

Veneroso, Frank; Pasquali, Mark

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Working Paper No. 987

The Souk Al-Manakh: The Anatomy of a Pure Price-Chasing Bubble

by

Frank Veneroso
Veneroso Associates

Mark Pasquali
Veneroso Associates

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Levy Economics Institute
P.O. Box 5000
Annandale-on-Hudson, NY 12504-5000
<http://www.levyinstitute.org>

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ABSTRACT

It is widely agreed that the Nasdaq during the dot-com era 20 years ago was a full-fledged stock market bubble. Recently, the US stock market according to many metrics has become significantly more speculative and overvalued than it was at the dot-com peak 20 years ago. In both instances, a very broad subset of stocks became so highly valued that speculation in them had to be untethered from all fundamentals: the essence of what we call a “pure price-chasing bubble.”

This paper, drawn from a book in progress, examines the history of stock markets for comparable pure price-chasing bubbles, finding nine or so which have ever reached such a speculative extreme, with an over-the-counter market in Kuwait in the early 1980s called the “Souk al-Manakh” representing the most extreme example. Based on my personal exposure to this Souk al-Manakh almost 40 years ago, I describe this anatomy and thereby make transparent the recurrent dynamics—on the way up and on the way down—of these greatest asset bubbles in human history. When one applies this framework to the current US stock market, one sees that the stock market in the US today will likely follow the disastrous path of the dot-com market.

KEYWORDS: Asset Bubble; Stock Market; Over-the-Counter Markets; Price-Chasing Bubble; Conventions

JEL CLASSIFICATIONS: D84; E12; E5; E71; G1

Preface

It is widely agreed that the Nasdaq during the dot-com era 20 years ago was a full-fledged stock market bubble. Why? Because in the end it collapsed by 82 percent. Over the last five months the US stock market according to many metrics has become significantly more speculative and overvalued than it was at the dot-com peak 20 years ago.

In both these markets there is a very broad subset of stocks that became so highly valued that speculation in them had to be untethered from all fundamentals. They levitated simply because speculators extrapolated spectacular past price trajectories far enough into the future to believe they could buy now and sell higher to the other guy. This is the essence of what we call a “pure price-chasing bubble.”

We have looked through the history of stock markets for comparable pure price-chasing bubbles. We believe there have been only nine or so which have ever reached such a speculative extreme.

Analysis of these instances shows there have been about six causal factors that contributed to these rare hyperbolic market events. The presence of one or two of these was not sufficient for markets to achieve the requisite escape velocity. It has usually taken most or all of them to achieve the bubble status that emerged in the Nasdaq in the US 20 years ago and in a broader share of the US stock market over the last five months.

The most extreme instance of such a pure price-chasing bubble was an over-the-counter (OTC) market in Kuwait in the early 1980s called the “Souk al-Manakh.” Its requisite causal factors and conditions exceeded in their magnitudes what was reached in those eight other relatively pure price-chasing bubbles scattered across all countries and over three centuries.

The extreme nature of this Souk al-Manakh episode reveals most clearly the anatomy of these rare pure price-chasing bubbles. In what follows, based on my personal exposure to this Souk al-Manakh almost 40 years ago, I describe this anatomy and thereby make transparent the

recurrent dynamics—on the way up and on the way down—of these greatest asset bubbles in human history.

When one applies this framework to the current US stock market, one sees that the stock market in the United States today will likely follow the disastrous path of the dot-com market.

In a parallel research effort, Veneroso Associates has determined with complete confidence that US private nonfinancial indebtedness vastly exceeds widely accepted Federal Reserve estimates and equals or exceeds the peak levels of indebtedness reached in any country in history.¹

History tells us that when an asset bubble is accompanied by extremely high private indebtedness, the economic consequences of its inevitable crash are worse than otherwise. So when today's pure price-chasing stock market bubble in the United States inevitably bursts, it will not be a benign event.

INTRODUCTION

Prior to the end of the 1990s there was virtually no talk about stock market bubbles in American financial circles and among American economists. Part of this came from a widely agreed upon thesis that unfettered asset markets—and especially such markets dominated by American participants—were efficient. Markets were always more or less priced right, at least in the United States. There could be no bubbles.

There was another, better reason why there was so little talk about bubbles back then: there were in fact no stock market bubbles in US history. Many thought the stock market in 1929 before the Great Crash was a bubble, but that was way back then. It did not count. In fact, even that 1929 stock market was not much in the way of a bubble, if it was one at all. The most widely used stock valuation metric in US financial circles has been the price-to-earnings ratio of the S&P 500. It peaked at 20-times earnings in 1929. It peaked at that level more or less nine times from

¹ For more information, please email kendra@frankveneroso.com

1890 to 1993—almost once every decade. Twenty-times earnings was nothing more than the valuation that tended to mark the end of all of America’s big bull markets in stocks.

Then at the end of the 1990s things changed. The price–earnings (PE) ratio of the S&P 500 accelerated. It topped out at 33-times trailing earnings in March of 2000. That was clearly something different. That was perhaps more than a bull market; that was perhaps a bubble.

But side by side with the S&P 500 was a more-speculative, high technology-stock-laden Nasdaq. It accelerated far more than the broad market. In late 1999 and early 2000 it went hyperbolic. It is hard to say what the price–earnings ratio of that index was because there were hundreds of stocks that went hyperbolic that had very little and often nothing in the way of earnings. For the speculative darlings in the new “internet industry,” their values were measured in “page views” and “clicks,” as they had so little in the way of revenues, let alone earnings.

Now, when stocks soar and their charts approach the vertical and they have so little in the way of any fundamentals, the universe of at least these stocks must be a bubble. Speculators can only be chasing their spectacular price appreciation on the grounds they expect it to persist. Such a market subsector must be mostly psychology and nothing more. We call such a market a “pure price-chasing bubble.” When the euphoric unrealistic expectations of price appreciation abate and reverse, there is nothing to cushion their descent, their reversion to the mean. This happened with the Nasdaq between 2000 and 2002: when the hot air left the balloon, the Nasdaq index fell by 82 percent from its peak and the dot-com darlings fell by even more. After the dot-com bubble burst, talk about market bubbles in the US became commonplace, despite a lingering prejudice in American financial markets and academic circles that American exceptionalism must surely imply the efficiency of its markets.

A half-decade later, the US financial markets entered into a great financial crisis. More markets than the stock market collapsed. The S&P index fell by 57 percent during this period, the second steepest decline in all of American history. House prices in real terms fell by more than a third—something that had never happened before. Commodity prices fell by more than two-thirds in five months, again something that had never happened before. And perhaps the majority of

America's greatest financial institutions went into crisis. For those that survived, it was only because of an unimaginable government "great bailout." It then became apparent that many markets could become bubbles and they could all burst with potentially disastrous consequences.

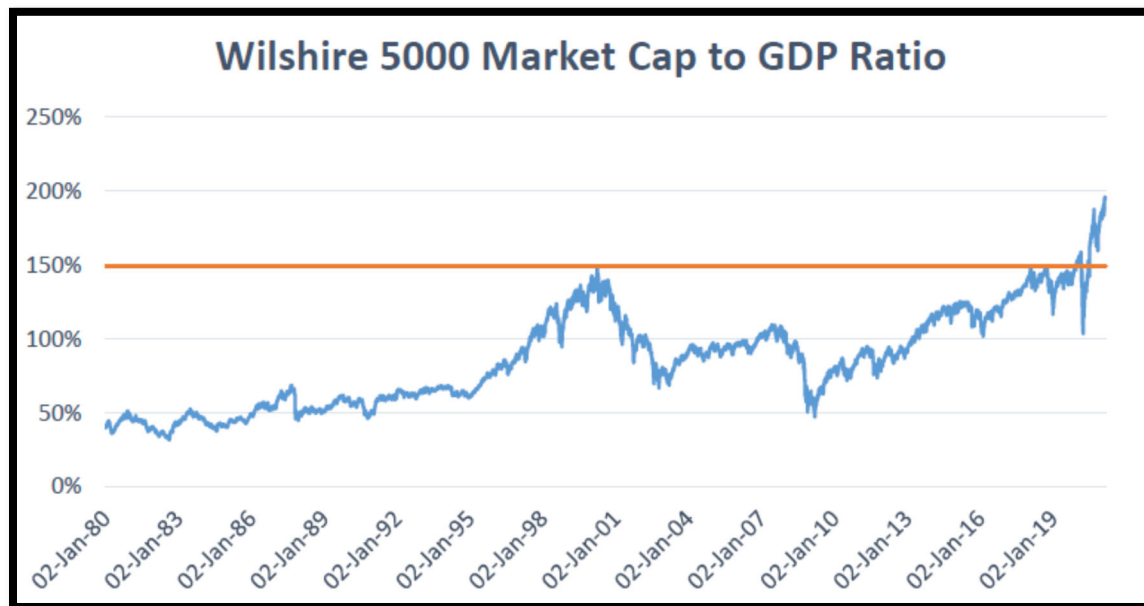
Out of the depths of that great financial crisis, the US stock market embarked on what would become the single-largest, decade-long bull market in American history. By early 2020, on some metrics, it was as expensive as it was at the dot-com peak in 2000. Then came COVID. The consequent contraction in the economy was the most severe since the worst intervals during the almost four years of the Great Depression. But the US stock market, after a 34 percent decline in a mere month, began to advance and advance rapidly. By mid-summer it was back to its pre-COVID highs. By very early fall it exceeded its pre-COVID highs, even though economic activity remained greatly depressed. Nonetheless, one could argue that on several grounds this stock market was still not as extremely overvalued as the dot-com market 20 years earlier.

Then in the fall of 2020, the US stock market changed its character. Suddenly, reminiscent of the dot-com era, a broad fringe of the most speculative stocks, mostly in technology, started to go hyperbolic. As the months passed, the prices of these stocks accelerated. When one looked at the whole market, including this broad fringe of hyperspeculation, the US stock market exceeded the extremes of the dot-com era.

About this claim there is much debate. Over the decade, American accounting has become more creative. Many parties in the financial markets benefit financially from soaring stock prices: brokers earn more commissions, investment bankers earn more fees, money managers do the same, analysts get bigger bonuses, the financial press gets better ratings. At the top of all market bubbles there is a tendency for the financial establishment to deny anything is unusual. All these same parties under these conditions endorse the most creative accounting possible in order to argue that nothing is amiss. There is a "happy conspiracy" that agrees that stocks really are not that expensive, let alone in a bubble.

There is a way to get around the claims of this happy conspiracy. One can simply look at the value of all common stocks and relate them to the economy's GDP, which is the fount of the income that publicly listed and traded companies can earn and the assets that they have accumulated. If one looks at this simple measure throughout US history, the market-cap-to-GDP ratio had never exceeded 100 percent until the foothills of the dot-com bubble in the late 1990s. It peaked at 149 percent at the dot-com pinnacle. This past February it reached 195 percent. By this simple valuation measure, which the happy conspiracy cannot creatively manage, if the dot-com market was a bubble back in 2000, the stock market in the US since summer 2020 has become a far bigger bubble.

Figure 1. Wilshire 5000 Market-Cap-to-GDP Ratio



Source: Wilshire Associates, BEA

One can see this in many other ways. Here are three examples. First, an index of over 600 small cap companies has gone completely vertical.

Figure 2. Russell Microcap Growth Index



Second, Nasdaq trading today is many times its trading at the dot-com peak.

Figure 3. Ratio of Nasdaq Volume to NYSE Volume (10 dma)



Third, the percent of Russell 2000 companies trading at more than 10-times sales exceeds 18 percent; at the dot-com peak it was 13 percent. We can provide many more such comparisons.

As we said, when such a large part of a stock market goes almost vertical—when it becomes completely untethered from business fundamentals like earnings and even sales—market participants must be extrapolating from a past extraordinary trajectory of prices. They must have extrapolative, euphoric, and unrealistic expectations that such a price trajectory can be counted on to last long enough to buy stocks and sell them at a profit to the other guy. This is the essence not just of a bubble that might be tethered to euphoric and unrealistic *fundamental* trends but of a pure price-chasing bubble. Such a market is all psychology and nothing more. A lot of today's US stock market—greater than yesteryear's dot-com stock market—has become a pure price-chasing bubble.

The Nasdaq index, which encompassed most of the dot-com bubble back then, fell by 82 percent in a bit more than two years even though that period encompassed the mildest of US recessions, the onset of an economic recovery, and a drastic cut in interest rates by the Fed to the lowest level in half a century. One has to ask the question: Despite the insistence of the happy conspiracy that today all is well and there is nothing to fear, will this hyperbolic market in technology stocks and other speculative darlings also fall by 82 percent, and possibly more?

To answer this question, we have set about looking for comparators across all countries and over many centuries. Comparators can tell us what factors caused their markets to become price-chasing bubbles, and what were the eventual outcomes. We have discovered that these pure price-chasing stock market bubbles—these instances when spectacular price trajectories engendered extrapolative, euphoric expectations untethered from all fundamentals—have been very rare in human history. We think that there have only been nine such instances going all the way back to the famous Mississippi and South Sea bubbles in 1719–20. Such extreme bubbles did not surface, at least in the United States, from the onset of the Industrial Revolution until 1929. Based on our analysis even 1929 does not make the grade. We do not know of other stock market bubbles elsewhere in the world up to that point, but then our knowledge may not be complete. In fact, we do not find globally an indubitable stock market bubble until the end of the

1960s in, surprisingly, Brazil. Since then we have identified pure price-chasing bubbles in Kuwait in the early 1980s, Taiwan and Japan in the late 1980s, the dot-com bubble (which spilled over from the US into the European markets at the end of the 1990s), and bubbles in China and Saudi Arabia in the early 2000s.

There may be a few other such bubbles of lesser magnitude and significance; we are not sure, but we are sure they are lesser. So that puts today's US stock market bubble, with its market-cap-to-GDP ratio of almost 200 percent and with so many stocks untethered from all fundamentals, into this rare company of history's pure price-chasing bubbles.

We have asked of all of our historical precedents what were their causes and what was their outcome. We have found that there were about a half dozen causal factors that came together in these pure price-chasing bubble episodes. It appears that unfettered markets left to themselves in which only one or two of these causes are operative always end in garden variety bull market tops. It takes a concatenation of many such causes to both create and sustain a price trajectory steep enough to approach "escape velocity." Only then can the balance of the other complimentary causal factors lead to the full flowering of these rare bubble events.

From this survey of history we have put together a matrix of these rare price-chasing bubbles (ex-Saudi Arabia, which we still do not know enough about) and two alleged US bubbles that we do not believe, in fact, made the grade. In figure 4, we present the country cases in the columns and the causes and conditions in the rows. It is an extended exercise to explain what this matrix means, but scanning it you can see how there is a common composition to the rare, pure price-chasing bubbles and a lack thereof in the merely alleged bubbles.

Figure 4. Causes and Conditions of Pure Price-Chasing Bubbles

Market Characteristics	John Law's Mississippi 1719	South Sea 1720	U.S. 1929	U.S. 1961/1965/ 1968	Brazil 1971	Souk al- Manakh 1982	Japan 1989	Taiwan 1989	DotCom U.S. 2000	China 2007/2014	U.S. 2021
Bull Market			✓	✓							
Fundamental Bubble					✓						
Price Bubble	✓	✓				✓	✓	✓	✓	✓	✓
P/E Ratio	∞	∞	20	20	33	near ∞	55-70	120	33+	50/70	38
% Decline (Length)											
Initial			47.9% (2 months)			70% (15 months)	48% (9 months)		Nasdaq 37% (2 months)	2007 21% (1m) 2014 42% (3m)	?
Total	90% (< 1 Year)	90% (6 months)	89.2% (34 months)	1961 28% (6m) 1965 22.2% (8m) 1968 36% (18m)	77.6% (< 36 months)	90% (36 months)	63% (32 months)	60% (4 months)	Nasdaq 78% (31 months)	2007 72% (12m) 2014 48% (7m)	?
Retail	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Wealthy Individuals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Institutional				✓			✓		✓	✓	✓
Corporate						✓	✓				✓
Heavy Manipulation	✓	✓	✓			✓	✓	✓		✓	
Some Manipulation					✓						✓?
No Manipulation				✓					✓		
Money- Extreme	✓										
Money- High						✓		✓			
Money- Medium							✓		✓	✓	✓
Money- Low		✓	✓	✓	✓						
Credit-Extreme						✓	✓				
Credit-High								✓	✓	✓	✓
Credit-Medium	✓										
Credit- Low		✓	✓	✓	✓						
Moral Hazard- High						✓					✓
Moral Hazard- Medium							✓		✓	✓	
Moral Hazard- Low	✓	✓			✓			✓			
Moral Hazard- Absent			✓	✓							
Interest Rates- High			✓			✓			✓		
Interest Rates- Medium	✓	✓		✓	✓		✓	✓		✓	
Interest Rates- Low											✓

We can illustrate this framework by looking in some detail at the greatest pure price-chasing stock market bubble of them all: the Souk al-Manakh. It was an over-the-counter (OTC) market in Kuwait where the shares of 40 companies (more or less) in two adjacent small Persian Gulf countries—Bahrain and the United Arab Emirates (UAE)—were traded. That sounds assuredly like a market event in global history that could not possibly be very relevant, but, in fact, at its

peak this Souk al-Manakh had a market capitalization behind only that of the US and Japanese stock markets and greater than that of London with all of its foreign listings. Its valuations were fantastical. Its speculative dynamics exceeded those of any other pure price-chasing bubbles. But because it was such an extreme we can see perhaps more clearly what the many causes were that created it. It provides an accessible anatomy of these rare pure price-chasing bubbles, as it encompassed all the important contributing factors critical to markets becoming a pure price-chasing phenomena.

It is an accident of history that I happened to be at the central bank of the UAE at the very peak of the Souk al-Manakh bubble, acting as an advisor on that very event. This experience sparked my interest in the history of market bubbles and it inclined me to look for them in the decades that followed. I feel quite confident in my account of the anatomy of this very rare event. It has contributed to the matrix above in figure 4 that we have constructed to understand other such pure price-chasing bubbles across all countries and over three centuries.

So what is the relevance of all this? When one understands the anatomy of the Souk al-Manakh and the anatomies of all those rare other pure price-chasing bubbles and one then looks closely at the US stock market today, it becomes pretty clear that the US stock market today has achieved this status. It becomes clear that the denials of the happy conspiracy simply represent the wishful thinking of participants who are reaping great pecuniary rewards while they last.

As for the likely outcome of the bubble in the US stock market today, the lesson of these rare events in global financial history is that a peak will be reached, a decline will follow, and the purely psychological dynamics will give way to feedback loops to the downside. There may well not be a precipitating event. The efforts of the financial authorities to put Humpty Dumpty back together again may delay the mean reversion process, but they will not prevent it. The odds are, even amidst economic prosperity and low prevailing interest rates, when the hot air starts to leave the balloon, the bottom for at least the relevant bubbleized market sector will be down by 75 percent, more likely 80 percent, and perhaps by more. The rest of the stock market, levitated by the euphoria and complacency radiating out from its rotten heart, will not go unscathed, as the overall 50 percent market decline in the S&P 500 during the dot-com era attests.

THE SOUK AL-MANAKH: UNTETHERED FROM ALL FUNDAMENTALS

While the bear market in US stocks was in its deepest throes and the epic bear market in US bonds was still completing its base, I was called to advise on the greatest stock market bubble of all time—the Souk al-Manakh in the Persian Gulf. Kuwait had had an organized stock market for some time. The great wealth created in Kuwait by the rise in the oil price in the 1970's led to seemingly endless appreciation in Kuwaiti stocks. In the Arab states in those days only sheiks could grant corporate charters and only corporations could become publicly traded companies. The royal family of Kuwait did not freely grant corporate charters for companies that might become vehicles for stock speculation, so there was a shortage of stocks to trade. This shortage and the new unparalleled wealth that was looking for vehicles of speculation gave rise to an OTC market in Kuwait City where shares in companies domiciled elsewhere in the Gulf—in Bahrain and the UAE—were traded. Housed in a converted air-conditioned parking garage, this market was known as the Souk al-Manakh—the market at the resting place for camels.

The World Bank and the International Monetary Fund (IMF) were asked at the time by the UAE government to recommend an advisor on the creation of a stock exchange in the Emirates. Great fortunes were being made in Kuwait City in shares of companies domiciled in the Emirates. Why not bring all this wonderful new stock market activity home? I had done policy work on financial crises in several Latin American countries. Both the World Bank and the IMF were worried that the stock market in the region had become an unsustainable bubble. They were skeptical about developing such a market further. They thought my experience on financial crises was probably relevant to what was happening in the Gulf. So they recommended me to the central bank of the UAE, with a request that I report back on what I thought was happening there.

For a little more than six weeks from late April to early June 1982 I worked out of an office in the UAE central bank in Abu Dhabi. The city was modern, laid out along a crescent beach at the end of a promontory into the Gulf. The central bank building was on the far end of a promontory that was still under development. My Hilton hotel was on the promontory's very end with still considerably empty land around it. The bank's newly constructed building was a structure of modern glass behind severe cement columns that met in graceful Moorish arches. From the great

glass window of my office, along a turquoise backwater I could see old, tanned fishermen working on brightly painted ancient fishing dhows that were beached on the blinding sands. The sheik of Abu Dhabi was the richest man in the world then. Only a few decades earlier, his brother, the former ruler, was afraid to walk the streets of what was then a small sandy seaside fishing village for fear of his creditors.

Being a macro-oriented, top-down man, I set about to see how great a supply of stocks could be made available for trading on a formal market in the UAE. The central bank had given me two young assistants who shared my office, probably in the hopes that they might learn something from the expert from Washington. I would teach them something about stock markets. Both of them were soccer players and they made much of their prowess. You could see by their movements there were young athletes behind those white robes. One of them was named Mohammed; I forget the name of the other. Mohammed readily broke out into an infectious big smile. There was always merriment dancing in his eyes. My assistants would come in every morning eager to learn about the Souk al-Manakh where so many people were making such large fortunes.

We began to gather as much information as we could about Emirates companies—those that might “go public” in an Emirati stock exchange and those that were being traded in that air-conditioned parking garage in Kuwait City. To get a grip on the prospects for a UAE exchange, I talked to people in Abu Dhabi who were in some position to know about the structure of local business. I was told that businesses in Abu Dhabi were very profitable. Many benefited greatly from positions of privilege granted by the government, like companies in the all-important import trade and in real estate development. People told me that local businesses were so profitable they didn’t need capital one might raise on an Emirati stock exchange. What they needed could be gotten from the banks or from other local businessmen. The communities in Abu Dhabi and Dubai were not large. Important people knew one another. And local businessmen would not want other people looking into their affairs, as would happen if they became publicly listed and traded companies. It seemed to me that creating a stock market of many local blue-chip companies that the citizenry could invest in would not come easily.

Unlike similar exercises I had conducted in Latin American countries, no one, including the government, was providing the information I needed to construct a map of domestic businesses of substance upon which a stock market with wide public participation could be built. So I turned my attention to the Emirati companies being traded on the parallel market in Kuwait. In the course of my discussions with businesspeople in Abu Dhabi, I would ask about the Souk Al-Manakh in Kuwait where these Emirati companies were being traded. None of those I queried seemed concerned about the heights of speculation that had been reached. I was always told, the Gulf was a special place, there was so much wealth and income that Souk al-Manakh prices would stay high. When I asked about the activities of the companies traded there, no one seemed to know much. Some of those I interviewed knew about the machinations of that market. I presumed they were involved.

The fruitlessness of my inquiries led me to a list of those Emirati companies and enough information to guess at their market values. Other Western “experts” who had come before me had written reports on the subject that I was given. The results of our information gathering were unbelievable. We had read that the market capitalization of the Kuwait exchange and the Souk al-Manakh combined ranked third in the world, behind the United States and Japan. It was greater than that of the United Kingdom, with all its foreign listed companies. How could this be? I asked, for both geographically and economically speaking, these few countries—Kuwait, Bahrain, and the Emirates (the former Trucial States under British domination)—were only postage stamps of sand on the globe. Oil had brought wealth to these small countries, but their combined economies were still small compared to those of the United States, Japan, or the United Kingdom. More striking was the fact that barely any of the visible wealth was reflected in these companies. The rulers of these sheikdoms owned the oil wealth. The hugely expensive real estate was privately held, as were the extremely lucrative import franchises. What assets and income underpinned these multi-billion-dollar market caps being traded on the Souk al-Manakh?

We searched through our inventory of Souk al-Manakh companies to find out. In Bahrain, a financial center, there were quite a few banks and other financial institutions seemingly of substance. Then there were the Emirate companies. These companies were domiciled in five former Trucial states whose names you never heard of that, alas, had no oil. There were quite a

few cement and clinker companies. There was a company or two that imported sheep and goats for slaughter and a poultry company. There were a few diverse industrial and medical companies. And then there was a raft of other “investment” companies that claimed to be making investments in real estate and diverse businesses. In some cases their principal activities were not at all obvious.

I recall that in all we had a list of about 37 Gulf companies. We tried to find out more about these companies. There was not the information you would expect to be available in an organized stock market. We tried to confirm the report that the market cap of this OTC market in Kuwait was greater than that of the London market and third in the world only behind the caps of the United States and Japan. We could not really do the calculations, but our efforts said it was possible. Looking at all of the results of our searches, I told my two young assistants who were so eager to learn about stock markets that what we were looking at was a bubble, probably the greatest bubble ever, greater than the South Sea bubble in Old England in the 17th century or John Law’s Mississippi bubble in France in the same century. It was like nothing the world had ever seen.

My two assistants were amazed, shocked, skeptical, and maybe a bit scared. They tried to laugh it all off. When they would come into my office every morning, Mohammed, with his infectious smile and his dancing dark eyes would greet me by saying, “Mr. Frank, Mr. Frank—will the bubble burst today?” And then he and his friend would slap their athletic thighs and laugh. They would bend over in side-splitting laughter. They would say again, “Mr. Frank, Mr. Frank, will the bubble burst today?”

The sheik of Abu Dubai was the richest man in the world at the time. The Ruler of Dubai was very rich as well. They had oil, a lot of it, and oil was still \$40 a barrel in 1982 prices—\$160 a barrel in today’s prices. The five other sheiks who ruled the other Emirates had no oil; they were poor cousins. For founders’ shares, these oil-poor sheiks granted charters for corporations that could be traded in Kuwait on the Souk al-Manakh.

I became particularly focused on those Souk al-Manakh companies that, from the information we had, seemed to have little in the way of identifiable businesses. I requested that I be allowed to visit some of them. The central bank arranged for me and my assistants to interview one such company in one of those former Trucial states you've never heard the name of. We were driven in an air-conditioned Mercedes to a small derelict town that was the capital of this oil-poor sheikdom, or so I thought, to analyze a company that was a high flyer on Kuwait's OTC market. My recollection is that there was a town of scattered buildings, much like small towns to be found all over the developing world back in the early 1980s. My recollection is of single-story cement-block buildings, open stores with cheap home goods or unappealing produce, empty lots, a gas station, but then visits to such towns all over the emerging world over a decade way back then makes them blur in my memory. I do clearly remember the offices of the company we were visiting were on a side street. My recollection is of a yellow brick building with no windows but only glass bricks to let the light in.

When we entered there was a small room with a counter. The man behind the counter looked like any other storekeeper in this derelict town. My young assistants exchanged greetings in Arabic. I couldn't tell whether he was the principal of the company or the treasurer or just an accountant. There was no one else about, no secretary, no assistant, no employees coming and going. There were no signs of any business activity. There was just that small room with a counter and one middle-aged man. I asked Mohammed to query about the company's business—what it sold, its business sales, its profits, and its fixed assets. It seemed there were no easy answers. Our principal wanted to show us the company accounts. He opened up large sheets of paper ruled off into small bars. There were numbers written in by hand and across them headings in Arabic script. They weren't formatted like balance sheets, just long columns of numbers and unreadable words.

I directed Mohammed to ask what all these numbers were about. The principal or accountant or whoever he was would explain in Arabic. Mohammed would try to explain to me. I didn't understand. I kept asking, "What are the fixed assets in these accounts? What are the revenues?" The numbers looked very small when I translated them into dollars. What were these line items, what were those line items? For the life of me I couldn't find any substantive revenues or assets

to speak of. Mohammed would look at me. He saw I was perplexed. “Mr. Frank, Mr. Frank, what are you finding,” he would ask? “Not much,” I replied. He looked at me, “Ohhh!”

I kept querying our accountant through the language barrier. We weren’t making much progress. I didn’t want to pressure our principal. He was very gracious. To push further would be impolite. I said to Mohammed, “I think we know enough.” Mohammed looked at me, “Yes, Mr. Frank?” with a question mark. “Yes,” I said. Somehow the usual infectious smile and the dancing in those dark eyes weren’t there now.

We got into our air-conditioned Mercedes; I was in the front seat, my young assistants in the back. We left the derelict town and began to speed home across the desert. There was no sand. There were no dunes. It was all hardscrabble with struggling desert vegetation. Occasionally we would pass a Bedouin with a caravan of camels. Mohammed pointed them out to me. He said camels were valuable, more so now than in the past. In the pre-oil days—not that long ago—they were a man’s wealth. In the oil-rich states these desert people were subsidized handsomely by the rulers and they chose to live in their traditional way with their prized camels. I thought about that wiry old nut-brown fisherman working on his brightly painted dhow beached on the sands outside my office window. He was financially supported by the ruler. These Bedouins with their prized camels were also supported by the ruler. There were only 25,000 true Abu Dhabi citizens and they were all supported in some way or other by the ruler. The two million other residents were guest workers. In this paternalistic state it seemed that every bona fide citizen assumed there would be financial support from their government.

As we sped across this arid terrain, the tenacious desert vegetation spinning by, my assistants were uncharacteristically silent. Suddenly Mohammed spoke out, “Mr. Frank, what did you find out? What did you find?” I said to them, “As I told you, not much.” Their faces were drawn. “Ohhhhhh,” said Mohammed.

I thought about this meeting we had just had. There were negligible assets in this company. There was no apparent business activity. It was probably just a corporate shell. Yet it was being kited ever higher in the OTC market in Kuwait City. I thought, I probably now knew more about

its business than the people trading its shares in Kuwait. I thought maybe even Mohammed knew more than most of them. From what we had seen, there could not be an iota of fundamental information behind the euphoria that was driving the price of this company's shares ever higher in that market in Kuwait. Those euphoric expectations could only arise from only one thing—the prior price trajectory of this company's shares. For all those companies in that parallel market a prior price trajectory must have been the sole basis for the frenzied trading in their shares, since their shares were so highly priced it was unlikely that their fundamentals, if they had any, were the source of the euphoric expectations driving their share prices ever higher. Then I realized a bubble engulfing an entire stock market need not be about euphoric expectations of returns to investments or about euphoric expectations about anything real; such a bubble could be all psychology, all about people chasing prices, nothing more.

As we returned to our office in Abu Dhabi's central bank, I thought about what I had been telling my assistants when I told them the Souk al-Manakh was perhaps history's greatest stock market bubble. In a way I had been a bit flippant, in part to get them laughing. It had been the joke that lightened the beginning of our every workday. Now I realized I had not really grasped the meaning of those words about history's greatest bubble. I had read about the Mississippi bubble and the South Sea bubble in Mackay's *Popular Delusions and the Madness of Crowds* and the alleged New York Stock Exchange Bubble in 1929 in books like John Kenneth Galbraith's *The Great Crash*. As advisor to the Brazilian government, I had looked back at history's most extreme stock market bubble up to that time: it had risen ten times in real terms in a few years and it had topped out in 1971. None of these were anything like the Souk al-Manakh in terms of amplitude, breadth, and duration. Perhaps a significant part of a whole affluent region in our modern world was consumed with chasing stratospherically priced phantom shares, solely because of the price trajectory they had witnessed. Somehow it had then evolved into a contagion which Mackay had called "the madness of crowds."

The central bank wanted me to advise on bringing this all home to Abu Dhabi. No way!

EXPECTATIONS

In *The General Theory*, Lord Keynes said that the prices of shares were determined by a convention held by all market participants. That convention was that the existing state of affairs would persist until something warranted a change. That was the sole basis of expectations of market players facing a fundamentally uncertain future. It wasn't clear from Keynes's words whether the existing state of affairs was about the fundamentals underlying stock prices like industry trends, trends in business sales and profits, or merely the trend in stock prices themselves. The way Keynes said it, it seemed he was talking about the underlying fundamentals. But my knowledge of markets like the Dutch tulipomania, the Mississippi bubble, and the South Sea bubble, as well as high flying markets I had direct knowledge of—like the United States in 1968 and Brazil in the early 1970s—had always made me suspect that this expectation based on a persistence of the present and the recent past was also about the trend in share prices. Now it was clear to me, at least in this Souk Al-Manakh bubble, such expectations must have been only about the movement of prices. Bubbles could be all psychology, herding, and nothing more.

The next day in the office when my young assistants arrived there was no longer the infectious smile, the merriment in the eyes with the greeting, “Mr. Frank, Mr. Frank, will the bubble burst today?” There was no side-splitting laughter. There was a subdued silence. My young assistants apparently had learned something, though it was not what the central bank had sent them to me to learn; I think they sensed there was something wrong and very scary about this Souk al-Manakh.

I thought at some point in the future the people speculating in this Souk al-Manakh—unmoored from all fundamentals, pure psychology, pure herding, nothing more—would experience such a change in mood as my two assistants just had. When the Souk al-Manakh prices began to fall, they too would sense, perhaps suddenly, there was something wrong and very scary about their Souk al-Manakh.

THE RATE OF INTEREST

There was another aspect of the Souk al-Manakh that we set out to understand. All the oil-rich states were awash in money at the time. Paul Volcker had brought the United States and most of the world economy to its knees with his draconian assault on inflation. Most commodity prices had collapsed by 1982, but OPEC managed to hold the oil price aloft. Yes, oil production and revenues were down, but these economies were kept aloft by expenditures made possible by the prior massive accumulation of reserves by these sheikdoms. These economies were still awash in money. They still had far more money than they could spend. Interest rates in the banking system were not low, but they weren't especially high either. This was the inflationary early 1980s. Volcker had raised nominal dollar rates well above the US inflation rate. The Kuwait rates were somewhat lower—perhaps high single digits on average.

But on the Souk al-Manakh there was a very special kind of margin debt that you could use to purchase shares. It was done on a person-to-person basis, or so we thought, through the use of postdated checks. The central bank never sent me to Kuwait, but I had talked to some people in Abu Dhabi and Dubai who were investors in that market. This postdated check business seemed rather complex to me, but I thought that in saying it was an informal channel of stock margin debt I was more or less correct.

What was fascinating was the implied interest rate on these informal margin loans. I had no data on their rates of interest and no doubt there was a very wide dispersion. The people I talked to told me that sometimes their implied annualized rate of interest was as high as 100 percent. Stock prices on the Souk al-Manakh had been rising at 100 percent annually. Even at that crazy interest rate, leveraged speculation in some stocks was making a profit. I was amazed. Here was an instance where the ruling rate of interest in the economy was low, yet the cost to borrow and speculate in the Souk was unimaginably high.

I remembered reading about the rate of interest on margin borrowings in the stock market in the summer of 1929 as the Dow sped to its September summit. The Fed's policy rate was 5.5 percent. Some sources said the interest rate on security credit was 12 percent, some said it was at

times 30 percent. In the preceding years I had been doing policy advising work in the countries in the horn of Latin America. I remembered how, in my work in Latin America at that time, the real (inflation-adjusted) rate of interest in Argentina, Chile, and Uruguay was almost 30 percent. How could this be? In all the economic theory I had ever read the interest rate was tied to the marginal product of capital investment. Some rates of return that bore the most risk (like equities) were somewhat higher, others that bore little were somewhat lower, but they were all supposed to be anchored to that marginal product. It seemed to me that somehow there were periods in which interest rates were totally unmoored from capital's marginal product. The rate of interest on the Souk al-Manakh's margin debt, those postdated checks, was proof that there could be no limit to this unmooring.

Years later I would take notice that in Keynes's *General Theory* not only was the interest rate determined by something other than capital's long term "efficiency," it sometimes included a large premium that people in uncertain times were willing to pay for liquidity. Keynes was apparently talking about the spikes in interest rates that had happened in the 19th century when financial markets went into crisis, when "panics" broke out, and when prices went into deflation. Now, thinking about margin debt in the United States in 1929 and in the Souk al-Manakh in 1982, it made sense that other kinds of psychological forces—speculative greed as well as fear and panic—could cause the rate of interest between two parties in a financial contract to diverge greatly from some "natural rate." The rate of interest was in the end the result of purely financial dynamics and it could have almost nothing to do with the "efficiency of capital."

In today's environment it is believed by virtually everyone that there is a natural rate of interest and if the prevailing real rate of interest falls far below that natural rate people will be induced to speculate in assets. It is low interest rates that cause bubbles. But it has always been apparent to me, having studied the stock market in the United States in 1929 and this peculiar margin debt in the Souk al-Manakh in the early 1980s, that a stock market bubble in no way needs low interest rates on competing fixed-income financial assets. In fact, in bubble environments driven by extreme speculative zeal, interest rates have tended to be high, in part because people were willing to pay extraordinarily high borrowing costs in order to purchase assets that promised euphoric returns. The relationship between asset bubbles and interest rates in history has been

nothing like what people in today's markets and in today's official financial institutions now suppose.

MORAL HAZARD

Another interesting thing came out of our research. The organized stock market in Kuwait, which listed only Kuwaiti shares, had been around for a long time. When OPEC raised the price of oil four times in the fall of 1973 and the Middle East economies became oil rich, the Kuwaiti stock market went into a strong bull market. By 1976 stock valuations had become very high.

Suddenly, with no obvious precipitating event, this market began to fall. The participants in the market were all Kuwaitis, and Kuwaitis who mattered. Faced with losses, figuratively there was much wailing and gnashing of teeth, with a chorus exhorting the sheik to do something about their losses. And the sheik did. The Kuwaiti government intervened, it bought shares, putting a floor on the market. It didn't sell those shares. In time its actions helped send the market skyward again.

Participants in the Kuwaiti market remembered. Perhaps far more importantly, all the citizens of these oil-rich kingdoms lived in paternalistic states. Their governments provided them with base incomes and social services, much like that old nut-brown fisherman working on his ancient dhow and those Bedouins herding their prized camels across empty barren lands. The true citizens of these sheikdoms were accustomed to government support in all walks of life. It seems that in 1977 in Kuwait speculators on the stock exchange had good reason to expect the same if a falling market saddled them with losses. After the US savings and loan crisis in 1990, the collapse of Long-Term Capital Management (LTCM) in 1998, the collapse of the Nasdaq in 2000–2, and then the collapse of almost everything between 2007 and 2009, there was a perceived “put” provided by the Fed that might limit the losses of stock market speculators. To the denizens of the Kuwaiti stock exchange and the Souk al-Manakh back in 1982 there was a comparable but greater perceived put provided by the ruler.

In my advisory work in the late 1970s I had been analyzing the propensity of firms and even households along with their bankers in Latin America to continually capitalize through refinancings high, surely punitive, real interest rates when their central banks restricted money and credit to corral their chronic high inflations. My long-time colleague Millard Long and I had obtained a Ford Foundation grant back then to explore the risk of a third-world debt crisis owing to a one-sided bias of development finance in favor of debt. We saw the same willingness of less-developed country (LDC) governments and their international money center banks to capitalize the high real floating rates on their dollar-denominated sovereign debts. Why would they do this, I asked? Because for various reasons they thought somehow, someway governments would bail out both those who had lent too much and those who had borrowed too much. For the Latin American borrowers and their banks, perhaps there were vivid memories of past debt confiscating inflations. For the US international money center banks, they presumed the authorities would not let sovereigns default and they would not let the too-big-to-fail money center banks go under.

I had come to understand this process from the writings of Hyman Minsky. He had introduced the term “Ponzi finance” to describe the process of distressed borrowers and their lenders agreeing to capitalize interest due that could not be paid. Minsky described this as a bridge adjustment when financial distress surfaced: it was a phase of forbearance to avert the costs of bankruptcy until alternative adjustments could be made. In the Volcker era, this Ponzi finance became more than a passing phase; it became sustained over years. Minsky saw this capitalization of Volcker’s high interest rates as the compounding machine that was ballooning third-world sovereign debt to the point of insolvency. In my work in Latin America, I saw high domestic interest rates as the compounding machine that was ballooning domestic bank debt to the point of systemic crisis.

Millard and I met with Minsky twice in New York City during this Volcker period. We asked him why was this happening on a global scale now when it had never been sustained in prior eras? He blamed it on a postwar commitment by authorities around the world to prevent a damaging financial crisis at all costs that had progressively distorted the perception of risk. They had fostered rampant moral hazard in finance. In thinking about the excesses of the Souk al-

Manakh, I remembered what Minsky said to Millard and myself back in NYC: “Look at what the Fed and Treasury did with Penn Central, with the Franklin National Bank, with Chrysler and Lockheed. People remember. Their behavior changes.”

Now in 1982 in Abu Dhabi I was learning that an intervention in a speculative stock market in 1977 by the ruler of Kuwait had hugely distorted the perception of risk in its stock market. In Kuwait in 1982 they remembered. They remembered all the more because government support to its citizens was so pervasive and ingrained in these paternalistic states. I have no doubt that the stock speculation and its financing that had gone metastatic in these mid-East markets by the early 1980s had a great deal to do with the ruler’s distortion of the perception of risk.

I never imagined that what Minsky saw in its infancy back then in the Volcker years would decades later, amidst the COVID-19 pandemic, occur in US financial markets on a scale similar to what was happening in Kuwait.

THE CRASH

How do you tell your host government that the stock market they want to bring home is about nothing more than psychology run amok? I pondered this diplomatic quandary for weeks as I looked out my office window at those ancient painted dhows in the desert sun. In the end I mustered the courage to tell the truth. “It is all a bubble, perhaps the most extreme in history,” I told my client on my final day in Abu Dhabi, “and it will burst.” To my amazement and relief, I was greeted, not with displeasure, but with laughter. “You Westerners have been coming here for years,” they told me, “and to a man you all have predicted a crash. Don’t you understand, there has never been a place on earth like the Gulf with such unprecedented wealth? You will never understand that the Gulf market cannot crash.”

I had a longtime friend in London. His name was Ali. He was one of several Anglo Arab investment bankers who flourished in London in those years. When I passed through London on my way back to the United States, I stopped by to tell him about my trip. I told him how

speculation on the Souk al-Manakh was financed with a curious type of informal margin financing by way of postdated checks. So rapid was the rise in the Gulf market that postdated checks paid an interest rate of 100 percent per annum. Ali had been financing speculators in this market. He listened and he smiled.

In late July I had completed my report for the UAE government. I told them that the market they wanted to organize was a bubble and that it would crash. It would be best to wait before any effort to build an Emirati stock market. I had passed my report on to Washington for review. Washington passed it on to the UAE. Shortly thereafter I heard from Ali. He called to thank me for my advice on my recent visit. He had called in all his postdated checks. “Did you hear what happened to the Souk al-Manakh?” he asked. “No,” I replied. “Well, it topped out at mid-summer after you left, with no provocation. One can’t quite say it declined or it crashed; it has just stopped trading.”

Since then, several accounts of that period have been written. To my surprise some show that the Souk al-Manakh peaked at the end of March, shortly before my visit, and the crash began in the three months (April through June) when I was there. I didn’t hear this from anyone during my stay. In no way was it reflected in my final meeting at the central bank. Ali had no inkling of it when I visited him in London. Some other accounts indicate the fall began shortly after I left. By late August, when the market crash was well underway, there were failures on payments on postdated checks, but Ali had no trouble cashing out in late June or July. I wonder if a Souk al-Manakh price index I have found in a 1989 World Bank report (Al-Sultan 1989), which I assume was reconstructed, is correct. Perhaps everyone was fooled by the more transparent move in the prices of shares on the Kuwait stock index. They didn’t appreciably decline that summer—apparently because even then, with prices in the stratosphere, the Kuwait government had commenced with price support operations. In any case it is agreed that prices crashed in August to a point where there was a giant collective margin call on the edifice of postdated checks that could not be met. It was soon determined that the outstanding volume of these liabilities totaled \$94 billion dollars. That \$94 billion dollar number told me that the market cap of the Souk al-Manakh alone was greater than the market cap of the London market with all its foreign listings.

I thought thereafter that stock market bubbles, if they went far enough, might crash precipitously. It did not happen in later bubbles like those of Taiwan, Japan, or China. It almost happened with the Nasdaq in March–May of 2000. This time around the US tech stock market bubble is more extreme than it was back then. It makes one wonder.

Some months later I was asked to go back and advise both the central bank of the UAE and the Finance Ministry of Bahrain on what to do about the stock market now that it was in such a parlous state. My central bank counterparts in Abu Dhabi were very subdued. Those in Bahrain were more hopeful. It seemed that margin financing had reached unimaginable extremes. One speculator, who had been an immigration or customs clerk several years earlier, had at the peak, according to the *Wall Street Journal*, \$14 billion in stocks financed with \$14 billion of margin debt (\$10 billion of both according to the *New York Times*). Now he had only \$14 billion in debt and his creditors had no collateral to have recourse to. There were eight other large traders with similarly large but lesser positions. I was told that when the Souk al-Manakh collapsed that late summer so suddenly no one could unwind their little piece of that huge scaffold of margin debt that had financed all the Souk al-Manakh's high-flying shares. And it wasn't just individuals who had been providing this margin debt by way of postdated checks; it turned out that banking institutions couldn't resist. Banks had been financing the speculators against Souk al-Manakh shares as collateral. Maybe some had been lending through postdated checks. There was now financial failure across most of Kuwait's banking institutions and among its wealthiest citizens.

MONETARY EXCESS

I have said that it was the unprecedented flow of oil income into these small Gulf states that caused the upward spiral in share prices in the early to mid-1970s that established the steep trajectory of stock price appreciation that gave birth to the bubble. It was those extraordinary returns, which were extrapolated forever forward that made expectations go euphoric and unrealistic, that cascaded across those close-knit societies and coalesced in an ever-expanding herd of market participants with stars in their eyes. I have said it was the bailout of the market in 1977 that introduced the belief that the Kuwait stock market would not be allowed to fail and

supercharged the stock market bubble by giving birth to a parallel market: the Souk al-Manakh. But there was something more.

When I asked people in Abu Dhabi why there was so much speculation in the stock markets in Kuwait, I was told that domestic residents who had “recycled” their Petro dollars into foreign markets wanted to bring their money home. These Arabs had been blamed for raising the price of oil, for in turn causing inflation in the West, and again for the recession that had to follow. Then, after the revolution in Iran and the US hostage crisis, the United States had frozen Iran’s foreign accounts. Maybe Arab oil money might no longer be safe in the West. People wanted to bring their money home, to buy gold, to invest in local stocks. Some said this is what powered the Souk al-Manakh from 1980 to 1982.

When I was in Abu Dhabi I didn’t have the common sense to take these stories seriously and look to see what happened to international flows in the region and their consequences. But a World Bank study written seven years later did (Al-Sultan 1989). It shows that, yes, there was a great influx of funds into the Kuwaiti banking system: bank money and credit basically doubled between 1979 and 1982. So monetary forces also fostered the rise of the Souk al-Manakh. In a way the Souk al-Manakh story bears resemblances to the Mississippi bubble story of 260 years prior. Then John Law with his Banque Royal began to flood France with paper money.

Somehow it inflated the share price of the Mississippi Company long before it inflated the general price index. That spectacular rise in the Mississippi share price established the trajectory that was extrapolated forever forward, spawned the euphoria, created the contagion and the cascades, and thereby gathered the great herd of neophyte speculators who thought nothing about fundamentals. It was John Law’s unchained money machine that made the market in Mississippi shares pure price-chasing and nothing more. And so it may well have been that reflux of oil wealth back into the region, by doubling money and credit in so short a time, that contributed to the initial market price trajectory that—by way of extrapolation, contagion, and herding—levitated Souk al-Manakh share prices beyond any fundamental anchors. And so, the full-blown Souk al-Manakh was born.

MANIPULATION AND THE MADNESS OF CROWDS

There were yet two more forces for a stock market's detachment from all fundamentals—manipulation and the ease of contagion. We have discovered that, in our universe of eight pure price-chasing stock market bubbles and in many more bull markets, manipulation plays a role. In France in 1919 it was John Law with his Banque Royal. His objective was to raise the price of Mississippi shares to fund the King's debts. In London in 1920 it was Parliament and the South Sea directors who sought to do the same. In 1929 it was one hundred pool managers, one with a position equal to 5 percent of the market cap. In Brazil in the late 1960s it was the finance minister Delfim Neto with his shower of incentives for the buyers of stocks. In Japan it was the public companies with their crossholdings and their Tonkin funds in league with the Japanese mafia, the Yakuza. In Taiwan it was the "big hands." In China it was the government intent on building a market of national champions, a national team.

What about the Souk al-Manakh? I had never heard of manipulation while in Abu Dhabi, but in subsequent accounts now in the public domain it is said that our customs clerk with \$14 billion of Souk al-Manakh stock and \$14 billion of margin debt was one of nine principal brokers; they accounted for 60 percent of all the notorious postdated checks when all was eventually sorted out. It seems to me that when nine highly indebted men have so much at stake, you can assume there was collusion to somehow or other drive Souk al-Manakh prices higher.

And then there were the shell Gulf companies and their Kuwaiti founders. In the unraveling it was found their principal activity was often investing in the shares of other Souk al-Manakh companies. One can only think that, with all their founders' shares, it was within their collective interest to "manage" Souk al-Manakh shares ever higher.

One last point on contagion and herding. Of course, the "Magnificent Nine" and the Souk al-Manakh companies and their Kuwaiti founders could not manipulate prices of the Souk al-Manakh shares upward unless there was a crowd with euphoric expectations that could be manipulated. In effect, the power of the forces that drive a pure price-chasing bubble has to be a function of the rate of contagion that collects neophytes into a great crowd. In the Mississippi

bubble and the South Sea bubble, with the English and French populations concentrated in the cities of Paris and London, there was easy contagion that brought everyone who was anyone into the frenzy to buy the shares of just one company. In the United States in 1929 the market's PE ratio never went above 20 times—a level reached nine times more or less in a century from 1890 to 1993. Why? Because the United States was still dispersed across an entire continent; only 1 percent of the population was drawn into that New York City market game.

Contagion, concentration, and the ultimate size of the crowd is critical to achieving the escape velocity of a pure price-chasing bubble. The cities in Kuwait, Bahrain, and the UAE had limited populations but they were clustered in small spaces. Conditions were ripe for a madness of crowds. But in the case of the Kuwait stock exchange, participation was limited to the relatively few true Kuwaitis. By contrast, in the Souk al-Manakh everyone, including the guest workers, could invest. Share price denominations were low relative to the official exchange. For all the manipulating denizens of the Souk al-Manakh—like the Magnificent Nine and the Gulf companies and their founders—there was an effort made to encourage entry into the market. It appears these efforts greatly increased the potential for contagion and the participation of a crowd. This may explain why the Souk al-Manakh companies went so hyperbolic relative to the shares on the Kuwait exchange. Apparently, in Kuwait's unofficial OTC market the requisite herding was achieved.

AFTER THE CRASH

A financial crisis struck deeply into the heart of these societies. Many of Kuwait's wealthiest citizens were devastated. Most Gulf companies, often loaded with the shares of other Souk al-Manakh companies, mostly financed with debt, collapsed. The banks in Kuwait were involved in more ways than was generally recognized. All but one of the Kuwaiti banks failed. The decline in the oil price into 1985 made matters worse and worse. Experts were called in to advise on how to sort the mess out. At one point I was approached. I would have liked to have gone, but I didn't have the time.

A decade and a half later, in the foothills of the final ascent of the Nasdaq bubble in the United States, I gave a speech to wealthy investors at a conference in Monaco. I told them what was now happening on the Nasdaq in the United States reminded me of the ascent into the peak of the stock market bubble in Japan and even the spiraling bubble in the Souk al-Manakh, which, by chance, I had advised the central bank on right before the bubble burst. Most of these wealthy investors at the conference didn't believe the Nasdaq was a bubble; the fundamentals of the companies involved were so spectacular those sky-high spiraling Nasdaq prices were still sound. For the few who thought there might be a bubble, the discussion was all about what would be the precipitating event, since, of course, there had to be a precipitating event to burst a bubble. I told them about those months in the summer of 1982. I told them what Ali told me: "Did you hear what happened to the Souk al-Manakh?" Ali asked. "No," I replied. "Well, it topped quietly at mid-summer after you left, with no provocation. One can't say it declined or crashed; it has just stopped trading." There was no precipitating event!

After my presentation, I was approached by a group of people from the Middle East. It was 1998 at the time. They asked me in amazement, "You were there at the peak just before the crash?" I said, "Yes." They said to me, "Do you know that we've never sorted it all out? People are still suffering from what happened back then."

I thought in 1998 that, when the peak in the Nasdaq bubble would inevitably come, it might happen without a precipitating event, as had happened in Kuwait in the summer of 1982. I thought perhaps its decline would be discontinuous as had happened then, that a point would be reached when there were no bids. When the peak came in March of 2000, there was no precipitating event. George Soros' famous sidekick Stan Druckenmiller, one of the most fabled investors of modern times, bought \$7 billion worth of shares at the peak because no precipitating event could be seen. And then the market collapsed, though not as suddenly as in Kuwait in 1982, and not with its finality. Druckenmiller and Soros took an instant devastating loss. No one had thought that the crash of a bubble would cause the implosion of Quantum, George Soros' flagship fund.

LESSONS LEARNED

The Souk al-Manakh was the greatest speculative stock market mania of all time. One could not even speak of valuation. Margin financing reached unimaginable extremes. It did not take a trigger to burst this bubble; it simply cratered sometime in the dreadful heat of the Middle East's summer. Its decline was perhaps so discontinuous it could not be called a crash. There were simply no bids.

Though in ways the Souk al-Manakh was a unique event, the themes of history's rare pure price-chasing bubbles are all to be found in its story. The foothills of such a bubble are always a multiyear period of extraordinary price appreciation in shares. As in most (but not all) such pure price-chasing bubbles, there was a period of extraordinary economic expansion that gave rise to optimism and, in turn, euphoria. The intervention by the ruler to arrest a normal market correction in 1977 spawned a belief among market participants that the ruler would always support the market. Their speculations were safe. Mega-moral hazard ruled. To fuel the bubble further, there was a rapid expansion of bank money beginning three years before the top. The expansion of credit was even greater, owing to a monstrous expansion of margin credit through a *shadow* system of private credit by way of postdated checks. A small group of indebted bullish traders of magnificent size, along with the Souk al-Manakh companies themselves who speculated in the market, manipulated the Souk al-Manakh stocks ever higher, most likely through collusion. Lastly, the concentration of many people in a small domain contributed to contagion and a gathering crowd.

In all pure price-chasing stock market bubbles it is a rare combination of at least some of these factors that creates the rapidly escalating share price trajectory. That in turn spawns the extrapolative unrealistic expectations that accelerate share prices beyond escape velocity and all fundamental gravity is left behind. Then the pure ether of euphoria and the bonds of social contagion take full control of the price accelerator.

As with all such rare pure pricing bubbles there is a conviction at the top that a crash will not occur. In Kuwait it was thought that the oil flow would never end. It was thought that wealthy Arabs would keep bringing their money home, and money and credit would still soar. There was the belief that the all-powerful ruler was there to make sure that speculators were safe, that support was never far away. And yet, without any perceptible cause, this unprecedented flow of repatriated funds, this expansion of domestic money and credit, and the power of the ruler came to nothing once prices on the Souk al-Manakh turned down. Such a market is all pure psychology, pure price chasing, so when share prices declined in that fatal summer of 1982, the levitating euphoria was lost like helium from a balloon. Once lost, such a bubble cannot come back.

SOME IMPLICATIONS FOR TODAY

Anyone who encounters this story about the Souk al-Manakh asks: What are the lessons for today's pure price-chasing bubble in the United States? How many of the causes of that greatest of all stock market bubbles have been at work in this case? What forces for escape velocity from fundamental gravity in that episode have been or are now absent? Have there been new forces in this US bubble that had no role in the Souk al-Manakh episode? And what is the message for what will happen when this pure price-chasing bubble eventually ends? We have said that the discussion of the Souk al-Manakh in this paper is the second chapter of an unpublished book. That book looks at all the pure price-chasing stock market bubbles in history to find answers to these questions. In what follows, we compare the Souk al-Manakh to today's market, and we provide some highlights.

We said the foothills of a pure price-chasing bubble are usually a long period of extraordinary price appreciation. Income growth in the Gulf countries in the decade up to the 1982 Kuwait market peak was unparalleled, and that launched that market bubble's initial steep trajectory. The current US market certainly has met the condition of exceptional past price appreciation. Pre-COVID there had been a 400 percent appreciation in the S&P 500 over more than 10 years; it has now risen by almost 500 percent. There were only three other bull markets in US history

with a comparable duration and amplitude, and this one has gone further and for longer than all three.

Figure 5: The Four Great Bull Markets

The 4 Great Bull Markets		
Nominal GDP Growth and Equity Market Performance		
Period	Cumulative GDP Growth	Stock Market Return
1921-1929	40.8%	385%
1949-1961	107.1%	436%
1991-2000	71.9%	395%
2009-	49.7%	487%

Source: Bloomberg, Online Data Robert Shiller, Bureau of Economic Analysis

But there has been a great divergence in the foothills of this US bubble versus most others in history. Over these 10 years, economic growth was very slow—perhaps the slowest on average since well back into the 19th century, with the exception of the 1930s Depression. Economywide total factor productivity growth—the engine of improvement in the standard of living—was also the weakest since the 19th century. This past decade’s US economic underperformance sets it in stark contrast to the economic boom in the Gulf after 1973 and during most other bubbles.

The number of pure price-chasing stock market bubbles that had an unusually rapid expansion of money has been few. Sometimes the money supply grew rapidly, but its growth seldom greatly exceeded the growth rate of nominal GDP. This was the case in the Souk al-Manakh episode. Money growth in the United States from mid-2009 to early 2020 followed a similar path. It has since exploded with the Q2 fiscal response to the COVID shock, but so far this has been a one-off event at the end of a long trajectory. Typically in history when money growth has leapt ahead of nominal income growth, the outcome has been price inflation and not a stock market bubble. And history’s great price inflations have tended to depress rather than elevate share market valuations.

The growth of credit is a somewhat different story. Because of the explosion in postdated checks during the Souk episode, overall credit expanded at a vastly higher rate than either money or nominal income, and that greatly contributed to the hyperbolic final year or two of the Souk al-Manakh. It is often argued that the end of the 1920s was a stock market bubble. In our estimation it came close, but it did not quite make the grade. But it is another episode in history when credit growth grew very rapidly but money growth did not, and its leakage into stock margin debt contributed to the hyperbolic end of the 1920s' bull market. In the current case, though the Federal Reserve's statistics do not reflect it, the United States has had an enormous increase in its nonfinancial enterprise debt—not just over this last decade but over the last several decades. Due to a sustained high rate of corporate equity purchases financed with debt, this overarching expansion of credit has also made its way into the last decade's bull market and steepened its price trajectory.

There are two other contributing causes of that greatest of all pure price-chasing bubbles that was the Souk al-Manakh: moral hazard and the mechanism of contagion that governs the speed and extent of the madness of crowds. As regards moral hazard in this cycle, this critical behavior is now a half-century old. Hyman Minsky thought it had gone far enough by 1981 to foster the Ponzi finance behavior that led to the postwar world's first great financial crisis—the LDC or Latin American credit crisis of the early 1980s. Minsky saw moral hazard playing a role in the US savings and loan and banking crisis of 1990 as well, and he understood that this was one more instance of financial policy that would distort downward yet further the perceptions of risk of market participants. Minsky did not live to see Alan Greenspan's panic bailout efforts at the end of the 1990s and the beginning of the 2000s, but he might not have been surprised. I think he probably would have been surprised by the heretofore unimaginable bailout measures of Ben Bernanke during the Great Financial Crisis of 2007–9, and might have been even more surprised by the Fed's repeated policies of quantitative easing (QE) and zero interest rate policy (ZIRP) throughout the steady business expansion of the last decade. His thesis was that the more frequent and greater the bailouts, the more the moral hazard, the more the distortion of the perception of risk, and the more portfolio plunging that would occur.

In the Souk al-Manakh episode a tribal culture may have biased behavior toward expectations of a bailout. That would have been the case going back a very long time. But the direct intervention of the sheik to support share prices had been only recent. This long half-century pattern of ever-greater policy interventions in the United State to avoid or mitigate market instabilities has probably had as great a cumulative impact on moral hazard and distorting the perception of risk as in the episode in Kuwait four decades ago. Strikingly, there were serious degrees of moral hazard at play in other pure price-chasing bubbles (Japan, Taiwan, and China), but we show in our book that, at least until 2008, policymakers' efforts to foster moral hazard further when the bubbles burst were nowhere near what they have been in the United States.

At this point we should consider interest rates as a possible condition contributing to pure price-chasing stock market bubbles. In today's world of discourse about US stock valuations it is widely agreed that stock valuations are now high because the Fed has set the policy interest rate at its lowest level in history and has "managed" long-term bond interest rates to historical lows. It is alleged that this has created a flight from barren fixed income into equities, and this has been the principal and perhaps sole cause of today's high equity valuations. Fed Chairman Jerome Powell is fully on board on this point, saying that past stock price-earnings ratios are no longer relevant to those of today because interest rates now are unusually low and will remain so for years to come. As one can see in our "matrix" in figure 4, during all the other pure price-chasing stock market bubbles in history interest rates have been somewhere between what one might call a "normal" level to a "high" level. In the Souk al-Manakh, nominal bank interest rates were highish, perhaps real bank interest rates were somewhat normal, and interest rates in the vast postdated check market were sky high.

Only in the case of 1929 in the United States and Japan in 1990 can one find a brief period a few years before the bubble peak when interest rates were possibly on the low side, and in both cases that brief interval was followed by a rapid escalation of the policy rate by their central bank during the final hyperbolic ascent of the bubble market to its peak. So the US stock market bubble today stands out in sharp contrast to all of history's other price-chasing bubbles when it comes to interest rates. Unlike in other price-chasing bubbles, very low interest rates surely contributed to the duration and amplitude of the stock market's price trajectory in most of the last

decade—a period we call the foothills of today’s pure price-chasing bubble. They have been a positive propellant to rising prices through to the present day. But perhaps most importantly, they have been the signal from the Fed to market participants that this contributing factor to sky-high and still escalating stock prices will continue. These uniquely low interest rates have been a key part of the moral hazard mechanism of this Fed that has made the dynamics of this pure price-chasing bubble different from most of its historical comparators.

The other contributing cause to this pure price-chasing bubble that exceeds what one finds in other such markets across all countries and over three centuries has been the speed of the contagion of extrapolative expectations, euphoria, and the attainment of an escape velocity that untethered asset price dynamics from all fundamentals. Such contagion dynamics played a role in the final hyperbolic ascent of the Kuwait market into its mid-1982 peak. In today’s US stock market, with its near-vertical ascent of tech stock prices (as presented in figures 1–3), we see very clearly a greater speed at which contagion has spread via social media in the internet age. The role of forums, message boards, and chat rooms—with their millions and millions of participants, all in instant real time contact and communication—has created crowd dynamics in speculative stock market favorites at a pace without parallel in other pure price-chasing bubbles like the Souk al-Manakh. Social media and the internet have been an accelerant to Charles MacKay’s *Madness of Crowds*.

When one looks at this exceptional pace of contagion and herding in today’s US market, one also sees elements that may cause the inevitable crash this time around to proceed at an unprecedented rate. The internet has been a mob machine, transmitting expectations and speculation at unmatched speeds. It is very possible that, for the speculative fringe of the most beloved and most insanely valued technology issues, when the adaptive expectations psychology goes into reverse the price decline will occur with a minimal “viscosity of praxis” to use a favorite term of Maurice Merleau Ponty.

But one also sees behaviors that may keep the bubble aloft for longer. It seems as though the Federal Reserve and Treasury officials are exceptionally committed to maintaining the moral hazard that supports today’s speculation; they say they will not allow financial conditions to

tighten in any way that might endanger the now preposterously high asset prices. We see this in comments by many Federal Reserve officials despite the fact that the US economy has recovered from much of the COVID contraction, fiscal stimulus has now reached World War II levels, and vaccines are accelerating the economy's reopening. Professional market participants seem to be in the thrall of a Fed bent on a permanent distortion of the perception of risk. At some point all these moral hazard games of our financial authorities will have to give way to reality, but it may take a protracted period of time for that to play out.

One last consideration regarding the relevance of the Souk al-Manakh to today. In the Souk al-Manakh a great scaffold of debt had been erected against those soaring sky-high shares. When such a great edifice of debt has existed in other pure price-chasing bubbles—not just those involving stocks but those involving other assets like real estate—the precipitous decline in asset prices when the bubbles burst brought with it debt defaults and financial failures that no one imagined at the bubble market peak. Though Federal Reserve official pronouncements suggest that current ratios of outstanding private debt to GDP are not a concern, research by Veneroso Associates has found a great scaffold of private debt.² Unlike the Souk al-Manakh, its connection to the US stock market is less direct. Therefore, it is not clear to what degree the bursting of this stock market bubble will bring private debt distress and even crisis. But the odds are that when this stock market bubble bursts amidst today's largely unrecognized massive private debt, the outcome will not be as catastrophic as that of the Souk al-Manakh, but it will not be pretty.

² For more information, please email kendra@frankveneroso.com

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