. Emerging markets were more volatile than developed markets, and provided lower returns.

Although we do not have data on total returns because we lack data on dividends for every emerging market, we can use data from MSCI to compare dividends between developed and emerging markets. MSCI's data shows that developed markets paid an average dividend yield of 2.30% between 1987 and 2021 while emerging markets paid an average dividend yield of 2.63%, providing a slightly

higher dividend yield than developed markets. However, the higher dividend yield is not sufficient to offset the lower price return that emerging markets provided.

Since FTSE and MSCI provide only 30 years of history on emerging markets, it is difficult to make any more than a limited comparison of the returns of emerging market indices from GFD, MSCI and FTSE, but Figure 1.2 makes this comparison. The three sets of indices track each other very well providing us confidence that GFD's historical data before 1987 is a reliable indicator of returns.

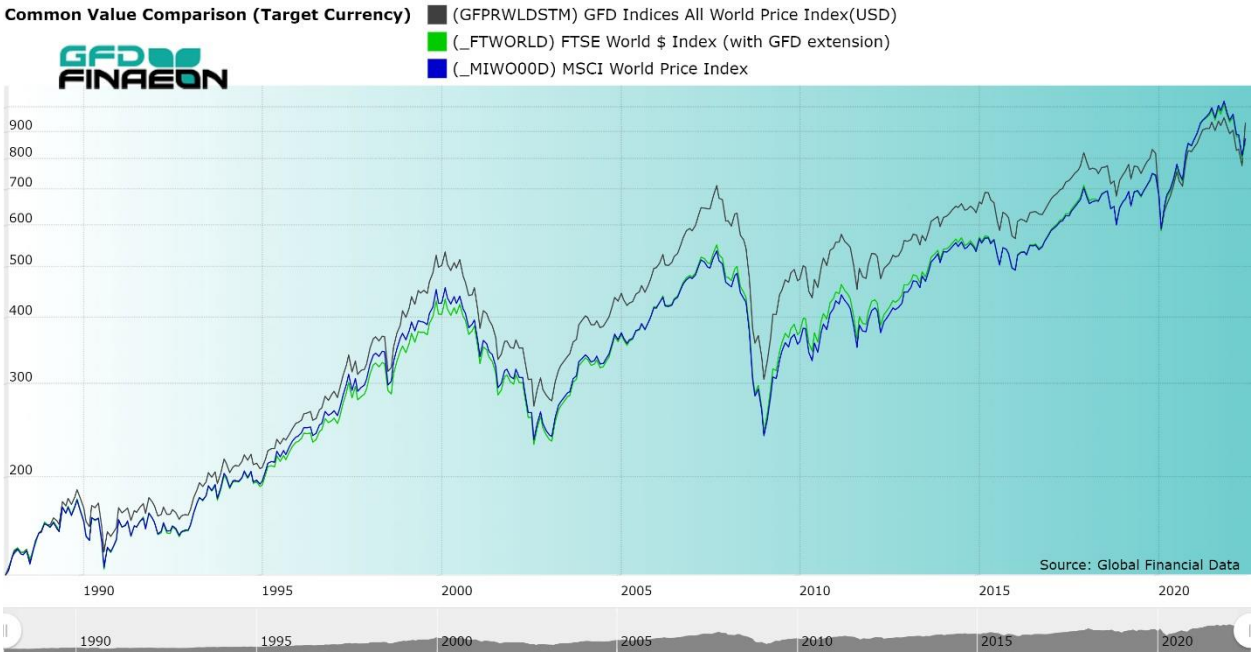

Figure 1.2. Returns to GFD (Black), MSCI (Blue) and FTSE (Green) Emerging Market Indices, 1987 to 2022

Figure 1.3 compares the performance of Developed and Emerging markets between 1792 and 2018. The components of the emerging and developed markets is very similar in the 1600s and 1700s, so a comparison of the two indices prior to 1800 was omitted. The crash in South American mining shares in 1825 clearly impacted the relative returns to developed and emerging markets. Although developed markets have provided higher returns than emerging markets, there are clear periods when developed markets outperformed emerging markets and vice versa.

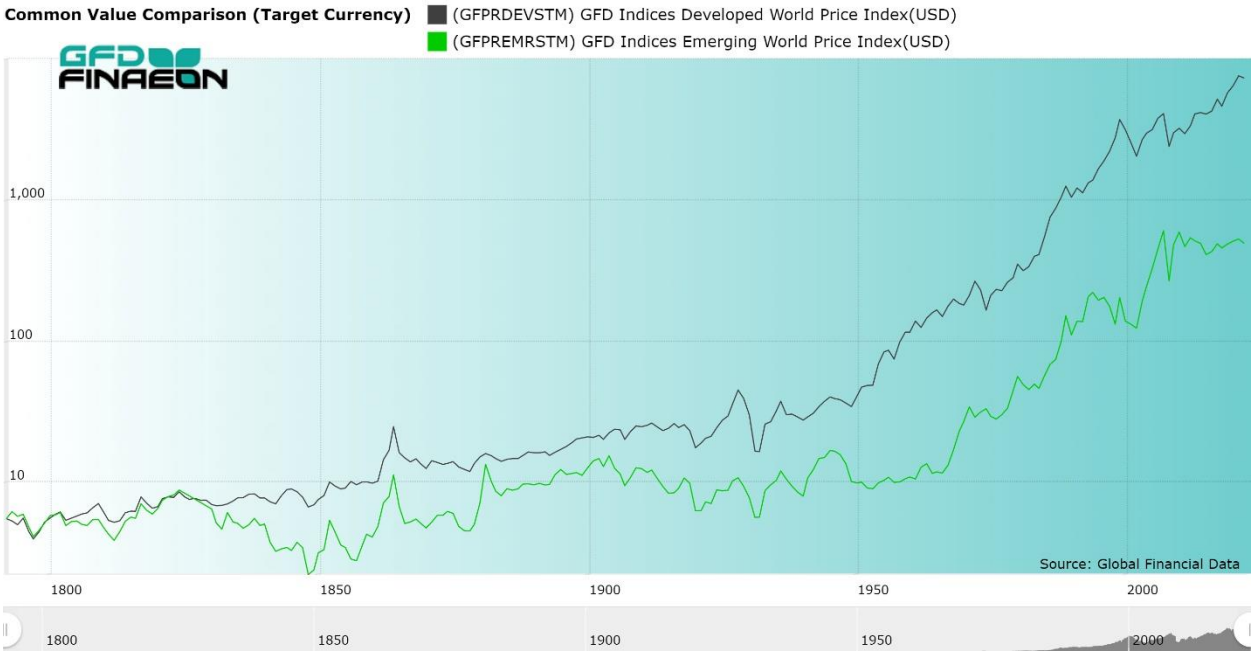

Figure 1.3. Developed and Emerging Markets 1792 to 2022

Figure 1.4 makes a relative comparison of returns to Developed and Emerging Markets between 1800 and 2018. It is interesting to note the relative stability in the performance of the developed and emerging markets between the 1830s and 1900. During that period of time, most of the data for emerging markets comes from emerging markets stocks that were listed in London. Because investors in London could easily substitute between developed and emerging stocks, you would expect that the difference in the returns would be small, which it was.

Figure 1.4. Developed and Emerging Markets 1914 to 2022

This was not the case after 1914 when restrictions on capital flows and the growth of domestic stock exchanges allowed returns in developed markets and emerging markets to strike different paths. Developed markets outperformed emerging markets during the 1920s bull market, between 1950 and 1969 when Europe recovered from World War II, between 1981 and 1987 when the developed world recovered from the Oil Crisis of the 1970s, and during the internet bubble of the late 1990s. Developed markets have also outperformed emerging markets since the end of the Financial Crisis in 2009. Without GFD's Developed and Emerging Market indices, it would be impossible to do any of this analysis before 1987.

Figure 1.5 compares the relative performance of Asian, African and American Emerging Market shares between 1914 and 2018. The outperformance of African stocks in the early part of the century was mainly due to South African gold stocks which attracted capital to its mines. Since 1960, American stocks did well relative to the rest of the Emerging markets. Asian stocks have been the clear underperformers during the past century.

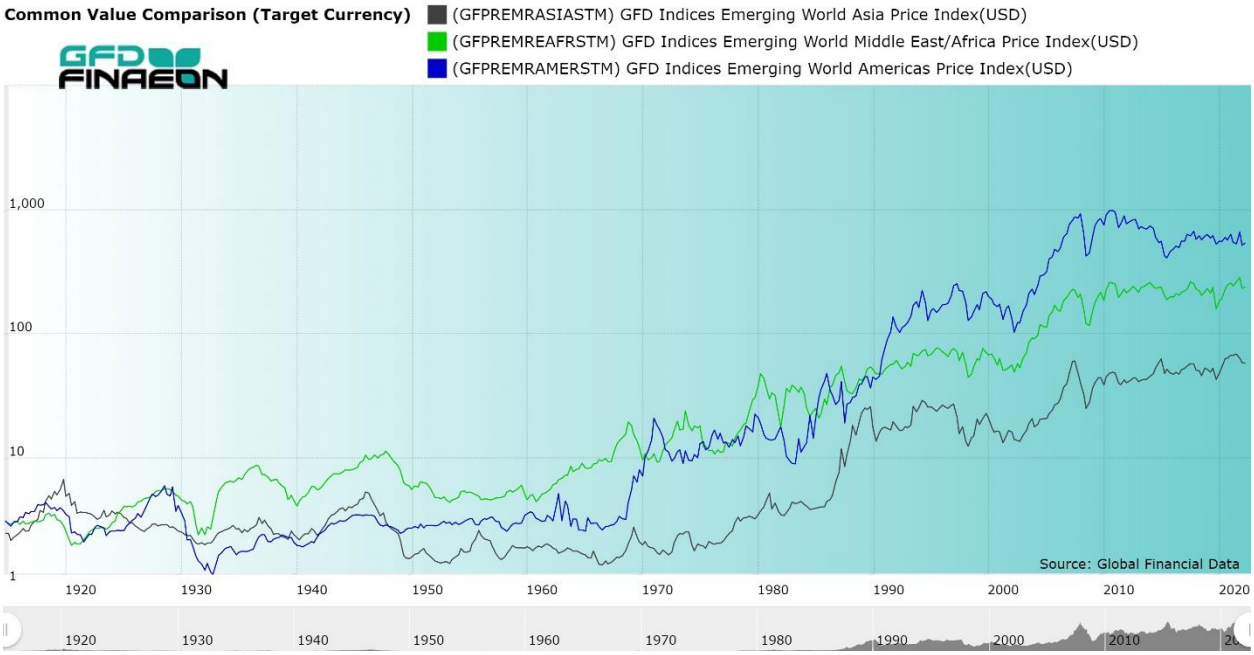

Figure 1.5. GFD Asia, African and American Emerging Market Indices, 1914 to 2022

Bull and Bear Markets

Table 1.2 gives details on the bull and bear markets that occurred in emerging markets over the past 420 years. The bull and bear markets in the 1600s only represent two companies, the Dutch East India Co. and the Dutch West India Co., and should be taken with a grain of salt. The largest increase in the index occurred between 1696 and 1720 when French East India Co. shares skyrocketed during John Law's promotion of the *Compagnie des Indes* in France. This was followed by a 97% decline between 1720 and 1726, but as in the 1600s, since there were so few companies in the index in the 1700s, the bull and bear markets should not be taken as indicating broad trends in emerging market shares.

The worst bear market in emerging market history after 1800 was the plunge from the 1825 bull market in South American mining shares when the index plunged 83% over the next 32 years. Surprisingly, the second worst bear market in emerging markets was the 2007 bear market when the market index fell by 62%.

Ignoring the bubble of 1719, the 2001-2007 bull market was the strongest in history with the index rising almost 500%. Most of the bull markets in emerging markets have been stronger than bull markets in developed countries, with most exceeding 100% in their growth. Table 1.2 reinforces the fact that emerging markets are more volatile then developed markets even if, over the long run, they underperform developed markets.

Month	Value	Change	Month	Value	Change
12/31/1602	1.000		04/30/1607	1.621	62.14
07/31/1607	1.117	-31.14	06/30/1614	1.942	73.91
12/31/1617	1.068	-45.00	06/30/1629	2.271	112.69
01/31/1632	1.388	-38.88	05/04/1640	2.366	70.45
09/30/1665	0.683	-71.14	08/31/1671	1.192	74.60
06/30/1672	0.607	-49.09	02/28/1688	1.221	101.25
11/13/1696	0.766	-37.29	01/31/1720	38.069	4869.85
11/30/1726	0.933	-97.55	12/31/1795	2.131	128.37
05/31/1797	1.426	-33.10	02/28/1825	4.900	243.63
10/31/1857	0.786	-83.95	07/31/1864	3.116	296.23
03/31/1871	1.474	-52.69	11/30/1904	3.312	124.67
10/31/1921	1.364	-58.83	01/31/1929	2.493	82.87
06/30/1932	1.117	-55.21	3/31/1937	2.637	136.07
07/31/1940	1.682	-36.22	6/30/1946	4.047	140.69
11/30/1953	2.442	-39.66	2/28/1963	4.238	73.53
6/30/1965	3.005	-29.09	8/31/1969	7.155	138.13
6/30/1970	5.545	-22.51	7/31/1971	13.096	136.18
10/31/1976	7.035	-46.28	10/31/1980	15.931	126.46
7/31/1982	10.829	-32.03	8/31/1987	31.650	192.27
12/31/1987	22.219	-29.80	1/31/1990	48.801	119.64
9/30/1990	29.808	-38.92	7/31/1997	64.174	115.29
8/31/1998	31.225	-51.34	3/31/2000	60.648	94.23
9/30/2001	32.254	-46.82	10/31/2007	192.683	497.38
2/28/2009	71.584	-62.85	4/30/2011	186.853	161.03
2/29/2016	121.265	-35.10	1/31/2018	250.561	106.62
3/31/2020	174.942				

Table 1.2 Bull and Bear Markets in Emerging Markets, 1602-2022

Conclusion

Should portfolio managers and individual investors put their money in developed markets or in emerging markets? The problem with answering this question is that until now, there was insufficient historical evidence to provide an accurate comparison of the two markets. Although historical data on developed markets is readily available, historical data on emerging markets is difficult to come by. MSCI has calculated its World Developed index since 1969, its Emerging Market index since 1987 and its Frontier Market index since 2002, but data prior to those dates is unavailable.

Global Financial Data has attempted to redress this lack of data and produce indices for developed and emerging markets based upon returns to individual companies in emerging markets. GFD

has collected data on over 1000 companies that operated in emerging markets and data on indices for emerging markets going back to the 1920s. By combining the data on individual companies that were listed in London, Paris, Amsterdam and New York with contemporary domestic stock market indices, we have been able to put together indices, not only for dozens of individual emerging market countries, but for emerging markets in general. As Figure 1.4 shows, we can now make a long-term direct comparison of the performance of developed and emerging markets.

The data show that historically developed markets have outperformed emerging markets and displayed lower volatility in their returns. But will this fact continue in the future? Emerging markets are getting more liquid and are growing in size. Although emerging markets represent less than 20% of global stock market capitalization, their share will grow. GFD provides hundreds of indices on emerging markets which are not available anywhere else. Without access to these indices, a full understanding of the historical returns to emerging markets is not possible.

Chapter Two

The Discovery of Emerging Markets

Today, global stock markets are divided into three types, developed markets, emerging markets and frontier markets. Developed markets generally include stock markets in North America, Western Europe, Japan and Australia/New Zealand while emerging markets include peripheral countries that are have liquid stock markets that are open to investment and are attempting to become developed markets through economic growth. Frontier markets are smaller, less liquid markets that restrict capital flows and are unlikely to achieve the rapid economic growth that will enable them to become developed economies.

The term "emerging market" was coined by World Bank economist Antoine van Agtmael in 1981 and signifies countries that are in the process of moving from a developing to a developed state. The term frontier market was introduced by Farida Khambala at the International Finance Corp. in 1992.

It isn't clear what makes a country clearly fall into the developed, emerging or frontier state. Income is certainly a factor, as is financial market liquidity, and some countries can graduate from one category to the other, or fall back. Singapore and Hong Kong are both treated as developed countries, but Greece is an emerging market. Korea and Israel qualify as developed markets today, although they were considered emerging markets in the 1980s, but is Taiwan an emerging or a developed market? Argentina was originally an emerging market, fell back to Frontier status when capital controls were imposed on investors in the 2000s, graduated back to Emerging Market status in 2015, but with the new imposition of capital controls in 2019 Argentina once again has lost its emerging market status. MSCI's Emerging Market index begins in 1987 and their Frontier Index began in 2002. Today there are about 25 developed markets, 25 emerging markets and 50 frontier markets.

But where were these countries before emerging markets were "discovered" in the 1980s?

Before World War II, there was no formal division of the world economically. The world was largely divided into developed Europe, its colonies and its former colonies. If you go to the *Investors Monthly Manual*, the world was divided into Britain, Britain's colonies, America, Europe, and everyone else. Between World War II and the 1980s, countries were placed in three categories, First World (countries aligned with NATO), Second World (Communist Countries) and Third World (everyone else). This was mainly a political division rather than an economic one. As third world countries opened up to capital in the 1980s and exchange controls were removed, the old definitions no longer worked. Because the performance of emerging markets differed significantly from developed markets, they were treated as a separate asset class. Let's go back in time and see how an investor in London, Paris, New York or Berlin would have seen the rest of the world.

The Age of Mercantilism

We choose the period from 1600 to 1792 as the Age of Mercantilism in the stock market. This era was subdivided into the period of the Dutch East India Co. (1602-1689), the Glorious Revolution (1689-1720) and Mercantilism (1720-1792). During those 200 years, the primary stocks that listed were trade monopolies which governments in Amsterdam, Paris and London established to trade with the

rest of the world. This was represented by the Dutch East and West India Companies, the French East India Company, and the British East India Company. Although the South Sea Co. was originally set up to trade abroad, it primarily owned British government bonds and passed the interest to shareholders making it effectively an exchange traded fund. The Royal African Co. made money off of the slave trade.

Investors didn't see the foreign trading companies as emerging market companies because in Paris and Amsterdam, that was virtually the only companies they had to invest in. Granted, In London, investors could also invest in the Bank of England, insurance or copper companies, but investors saw their main choice as being between bonds and shares, not between foreign and domestic stocks. Emerging markets did not exist because the "emerging markets" were colonies occupied by European powers. Although you could designate foreign trade companies as emerging market stocks, that is only because they traded in countries which are currently emerging markets. They were colonial stocks, not emerging market stocks, and there were no emerging market countries to issue bonds to European investors.

The Age of Free Trade

The Transport Mania lasted from 1792 to 1848 during which several bubbles occurred in canal and railway stocks. A bubble in South American stocks occurred in the 1820s after those countries gained their independence. The Age of Free Trade lasted from 1848 to 1873 and the Gold Standard from 1873 to 1914. This was a period of rapid expansion of capital markets, especially in equities. While the total debt of Britain and the United States shrank between 1800 and 1914, the market capitalization of companies that were listed on stock exchanges exploded, rising from $75 million in New York and London in 1800 to over $35 billion by 1914. Again, during the 1800s, "emerging market" stocks should be primarily viewed as colonial stocks.

Was the United States an emerging market? No, because there was an essential difference between the United States and India or other colonial markets. The United States established its own capital markets and relied primarily on internally generated capital to develop its economy. This also was true of Canada, Australia and New Zealand in the later 1800s. Japan and Russia also developed their stock markets internally rather than rely on outside investors.

This was not true of British, French, Dutch or German colonies or of Latin American countries which, though politically independent, were still financially dependent upon Europe and the United States for capital to develop their economies. Money that flowed to Latin America was mainly provided to develop the infrastructure of the economy. Railroads, banks, utilities and mining companies were the main target for investment, not domestic industry.

On the other hand, in Canada, the United States, Australia and other English colonies, domestic industries were developed through local capital. Money from Canada and the United States flowed into Latin America and other markets, not vice versa. Britain had to provide guarantees on returns on Indian railroads to ensure that the railroads were built. Britain never provided guarantees for American or Canadian railroads.

Colonial investments were riskier than investments in European and North American companies. During the 1800s, the majority of the return to investors came from dividends, not from capital gains. Colonial companies had to provide a higher rate of return than domestic British and American

companies, and the evidence we have collected shows that there was a high correlation between returns to colonial/emerging markets and developed markets. Investors saw European and colonial markets as a single pool to invest in, not separate markets that provided different returns.

The Age of the World Wars (1914-1945) and Keynesianism (1945-1981)

Stock markets were irrevocably changed by World War I. Because of the cost of fighting the war, capital was redirected toward British bonds and away from colonial markets. Colonial railways shrank from 25% of the British market in 1913 to 10% by 1939. Internal economic problems in the U.K. and U.S. limited capital flows to colonial economies and colonial economies shrank in size. Government regulations in developed markets limited capital flows to the rest of the world, limiting growth in "emerging markets."

Each decade between the 1920s and 1970s presented new problems that limited capital flows to emerging markets. Financial markets were unsettled in the 1920s, the Great Depression dominated the 1930s, World War II limited capital flows in the 1940s, Bretton Woods and its exchange controls limited capital flows in the 1950s, and in the 1960s to 1980s, high inflation made investments in stocks and bonds in emerging markets unattractive. Latin American markets placed restrictions on investments in their economies and tried to develop local industries through "import substitution," though these policies failed. China and India pursued communist and socialist policies which kept foreign capital out of their economies. As the world decolonized, capital flows from developed countries to emerging markets were highly restricted.

The real change occurred when Asian countries emerged in the 1960s with stock markets established in Korea, Taiwan, Singapore and Hong Kong. In the 1970s, stock markets opened in Thailand and Malaysia. Korea and Taiwan were former Japanese colonies while Singapore and Hong Kong were former British colonies. Using policies of export-led growth, rather than import substitution, the "Asian tigers" were able to grow their economies and begin attracting capital. Although Asian markets produced companies that followed in Japan's footsteps and provided export-led growth, South American countries sank into hyperinflation.

Globalization (1981-)

Stock markets in Asia, Latin America and other emerging markets were not even seen as an alternative to developed markets until the 1980s. Capital restrictions under Bretton Woods, as well as a lack of large companies to invest in meant that non-developed markets were simply ignored. They were not seen as a viable alternative to investments in developed markets, because stock exchanges, capital markets, and their economies were all underdeveloped. It took the export-led growth of Asian markets in the 1970s and the 1980s to make companies in Asian stock markets attractive to investors in the United States and Europe.

Initially, money flowed into emerging markets through the recirculation of "petrodollars." When OPEC quadrupled the price of oil, billions of dollars flowed into OPEC countries' coffers which were reinvested in emerging markets such as Mexico and Brazil through bank loans. When Mexico defaulted on its debts in 1982, Latin American markets lost their attraction until Brady Bonds were introduced in 1989 to provide tradeable securities that could replace the debt the emerging market countries had issued. By the 1980s, Asian economies had discovered export-led growth, exchange rates became

flexible, restrictions on capital flows were removed in some countries and for the first time since World War I, capital could flow freely into stock exchanges outside of the developed world.

This was when emerging markets were discovered. Today, emerging markets are seen as a separate asset class from developed markets, but there is no homogeneity in the emerging world. As the attempt to throw the largest emerging market countries into the BRICS category (Brazil, Russia, India, China and South Africa), the problem is that these five countries are so diverse that they all have followed separate paths since BRICS were separated out from other emerging markets. Countries like Argentina, Turkey, Sri Lanka and others show that politics still can play a more important role than economics and constrain an emerging market from growing. Emerging markets have underperformed developed markets since the 2007-2008 financial crisis hit. The United States has benefitted from producing internet companies that span the world. Emerging markets are often the markets of the future, but not the present. Otherwise, they would no longer be emerging markets.

Chapter Three

The Rise of Asian Stock Markets

Figure 3.1 illustrates the history of global stock markets by capitalization from 1900 to 2018. The graph uses the World Federation of Exchanges definitions and divides the world into three groups: the Americas which includes both North and South America, Europe/Africa/Middle East, and Asia and Oceania. It shows how each continent's share of global Stock market capitalization has changed over time. The Americas represented the majority of global market capitalization during the past 120 years, but the most obvious trend over time is the relative decline of Europe and the rise of Asia.

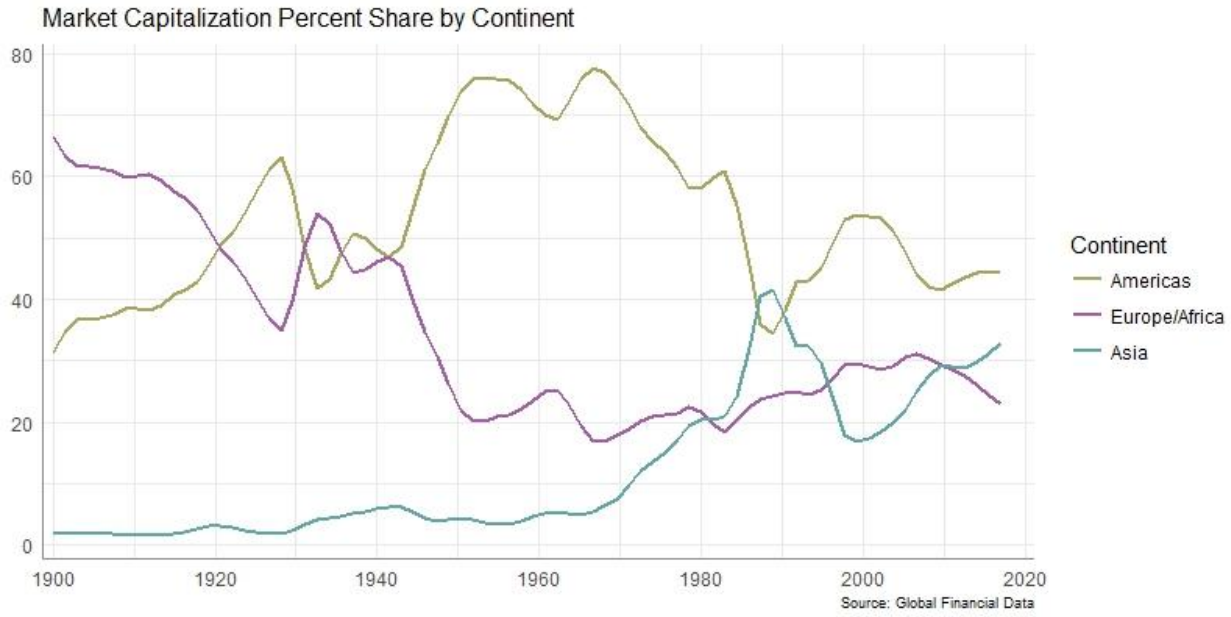

Figure 3.1. Percent Market Capitalization by Continent, 1900 to 2019

The World in 1900

In 1900, Europe dominated global stock markets. Europe represented about 68% of global stock market capitalization, the Americas around 30% and Asia only 2%. By 2018, Asia had become the second largest continent by capitalization. The Americas represented 64% of global stock market capitalization, Asia 20% and Europe 16% in 2022.

Europe dominated global financial markets in 1900 and London was at the center of European finance. European countries were on a gold standard that linked all currencies to each other at fixed exchange rates and money flowed freely between European countries. Europe funded railroads, banks, utilities and other companies in Europe and the rest of the world. American railroads were traded on all the major stock exchanges in Europe.

In 1900, there were very few stock markets anywhere in Asia, in part because many countries were European colonies. There were stock markets in Sydney, Melbourne, Shanghai, Tokyo, Bombay and Hong Kong; however, the value of Asian securities that were traded in London exceeded the level of trading in Asia. Companies that operated in French Indochina, the Netherlands Indies, Malaysia and other European colonies listed in Europe, not on local exchanges. European capital markets had more resources available for investment than Asian capital markets.

Until the 1970s, Asia represented a very small portion of global stock market capitalization. The majority of global stock market capitalization was located in North America. Between 1900 and 1970, the Americas grew in size while Europe shrank. The primary causes of this transformation were World War I, World War II and the nationalization of European industry that occurred in the 1940s.

The Decline of Europe

In 1914, Europe represented about 61% of global market capitalization and the Americas 37%. Before 1914, capital flowed freely from one European country to another. Russia issued bonds payable in Russian Rubles, British Pounds, French Francs, German Marks, United States Dollars, Dutch Guilder and Austrian Crowns. It was truly a globalized world. But on August 1, 1914, all European and American stock markets closed. The flow of capital between countries stopped and stock markets in Berlin and St. Petersburg remained closed until 1917. When the Russian Revolution overthrew the Tsar, the St. Petersburg stock market closed for the next 75 years.

With Europe recovering from World War I, money flowed into the United States. By 1929, the United States represented 65% of global market capitalization, while Europe's share had shrunk to 32%. However, the collapse of the American stock market after 1929 pushed the United States' share of global market cap down to 40% by 1933, whence it recovered.

Although there was some recovery in Europe in the 1920s, the gold standard broke down in 1931 further reducing the globalization of global financial markets. Governments controlled industry during World War II, and after the war, France, Great Britain and other European countries nationalized their main industries while stock markets in Eastern Europe closed when the Communists seized power. By 1950, Europe's share of global market capitalization had shrunk from 61% in 1914 to only 18%.

Dominance of the Anglo-Saxon Four

As Europe's share of global market cap shrank, the four Anglo-Saxon countries' share rose. These four include not only the United Kingdom and United States, but Canada and Australia. The United Kingdom played a smaller role in global finance after 1914 as it sold foreign securities listed in London to help pay for the war, but its global reach continued until the start of World War II in 1939.

Neither the United States, Canada nor Australia suffered from the destruction of the world wars or the nationalization of its industries as occurred in Europe. By 1950, the three largest stock markets in the world were New York, London and Toronto/Montreal which together represented 75% of global market capitalization. By the late 1960s, Canada and the United States together represented over 75% of global stock market capitalization.

The Anglo-Saxon countries' domination of global stock markets continued until the 1970s as is illustrated in Figure 3.2 which shows the Anglo-Saxon Four's share of global market capitalization from 1900 to 2018. In the 1970s, the OPEC Oil Crisis, stagflation, the collapse of Bretton Woods and other economic problems began shifting the balance of power away from the Anglo countries. The Asian Tigers began exporting goods to the rest of the world. By the 1980s, globalization was back and economic power shifted toward emerging markets and Asia.

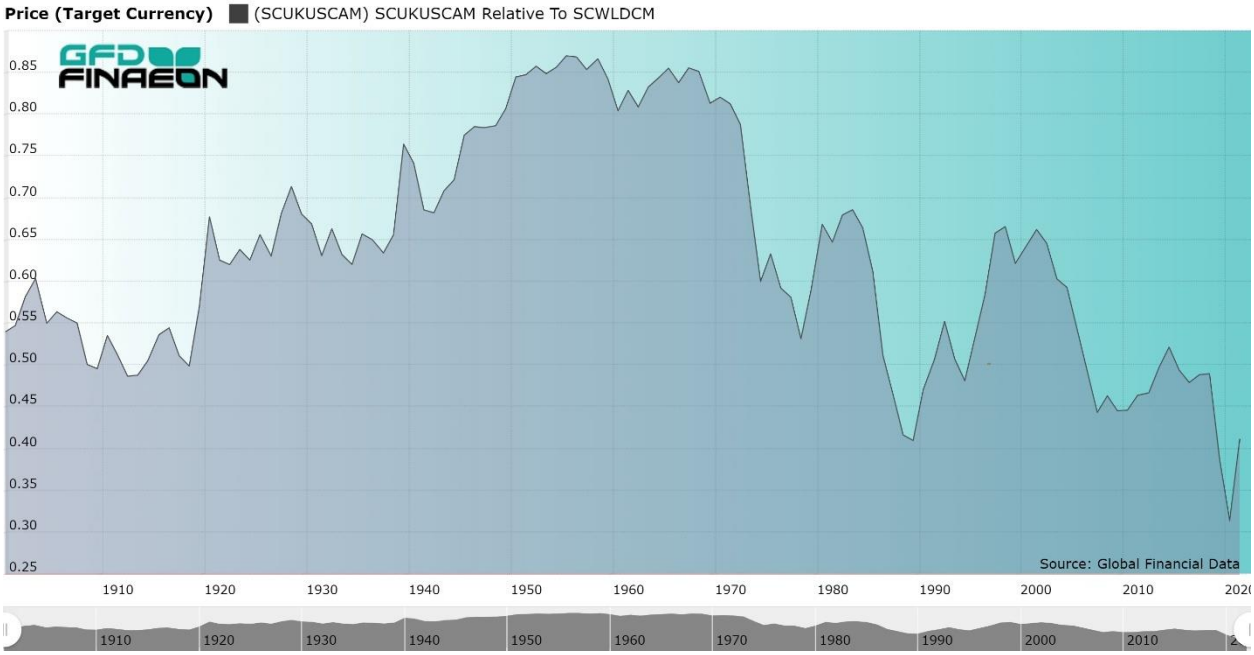

Figure 3.2. Anglo Countries Share of World Stock Market Capitalization, 1900 to 2021

The Rise of Asia

The main factor holding back Asia from dominating global stock markets until the 1980s was Asia. Shanghai had a stock market until the 1940s when it was closed down after the triumph of Communism, and India's socialistic policies that preferred five-year plans over stock market-driven growth condemned its people to poverty for decades.

Since 1970, Asia's share of global stock market capitalization has increased dramatically. Export-led growth in Japan, Korea, Taiwan, Hong Kong and Singapore allowed those countries' economies and

stock markets to grow. Japan, Korea and Taiwan all went through stock market bubbles in the 1980s and in 1989, Japan's stock market was larger than the United States'. The largest company in the world in 1989 was Nippon Telegraph and Telephone. NT&T's market cap in 1989 was greater than the entire German stock market. In 1989, Asia represented 45% of the world's stock market capitalization, Europe 22% and America 33%.

However, in 1989, the stock market bubbles in Asia burst and Asia's share of global market cap plunged to 16% by 1998; however, since 2000, both India and China have significantly increased their share of global market capitalization as Japan, Taiwan, and Korea have recovered from the crash of their stock markets in the 1990s. Asia grew at the expense of the United States up until the 2008 financial crisis and at the expense of Europe since then.

The Asian Century?

Europe is no longer an engine of growth within the world economy and under Donald Trump, America's willingness to pursue open trade with the rest of the world is in question. Were it not for the growth in the size of the internet stocks that dominate America's stock market, Asia's share of the world's market cap would have grown even more during the past decade.

How long before Asian stock markets become larger than America's? Hong Kong, Shanghai and Shenzhen continue to attract new IPOs. Meanwhile, India is growing at a dramatic pace. At the current rate of growth, Asia will probably be larger than America by the 2030s and have over half of the global market capitalization by 2040, if not sooner. And the more Europeans and Americans fight among themselves over trade, the sooner this is likely to occur.

Individual Countries

Chapter Four

The Ottoman Empire on the London Stock Exchange

Global Financial Data has the most extensive database on historical stocks available anywhere in the world. GFD has collected data on stocks that listed on the London Stock Exchange from the 1600s until 2022. London was the financial center of the world until World War I, and many companies in emerging markets listed their shares on the London Stock Exchange before a stock exchange even existed in their country. After World War I, many foreign companies listed on the New York Stock Exchange. Using data from London and New York, we can calculate stock market indices for emerging markets during the 1800s and 1900s before stocks listed on local exchanges and local emerging market indices were calculated. This is one in a series of articles about those countries.

The Ottoman Empire

The Ottoman Empire was founded in Anatolia around 1299 and by 1683 covered south-eastern Europe up to Vienna, Turkey, Palestine, Egypt and northern Africa. The Empire began to lose territory in Europe in the 1800s, but was able to increase its power in the remaining areas under its control. The empire allied with Germany during World War I, but as a result of its defeat in the war, the Ottoman Empire collapsed and re-emerged as Turkey, losing its territory in Europe and Africa to the British and the French.

As is illustrated in Figure 4.1, bondholders of Turkish debt faced two defaults in 1876 and after World War II. The first occurred in July 1876 after Serbia and Montenegro declared their independence from the Ottoman Empire which led to Turkish defeat in the Russo-Turkish war that followed. The country remained in default until December 20, 1881 when the Ottoman Public Debt Administration was formed to collect and administer the revenues pledged by the government to redeem its outstanding debt. Turkey suspended payment to Allied countries upon entering the war in 1914. The debt was partitioned on July 24, 1923 among the successor states with Turkey taking on about two-thirds of the outstanding debt; however, Turkey remained in default on the debt until 1940 when Turkish bonds stopped trading in London.

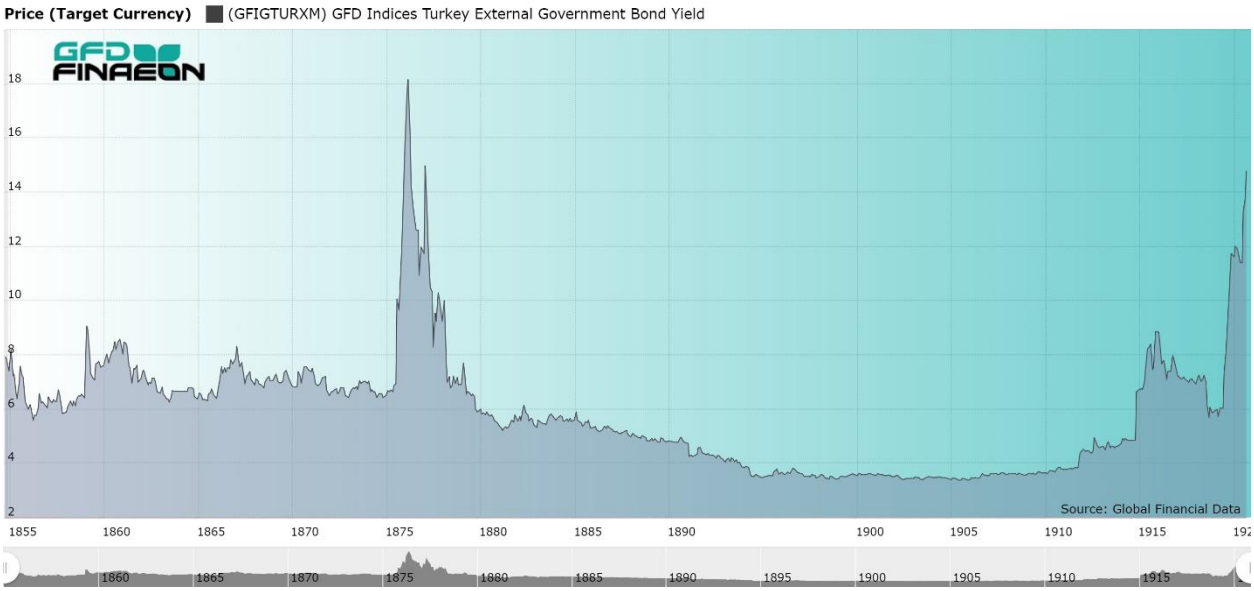

Figure 4.1. Yield on Turkish Government Bonds Listed in London

The Dersaadet Securities Exchange was established in Constantinople in 1866 and reorganized as the Istanbul Securities and Foreign Exchange Bourse in 1929. Between 1866 and 1929, a handful of blue-chip companies of the Ottoman Empire traded in London as did the government debt that the Ottoman Empire issued. There was only a handful of large Ottoman companies that traded in London, which included the Ottoman Bank (1856-1930), Ottoman Smyrna-Aidan Railway Co. (1861-1930), Ottoman Gas Co. Ltd. (1882-1930), Bank of Constantinople (1872-1894) and the Smyrna and Cassaba Railway Co. (1873-1894). At its peak, the market capitalization of the Ottoman companies that were listed in London totaled only about $20-35 million.

Ottoman stocks provided adequate if unspectacular returns over the 75-year period for which we have data as is illustrated in Figure 4.2. You can see the bubble in bank and railway shares between 1862 and 1866 when the first railways were built in the Ottoman Empire as well as the decline in shares after 1875 when Serbia and Montenegro declared their independence from the Ottoman Empire leading to the Turkish default on its outstanding government debt and the Russo-Turkish War of 1877-1878. You can also see the decline in the price of shares when Turkey sided with Germany during World War I, and Turkey's brief participation in the bull market of the 1920s.

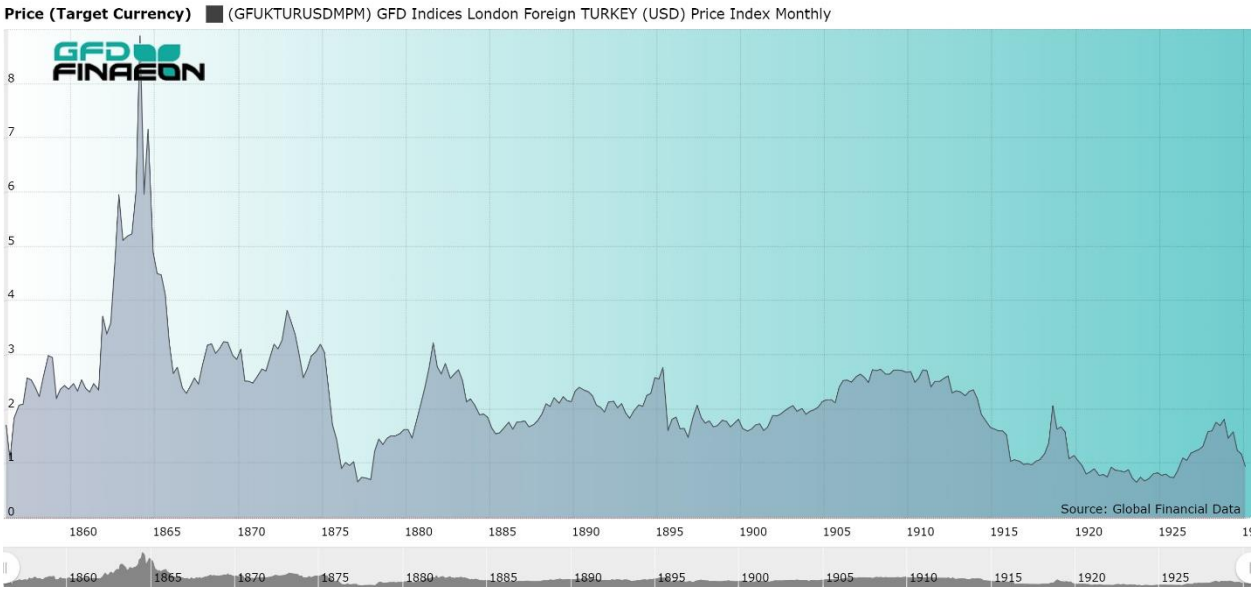

Figure 4.2. GFD's Turkey Share Price Index, 1856 to 1930

Conclusion

Overall, stock prices rose only 0.30% between 1856 and 1929, as measured in US Dollars. If you adjust for reinvested dividends, the overall return was 4.86% giving a dividend yield over the 73 years of 4.55%, a decent if unspectacular rate of return. Since Turkey defaulted on its bonds during World War I, debtholders suffered heavy losses.

Any analysis of emerging market stocks in the 1800s and early 1900s shows that there was little overall price movement over an extended period of time, though fluctuations up and down did occur at different points in time. As in other emerging markets, banks and railways were the principal investments for foreigners with very little domestic industry to invest in. Unfortunately, we have no data on domestic shares that traded in Turkey after 1930, but one could assume that the returns were little different from the pre-1930 returns. The Ottoman Empire did not provide good returns to shareholders or bondholders.

Chapter Five

The Suez Canal and the Egyptian Stock Market

Global Financial Data has the most extensive database on historical stocks available anywhere in the world. GFD has collected data on stocks that listed on the London Stock Exchange from the 1600s until 2022. London was the financial center of the world until World War I, and many companies in emerging markets listed their shares on the London Stock Exchange before a stock exchange even existed in their country. After World War I, many foreign companies listed on the New York Stock Exchange. Using data from London and New York, we can calculate stock market indices for emerging markets during the 1800s and 1900s before stocks listed on local exchanges and local emerging market indices were calculated. This is one in a series of articles about those countries.

The Suez Canal Connects the World

There were a number of companies that listed in London and Paris as well as on the Cairo and Alexandria Stock Exchanges in the 1800s and 1900s. The first company for which GFD has data is the Bank of Egypt which traded in London from 1856 until 1910. Several other companies came along in the 1860s including the Egyptian Commercial and Trading Co. (1863), Societe Financiere d'Egypt (1864) and the Anglo-Egyptian Banking Co. (1865-1920). However, the largest company in Egypt, the Compagnie universelle du canal maritime de Suez (Suez Canal Co.) went public in 1858 and ran the Suez Canal until it was nationalized by Egyptian President Gamal Abdel Nasser in 1956. During the late 1800s, the Suez Canal Co. was one of the largest stocks by capitalization that traded on either the Paris or the London Stock Exchange. GFD has data on the Suez Canal from its IPO in 1862 until 1940.

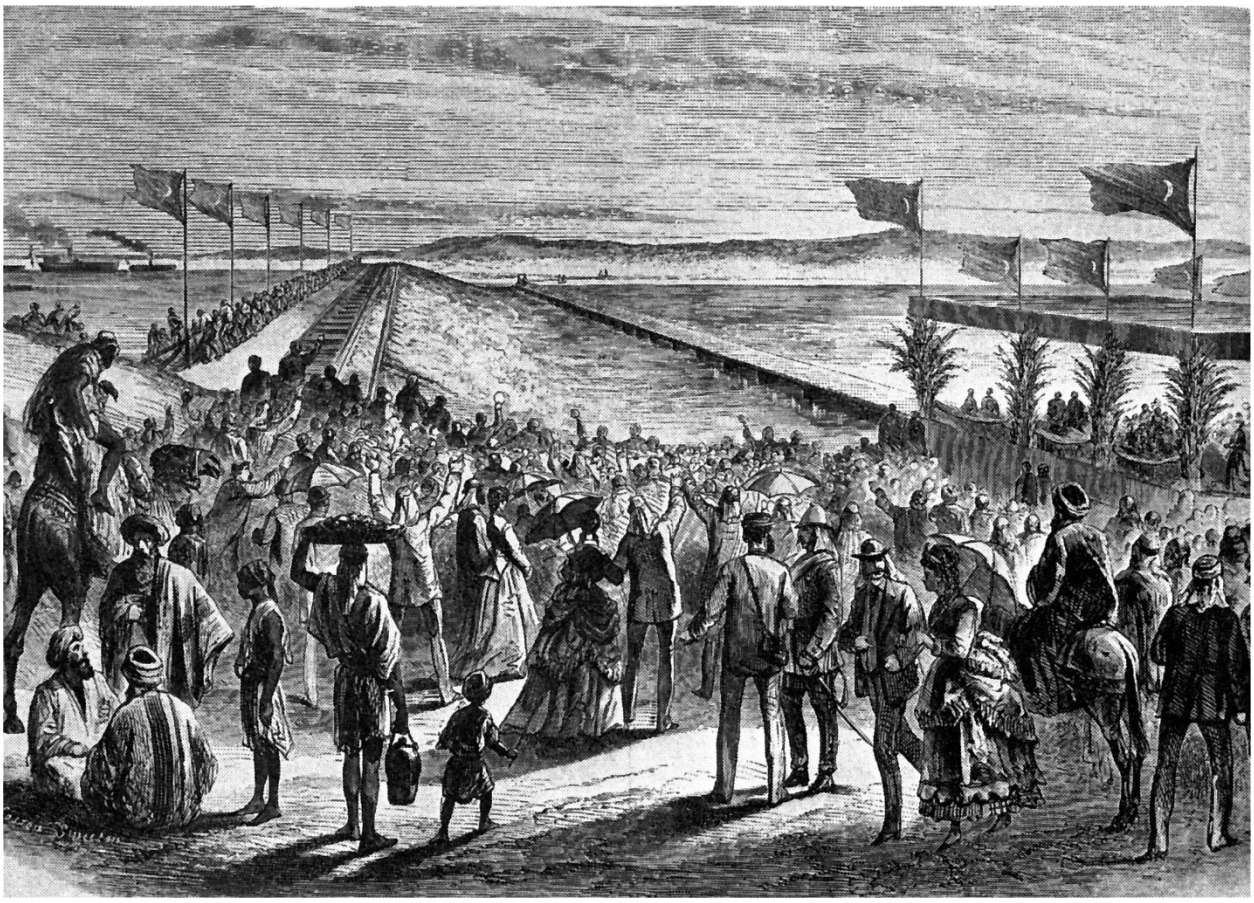

Figure 5.1. The Inauguration of the Suez Canal in 1869

The Suez Canal was constructed between 1859 and 1869 and was officially opened on November 17, 1869. Dreams of building a canal between the Mediterranean and the Red Sea go back almost 4000 years, but until the 1800s, no one had succeeded in building a useable canal. In 1856, Ferdinand Lesseps obtained a concession from Sa'id Pasha, the Khedive of Egypt and Sudan to create a company that would construct a canal open to ships from every nation. The Suez Canal Co. was founded on December 15, 1858 with the Egyptian government owning 44% of the shares, and French and Egyptian investors owning the rest. The company issued 400,000 shares at 500 francs ($100) each, giving the company a market cap of $40 million.

Work on the canal began on April 25, 1859. Both the transcontinental railroad in the United States and the Suez Canal were opened in 1869 making it easier to conduct trade around the world. Sa'id Pasha defaulted on government bonds in 1875, and he sold his 44% stake in the Suez Canal Co. to Britain which became the largest shareholders in the canal. The British invaded Egypt in 1882 to suppress the Urabi Revolt and in 1888, the Convention of Constantinople declared the canal a neutral zone under the protection of the British. The canal was nationalized in 1956 and shareholders were paid off by 1962, though hardly at a rate that was in their favor.

As Kindleberger put it, "Sa'id and Ismail were profligate viceroys, borrowing in Europe at high interest rates for consumption, for irrigation schemes designed to serve their own estates, for an extravagant fête to celebrate the opening of the Suez Canal, for badly planned public works. The

railroads and Suez Canal benefitted Europe, not Egypt, and cost Egypt £12 million for shares ultimately sold to the British government under Disraeli for £4 million. In all, the Egyptian government under Ismail (after 1863) borrowed £53 million, received only £32 million, paid £35 million in debt service, but still owed £52 million on capital account and arrears of interest in 1876 when the government finally defaulted. Marlowe (a nom de plume) observes that it was easy to castigate the Europeans who made every Ismail initiative contribute to their wealth, but Egyptian mismanagement was itself spectacular." (Charles Kindleberger, A Financial history of Western Europe, London: George Allen & Unwin, 1984, p. 224)

Figure 5.2 shows the performance of Suez shares between 1862 and 1940. As can be seen, shares in the Suez Canal rose in price from 1858 until World War I, declined in price until the early 1920s, then made a dramatic rise until 1939 when World War II caused the price of Suez Canal Co. shares to crash back to the level of the 1920s.

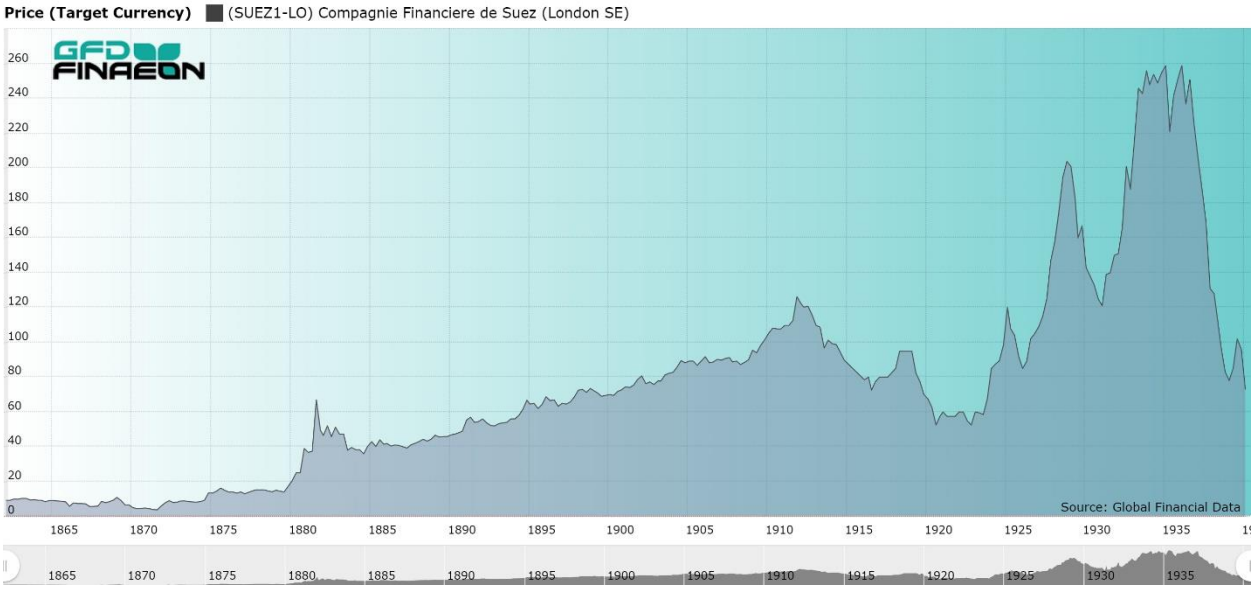

Figure 5.2. Suez Canal Co. Price in London 1862 to 1940

Egyptian Stock Market Returns

When Suez shares started trading in London in 1875, the Suez Canal Co. represented 75% of the market cap of all Egyptian shares listed in London, and in 1940 when shares stopped trading in London, the Suez Canal Co. represented about 85% of the market capitalization of Egyptian shares in London. Therefore, GFD's Egyptian stock index is more an index of shares in the Suez Canal than an index of shares in Egyptian stocks. For this reason, we have calculated GFD's index of Egyptian stocks both with and without Suez shares so the two can be compared. Generally speaking, the Suez Canal Co. was also one of the largest companies traded in Paris with only the Paris, Lyons and Mediterranean Railway and Northern of France Railway being larger at the end of the 1800s. By 1900, the Suez Canal Co. was the largest company listed on the Paris Stock Exchange.

Most of the other companies that were listed in London were either banks or real estate companies. This included the National Bank of Egypt (1899-1958), which was nationalized in 1960, the Bank of Egypt (1856-1910), the Land Bank of Egypt (1907-1930) and the Agricultural Bank of Egypt (1904-1937). Other prominent companies included the Egyptian Salt and Soda Co. (1905-1930), Anglo-Egyptian Oilfields Ltd. (1910-1961), Land and Mortgage Co. of Egypt (1880-1926), Alexandria Water Co. (1905-1930), Egyptian Markets Ltd. (1906-1927), and the Egyptian Delta Land and Investment Co. (1909-1930).

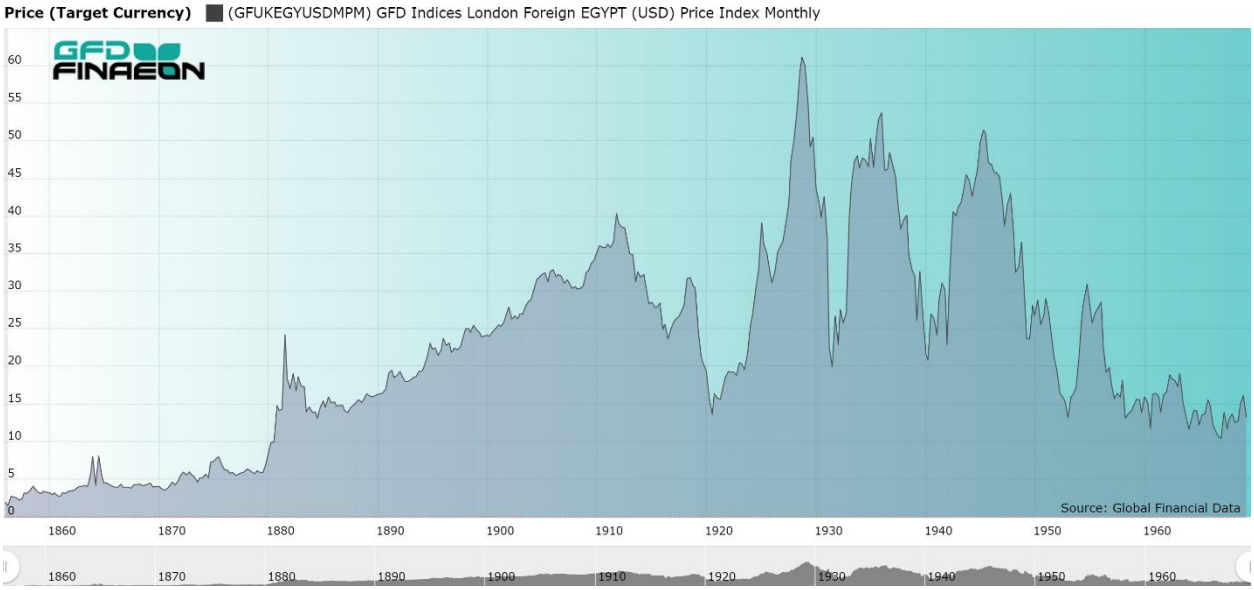

Figure 5.3. GFD Indices Egyptian Shares Listed in London, 1856 to 1968

The Alexandria Stock Exchange was founded in 1883 and the Cairo Stock Exchange in 1903. The market cap of Egyptian shares that traded in London remained quite high, primarily because of the Suez Canal Co. In 1937, the market cap of Egyptian shares exceeded $1 billion, although only about $100 million of this was from non-Suez Companies. Figure 5.3 shows the performance of all Egyptian shares listed in London from 1856 until 1969. The index peaked in 1929 and had lower highs in 1937, 1945 and 1955 right before the Suez crisis.

Between 1856 and 1969, Egyptian stocks increased in price at an annual rate of 2.31% and 7.55% on a return basis, giving a dividend yield of 5.12%. But this obscures the huge variance in returns over time. Between 1856 and 1912, Egyptian stocks rose at an annual rate of 6.83% and by 5.82% between 1846 and 1929. Add on another 5% for dividends Egyptian stocks provided good returns during its heyday, though primarily because of the strong performance of Suez Co. shares.

What does the Egyptian stock market look like if Suez is excluded from the index? To find this out, we calculated an Egypt x/Suez index which is reproduced in Figure 5.4. The chart shows peaks at similar times as the graph above, with the market topping out in 1929, 1937, 1945 and 1955, but the total return is completely different with the index increasing only 0.14% per annum from 1856 to 1961 and 6.37% with dividends reinvested. Between 1856 and 1929, the annual increase in the price of Egyptian stocks was only 2.00% per annum versus 5.82% once Suez stock is included. In other words, without Suez stock, Egyptian shares behaved just like shares from any other emerging market,

fluctuating up and down, but providing little if no long-run return to shareholders. All the return came through dividends.

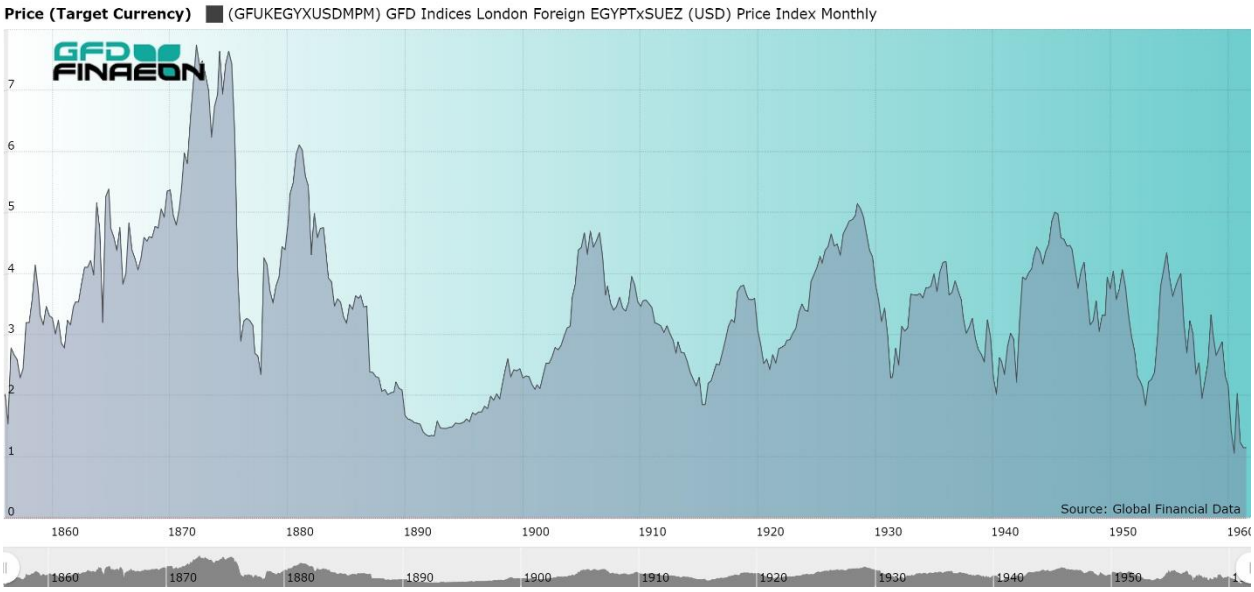

Figure 5.4. GFD Indices Egypt x/Suez Shares 1856 to 1960

Egypt calculated a stock market index of shares that listed in Cairo and Alexandria between 1948 and 1962 when Nassar nationalized a number of Egypt's companies which is illustrated in Figure 5.5. Share trading declined after 1962 and no index is available for Egypt between 1962 and 1980.

Figure 5.5. Egyptian Share Price Index, 1948 to 1962

The Future of Egypt

Egypt is a unique historical emerging market because of the dominance of the Suez Canal Co. in Egypt's market cap. The Suez Canal Co. was a French company with operations in Egypt and the British owning the largest number of outstanding shares. The Suez Canal Co. played such a prominent role in Paris that David le Blis included it as one of the stocks in his index of 40 shares that traded in Paris between 1852 and 1987. The Suez Canal Co. consistently represented over 75% of the market cap of the Egyptian stock market. When the Egyptian government nationalized the canal in 1956 and paid it off in 1962, there were few Egyptian shares left for investors to trade in either Egypt or London.

Nevertheless, during most of its history, the Suez Canal Co. provided a liquid stock which generated decent returns to its shareholders. However, Egypt is still struggling politically to provide the economic foundations that will enable the country to emerge as a developed economy. Whether Egypt can overcome its political problems and become a more market-oriented economy that follows in the footsteps of Israel and creates companies that can make products that investors prize throughout the world remains to be seen.

Chapter Six

Cuban Capitalism?

Global Financial Data has the most extensive database on historical stocks available anywhere in the world. GFD has collected data on stocks that listed on the London Stock Exchange from the 1600s until 2022. London was the financial center of the world until World War I, and many companies in emerging markets listed their shares on the London Stock Exchange before a stock exchange even existed in their country. After World War I, many foreign companies listed on the New York Stock Exchange. Using data from London and New York, we can calculate stock market indices for emerging markets during the 1800s and 1900s before stocks listed on local exchanges and local emerging market indices were calculated. This is one in a series of articles about those countries.

Havana Stock Exchange Building

Havana had a stock exchange before Castro overthrew the Batista government and nationalized all Cuban corporations without compensation. Today, of course, there is no stock market in Havana, although the building that housed the Havana Stock Exchange until 1959 still exists in downtown Havana and is pictured above. I remember admiring the building when I walked by it on my visit to Cuba in 2016, but unfortunately, the stock exchange itself no longer exists. Given the fact that no public corporations have existed in Cuba for almost 60 years, is it possible to recreate an index of Cuban stocks based upon shares that traded in London and New York? The answer is yes.

Cuban Capitalism Before the Revolution

Global Financial Data has information on 7 Cuban companies that traded in London before 1932 and 20 companies that traded in New York between 1905 and 1961.

Before 1870, two Cuban mining companies listed in London, El Compañia Consolidada de Minas del Cobre (The Cobre Mining Co.) (1838-1867) and the Santiago de Cuba Mine (1849-1859). The Cobre mine (Figure 6.1) was located at the southern tip of Cuba near Guantanamo. It was the oldest mine in the new world, having been founded in 1544. In the 1830s, a British entrepreneur bought the abandoned mine and brought Cornish miners and mechanics to get copper from the mine. The Cobre was a successful company for almost 30 years with a capitalization of about $5,000,000 in 1864. At its height, the mine was producing 67,000 tons of copper per year, but operations were suspended in 1869 when the quality of the ore declined, and the mine went bankrupt in 1869 causing a complete loss of capital to investors.

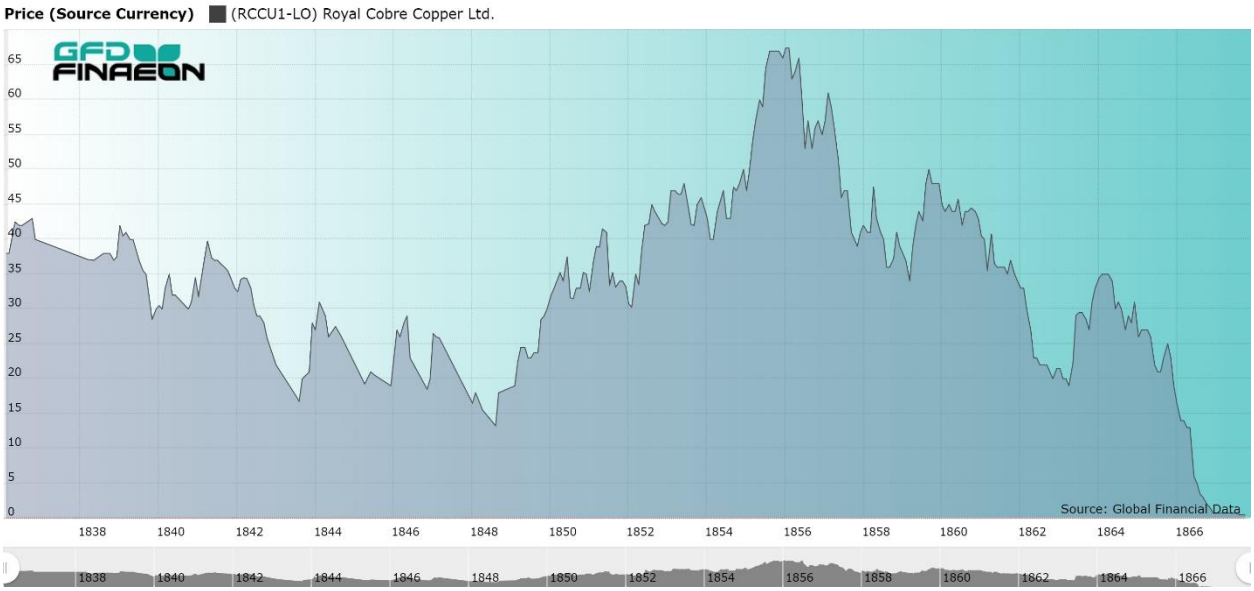

Figure 6.1. Cobre Mining Company Price 1838 to 1867

The next phase in Cuban capitalism was an attempt to provide transportation to the island by building railroads and warehouses so the sugar and other crops produced in Cuba could be exported to the rest of the world. Cuba remained under the control of the Spanish until the Spanish-American war in 1898 in which America defeated Spain and exerted its influence over the island for the next 60 years.

Among the Cuban companies that listed in London were the Cuba Submarine Telegraph Co. Ltd. (1870-1928) and Western Railway of Havana (1895-1913). After the Spanish-American war, a number of new companies were established in London, including the Cuban Central Railroad (1901-1918), and the United Railways of Havana and the Regla Warehouses (1906-1932). The world's railroads were funded through London, so it should be no surprise that London funded Cuba's railroads as well.

Most of the companies that listed in New York produced sugar or tobacco, or provided services to the population of Havana. Of the 20 Cuban companies that listed in New York, eleven were sugar companies and two were tobacco companies (the Cuban Tobacco Co. and the Havana Tobacco Co.). The

remaining stocks included the Banco Nacional de Cuba, The Cuba Co., which ran both the Consolidated Railroads of Cuba and the Compañia Cuban which owned about 300,000 acres of land on which it raised sugar, and the Havana Electric Railway Light and Power Corp. which consolidated the Havana Electric Railway with the Compañia de Gas y Electricidad de Habana, and had a perpetual gas and electricity franchise in Havana.

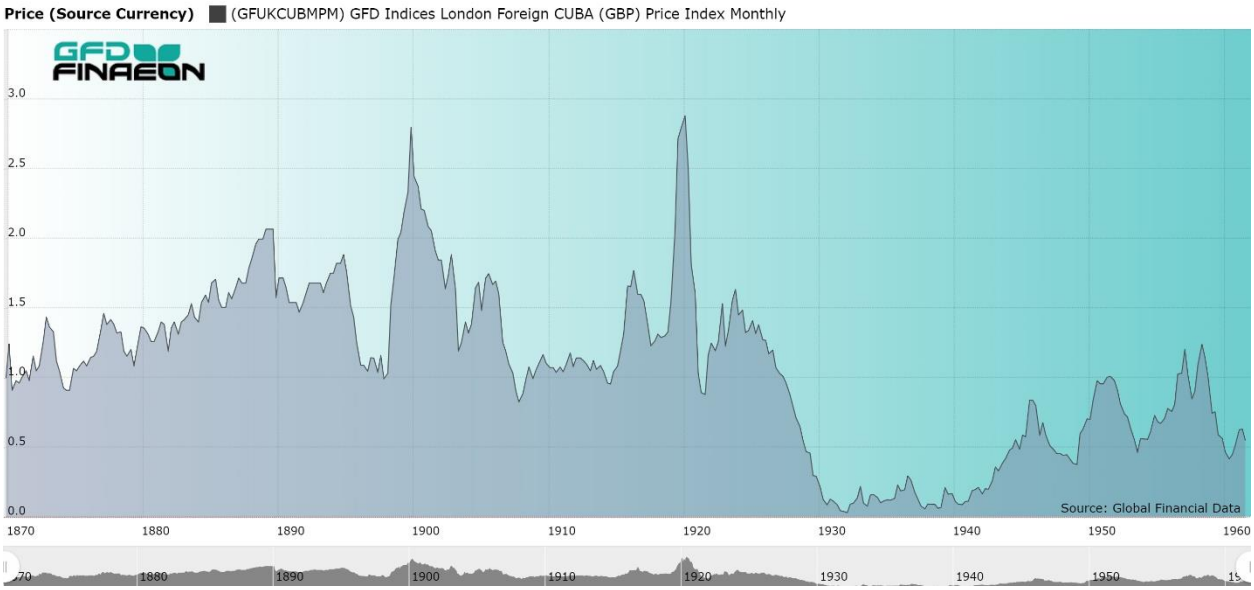

Figure 6.2. GFD Cuba Stock Price Index, 1870 to 1961

So how did Cuban capitalism do? Not very well, actually. Figure 6.2 provides a graph of Cuban stocks in London and New York from 1870 to 1960. Sugar and tobacco drove the market more than anything else. There was a global sugar shortage in the 1910s and Cuban stocks benefited from this, but the price of sugar collapsed in 1920 and never recovered. Cuban sugar producers were devastated, and many were forced to sell to American companies which bought up sugar fields in order to export sugar from Cuba to the United States.

Figure 6.3. Price of Sugar, 1870 to 1960

Before this decline, the market capitalization of Cuban stocks had risen from $40 million in 1915 to $135 million in 1926, only to decline to $2 million by 1932, rose back to $75 million by 1946 before declining to zero in 1961 as is illustrated in Figure 6.4.

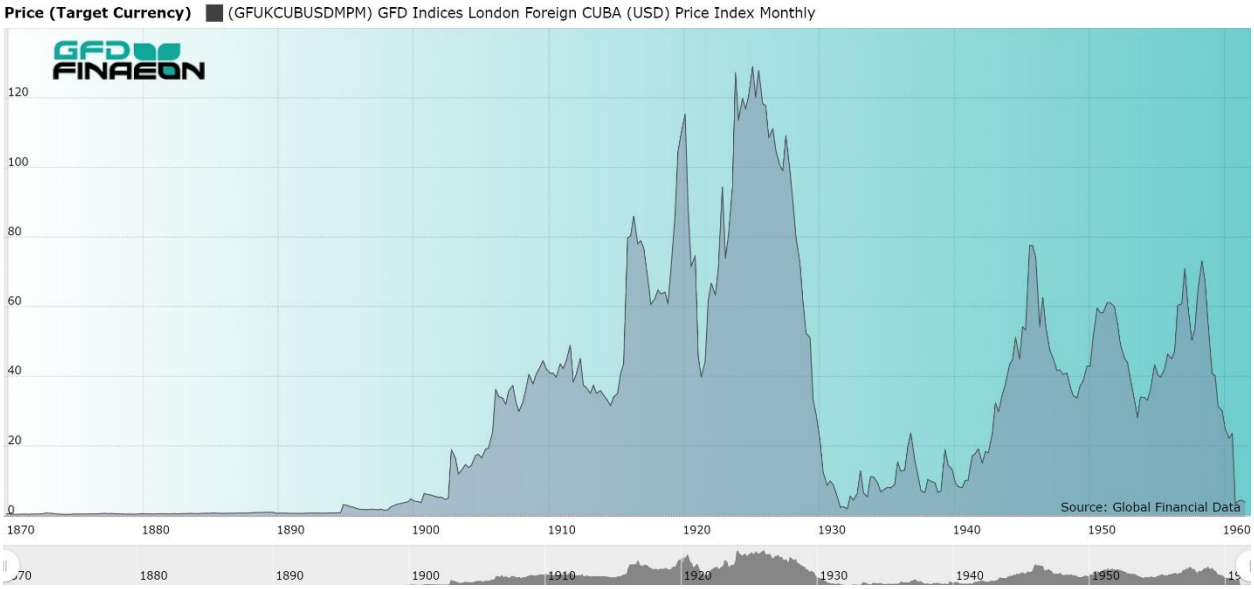

Figure 6.4. Cuba Market Capitalization, 1870 to 1960

The decline in the price of sugar drove the price of the Cuban Co. in New York down from 50 in July 1925 to 1 in December 1931. It wasn't until World War II that Cuban stocks began to recover in price as exports of sugar and tobacco were sent to the United States and the rest of the world, as is illustrated by the graph of The Cuban Co. in Figure 6.5. But there was always tension between the elites of Havana, the foreigners, mainly Americans, who invested in Cuba, and the people of Cuba who did not seem to benefit from the investment in sugar and tobacco. As can be seen in Figure 6.3, the price of sugar remained stagnant during the 1900s and there was no other industry that could boost the Cuban economy.

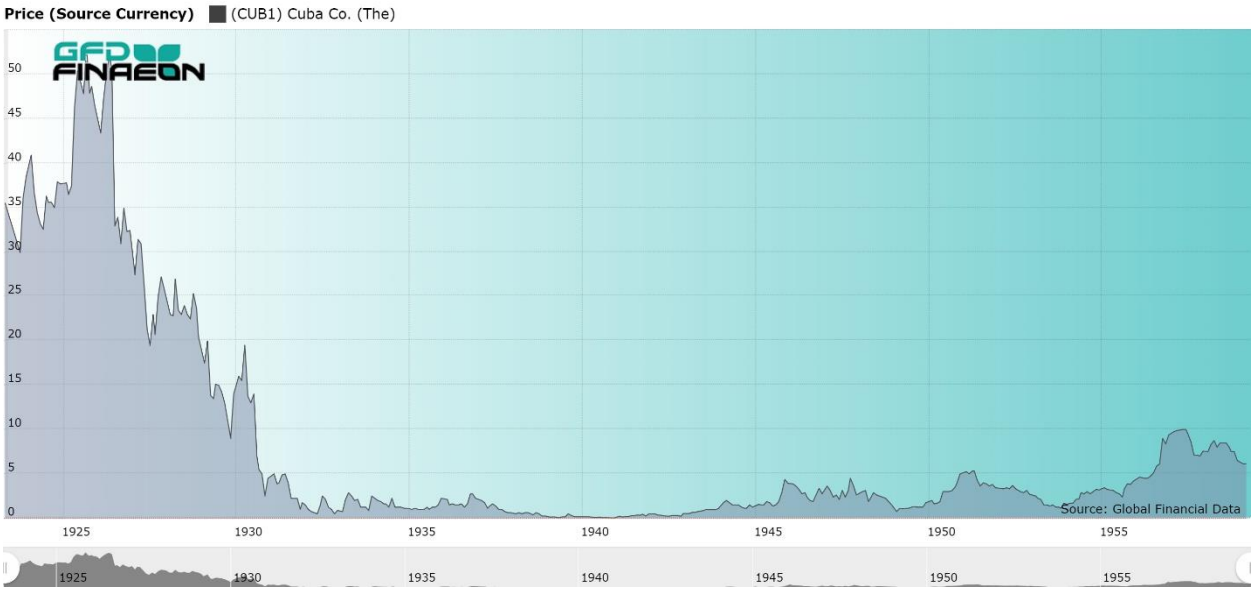

Figure 6.5. Cuba Co. Stock Price 1923 to 1960

Fulgencio Batista was elected President of Cuba in 1940 and became the dictator of Cuba after a coup in 1952. He remained in power until 1959 when Fidel Castro and his rebels seized power in Cuba. The government nationalized all corporations in Cuba without compensation and American investors lost their entire investment. The United States government still demands compensation for the companies that were nationalized while Cuba demands compensation for the cost of the embargo the United States has imposed on Cuba. Neither side seems willing to compromise.

Returns to Cuban Stocks

What differentiates the return on Cuban stocks from shares in other countries are the three strikes that have been thrown at investors during its history. The Cobre Mining Co. was abandoned in 1869 causing a complete loss to investors. A second collapse in Cuban share prices occurred in the 1920s when the decline in the price of sugar and in the Cuban economy caused Cuban stocks to lose over 90% of their value. The third loss occurred when Fidel Castro overthrew the Batista government and nationalized Cuban corporations without compensation generating a complete loss to shareholders.

Up until nationalization, Cuban stocks had provided modest returns. $1 invested in Cuban stocks in 1870 would have yielded $0.50 by 1961, an annual loss of 0.75%, but with reinvested dividends, the $1 invested in Cuban stocks in 1870 would have returned $48.75 providing an annual return of 4.36% over the 91-year period and an annual dividend yield of 5.15%. Without reinvesting dividends, shareholders would have had no return to speak of. Nevertheless, when the government nationalized all the corporations in Cuba, investors lost everything.

It should be remembered that Cuba never had a growth industry. Its main sector was agriculture, primarily sugar and tobacco, and other companies provided the infrastructure to ship Cuban goods abroad. Tourism from the United States played an important role in the economy until 1959, but it was hardly a growth industry. During the 2000s, Cuba's revenues from tourism remained constant at about $2.5 billion. Cuba's exports are about $1 billion per year, but imports are over $5 billion.

So was Cuba a good investment? No. Cuban investors lost their money three times in the past. Cuba remains opposed to almost any expansion in the private sector. Citizens are restricted almost exclusively to running a small restaurant, a bed and breakfast or driving a taxi. When you look at the three times that investors lost virtually every penny they invested in Cuba in the 1860s, 1930s and 1960s, one can almost be grateful to Castro for keeping investors out of Cuba so they wouldn't get wiped out a fourth time.

Chapter Seven

A Century of Chinese Stocks and Bonds

Global Financial Data has the most extensive database on historical stocks available anywhere in the world. GFD has collected data on stocks that listed on the London Stock Exchange from the 1600s until 2018. London was the financial center of the world until World War II, and many companies in emerging markets listed their shares on the London Stock Exchange before a stock exchange even existed in that country. After World War I, many companies listed on the New York Stock Exchange. Using data from London and New York, we can calculate stock market indices for emerging markets during the 1800s and 1900s before stocks listed on local exchanges and local emerging market indices were calculated. This is one in a series of articles about those countries.

Chinese Stocks Before World War II

Shares traded in Shanghai before any trading of Chinese shares occurred in London. The Shanghai Stock Exchange began trading shares in 1866 and included several banks and other companies. By the 1930s, Shanghai was the financial center of China with trading occurring in stocks, debentures, government bonds and futures. In 1937, Japan occupied Shanghai, and on December 8, 1941, share trading in Shanghai was halted by the Japanese. Share trading resumed in 1946, but was discontinued when the Communists seized power in 1949. The stock market remained closed until November 1990 when the Shanghai Stock Exchange reopened. Today, the Shanghai Stock Exchange is one of the largest in the world with $4 trillion listed on the stock exchange.

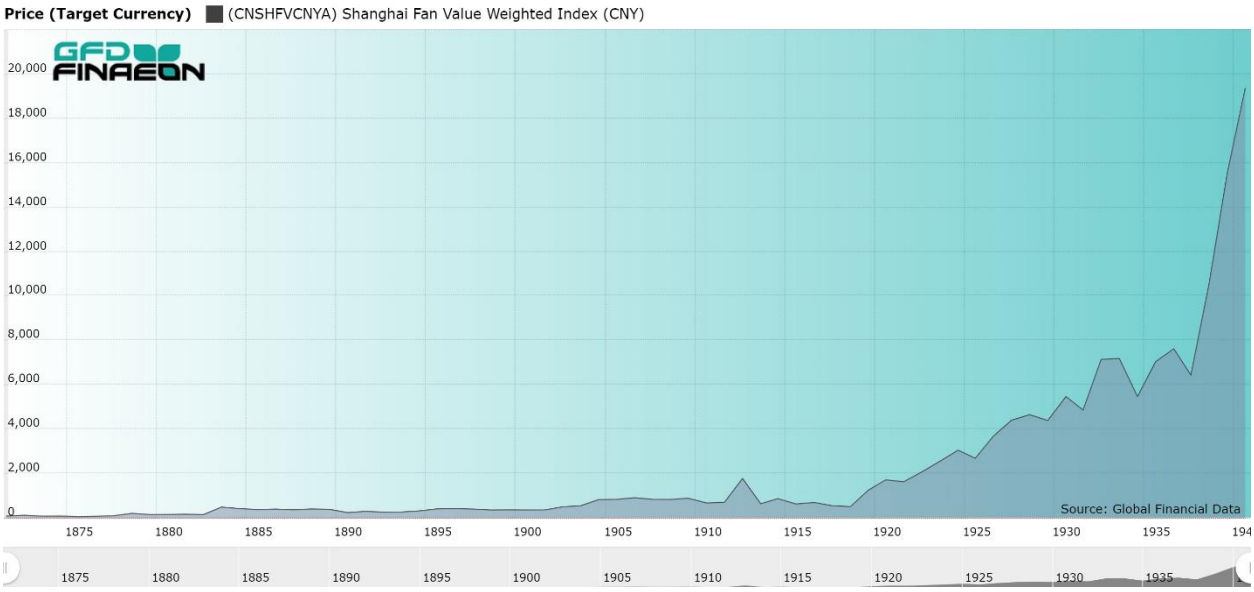

Figure 7.1. China Stock Exchange Index in Chinese Yuan, 1871-1940

Wenzhong Fan has put together an annual index of stocks listed on the Shanghai Stock Exchange using data from *The North China Herald* that stretches from 1871 until 1940. The market index he

created using this data is illustrated in Figure 7.1. It would appear that stocks did very well after World War I, with the index rising in price to almost 20,000 providing an annual return between 1871 and 1940 of 7.9%, but this was primarily because of the inflation that ravaged China during the 1930s. If the values are converted into US Dollars as is illustrated in Figure 7.2, the returns are still positive, but the increases are much more moderate. The index provided an annual return of 2.35% in USD between 1871 and 1940, not 7.9%. Although Fan's index is based upon a larger sample of stocks than was available on the London Stock Exchange, the data are annual rather than monthly so GFD's China indices can provide detail that Fan's indices cannot.

It is interesting looking at the sectors that are covered by the stocks that were listed in Shanghai. The major omission is railroads, which the Europeans wanted to build to exploit Chinese resources, but the isolationist Chinese mandarins opposed. Between 1881 and 1895 only 18 miles of railways were built per year in China, but when the Chinese government realized how railroads could help the government put down the Boxer Rebellion between 1899 and 1901, a railway boom ensued, though one managed by the government for military purposes. By 1911, 6,000 miles of railway had been laid.

However, transport stocks were not completely ignored in China. There are a large number of shipping, canal and dock companies that traded on the Shanghai Stock Exchange. One unexpectedly large sector in Shanghai was plantations since there were numerous rubber estates located around Shanghai. There were also a large number of finance companies, including banks, insurance and real estate companies as well as utilities, but no other sectors stand out as representing a large number of companies in China.

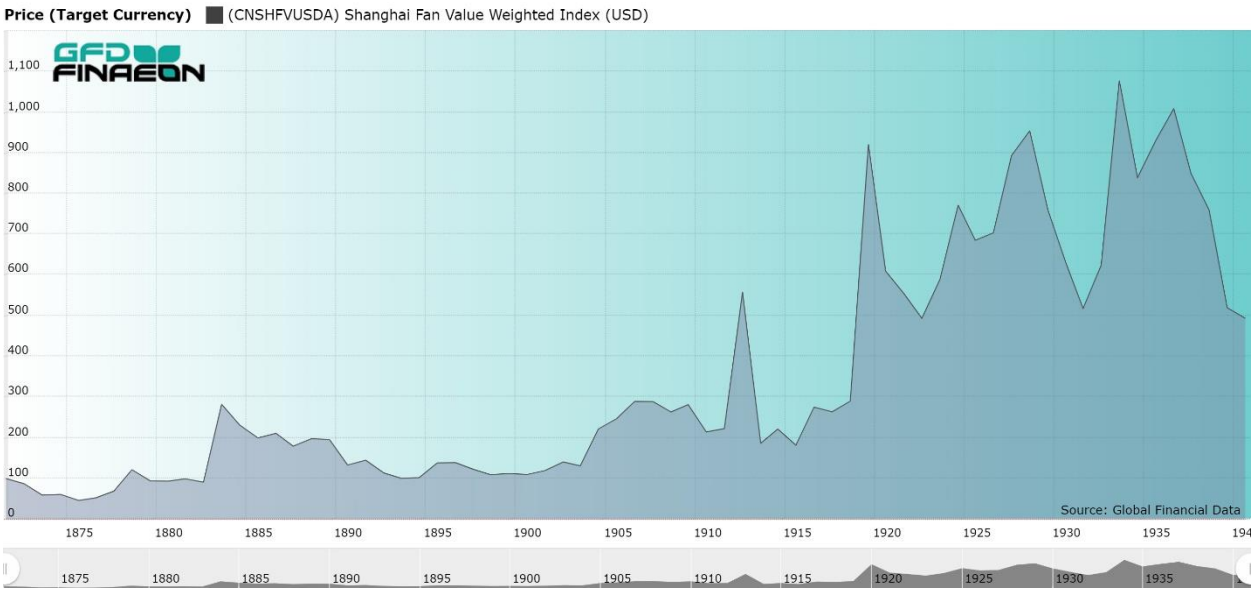

Figure 7.2. Shanghai Fan Stock Price Index in USD, 1870 to 1940

The Shanghai Stock Exchange was modest in size. Starting off at $23 million in market capitalization in 1871, the market increased in size to $1.7 billion at its peak in 1925, but declined in size to $235 million upon its closure in 1941. By comparison, AT&T's capitalization was $2.9 billion. This amount was just a fraction of China's GDP because key sectors, such as railroads, were not publicly

traded, and the companies that were listed only existed in the main cities such as Shanghai and Hong Kong where foreigners were allowed to live and trade.

Shanghai Stocks Listed in London

The data from London only cover the period from 1896 until 1930. During that period of time, GFD's index of Chinese shares, illustrated in Figure 7.3, rose from 100 to 158 on a price basis providing an annual increase of 1.36% and from 100 to 634 on a return basis providing an annual return of 5.58% and a dividend yield of 4.16%. This compares favorably with Fan's return of 4.54% during the same period of time.

There was never a grass roots effort to develop the Chinese economy through capital markets or to integrate the Chinese economy with the rest of the world. The companies that were listed in London represented a handful of companies that tried to develop Chinese resources, not Chinese entrepreneurs trying to raise capital for domestic production. It should be noted that by comparison, the market cap of Shanghai shares listed in London was only $35 million in 1925, but Hong Kong shares listed in London, mainly the Hong Kong and Shanghai Bank (HKSB), was $110 million. Because of China's isolation, British capital never played an important role in China outside of Hong Kong.

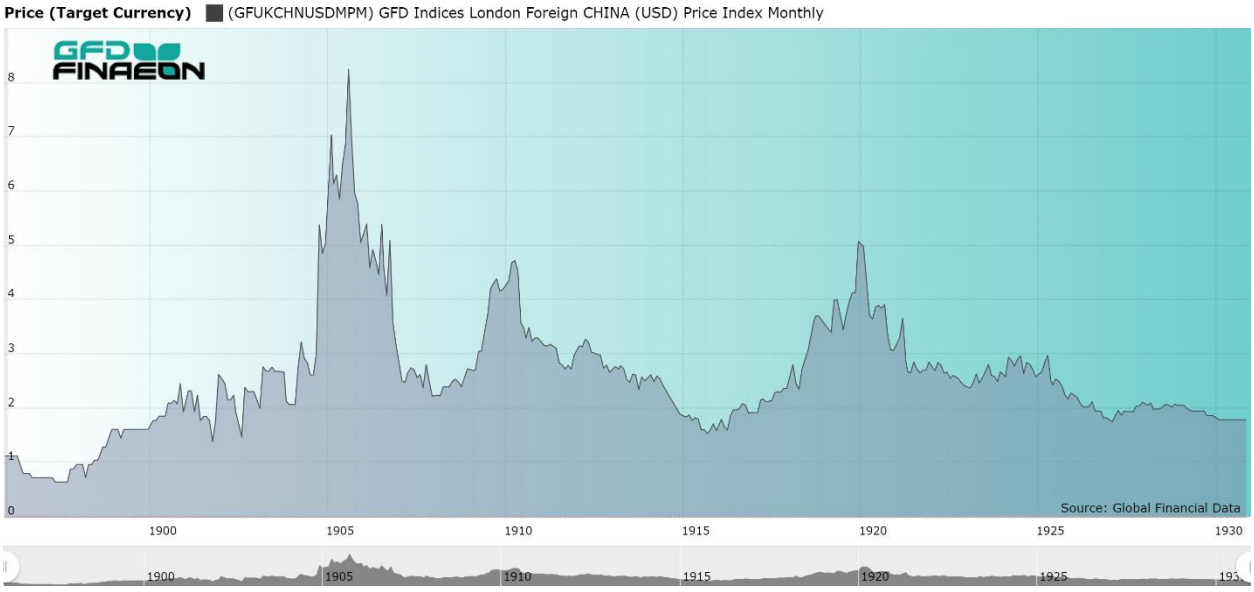

Figure 7.3. GFD China Price Index of London Stocks, 1895 to 1930

Only six stocks that were listed on the Shanghai Stock Exchange traded in London. These were the British and Chinese Corp. (1909-1930), China Mutual Steam Navigation (1896-1900), Chinese Engineering and Mining (1907-1930), the Pekin Syndicate (1900-1930), Shanghai Waterworks (1923-1927) and Shanghai Electric Construction Co. (1924-1926).

As is true of most emerging markets during this period of time, little return was provided by changes in the price of the underlying stocks. Most of the return came from dividends that investors would have had to reinvest in the stock market. The return index for Chinese Stocks is illustrated in Figure 7.4.

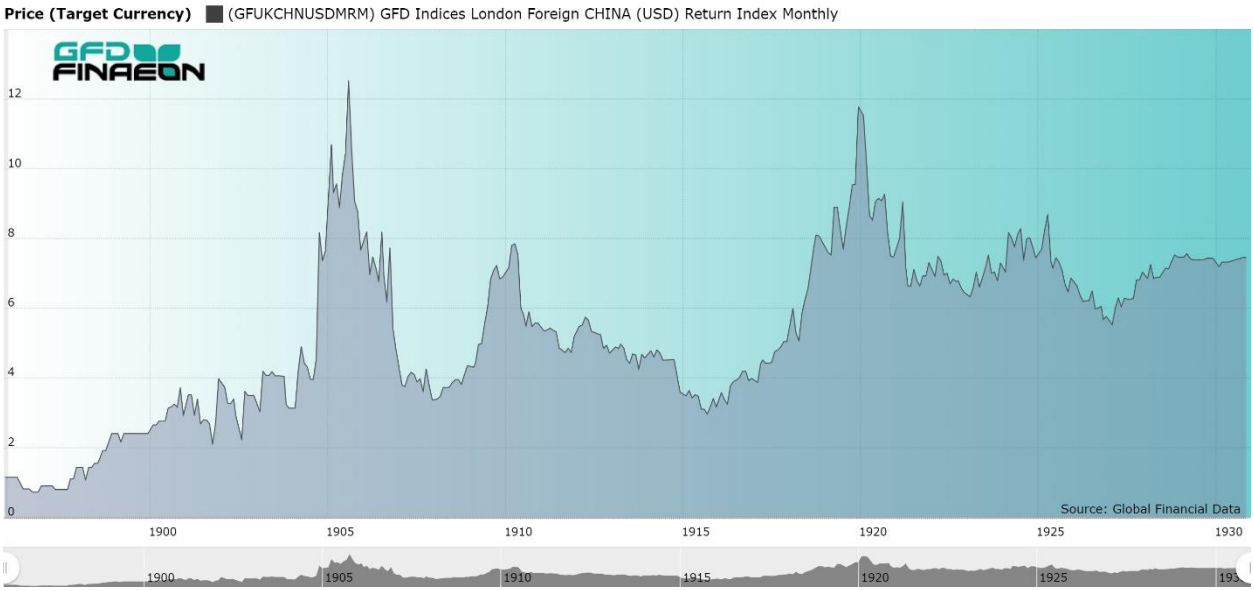

Figure 7.4. GFD China Return Index, 1895 to 1930

The Performance of Chinese Government Bonds

Probably the best long-run chart of Chinese finance is the price of Chinese government bonds that were listed in London. As Figure 7.5 shows, Chinese bonds traded above par until the beginning of World War I in 1914, but after that, Chinese bonds began a fairly steady decline as the political situation in China worsened and China defaulted on its bonds. Surprisingly, the declaration of the Chinese republic in 1912 had little impact on the value of Chinese bonds, but after the declaration of World War I, yields rose, and Chinese bonds declined in value with new lows in 1916, 1920 and 1927.

China defaulted on most of its sterling loans in 1924 and 1925. The market recovered in the 1930s, rising above par and peaking in 1936, when an effort was made by China to rehabilitate these loans. However, the invasion of China by Japan in 1937 when the Japanese captured both Shanghai and Nanjing drove the price of Chinese bonds down since investors knew that little money would be available for paying coupons. Chinese bonds rallied back between 1939 and 1945 as investors regained faith that the Allies would help China remove the Japanese from the country and enable China to deal with the default on their government bonds, but the civil war in China after World War II put paid to any chance investors were going to receive payment on the coupons, much less have the bonds redeemed.

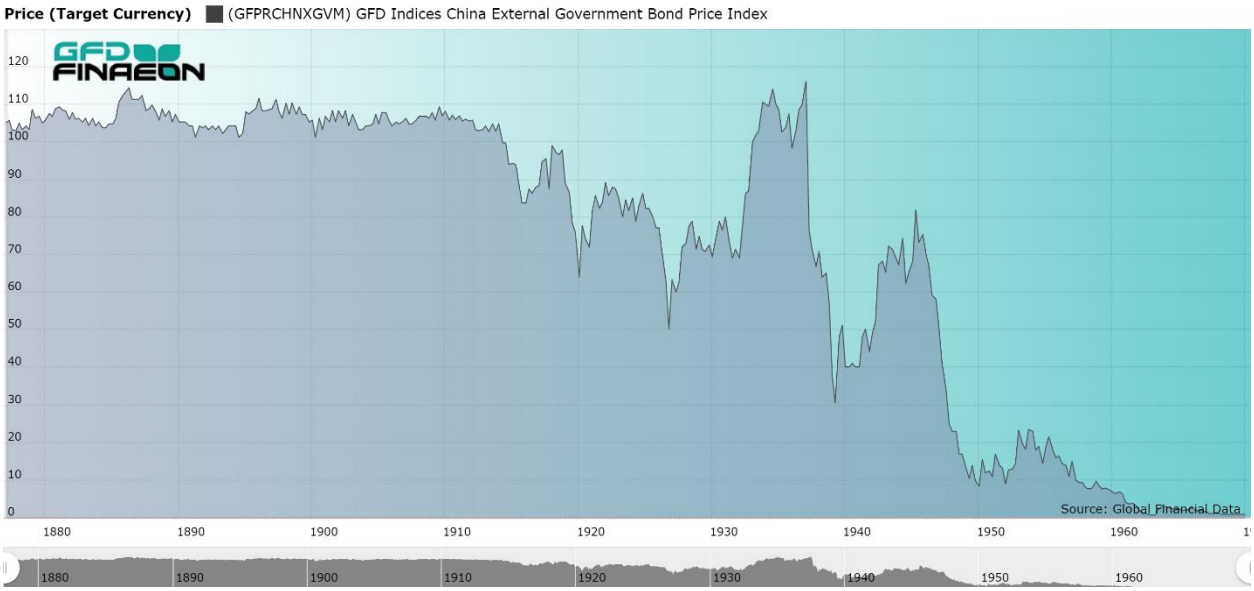

Figure 7.5. Chinese External Government Bond Price, 1878 to 1970

Hong Kong Stocks Listed in London

The Hong Kong Stock Exchange was set up in 1891 when the Association of Stock Brokers in Hong Kong was established. It was renamed the Hong Kong Stock Exchange in 1914. The Hong Kong Stockbrokers Association was founded in 1921 and merged with the Hong Kong Stock Exchange in 1947. Three new exchanges were founded between 1969 and 1972 and they all merged into a single exchange in 1986.

The Hang Seng Index was introduced on July 31, 1964 and is still the benchmark for Hong Kong 54 years later, but what happened to Hong Kong Stocks before 1964? The GFD Hong Kong index included only two stocks in 1964, the Hong Kong and Shanghai Bank (HKSB) and the Indo-China Steam Navigation Co., but HKSB was listed on the London Stock Exchange from 1868 until the present providing an incomparable set of data to analyze. The bank stock's performance between 1868 and 1969 is shown in Figure 7.6 which illustrates over a century of stock prices in Hong Kong. The expected peaks and declines can be easily picked out.

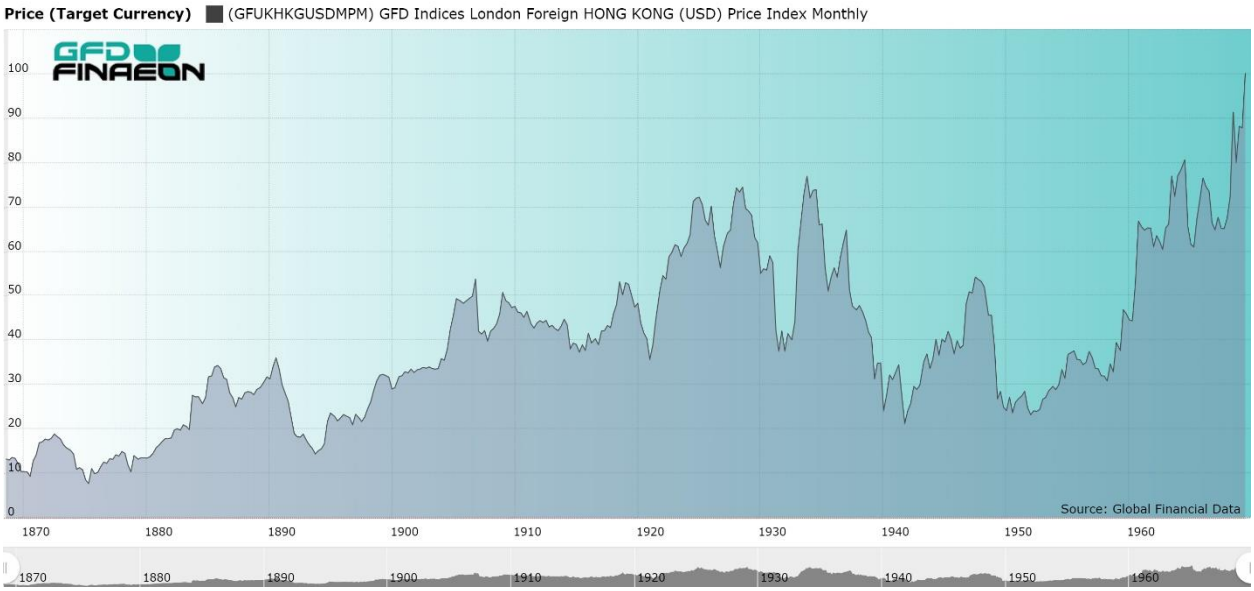

Figure 7.6. GFD Hong Kong Stock Price Index, 1866 to 1970

The decline in the early 1890s was driven by the banking crisis in Hong Kong which occurred in 1890; however, the 1895 Treaty of Shimoneseki opened up the Chinese market to foreign investors and the stock market boomed for the next 10 years. There was a rubber boom between 1909 and 1910 driving prices up, but the Revolution of 1911 which overthrew the Ch'ing Dynasty had little impact on the stock market. There was cotton speculation in 1919 and a second rubber boom in 1925, both of which are illustrated by peaks in the stock market index. However, in 1931, Japan invaded northern China, seized Shanghai in 1937, and the Shanghai Stock Exchange closed on December 5, 1941. The index performed relatively well during the 1940s, but collapsed in 1949 after the Communists took over China. Once the threat of the Communists taking over Hong Kong receded, the index rose steadily until the 1960s when Hong Kong became the entrepôt for southern China.

The London Stock Exchange listed shares in Hong Kong companies such as the Hong Kong and Shanghai Banking Corporation (1868-), China Submarine Telegraph Ltd. (1870-1873), Hong Kong and China Gas Co. (1865-1920) and Indo-China Steam Navigation Co. (1940-1952, 1956-1969). Data on these four shares was used to put together the index provided in Figure 7.6.

The index of Hong Kong Stocks rose from 100 in December 1868 to 680 in December 1968, providing an annual price increase over those 100 years of 1.94%. The return index rose from 1 to 1300 during the same period of time, providing an annual return of 7.43% and an annual dividend yield of 5.38% over those 100 years. Granted, the index primarily keeps track of one stock, the Hong Kong and Shanghai Banking Corp., but the bank did provide a consistent level of returns to its shareholders. If you compare the performance of Hong Kong stocks between 1896 and 1930 with those in Shanghai, the Hong Kong Shares returned 2.68% per annum and 8.72% after including dividends, clearly superior to the 5.58% total return that Shanghai stocks provided.

What if?

It is unfortunate that the number of Chinese stocks that listed in London is so limited, but it does provide us with insight into the performance of shares that would otherwise be unavailable. One alternative would be to use the *Far Eastern Economic Review* to create a broad index of stocks in Hong Kong between the end of World War II and the creation of the Hang Seng Index in 1964.

Of course, the ultimate counterfactual, which can never be answered, is what might have happened if the Communists had never seized power in 1949 and the Kuomintang had remained in power. The Taiwan Stock Exchange began operating on February 9, 1962 and helped Taiwan to establish its technological prowess in semiconductors and other areas of technology. Taiwan Semiconductor is one of the largest companies in the world. Today, Taiwan is a thriving democracy to a degree that China is not. What if the Shanghai Stock Exchange had never closed in 1949? How different would China be today if the Kuomintang had defeated the Communists? Unfortunately, we shall never know.

Chapter Eight

Singapore: The Crazy, Rich Rubber City-State

Global Financial Data has the most extensive database on historical stocks available anywhere. In particular, we have collected data on stocks that listed on the London Stock Exchange from the 1600s until 2018. London was the financial center of the world until World War I and many countries in emerging markets listed shares on the London Stock Exchange before a stock exchange even existed in that country. This enables us to calculate stock market indices for emerging markets during the 1800s and 1900s before stocks listed on local exchanges and local emerging market indices were introduced. This is one in a series of articles about those indices.

Singapore is one of the most important financial centers in Asia, and has grown from a small island of 1.6 million in 1960 to over 5 million people today with a per capita income of over $55,000, more than many countries in Europe. Any information about the historical performance of stocks in Singapore is a welcome addition to the financial history of the city-state.

Singapore Before Singapore

Stamford Raffles founded Singapore as a trading post of the British East India Company in 1819. The city became part of the Straits Settlements in 1826 and its capital in 1836. The British were defeated in the Battle of Singapore on February 15, 1942 when 60,000 British troops surrendered to the Japanese in one of the worst defeats of British forces in history. The Japanese surrendered to the British on August 15, 1945, but the failure of the British to protect Singapore from the Japanese lowered Britain's standing in the eyes of Singaporeans. Malaysia and Singapore were granted self-government in 1959, but because of economic and political differences, Singapore seceded from Malaysia and became an independent republic on August 9, 1965.

The Malayan Stock Exchange was set up on May 9, 1960. Floors for trading shares were set up in both Kuala Lumpur and in Singapore. After Singapore seceded, the structure of the stock exchange remained the same, but its name was changed to the Stock Exchange of Malaysia and Singapore. When currency interchangeability was terminated between Malaysia and Singapore in 1973, the Stock Exchange of Singapore separated from the Kuala Lumpur Stock Exchange.

As this brief history shows, there was no trading of Singapore stocks in Singapore before 1960. Singapore stocks were traded in London or not at all. GFD has been able to collect data on a handful of Singapore stocks in order to put together an index of Singapore shares before local trading began.

Singapore Shares Before Independence

Singapore, as well as most of Malaysia, was a center for rubber production before World War II. The largest of these companies was the Straits Rubber Co., Ltd. which was registered in 1909, reorganized in 1919, and was acquired by Consolidated Plantations in 1972. Two other Singapore rubber companies that registered in London were the Bukit Sembawang Estates and the Singapore United Rubber Plantations. These three companies made up all of the Singapore shares that traded in London before 1960. In essence, GFD's Singapore stock index is an index of rubber companies. The market

capitalization of these three companies remained small peaking at $2 million in 1920, and remaining below $1 million between 1921 and 1957.

There is a gap in the index between 1957 and 1961 and after 1961, the Singapore Traction Co., and Bajau Rubber and Produce Estate were added to shares of the Straits Rubber Co. to represent Singapore stocks in London. The price index of Singapore stocks from 1915 until 1957 is provided in Figure 8.1.

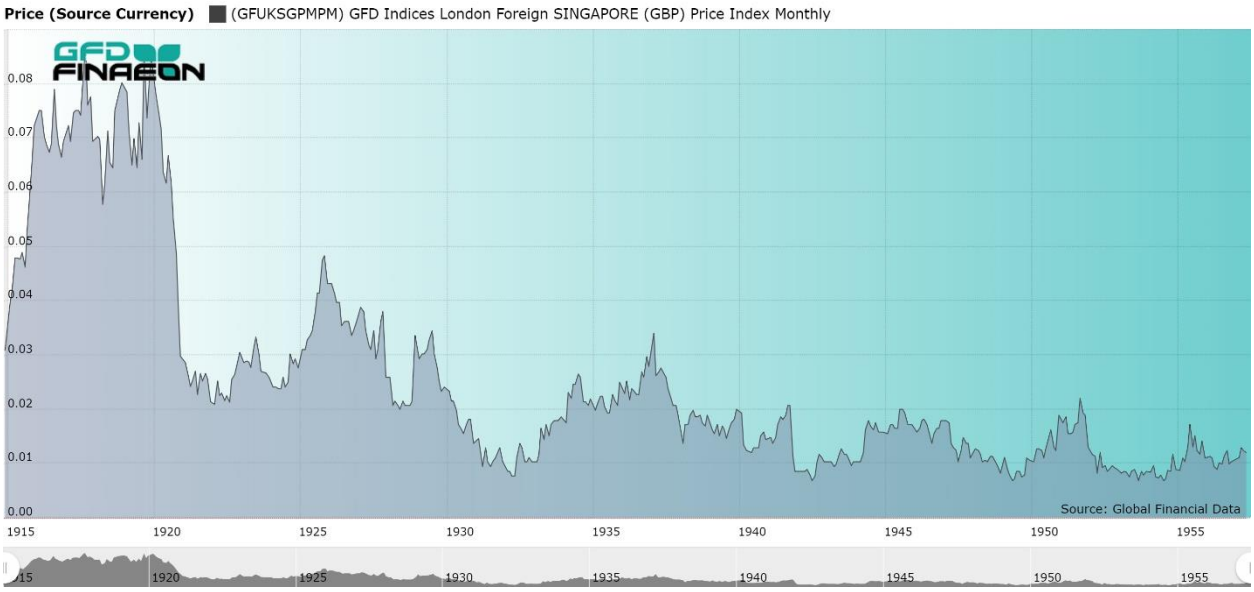

Figure 8.1. Singapore Stock Price Index, 1915 to 1960

The index had large increases when World War I began as the demand for rubber increased. When the war was over, the demand for rubber collapsed and the price of rubber stocks declined as well. A graph of the price of rubber between 1910 and 1960 is provided in Figure 8.2. Both rubber price spikes in 1925 and in 1950 are reflected in the index in Figure 8.3 with shares rising in price, and declining thereafter. Who in today's modern Singapore of crazy, rich Asians would have realized the intimate relationship between the price of rubber and the performance of the stock market before the city gained its independence?

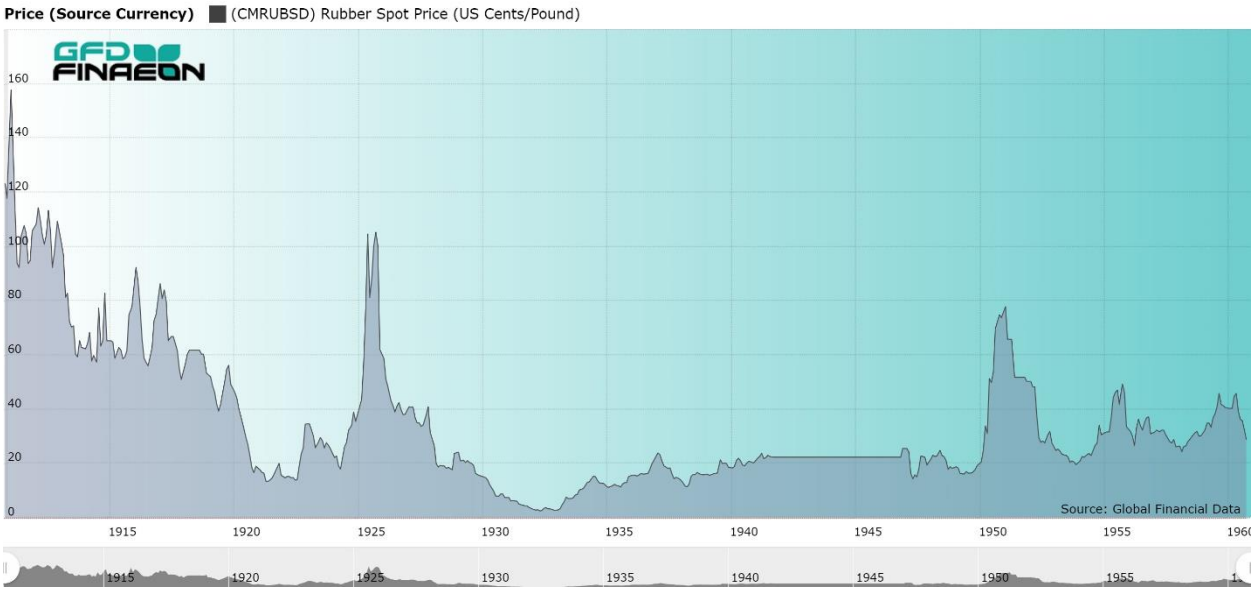

Figure 8.2: Rubber Spot Price, 1910 to 1960

From a price point of view, investors lost money during the 50 years the GFD index covers. The only return was from dividends which could be reinvested in the company. The log graph below shows the impact of reinvesting dividends on the total return. Clearly, with reinvested dividends the return is positive.

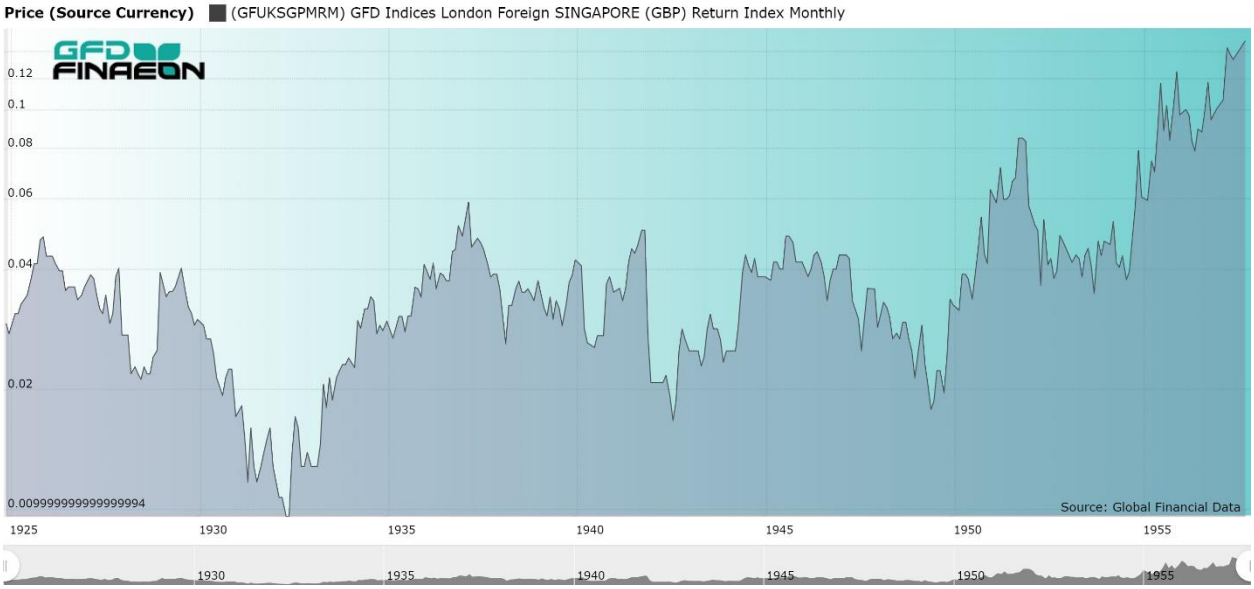

Figure 8.3: Singapore Stock Return Index, 1925 to 1960

One dollar invested in Singapore stocks in 1915 would have returned $0.48 by 1957, an annual loss of 1.73%. Return data goes back to 1920 and $1 invested in Singapore stocks in 1920 would have returned $2.97 in 1957, an annual return of 2.90%. Stocks would have provided an annual dividend yield of 5.05% during that same period of time. The data begin again in 1961 and continues until 1977. Actual data from the Singapore Stock Exchange begins in 1965. We can chain link GFD's data to the Financial

Times Straits Times Index and extend that index back to 1961 providing even more long-term data than was previously available.

Conclusion

Singapore illustrates the benefit of using data from the London Stock Exchange to learn about the past of Asian markets. Though Singapore is no longer an emerging market, it has become a major financial center of the world with per capita income rising from $500 in 1964 to $5000 in 1980 and over $59,000 in 2020. However, before gaining its independence, Singapore was a major port that shipped rubber to the rest of the world and the Straits Rubber Co. was the largest corporation in the colony. The performance of the stock market followed changes in the price of rubber for decades, but once Singapore gained its independence, rubber lost its importance, and Singapore is today one of the financial capitals of the world.

Chapter Nine

South Africa: A Revision of its Golden Returns

South Africa was colonized by the Dutch between 1652 and 1815 and the British beginning in 1815. Diamonds were discovered in South Africa in 1866. By the 1870s, South Africa was producing 95% of the world's diamonds and continues to produce a significant portion today. Gold was discovered in 1886 leading to a rush of capital and people into South Africa. This led to conflict between Dutch and British settlers which culminated in the Anglo-Boer Wars, the second of which was fought between 1899 and 1902 ending in British victory. The four British and Boer colonies were organized into the Union of South Africa on May 31, 1910. The Union became a Republic on May 31, 1961. However, the system of apartheid persisted in South Africa until April 27, 1994 when white rule over South Africa came to an end.

Global Financial Data has collected data on companies from South Africa that listed in London during the 1800s and 1900s. Between 1835 and 1985, over 400 South African companies traded in London, more than any other country. Most of these were mining companies that used European capital to search for gold, diamonds and other precious metals. Before 1890, there were fewer than 20 South African companies in London, but once gold was discovered in the 1880s, the number of South African companies mushroomed, increasing to 45 in 1890 and over 100 by 1902. South African companies also listed in Paris where they traded on the Coulisse Exchange as well as in Amsterdam, Berlin and other stock exchanges because European investors wanted to profit from the South African gold rush.

Until now, indices on South African stocks were based upon the index of commercial and industrial shares that listed in Johannesburg. Data before 1947 used indices from C. G. W. Schumann and A. E. Scheurkogel's *Industrial and Commercial Share Price Indices in South Africa*. Unfortunately, Schumann and Scheurkogel did not include mining shares, and as in Australia, this produced an upward bias to the South African indices. We have combined the data from mining shares listed in London with commercial and industrial shares that listed in Johannesburg to create a new index for South Africa.

South Africa Before 1960

The pre-1960 South Africa industrials index included only industrial and commercial shares. The index was a weighted arithmetic average of price relatives, weighted by the average market value of companies, and based upon weekly prices in Johannesburg and Cape Town. The index was compiled by the University of Stellenbosch, and after 1947 by the Reserve Bank of South Africa. Between 1910 and 1947, the Schumann and Scheurkogel price index rose by 6.77% per annum, excluding dividends. During the same period of time, GFD's index of South African shares that were listed in London rose by only 3.22%. As in Australia, commercial and industrial shares outperformed the mining side of the stock market to a degree that makes the results hard to believe. It is curious that most of the outperformance of the Schumann and Schurkogel index occurs before 1947, but since 1947 when the South African index was calculated in "real time", the outperformance disappears. This makes it likely that the index suffers from survivorship bias and non-market cap weighting. Figure 9.1 compares the performance of the South African Industrial and Commercial Index with the GFD London shares index from 1910 until 1985.

GFD's index underperformed the Schumann and Scheurkogel index in the 1910s providing a legacy of outperformance that apparently did not exist.

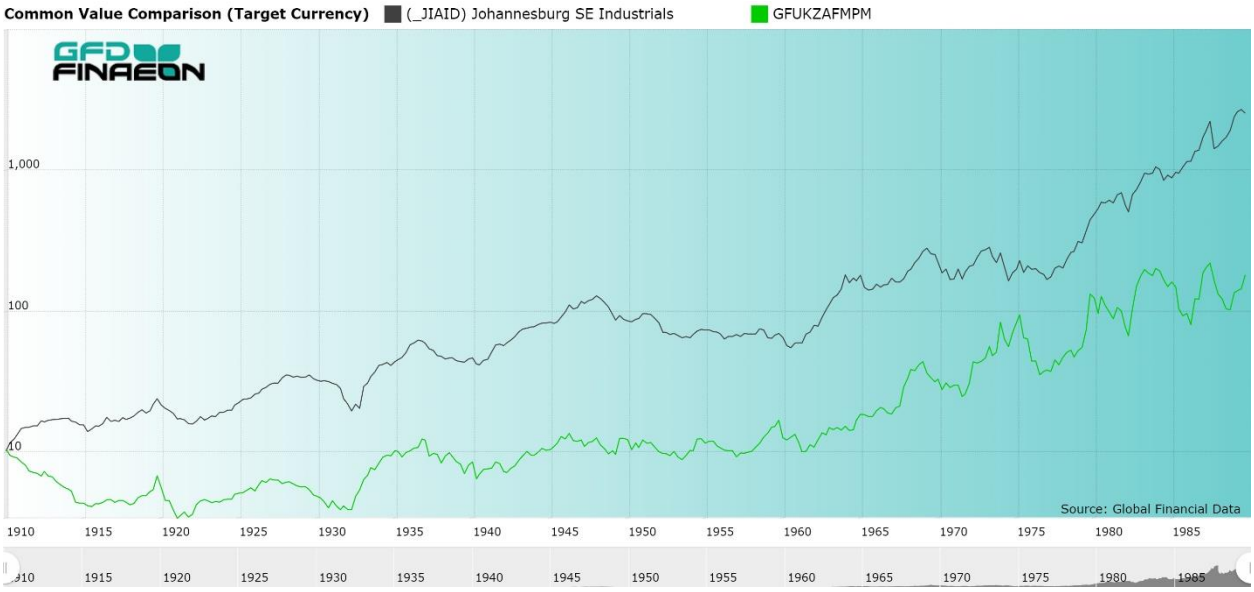

Figure 9.1. South African Commercial and Industrial shares and GFD Share Index, 1910 to 1990

Until now, GFD was unable to calculate a total return index before 1960 because we lacked data on dividend yields prior to that date. We used the data on individual companies that listed in London to calculate both price and return indices for South African stocks from 1835 until 1985. This enabled us to use the pre-1910 data from London to create an index of South African shares going back to 1835.

We used the GFD South African Shares in London index from 1835 until 1910. We weighted both the London mining shares and South African Commercial and Industrial shares at 50% between 1910 and 1960, and used the JSE All-Share index from 1960 until 2019. We used the dividend yield on shares in London before 1960 to produce a return index that included not only capital gains and losses, but reinvested dividends as well.

Between 1839 and 2021, the South African index rose by 5.08% per annum; however, most of this increase came from inflation. Between 1899 and 2021, the index rose by 6.44% per annum, but inflation increased by 4.91%. leaving an increase after inflation of 1.46% per annum. If you add in dividends, the total return increases to 6.43% per annum. Between 1899 and 2021, the total return index rose by 11.66% and 6.43% after inflation, providing a dividend yield of 4.90%.

If you compare the old industrial index with the new all-share index, you can see the change that adding the mining stocks to the index creates. The old industrial index produced a 6.29% increase between 1910 and 2001 while the new All-Share index produced a 4.11% annual return. By omitting the mining shares in South Africa, the annual return increased by over 2% per annum. If you look at the data collected by Dimson, Marsh and Staunton, South Africa had the highest returns of any country they track, but this may be because of the bias in the source. By making these adjustments, the returns to South African stocks appear to be more realistic and South Africa no longer provides the highest return of any country in the world.

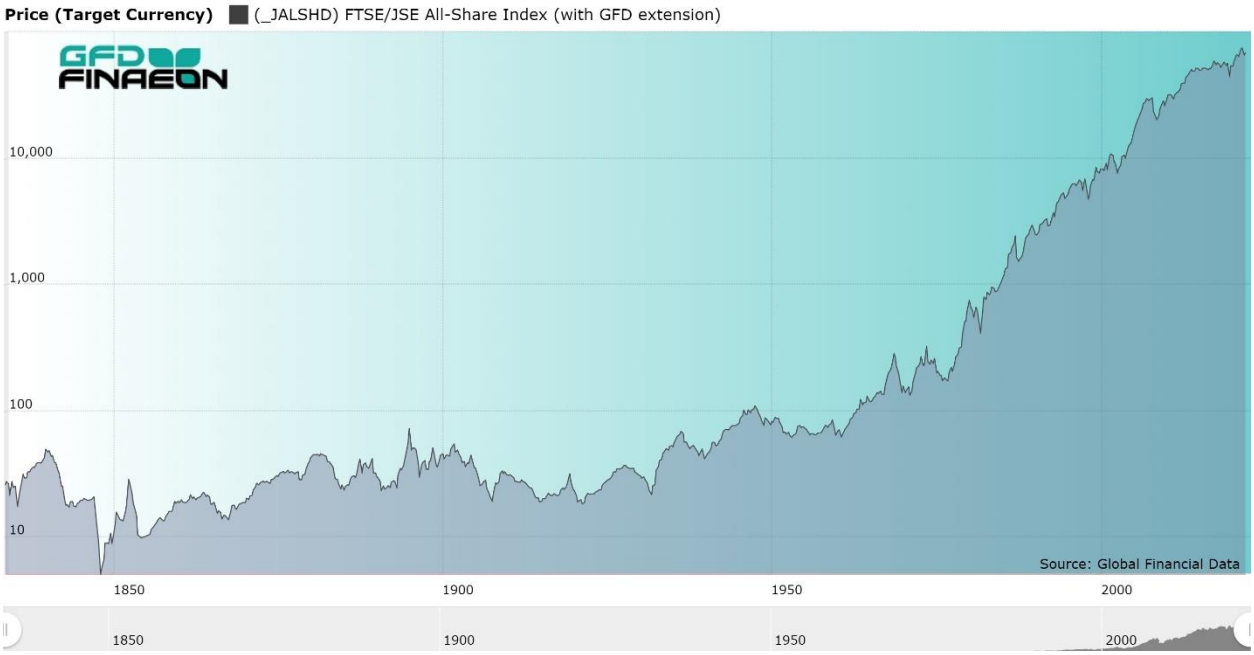

Figure 9.2. JSE All-Share Price Index, 1834 to 2022

Figure 9.2 graphs South Africa's share price index from 1834 to 2022. As can be seen, the index made virtually no progress from 1834 until 1933, and the real increase in the index didn't begin until after 1960. It was only then, after lying dormant for 100 years, that South African stocks began to rise in value. Part of the reason for this was the inflation in the price of gold which began in the 1960s which translated into higher prices for South African mining stocks.

South Africa has never defaulted on its outstanding bonds, although interest rates remain high relative to the developed world. The yield on South African bonds never rose above 6% until the 1960s; however, the yield on the 10-year Bond peaked at 18% in 1998. Most developed countries saw their government bond yields peak in 1981 and decline since then; however, after the system of apartheid was eliminated in South Africa and whites lost control of the country, bond yields remained high until the end of the century. Although bond yields have declined since 1999, they remain significantly higher than in the developed world at around 8% and have been rising since 2008. The history of South African government bond yields is provided in Figure 9.3.

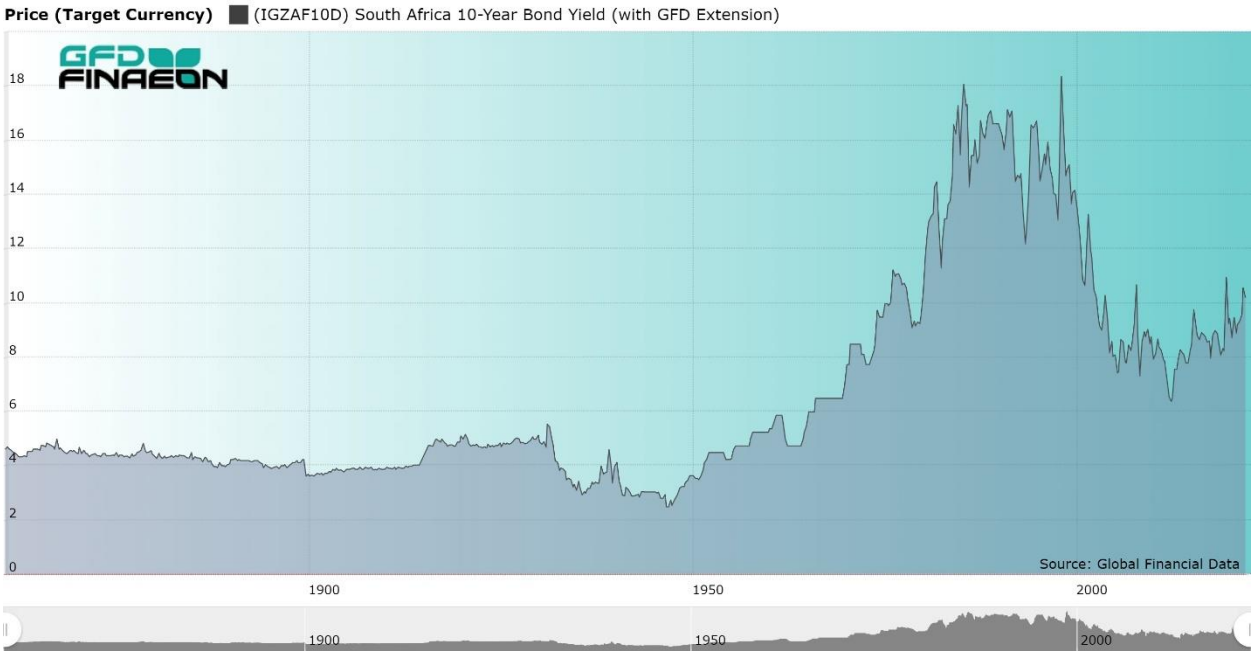

Figure 9.3. South Africa 10-year Bond Yield, 1860 to 2019

Table 9.1 summarizes the returns to South African stocks in US Dollars between 1834 and 2021. The first four rows look at returns during the different periods of financial markets. As could be expected, the equity premium during the period of rising interest rates between 1945 and 1981 was significantly higher than the period since 1981. The return to stocks has varied over time, but the return to bonds has been fairly constant.

Period	Stock Price	Stock Return	Bonds	Bills	ERP
1848-1873	6.4	3.35		3.87	
1873-1914	1.96	4.98	4.47	2.76	0.49
1914-1945	4.8	12.48	4.08	2.68	8.07
1945-1981	5.61	11.25	5.08	3.85	5.87
1981-2021	11.9	14.84	12.62	10.76	1.97
1839-2021	5.08	10.38		4.71	
1909-2021	7.15	12.53	7.42	5.97	4.76
1999-2021	10.29	13.3	10.12	7.62	2.89

Table 9.1. Returns to Stocks, Bonds and Bills in South Africa, 1839 to 2021

Between 1839 and 2021, stocks rose in price at 5.08% per annum and provided a total return of 10.38%. Cash returned 4.71% on average providing an equity premium of 5.41% which is in line with the premium that has existed in other countries.. Since 1910, when the Union of South Africa was formed, stocks returned 12.53% and bonds 7.42% providing an equity premium of only 4.76. While the return to stocks rose from 9.18% during apartheid to 12.55% since 1994, the return to bonds increased significantly, rising from 6.12% to 12.39%. As in most countries throughout the world, the increase in the return to bonds occurred because the yield on government bonds declined, in the case of South Africa, from 18% to 8%. This has generated an equity premium of 0.72%.

Whether government bond yields will continue to decline in South Africa will depend upon whether the South African government can control inflation, which has averaged around 5.5% during the twenty-first century.

Conclusion

Historical data on South African stocks have had an upward bias because mining stocks, which represented a substantial portion of the total market share, were excluded from the index until the 1960s. However, gold and mining stocks were the principal reason why foreigners have invested in South Africa since the 1880s. GFD has calculated indices of mining shares, and has produced an index of South African mining shares that can fill in this gap. We have recalculated the South African index, and produced lower results that are comparable with returns in other countries.

Since the abolition of apartheid, bonds have outperformed stocks because bond yields have dropped significantly in South Africa. With an inflation rate of 5.5% this century, there is still room for controlling inflation leading to further declines in bond yields. If South Africa is going to continue to attract capital to the country, it will need to increase the rate of return to investors.

Chapter Ten

Argentina: The Ever-Emerging Market

Argentina is one of the most interesting countries in the world among emerging markets. Argentina was one of the ten richest countries in the world in the 1920s, but now doesn't even make the top 50. Argentina was downgraded from emerging market status by MSCI to being a frontier market in 2009 when President Cristina Fernandez imposed capital controls making it difficult for foreigners to invest. Mauricio Macri became the leader of Argentina in 2015 and worked to undo the financial harm that Cristina Fernandez had imposed on the country. Argentina was able to issue a 100-year bond in June 2017, but in 2018 the country went to the IMF for a $56 billion loan. MSCI was going to upgrade Argentina back to emerging market status in 2019, but with the reintroduction of exchange controls, Argentina will remain a frontier market. Macri was defeated in the Presidential elections of 2019 and will be replaced by the Peronistas for the next four years. The trials and tribulations that Argentina's leaders have put the economy through are reflected in the poor returns to investors over the past 150 years.

Argentina was settled by the Spanish, and a local government replaced the Spanish government in 1810. The Buenos Aires stock market was founded in 1854, and has operated for the past 168 years. After the Argentine federation was formed in 1860, Argentina enjoyed high rates of growth until 1930, relying upon agricultural exports to make it one of the ten richest countries in the world. The country grew faster than either Canada or Australia, but industry represented a small portion of output. Argentina shipped meat to Europe, taking advantage of the vast pampas where cattle were raised, but failed to develop a large manufacturing base.

In 1930, the military overthrew President Yrigoyen, and in 1946 Juan Domingo Perón gained power in Argentina and promoted the "three flags" of social justice, economic independence and political sovereignty. Before 1930, Argentina was one of the most stable countries in the world, but since 1930, it has become one of the most unstable. Between Peronism, military dictatorship, hyperinflation and protectionism, Argentina has suffered inconsistent economic policies that prevented its economy from growing quickly. As late as the 1960s, per capita income in Argentina exceeded that of Spain, Japan or Ireland. Today, Argentina's per capita GDP is about $10,000 which places the country outside of the top 50 richest countries in the world. This is quite a slide from being in the top 10 ninety years ago.

Argentina has defaulted on its debt nine times with recent defaults or restructurings in 2001, 2005, 2010, 2014 and 2020. Between 1944 and 1982, Argentina suffered annual inflation of 92% with triple-digit inflation in 15 of those years, and an inflation rate over 20,000% in March 1990. The inflation rate in 2021 was 62%. The Peso was at parity with the U.S. Dollar between 1992 and 2001, but has collapsed since then. In 2021 there are over 130 Pesos to the U.S. Dollar. Will Argentina ever be able to provide its people with the economic stability they deserve?

Stock Market Returns

But how has Argentina's stock market performed compared to the rest of the world? Argentine shares first listed in London in 1863 when the Buenos Aires Great Southern Railway issued shares. We can use data on Argentine shares in London to create an index of shares from 1865 until the 1960s. An Argentine brokerage firm, Swan, Culbertson and Fritz calculated a stock index between 1947 and 1958 with annual data calculated back to 1938 and the Buenos Aires stock exchange has calculated a daily index of shares since 1967. For the remaining years between 1865 and 1947 and between 1958 and 1967, we have used data from London as a proxy for Argentine shares.

Of the 55 companies that listed in London between 1865 and 1985, eight were consumer staples companies (mainly tobacco and food), five were finance, six were materials, five were real estate, nine were utilities and twenty were transports. The Buenos Aires Great Southern Railway had the longest life of any company that listed in London, lasting from 1863 until 1948 when Juan Perón nationalized Argentina's railroads along with the Buenos Aires and Pacific Railway, the Buenos Aires Western Railway and the Central Argentine Railway. The performance of Argentine shares in London is illustrated in Figure 10.1. There was little change in the stock market between 1865 and 1929, but after the military overthrew the government in 1930, stocks collapsed.

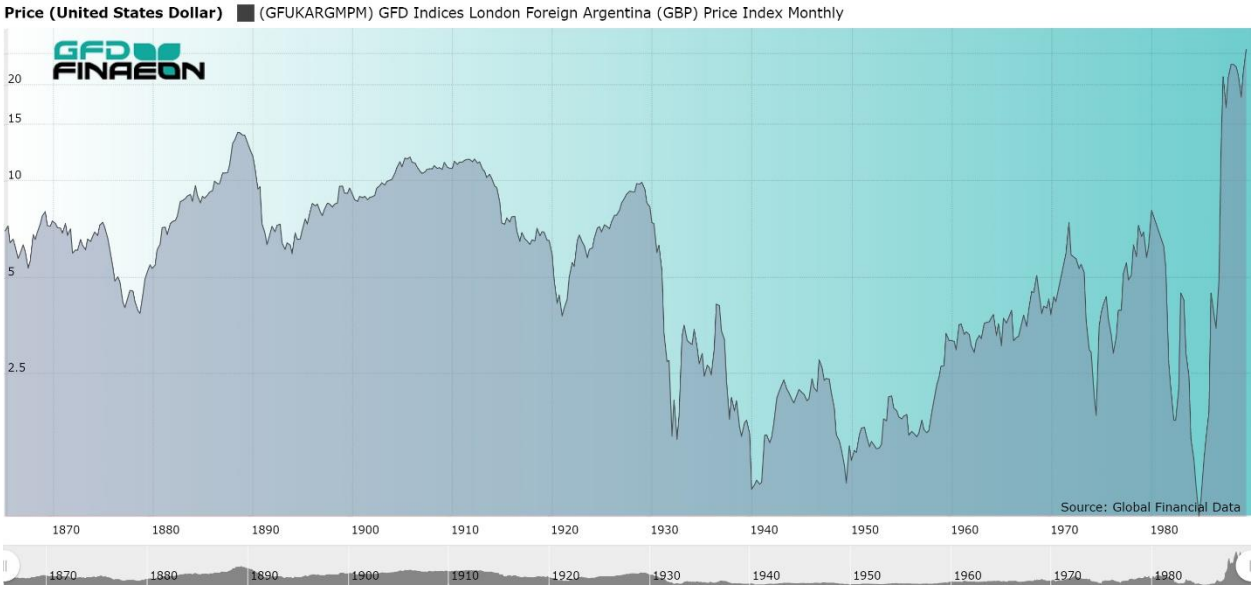

Figure 10.1. Argentine Stocks in London, 1865 to 1989

Because the exchange rate is so volatile, the size of the stock market and returns as measured in US Dollars can vary widely. The stock market capitalization was over $700 million in 1929, but still only $800 million in 1977. Argentina's stock market capitalization fell from $105 billion at the end of 2017 to $42 billion at the end of 2021. This was less than it had been in 1994 ($47 billion). With a market cap of $42 billion, Argentina's stock market represents less than 10% of GDP. There is obviously room for growth if politicians can stabilize the economy.

Carlos Menem was elected president in May 1989, and ended up privatizing almost every company the state owned. On January 1, 1992, a currency board was introduced, linking the Argentine Peso at par to the U.S. Dollar. Anticipating the growth Menem's reforms would generate for the economy, the stock market rose over 99% per annum between 1987 and 1991. The next few years were

ones of growth in the economy; however, in 2002 Argentina was unable to maintain its link to the U.S. Dollar, and the economy faced a decade of instability.

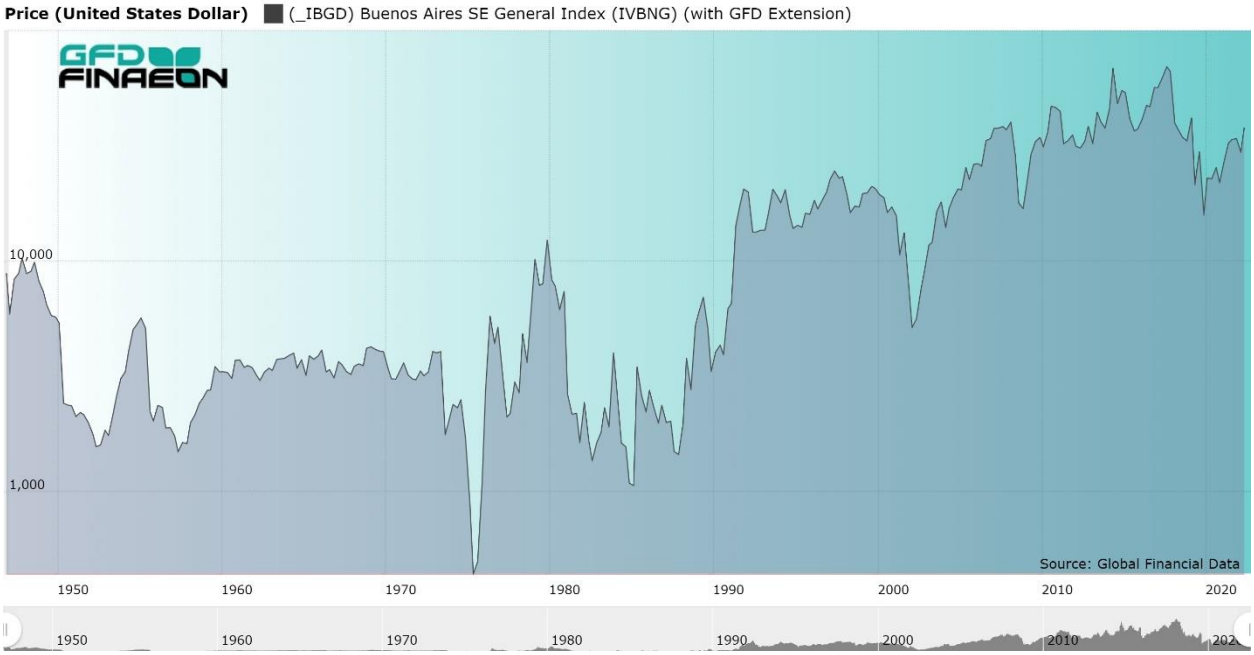

Figure 10.2. Argentina Stock Market in USD, 1947 to 2022

The instability in the Argentine stock market over the past 70 years is illustrated in Figure 10.2. The peso lost half of its value in 2018 and today (October 2019), MSCI's stock market index, as measured in USD, is virtually the same level it was at in May 1992. Energy represents 40% of the stock market index and financials 17% with Tenaris SA, which manufactures steel pipes for energy companies representing 20% of the stock market's capitalization and YPF representing 13.5%.

Bonds have suffered from Argentina's instability as well. Between 1824 and 1953, Argentine bonds provided an annual return of 5.36%, but were made worthless by the inflation that destroyed the economy in the 1960s, 1970s, and 1980s. Since 1993, the EMBI index of government bonds returned 3.98% which is more than stocks which returned only 3.55% per annum between 1993 and 2018. These returns are significantly below the returns of 8.73% to bonds and 8.16% to stocks that Mexican investors received during the same period of time.

Period	Stock Price	Stock Return	Real Return	Bills
1873-1914	0.95	6.15	0.51	
1914-1945	-4.86	0.4	-6.65	3.69
1945-1981	2.01	11.34	-2.53	0.33
1987-1991	99.87	104.23	4.55	
1981-2021	1.13	2.93	-1.58	3.87
1899-2021	2.16	3.13	-3.19	-1.74

Table 10.1 Argentine Stock Returns in USD per annum, 1873 to 2021

Table 10.1 allows us to compare returns in Argentina over long and short periods of time, converting all returns into U.S. Dollars. Over the past 153 years, Argentine stocks returned 4.66% per

annum, after inflation. Returns were pretty much the same between Argentina's period of stability (1865-1929) and instability (1929-2018).

The greatest contrast is between the returns during the four years of reform under Carlos Menem between 1987 and 1991 when investors received a real annual return of over 99% and returns since 1991. Investors received only 1.78% between 1929 and 1987 and the return to investors since 1991 has been only 0.92% per annum. Contrast this with annual returns after inflation of 6.66% in the United States since 1991.

What went wrong?

There was great anticipation that converting from the hyperinflationary Peso to the stable Dollar under President Menem would turn the economy around, but since 1991, investors have not shared the benefits of the growth they anticipated. Instead, the economy collapsed when Argentina was unable to maintain its link to the U.S. Dollar after 2001. The country has gone through a series of defaults and because Fernandez introduced capital controls, Argentina was downgraded from being an emerging market to being a frontier market. Macri fought to return Argentina to a market-based economy that can attract more investment, but so far, this has not happened.

Argentina embodies the problems investors may face when they invest in emerging markets. There can be a few years of rapid growth when investors anticipate change, but also lost decades of slow or no growth when that change does not occur. Why would investors give up the relative stability of investing in the United States for the instability of investing in Argentina? Argentina is not committed to the market in the same way a developed country is. Fernandez defeated Macri in the elections of October 2019 and he has promised to reverse many of the reforms that Macri introduced. As we all know from finance, the value of a company depends upon the present value of future cash flows, and future cash flows in Argentina are by no means guaranteed. Argentina has a record of political and economic instability which no one can ignore.

Argentina was able to sell a 100-year bond in June 2017, but a year later it went to the IMF for a $56 billion loan. Argentina's current inflation rate is 62%, and the peso has lost half of its value during the past year. Argentina embodies all of the risks that investors in emerging markets face. The willingness of investors to commit money to Argentina under Presidents Menem and Macri shows that investors are willing to invest when they see an opportunity. Unfortunately, Argentina also shows what can happen when a country does not follow through on its promises.

Chapter Eleven

Argentina Crashes – Again

Argentina just suffered one of the worst one-day declines in global stock market history. The current President of Argentina, Mauricio Macri, suffered a worse defeat in primary elections than was expected. In October 2019, Alberto Fernandez and his running mate, the former President of Argentina, Cristina Fernandez de Kirchner, were elected leaders of Argentina. Fernandez took in 47% of the vote and Macri only 32% in the primary and in the election in October, Fernandez took 48% of the vote and Macri 40%. Under Macri, Argentina borrowed $56 billion from the IMF and $34 billion is due in 2019. Argentina defaulted in both 2001 and in 2014 and Argentina defaulted again in 2020. The fear is that once in power, Fernandez will undo the market-friendly austerity package that Macri imposed on Argentina, leading to a default on foreign bonds, worse inflation, and a collapse in Argentina's currency and the economy.

An article on Bloomberg inaccurately said that the decline in the Argentine stock market on August 11 was the second worst one-day decline in global stock markets since 1950. This statement was repeated by both Market Insider and *The Economist.* When we checked the data that Sarah Ponczek provided, we found no evidence of the other declines that Bloomberg listed in their Top 5. The "winner" was the Colombo All-Share Index which supposedly declined 61.7% in one day in 1989 due to the civil war in Sri Lanka. We found no evidence of this. The worst decline in Sri Lanka's history was on November 5, 2003 when the market fell 12.98%. In reality, the range for the all of 1989 in Sri Lanka was 159.1 to 188.88, a range of 18.7%. So a one-day 61.7% decline was simply not possible. We found no large decrease for the Merval Index in 2002. The largest decline in 2002 was on February 11, 2002 when the market fell 10.7%, substantially less than the 45% Bloomberg reported. Similarly, when we investigated the Kazakhstan Stock Exchange index in 2002, we did find a 38% decline, but only because of a bad data print, not because of an actual decline. Where Bloomberg got their bad data from, we do not know.

What we did find, however, was that there was a decline in the Merval index that exceeded Monday's decline. On January 8, 1990, the Merval Index fell 53.1%. As far as we can tell, this was the greatest one-day decline in stock market history. The market had been closed between December 28, 1989 and January 8, 1990, so there were ten days of "catch up" adjustment, but the decline was huge. If you look at the Argentina General Index (IBG) which includes all shares listed on the Buenos Aires stock exchange, the market declined "only" 44%. The market bounced back on January 9, 1990 with the Merval index rising 22.9% and the IBG rising 13.9%.

So what was going on to cause the crash in 1990? Hyperinflation. Consumer prices increased 79% in January 1990. Prices doubled in March 1990. On the one hand, hyperinflation was destroying the economy, but stock prices had to rise in line with inflation. Figure 11.1 shows the performance of the Argentine index between1988 and 1991 after adjusting for inflation. As you can see, after inflation, Argentine stocks lost 90% of their value between mid-1989 and the end of 1990.

And of course, hyperinflation works both ways. The Merval index records three increases over 30% in 1989 at the height of its hyperinflation, rising 30% on May 30, 1989, 33.67% on December 27,

1989 and 39.35% on May 31, 1989. That produced a cumulative 81% increase on May 30 and May 31, 1989. That is a good return even when there is hyperinflation!

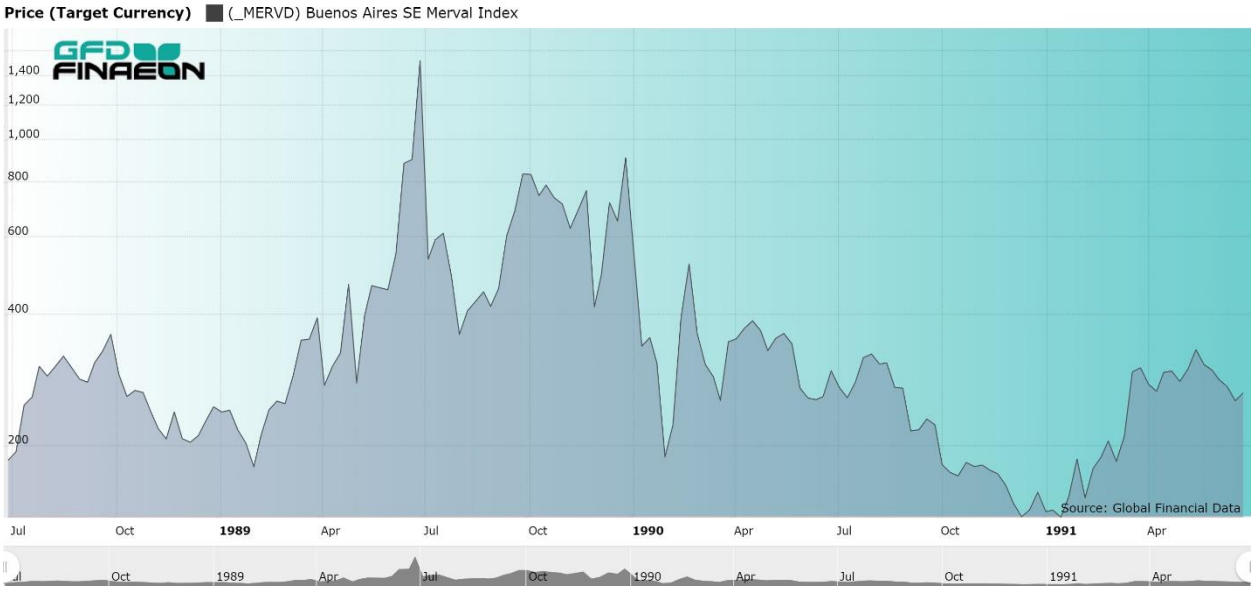

Figure 11.1. Argentina Merval Index Adjusted for Inflation, 1988 to 1991

Similar stock market volatility occurred in 1976 when hyperinflation occurred in Argentina. The market declined 29% on March 19, 1976 and 18.2% on June 14, 1976. What is interesting is that all the past declines occurred during periods of hyperinflation. On the other hand, August 12, 2019's decline was purely event-driven, caused by election results that could portend a return to high inflation and a possible default in Argentina. Nevertheless, on August 13, the Argentine market bounced back, rising 10% in one day. However, the Argentine Peso continued to decline falling to 60 on August 14 from 45 on August 11.

Investors are expecting the worst from the elections due October 27. Macri's attempt to bring Argentina back into the international financial system has apparently failed, in part because he failed to control government spending. Back in the 1920s, Argentina was one of the ten richest countries in the world as measured by GDP per capita, but since the 1940s, Peronist policies have caused stagnation and inflation that has pushed Argentina's per capita income down to where Argentina barely makes the top 50 today. Unless Argentina can get its economy moving again, it is likely to fall further.

Chapter Twelve

Brazilian Stocks' Wild Ride Through Time

At about $1 trillion, Brazil's stock market is among the twenty largest stock markets in the world, equal to about half of the country's GDP. The first stock exchange opened in Brazil in 1817, the Rio de Janeiro Stock Exchange opened in 1820, and the Sao Paulo Stock Exchange opened in 1890. Brazilian stocks began listing in London in 1825 when three Brazilian mining companies took advantage of London's interest in South America to list their shares. Between 1825 and 1985, 65 Brazilian companies listed in London.

Despite this long history, Brazil is an emerging market for which it is difficult to provide an accurate, long-term stock index because of the inflation that wrecked the economy in the late twentieth century. Between 1967 and 1994, Brazil went through five currencies and inflation averaged over 182% per annum, with inflation exceeding 1000% each year between 1988 and 1994. In February 1990, interest rates hit a daily rate of 3.626%, which works out to over 790,000% per annum. The debt market for bonds and bills became almost non-existent. Brazil was finally able to tame its inflation addiction in 1994 when it replaced the Cruzeiro with the Real. As a result of decades of inflation, it took 2.75 quintillion (2,750,000,000,000,000,000) reis of the 1800s to obtain 1 real of money today. Ever since the currency was stabilized in 1994, the stock market has continued on a roller coaster ride. How could an economy or stock market function under such circumstances?

Domestic Brazilian stock index data has been available since 1954 when the SN Index which used companies from both the Rio de Janeiro and Sao Paulo stock exchanges was introduced. An index for Rio began in 1955 and the Bovespa index from Sao Paulo starts in 1968. Since Brazilian stocks have traded on the London Stock Exchange since 1825, we can calculate an index of London shares and append this index onto the Bovespa to create an index of Brazilian shares that stretches from 1825 until today.

Among the more prominent Brazilian companies that listed in London were the Brazilian Traction, Light and Power Co. (later renamed Brascan), which existed between 1912 and 1997, the General Mining Association, which existed between 1825 and 1900, the Rio de Janeiro City Improvement Co, which listed from 1862 to 1930, the Sao Paulo Railway Co, which existed between 1883 and 1969, the St. John d'El Rey Mining Co. which listed in London between 1830 and 1969, and the Leopoldina Railway Co. which listed between 1899 and 1952 and inherited railway lines that converged on Rio De Janeiro.

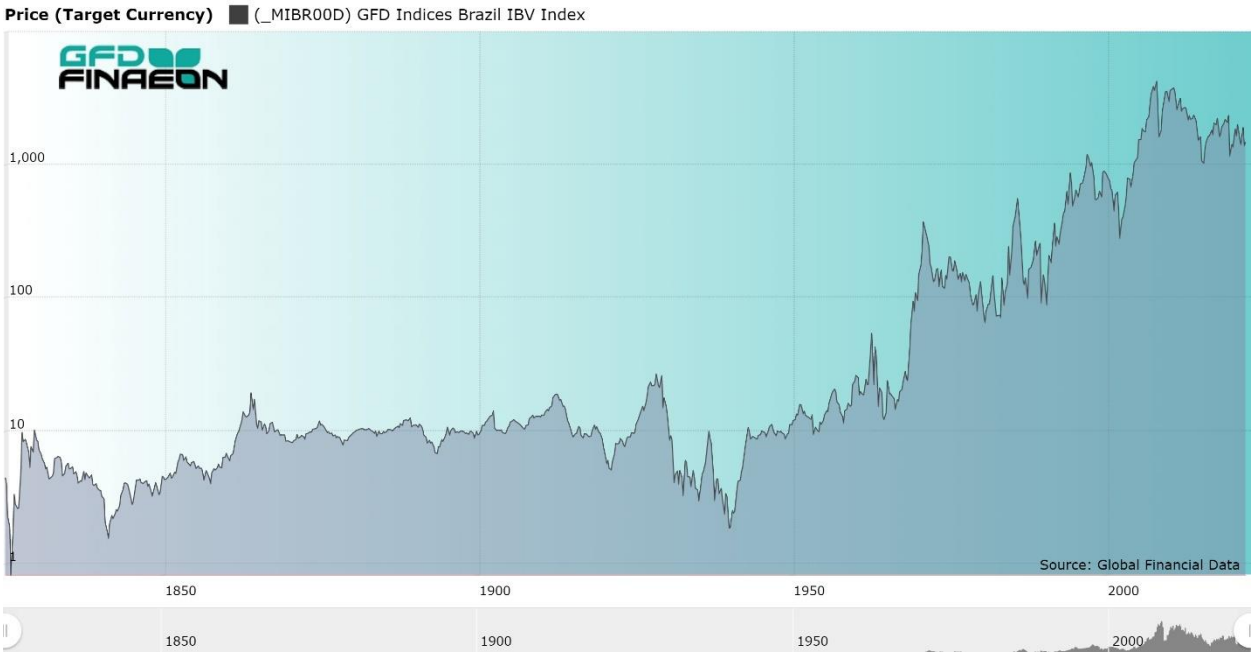

Figure 12.1. Brazil Stock Price Index, 1825 to 2018 in US Dollars

As Figure 12.1 shows, Brazilian stocks made little progress until the 1950s. There was little capital appreciation in Brazilian stocks between the 1830s and 1940s, and in some ways, this result was not unexpected. Between the 1820s and 1940s, the index relies upon Brazilian stocks that were listed in London. Stocks provided a total return of 7.13% of which 1.50% came from capital gains and 5.6% came from dividends between 1825 and 1950. Without the dividends, investors would have received little in return from their investment in Brazil. By contrast, between 1824 and 1968, Brazilian government bonds returned 5.81% in USD while Brazilian stocks returned 7.28% providing an equity premium of 2.07%.

It is difficult to measure the long-term equity risk premium after 1968 because no risk-free instrument existed in Brazil's hyperinflationary environment. With interest rates at one point exceeding 3.6% per day or 790,000% per annum, you might not question whether you are going to get some money back, the only question is how much? No long-term bonds existed between 1968 and the 1990s when U.S. Dollar Brady Bonds were introduced. Real-based bonds were introduced in the 2000s. Consequently, you can calculate the equity risk premium before 1968 and after 1994, but not during the period of hyperinflation.

If you can't even predict the inflation rate over the next month, how can you predict the inflation rate, and thus the yield on bonds, over a five- or ten-year period? Consequently, there are no benchmarks to compare the return on stocks to any other asset. The whole economy was wrapped up in avoiding inflation. Dividends lose their meaning in a world of 1000% inflation so the total return index differs little from the price index. Before 1994, the dividend yield in Brazil was usually under 1% as inflation quickly wiped out any increases in dividends. Inflation creates problems that investors in non-inflationary countries never have to think about. If you look at returns to investors in a country such as

the United States which rarely has had high inflation rates, you can see how returns after inflation sink when inflation hits double digits. What would happen if inflation hit quadruple digits?

We can measure the equity risk premium between 1993 and 2018 using the MSCI Brazil Index and the EMBI U.S. Dollar Bond Index. As measured in U.S. Dollars, between 1993 and 2018, a bond investor would have received a 10.43% annual return while a stock investor would have received a 10.19% annual return. This is much better than the 8% returned to Mexican investors and 3% returned to Argentine investors. Brazilian government bonds outperformed stocks during the past 25 years. These returns are summarized in Table 12.1.

	Equities Price	Equities Return	Bonds Return	ERP
1825-1950	1.5	7.28	5.81	2.07
1950-1994	9.75			
1994-2018	6.04	10.19	10.43	-0.24
1825-2018	3.42			

Table 12.1. Brazil Annual Equity and Bond Returns in U.S. Dollars, 1825-2018

The historical data for Brazil can either be adjusted for inflation, or converted into U.S. Dollars to eliminate the impact of Brazil's hyperinflation, but because changes in the inflation rate and changes in the exchange rate differ from changes in the stock index, measuring bull and bear markets is difficult. When the inflation rate is 1000% and you are looking for a 20% decline in the index to register a bear market, any misalignment between the stock index and the exchange rate can produce a "bear market" in U.S. Dollars that didn't occur in Brazilian Reais or Cruzeiros.

There are periods of rapid growth in Brazilian stock prices followed by a decade or more of no progress in the price of stocks in U.S. Dollars. It is interesting to note that between 1971 and 1993, the worst period of hyperinflation in Brazil's history, despite prices rising a trillion-fold in Cruzeiros, the stock index made almost no progress in nominal US Dollars.

Even after you convert Brazilian stock prices into US Dollars, the market has gone through wild fluctuations. The stock market increased in price 20-fold between 1966 and 1971 in USD generating an 82% annual return, but the index was at the same level 22 years later in 1993 as it had been at in 1971. The market increased 40-fold between 1990 and 2007 generating a 25% annual rate of return. However, since 2007, the Brazilian stock market has lost half of its value. At its bottom in 2016, the stock market was no higher than it had been in 1997. There is nothing new in this volatility. Between 1929 and 1939, the Brazilian stock market lost 90% of its value providing one of the worst returns in the world during the Great Depression.

Ride the Bull, but Get Off After That

The main conclusion you can make from all of this evidence is that Brazil is not a buy-and-hold market because it is a roller coaster with periods of tremendous gains followed by periods of a decade or more in which the stock market makes no progress. In short, Brazil is a place for market timers, and very adept market timers at that, not buy-and-hold investors. If your timing is off, you will pay the price. In 2008 during the financial crisis, the Brazilian market declined by over 73%. In 2019, the stock market is at the same place it was at in 2006.

This is the basic problem with most emerging markets. Because of their uncertain political environment, they have an uncertain economic environment. Investors rush in when it looks like the country has changed and is ready to adopt and apply the tenants of free markets and open trade, but when things go awry, the country can linger in the doldrums for a decade or more. Nevertheless, over time the good periods of high returns in Brazil have more than offset the decade or two of low returns. While the S&P 500 returned 9.07% per annum between 1993 and 2018, Brazilian stocks returned 10.19% and bonds 10.43%. Whether that extra return is worth the extra volatility it entails is up to the individual investor. Most investors would rather avoid the risk, but if you can catch the next meteoric rise in Brazilian stocks, you will be rewarded.

Chapter Thirteen

The Encilhamento

Brazil went through an economic bubble in the 1880s that burst in the 1890s during the first Brazilian military dictatorship. Two finance ministers in Brazil adopted a policy of unrestricted credit for industrial investments in the 1880s. This led to speculation, fraudulent IPOs, inflation and ultimately, a crash that lasted from 1889 to 1893.

Saddle Up

The word "encilhamento" means to saddle up or mount a horse and refers to jumping on a get-rich-quick scheme. Brazil had slowly industrialized during the 1800s and developed rail transport, gas lighting, banks and steamships. The "Land Law" of 1850 and the "Barriers Act" of 1860 which limited access to agricultural land by slaves and immigrants had held back the country's growth.

Under the encilhamento, big rentiers were better able to invest their money where it provided the highest rate of return. Merchants, businessmen, financiers, politicians and tradesmen could invest their money in either local companies or in Brazilian companies that listed in Paris or London.

A new banking act was passed in 1888 which reversed the 1860 Barriers Act, and in the same year, slavery was abolished after a long campaign by Emperor Pedro II. Changes in the Land and Real Estate Law occurred in 1889. Government debt fell, reducing the issuance of government bonds and freeing up capital to flow into equities (Figure 13.1). With all of these positive changes and the freeing up of capital, stock prices in Rio de Janeiro started to boom.

On November 15, 1889, a military coup d'état established the first Brazilian Republic. The military overthrew the constitutional monarchy of Emperor Pedro II. Unfortunately, this was the apex of the bull market and the Brazilian stock market declined over the next four years. Ruis Barbosa was appointed the new Finance Minister under the Republic, and he instituted many of the changes he had promised to pop the encilhamento bubble. This included introducing a new banking bill and introducing a Central Bank to regulate the money supply.

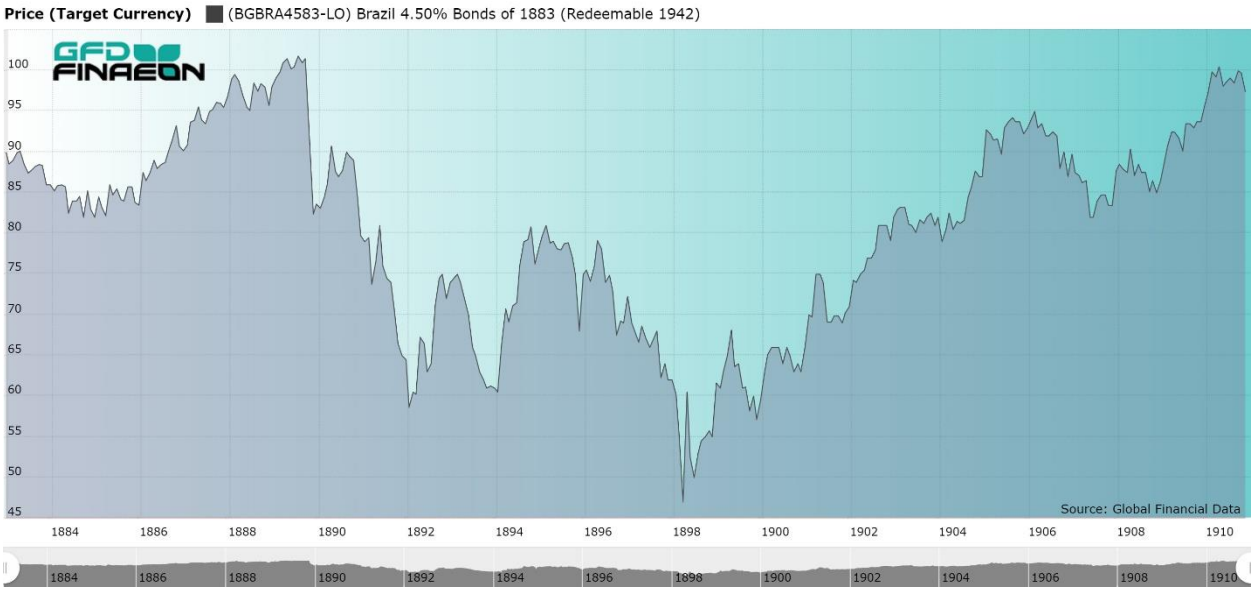

Figure 13.1. Brazil 4.50% Bond of 1883

The Baring Crisis

During the 1880s, there were huge capital flows from London into South America with the current account deficit of Argentina averaging 20% of GDP between 1884 and 1889. During those years, the money supply grew at the rate of 18% per annum, inflation averaged 17% and the paper peso depreciated at the rate of 19% per annum. By the end of the decade, Argentina was the fifth largest sovereign borrower in the world; 40% of foreign borrowing was going toward debt service and 60% of imports were for consumption goods. Argentina defaulted on £48 million in debt in 1890 (Figure 13.2). The military tried to overthrow the Argentine government on August 6, 1890, but failed. After the crisis hit, real GDP in Argentina fell by 11% in 1890 and 1891.

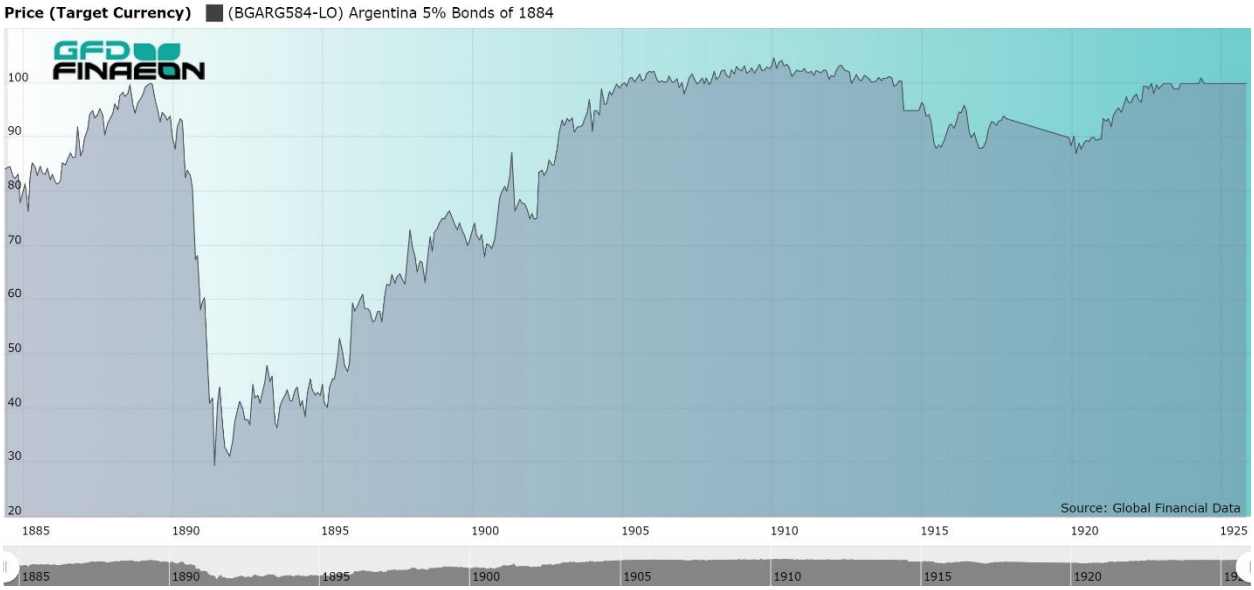

Figure 13.2. Argentina 5% Bond of 1884, 1884 to 1925

The collapse in Brazil was precipitated by the default by Argentina in 1890. Barings Bank had invested heavily in Argentina and the default by Argentina pushed Barings Bank into bankruptcy in November 1890. An international consortium, led by William Lidderdale, governor of the Bank of England, the Rothschilds and most of the major banks in London put together a fund to guarantee the debt of Barings Bank. Failure to provide these funds could have led to the collapse of the British banking system. The default punctured the bubble that had built up in Brazil and led to a steady decline in equity prices in the years that followed.

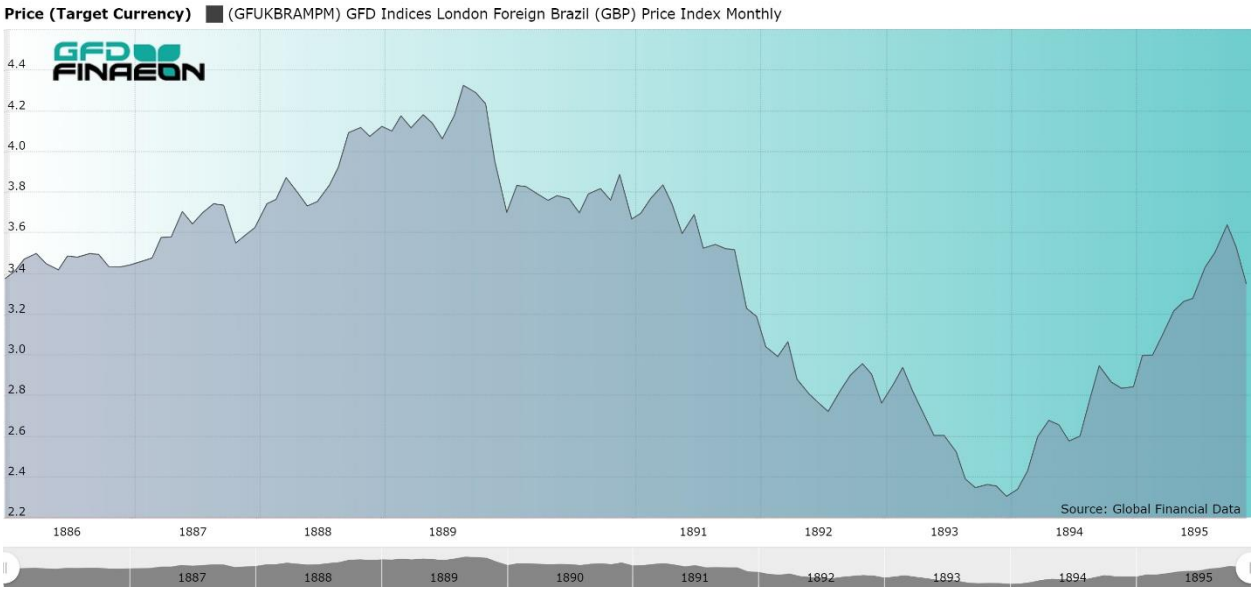

Figure 13.3. GFD Brazil Stock Price Index, 1885 to 1895

The Baring Crisis led to a world-wide depression which, although it was not as severe as some of the other depressions of the 1800s, affected Europe, the United States and South America. Argentina, Brazil and Uruguay were all affected by Argentina's default and the Baring Crisis that followed. The crisis spread to South Africa and Australia, and in the United States, the Panic of 1893 led to a decline in the stock market (Figure 13.3) and economy that continued until 1897. The global economy suffered throughout the 1890s. No country was left unaffected. Brazil may have suffered from the Great Depression of the 1890s, but so did every other country in the world.

Chapter Fourteen

India: Four Centuries of Underdevelopment

The Global Financial Database has more equity history for India than for any other country. The British East India Co. was founded on December 31, 1600, preceding the founding of the Dutch East India Co. by one year. Originally, shares were issued for specific ventures to India, but in 1657, joint stock shares were issued and these shares continued to trade in London until the company was dissolved in 1874 and the British government took over ownership of the company. The East India Co. paid a consistent 10.5% dividend from 1793 until the company's dissolution in 1874. From the late seventeenth century until the early eighteenth century, 95% of Asian imports into Britain come from Mughal India and consisted mainly of cottons and spices produced in India. The decline of Mughal India in the first half of the eighteenth century led to the rise of the British East India Co. which took over India from the Mughal Empire after its victory in the Battle of Plessey in 1757. During the 1800s, the manufacture of textiles moved from India to Britain as the Industrial Revolution enabled Britain to produce the textiles it had formerly imported from India.

During the 1850s, British investment in India boomed, establishing railroads, canals, shipping companies and utilities that were essential not only for the development of the Indian economy, but to enforce Britain's control over the colony. Merchants in Manchester and London supported building railroads that linked India's main ports to the interior to bring cotton and other goods to the rest of the world. However, these railroads did not prove profitable, and the British government had to guarantee the 5% dividends the India railroads paid.

In the 1860s, investment in India spread to other sectors. Banks, tea companies, telegraph companies and gold mines were the most popular investments in India. The civil war in the United States led to an increase in demand for cotton causing a bubble in equity markets which burst when the American civil war ended. Although cotton and clothing represented a large portion of India's production, most of these companies used local capital rather than British funds.

Traders dealt in securities in Calcutta in 1830, trading shares of the East India Co. Twenty-Two stockbrokers met under banyan trees in front of Bombay's Town Hall in 1855 to trade shares. Premchand Roychand was a native Indian who became a stock broker in 1849 and was a founding member of The Native Share and Stock Brokers Association which later became the Bombay Stock Exchange.

Roychand had earned his fortune when the American Civil War drove the price of cotton up. This led to a speculative bubble in 1864 in which Back Bay Reclamation stock rose from 5,000 rupees to 50,000 rupees. Money made from cotton was redirected into the stock market, and new companies were floated to unsuspecting speculators. The number of companies traded in Bombay grew from 10 in 1855 to 62 in 1862 and over 100 by 1864. The market crashed in May 1865 when the American Civil War ended and Back Bay Reclamation stock fell from 50,000 Rupees to 2,000. Bank of Bombay stock fell from 2,850 rupees to 87. Hundreds of time bargains matured on July 1, 1865 and many speculators were wiped out.

The stock brokers moved to Dalal (Brokers') Street in 1874. The Bombay Stock Exchange was founded on July 9, 1875 as the Native Share and Stock Brokers Association and was the first stock exchange established in Asia. The Calcutta Stock Exchange incorporated in 1908. Stock exchanges opened up throughout India in the twentieth century. Nineteen former stock exchanges have closed in India since 2000. Today, most trading in Indian stocks takes place on either the Bombay Stock Exchange or the National Stock Exchange, founded in 1992. Both have a market cap of over $2 trillion.

GFD's index for India uses data on the East India Co. exclusively from 1692 until 1845. A second East India Co. existed between 1698 and 1708, but it merged with the old East India Co. in 1708 because the competition between the two was eliminating their profitability. Data for the East India Railway begins in 1846 and the number of Indian companies that listed in London grew to 20 in the 1860s and peaked at around 50 in 1900. Data for India companies listed in London is used from 1690 to 1922. The number of companies remained around 50 until 1922 when a stock index based upon shares that traded in India was introduced. The domestic India index used data from 100 companies from the Calcutta, Bombay and Madras stock exchanges. By linking together data from The East India Co. from 1690 to 1845, the London Stock Exchange from 1846 to 1922 and from Indian stock exchanges from 1922 to the present, we have been able to provide over three centuries of data on stock companies that operated in India.

Railroads represented a majority of the capitalization in London during the 1800s. You can divide the role of railroads in India into four eras. Up until 1869, British companies constructed and managed the trunk lines that were built with the government providing guarantees on the shares. In the 1870s, the Government of India joined the private companies and began to construct and manage the railways. There were ten private companies incorporated in Britain, which built and managed the trunk lines through India. In the early 1880s, the Government of India began forming public-private partnerships with the Government of India becoming the majority owner of most of the railways in India. In addition to this, after the Afghan War of 1878, the government saw the benefit of building railroads for military use, not just for transporting freight and passengers. The government began to nationalize the railroads in 1924. In 1951, forty-two railways were consolidated into a single Indian Railway completing the nationalization of the nation's railways.

The first railway was built in India in 1832 and the first passenger railroad opened in 1853 between Bombay and Thane. During the 1800s, about 90 percent of the shares were British-owned and almost all of the capital was raised through equity, not through bonds. The railroad network grew rapidly between 1880 and 1900 and by the early 1900s, India had the fourth largest rail network in the world. By 1900, India had 39, 834 kilometers of railways open, 10,000 more than was open in the United Kingdom, while China had only 1,000 kilometers of railways.

Most railroads received guarantees from the British government so that if their dividends fell below a certain level, usually 5%, the railroad could borrow money from the government to meet the guaranteed return. Because most railways were unable to achieve the 5% rate of return and had to borrow from the government year after year, the government had the right to acquire the railroad after 25 years of subsidies. The government acquired a share of ownership beginning in the 1880s and in the 1920s, most of the railroads were nationalized. The trade-off was that stock in the railways, which represented a majority of the capitalization of the stock market, traded like bonds. Shareholders

received a guaranteed return, but railways lacked the incentive to maximize their profits, limiting increases in the price of railway stocks.

By the 1870s, the stock market capitalization of India exceeded its GDP, but as railroads were slowly nationalized, the market cap/GDP ratio continually shrank. The British government did not attempt to develop the Indian economy in the same way that development occurred in the United States, Canada and Australia. The British desire to control the Indian economy and focus on industries that could develop natural resources that could provide exports to Britain and the rest of the world hindered its economic growth. If anything, India deindustrialized in the 1800s as growth in the textile industry in England replaced the demand for textiles from India. Investment went into cotton, tea, and gold mining, all natural resources, but there was little attempt to develop industry in India. British control over the economy bred an anti-colonialism among Gandhi and other supporters of independence that led to socialist policies once India became an independent country after World War II. It wasn't until the 1980s that India began to promote private business and the stock market began to rise again.

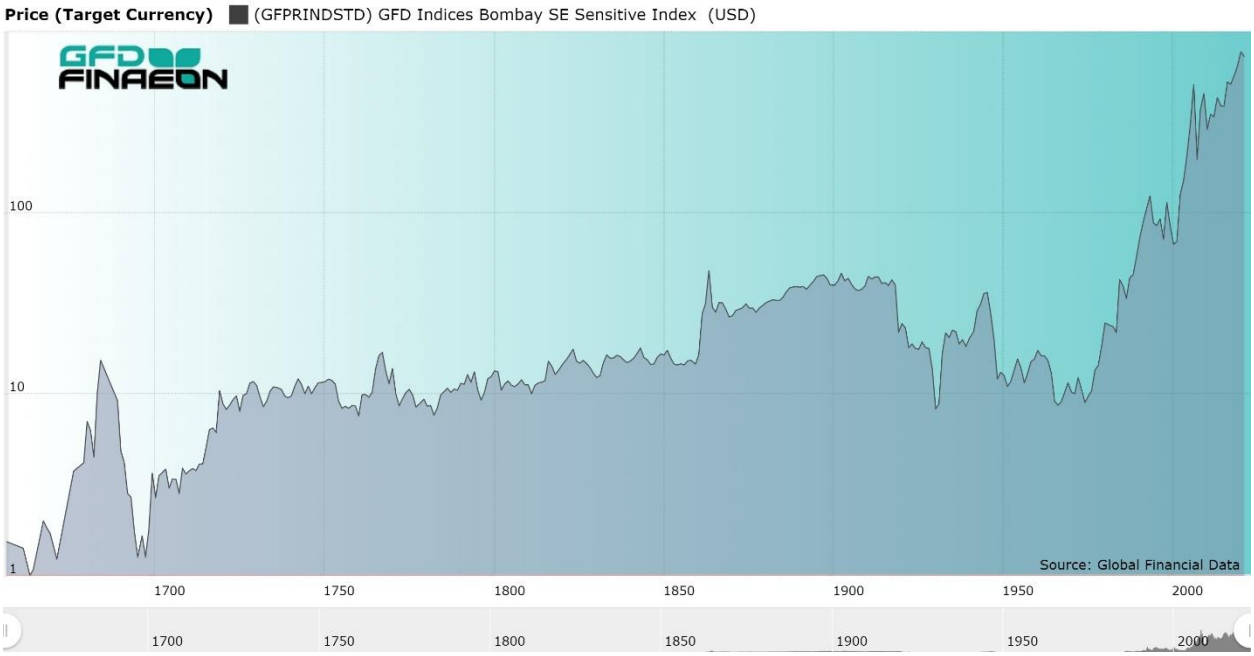

Figure 14.1. GFD India Price Index, 1657 to 2022

The performance of stocks in India over the past 350 years is illustrated in Figure 14.1. The most interesting observation here is the lack of movement in the index from the 1700s to 1980. All of the return to shareholders came in the form of dividends. This is the legacy of the guaranteed returns that first went to shareholders of East India Co. stock between 1792 and 1874, and to the railroads up until the 1890s. After the government gained control over the railways in the 1880s, investment went into tea, rubber, cotton, mining and other resources, not into industries that could develop the country. The ratio of the stock market's capitalization to GDP shrank between 1880 and 1980 and investors had to rely upon dividends to obtain a return.

Figure 14.2 shows the behavior of Indian stocks since the domestic index was first computed in 1920. As can be seen, there was virtually no change in the price of Indian stocks from 1920 until 1980.

The Indian economy went through an economic boom between 1910 and 1930 and an economic bust between 1930 and 1950. After India became an independent country, the economy went through a period of economic boom driven by Five-Year plans and socialist policies leading to average growth in the economy of 3.1 percent per year. However, growth slowed between 1970 and 1990 leading to a period of economic liberalization which has prevailed in India since P.V. Narasimha Rao and Manmohan Singh introduced these reforms in 1991. This has given investors the opportunity to finally benefit from growth in the Indian economy. Today, there is investment in information technology as India tries to provide growth to over 1.4 billion people.

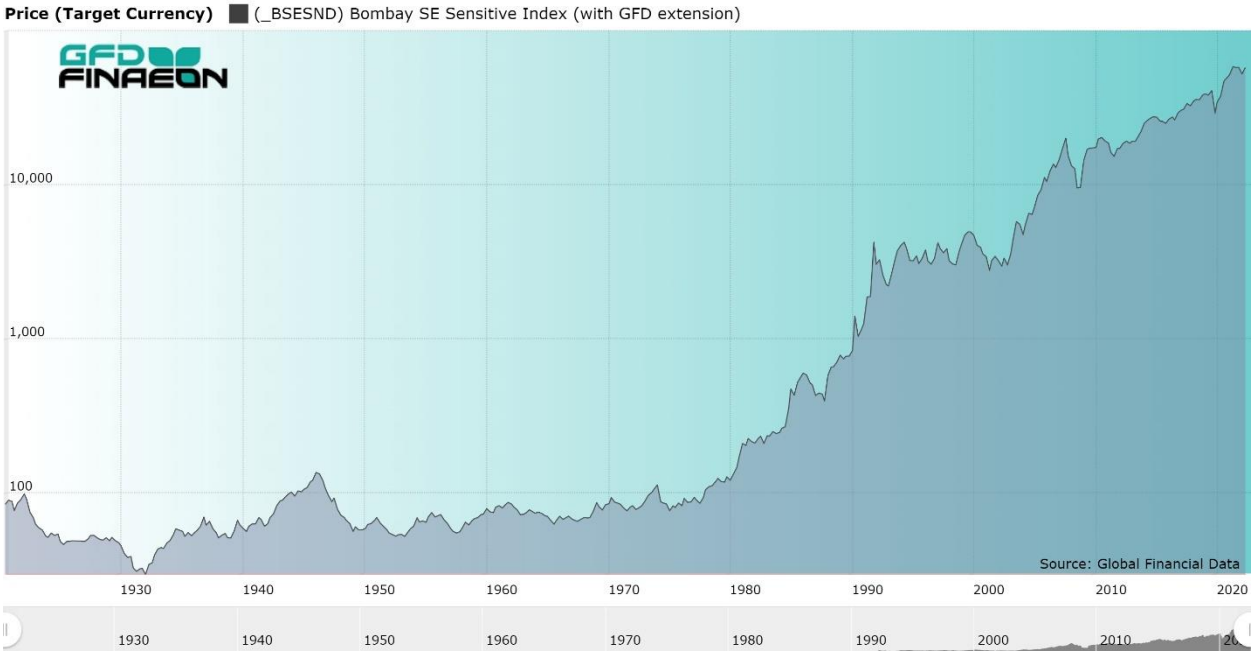

Figure 14.2. Domestic India Stock Price Index, 1920 to 2022

On the other hand, since India was a British colony, there was little risk of default on its outstanding bonds. Figure 14.3 provides a graph of the yield on Indian government bonds from 1722 until 2022. The series uses the yield on East India Co. stock from 1722 until 1864 when the Government of India issued its first bonds. The dividend was set at 10.5% in 1793 and remained at that level until the dissolution of the company in 1874. India issued a 4% bond in 1864 which was later replaced by bonds yielding 3.5% then 3%. Unlike many other emerging markets, India has never defaulted on its bonds, a fact that is reflected in the yield remaining around 4% until India's independence. The yield rose to 14% in 1995 because of inflation, but has declined since then.

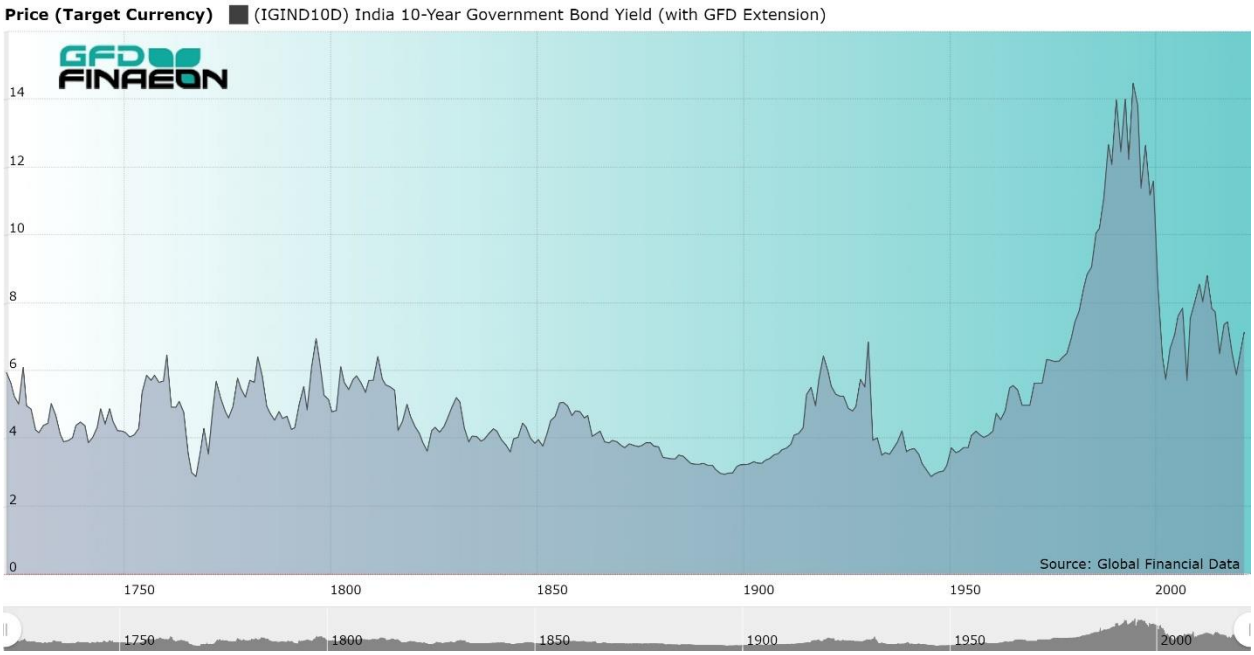

Figure 14.3. Yield on East India Co. Stock and India Government Bonds, 1722 to 2022

The actual numbers that measure the return to stocks and bonds in India is provided in Table 14.1. As can be seen, there was virtually no change in the price of Indian stocks between 1720 and 1980. The combination of a fixed dividend on East India Co. stock, guaranteed returns on Indian railroads, the deindustrialization of India and the focus on small, resource-based industries limited the opportunity for capital gains in India. Investors relied upon dividends as their source of income. During the past 200 years, Indian stocks have only provided a 4.16% annual return, barely 1% greater than bonds.

Period	Name	Stock Price	Stock Return	Bond Return	Premium
1692-1720	Glorious Revolution	3.3	11.39		
1720-1792	Mercantilism	0.11	5.1		
1792-1848	Transportation	0.46	5.48		
1848-1914	Free Trade	1.69	6.39	3.14	3.25
1914-1945	World Wars	-0.68	4.79	5.4	-0.61
1945-1981	Keynesianism	-1.03	7.1	1	6.1
1981-2021	Globalization	8.19	11.41	2.86	8.31
1699-2021	All History	1.94	7.41		

Table 14.1. Returns to Stocks and Bonds in USD in India, 1692 to 2018

Conclusion

Mughal India was one of the most advanced areas of the global economy in the 1700s, exporting textiles and spices to Europe and the rest of the world. Under the British East India Co. and the British Raj, Britain developed India's infrastructure, but it did not develop the economy. While the United States, Canada and Australia enjoyed dramatic increases in their GDP and investors received high rates of return, India stagnated. It has only been during the period of Globalization since 1981 that growth

has returned to the country. India will soon have the largest population of any country in the world, but it may be several decades before India has the largest economy in the world.

Chapter Fifteen

Mexico: Still Emerging 200 Years Later

Mexico has been struggling to develop its economy since Spain invaded Mexico in 1521 and it gained its independence in 1821. When Mexico was a colony, Spain relied upon exports of silver to profit from its control over the economy. The economy stagnated after Mexico gained its independence, but General Porfirio Diaz (1876-1910) attempted to develop the economy by allowing foreigners to invest in Mexico and build railroads and mines with foreign capital. Most of the investment in the 1910s and 1920s was spent developing Mexico's oil, but after the nationalization of the oil industry in 1938, foreign capital stopped flowing into Mexico and the country had to rely on domestic capital. The economy grew rapidly after World War II, but collapsed in the 1980s. Since NAFTA was signed in 1994, Mexico has pursued market-oriented policies to expand trade with the rest of the world. The period between 1982 and 2007 was an era of high returns to both stocks and bonds, the highest in the country's history, but during the past 15 years, returns have stagnated.

Global Financial Data has 198 years of data on Mexico stretching from 1824 until 2022. GFD has data on 44 companies that listed in London and 30 companies that listed in New York between 1824 and 1989. Most of the companies that listed in London were mining companies, railroads, banks or oil and gas companies. Oil and gas, telephone and telegraph, utilities and mining companies listed in New York. Some of the companies had a long existence with the Anglo-Mexican Mint Co., Mexican Eagle Oil Co., Mexican Railway Co., and United Mexican Mine Co. all lasting over 50 years before meeting their demise.

The poor performance of equities was matched by the poor performance of government bonds. Mexico was in default during most of the 1800s, paid interest from 1887 until World War I, went into default during the Mexican Revolution, then returned to solvency after World War II. Mexico defaulted on its bonds in 1827, made a few interest payments in the 1860s, but didn't really start paying interest regularly until 1887. Mexico defaulted a second time in 1914 and remained in default until 1963 when the country issued new government bonds in New York. Mexico defaulted a third time in 1982 and remained in default until the "Brady plan" restructured Mexico's debt in 1989. The Mexican government has been in default on its bonds in more years than it has paid interest. Mexican government bonds are definitely not risk-free. Even with the reinvestment of interest received periodically between 1824 and 1972, investors would have just broken even on Mexican government bonds during those 150 years. On the other hand, between 1994 and 2018, investors in Mexican bonds received an 8.73% annual return, which exceeded the 8.16% returned to equities during those years.

British investment in Mexico began in 1824 when the Anglo-Mexican Mining Association, the United Mexican Mine Co. and the Mexican Mining Co. were established. These three companies were followed by The Company of Adventurers in the Mines of Bolaños, the Tlalpujahua Mining Co. and the Real del Monte Silver Mine Co. in 1825 and finally the Anglo-Mexican Mint in 1829. After an initial bubble in Mexican shares in 1825, shares lost over 90% of their value, reaching their nadir in 1876 as is illustrated in Figure 15.1.

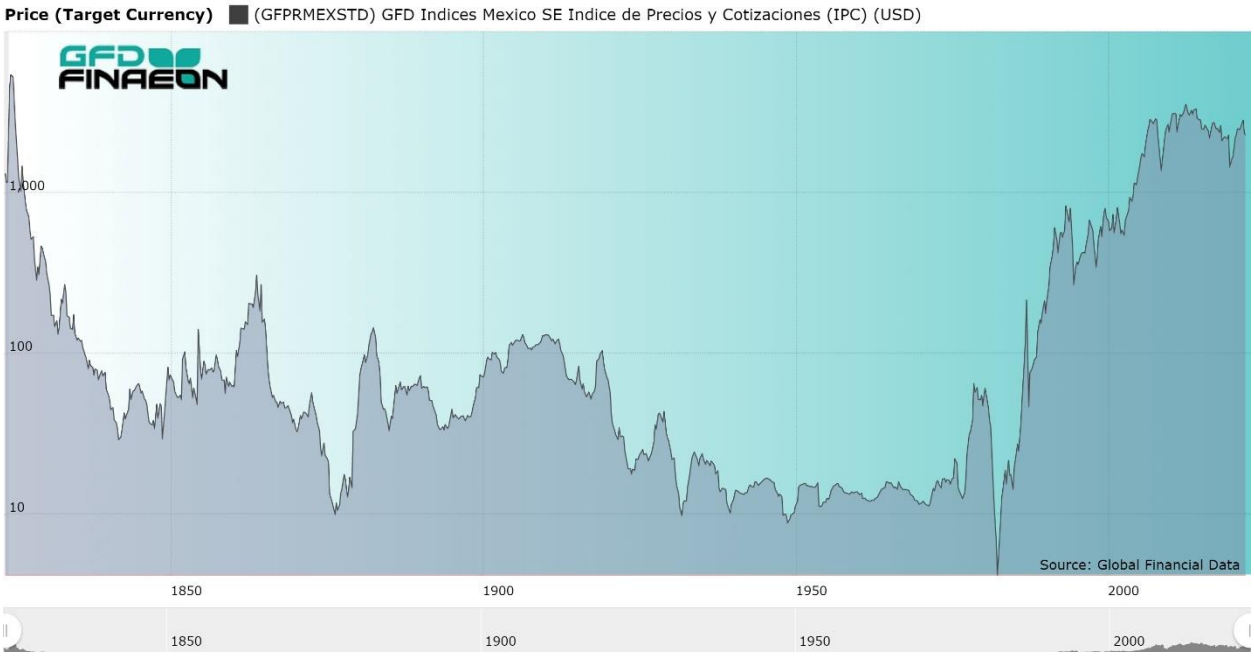

Figure 15.1. GFD Mexico Stock Price Index, 1824 to 2022 in USD

However, in 1876 General Porfirio Diaz became the leader of Mexico and allowed foreigners to invest in Mexico and build railways across the country. The Mexican Railway Co. was established in 1864, the Mexican Telegraph Co. in 1881, the Mexican National Railroad Co. in 1882 and the National Bank of Mexico in 1886. These companies rose in price, providing investors with a ten-fold return between 1876 and 1883.

The Bolsa Mexicana de Valores was founded on October 31, 1894. During the 1910s and 1920s, foreign capital flowed from the United States into oil and gas companies. The Compañia Mexicana de Petroleo "El Aguila" S.A. (Mexican Eagle Oil Co. Ltd.) was one of the hottest stocks in both New York and London during the 1910s and 1920s (Figure 15.2). Speculators loved to trade the “Eagle” as it bounced up and down in the 1920s. However, the Constitution of 1917 gave the Mexican government control over its resources and in 1938, the oil industry was nationalized by the government and Petroleos Mexicano (PEMEX) was born.

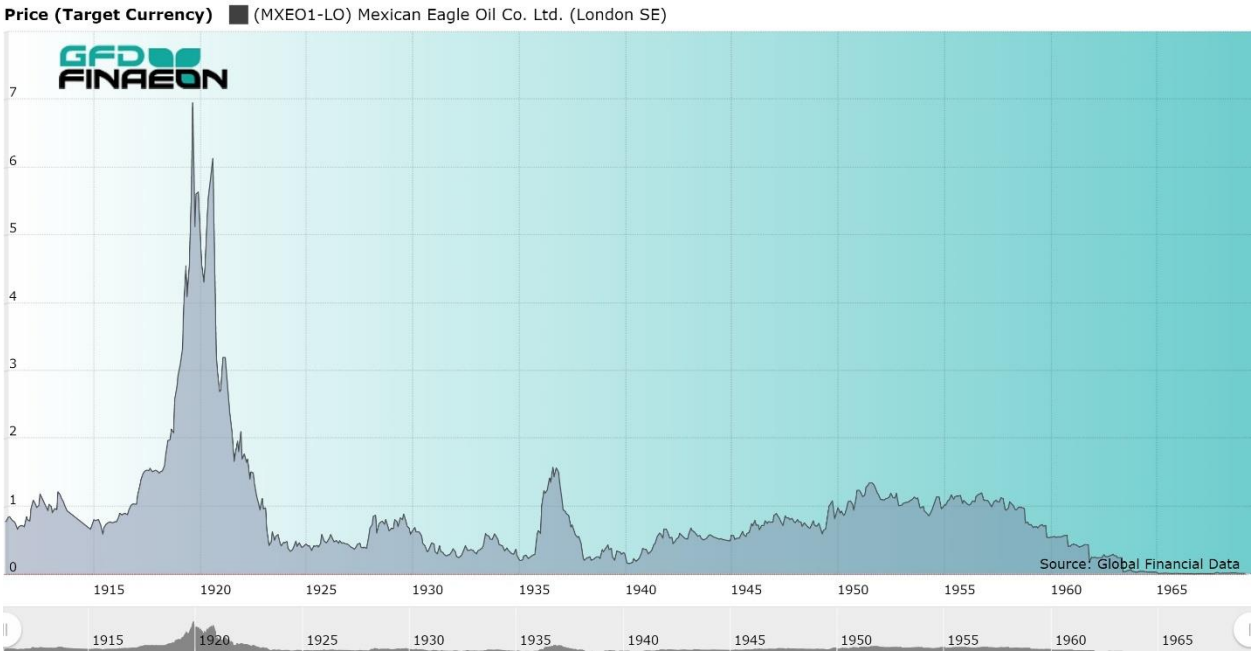

Figure 15.2. Mexican Eagle Oil Co. Ltd. Stock Price, 1911 to 1972

Although this gave Mexico possession of its oil industry, further investment of foreign capital in Mexico came to a halt. Mexico had to rely upon domestic investment and the stock market began a steady decline for the next 50 years. This occurred despite steady growth in Mexico between 1940 and 1970. The *Nacional Financiera* introduced an index of Mexican stocks in 1930. The index included 11 stocks in 1958 and expanded to 30 stocks in 1966 when daily calculations began. The Indice de Precios y Cotizaciones (IPC) was introduced in 1978 and includes 35 stocks. It is currently calculated by Standard & Poors.

The Mexican stock market crashed during the Peso Crisis of 1982, losing two-thirds of its value in Pesos, and over 90% of its value in U.S. Dollars. Over the next twenty years, the market bounced back, rising over 98% per annum between 1982 and 1994 when NAFTA was signed. Stocks stagnated between 1995 and 1999, rose to 2006, but have stagnated since then.

The return to equities in Mexico, as measured in US Dollars, is provided in Table 15.1. As can be seen, over the long term, investors have not been richly rewarded. Between 1824 and 1981, investors on average lost 4% per annum. All of the return to stocks has occurred since 1982 when the stock market bottomed out during the Peso Crisis. Unfortunately, only data on the price behavior of stocks is available for Mexico. Complete data on the return to stocks and bonds is not available because the dividend record for stocks is incomplete and the record on bond yields and returns is unavailable in the 1970s and 1980s. Nevertheless, we can provide data on stock prices over the past 198 years.

Years	Era	Stock Price
1848-1914	Free Trade	0.52
1914-1945	World Wars	-4.44
1945-1981	Keynesianism	2.1

1981-2021	Globalization	11.30
1824-1981	Pre-Globalization	-4.04
1829-2021	Full History	0.92

Table 15.1. Annual Returns to Mexican Stocks, 1824 to 2021

Mexican stocks and bonds provided horrible returns to shareholders between 1824 and 1981. Investors in both Mexican equities and Mexican government bonds lost money, even after the reinvestment of dividends and interest. Only since the collapse of the Peso in 1982 have investors been able to obtain positive returns. However, equity investors have broken even since 2007 as have investors in government bonds.

Investors had 25 years of marvelous returns between 1982 and 2007, but returns have stagnated over the past fifteen years. Distrust of the Mexican establishment led to the election of Andres Manuel Lopez Obrador in 2018. How his policies will impact the stock market in the future remains to be seen. Although the fabulous returns of the 25 years of Mexico's investment miracle are unlikely to return, one can hope that Mexico does not return to the stagnation it suffered in the 60 years before 1982.

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