ArmstrongEconomics

researching the past to predict the future

Institutional User-Guide to Our Global Models 2020

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Preface

The world in which we now live is nothing like what they taught in school. You cannot get a degree in foreign exchange or hedge fund management. All of these skill sets are learned in the real world. No degree from any university will prepare us for dealing with the political and economic risks of running a major corporation or institution today.

The sad part is that few corporations or institutions even understand the risks that they face. Many decisions are simply based upon the headlines they read in today's papers. How do we prepare for the future? How do we ascertain the trends and assess the risks that exist right now?

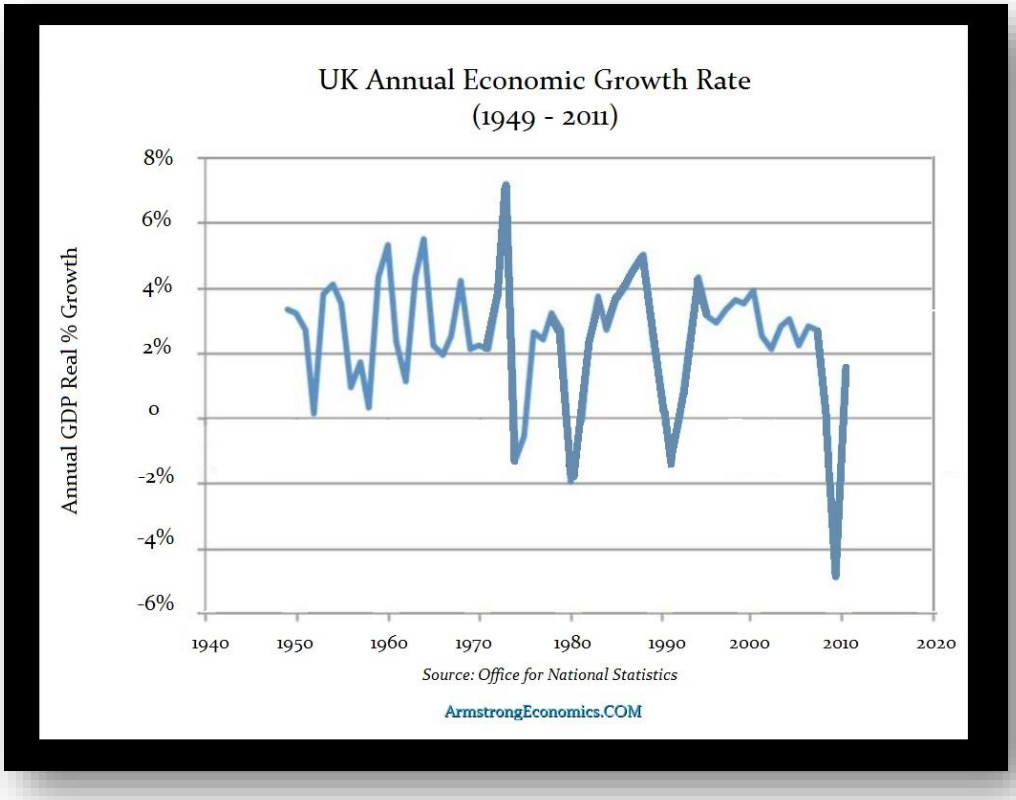
We live in a globally connected world tied together by the Internet with instant access. Currencies float today any few understand what truly drives their rise and fall. Currencies have become the means by which capital votes ever minute of every day on the confidence behind the political state represented by each currency trading.

How can we manage the risks on the horizon? Can we really simply trust our future to the personal opinion or belief of any individual? It is a wild, wild, world financially and politically in which we live today. There has to be a better method of identifying and managing risks we may not even understand currently exist be their political or economic. Can we create a balanced international portfolio to create a "natural hedge" using asset allocation in a whole new way to risk risks globally? Welcome to the 21st century!

An Introduction

The World's Only Fully Functioning Artificial Intelligence Computer

The world has become an extremely complex interconnected financial market where nothing trades in isolation even if people fail to comprehend no less see how every individual market is interdependent to a grander global trend. We face tremendous confusion as politicians continue to make claims as if they are elected, they can alter the trend with the stroke of a pen. The modern complexity of the global economy has even undermined the political structure of government for no single election in an individual country can fight a global boom or recession. In truth, politics has not yet come to grips with the fact the global financial markets are in control of everything. It has been only through our Artificial Intelligence computer system we have named Socrates since the Oracle of Delphi had declared he was the smartest man in Greece and was sentence to death because he did see through the trends and embarrassed the top of each field.



We stand on the precipice in the middle of nowhere trying to figure out what makes the world tick. Our computer has been consistently correct of identifying market trends and even forecasting that Donald Trump would win the Presidency in 2016 as well as the victory of BREXIT in the British referendum. The press and report fake news and fake polls. But the economic growth of the UK peaked in 1973 just before it joined the EU and it has been in a bear market ever since.

That forecast for a Trump & BREXIT victory was not accomplished by guessing or some random comment and then claiming a forecast had been made. Such things cannot be forecast on a consistent basis from a personal opinion perspective. In both cases, what was instrumental has been the economic decline which has been set in motion. People vote according to what they see on the streets. Most do not even follow the news nor do they understand what economic statistics mean. They vote by what the see on the streets and all the manipulation of polls and economic statistics will not persuade them to vote against themselves.

The entire design of this model was constructed upon actually witnessing how capital moved globally. Being a hedge fund manager, you have to follow all markets globally. I was advising members of OPEC back in the mid–1980s in Geneva. All the top brokers were there for Geneva was swamped with OPEC money.

The rise of Japan began on the back of manufacture goods rather than pure commodities. Gradually, the money flows in Japan attracted the top brokers who migrated from Geneva to Tokyo. We had opened an office in Japan but I myself had not traveled to that office before 1987. When I did, I was stunned by the amount of money in the projects we were called into. In a single day meeting with two institutional clients, the portfolio sizes amount to about $2.2 trillion dollars.

After Japan peaked in December 1989, the foreign capital sold and left town. They searched the horizon and decides to run to South East Asia. The equity markets peaked in 1994 and began to look around for the next hot investment which became getting into the Euro for launch in 1998. That massive exodus of capital led to the Asian Currency Crisis of 1997.

Via Sacra

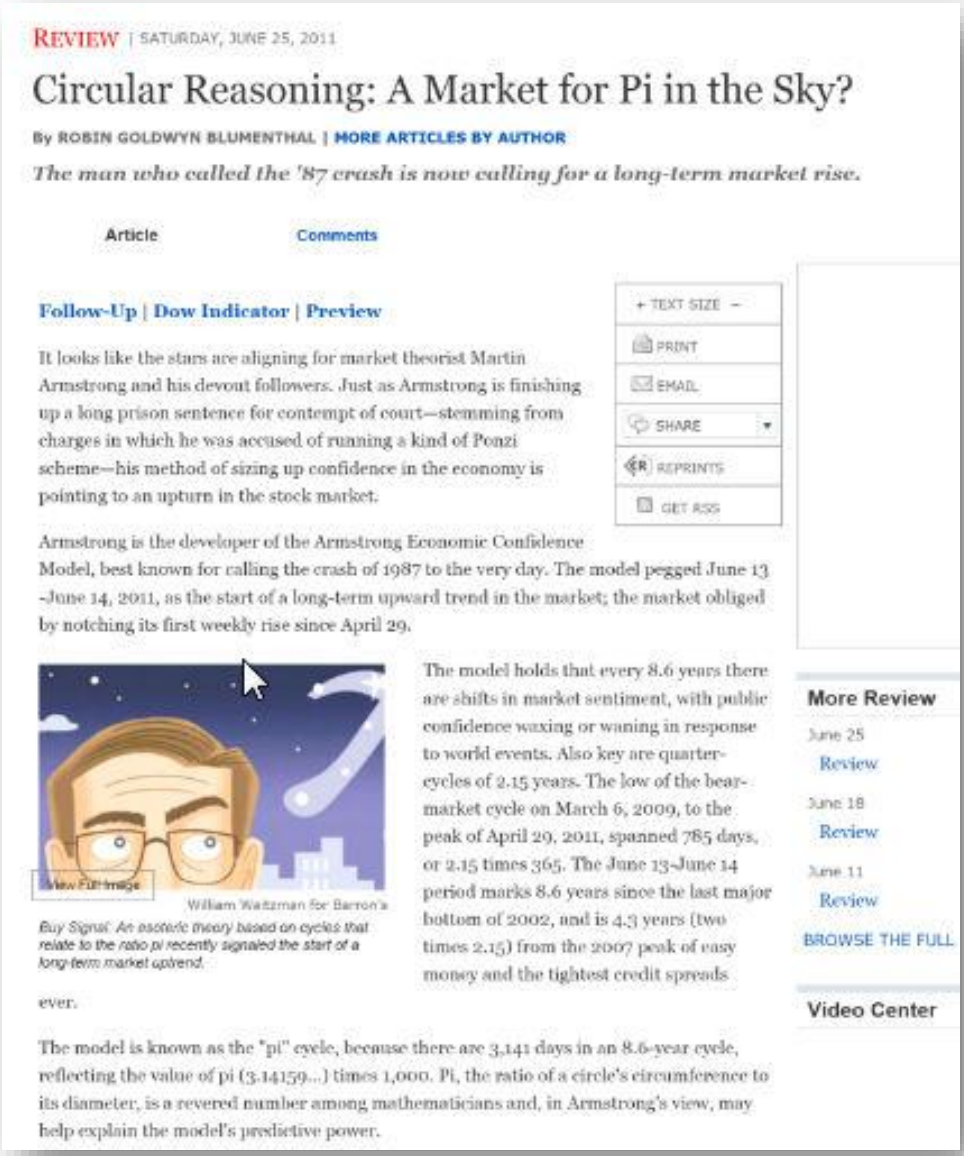
the Wall Street of its day in the Roman Forum

If capital has always been looking for investment since ancient times. The Romans would invest in newly conquered lands as emerging markets being welcomed to the fold. When there would be a major natural disaster in Anatolia (Turkey), panic would hit the ancient version of Wall Street in the Roman Forum – the Via Sacra. There was the 1720 South Sea Bubble in Britain and the Mississippi Bubble in France that same year. There was even the Panic of 1825 which was the imaginary country of Poyais where people were investing if what they thought was a new country just discovered.

Athens Decadrachm (c. 465-460 BC) 41.86 grams

Capital has been moving around the globe since ancient times. Even the high denomination coins of Athens, the Decadrachm, are found outside of Greece typically around the various ports of the Mediterranean. This not merely illustrates that there was trade being conducted, but like the dollar today where 70% of the physical paper currency circulates outside the USA.

The driving force behind market movements boils down to a very easy concept to grasp. The definition of a Bull Market we have developed is based upon observation – not theory. If something is rising in terms of **ALL currencies**, then capital will be attracted from around the globe. The Nikkei in 1989 was a Bubble, but because the Japanese yen was rising, this made the market even more bullish to foreign investors drawing in international capital flows.



REVIEW | SATURDAY, JUNE 25, 2011

Circular Reasoning: A Market for Pi in the Sky?

By ROBIN GOLDWYN BLUMENTHAL | MORE ARTICLES BY AUTHOR

The man who called the '87 crash is now calling for a long-term market rise.

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It looks like the stars are aligning for market theorist Martin Armstrong and his devout followers. Just as Armstrong is finishing up a long prison sentence for contempt of court—stemming from charges in which he was accused of running a kind of Ponzi scheme—his method of sizing up confidence in the economy is pointing to an upturn in the stock market.

Armstrong is the developer of the Armstrong Economic Confidence Model, best known for calling the crash of 1987 to the very day. The model pegged June 13 -June 14, 2011, as the start of a long-term upward trend in the market; the market obliged by notching its first weekly rise since April 29.

View Full Image

William Waitzman for Barron's

Buy Signal: An esoteric theory based on cycles that relate to the ratio pi recently signaled the start of a long-term market uptrend.

The model holds that every 8.6 years there are shifts in market sentiment, with public confidence waxing or waning in response to world events. Also key are quarter-cycles of 2.15 years. The low of the bear-market cycle on March 6, 2009, to the peak of April 29, 2011, spanned 785 days, or 2.15 times 365. The June 13-June 14 period marks 8.6 years since the last major bottom of 2002, and is 4.3 years (two times 2.15) from the 2007 peak of easy money and the tightest credit spreads ever.

The model is known as the "pi" cycle, because there are 3,141 days in an 8.6-year cycle, reflecting the value of pi (3.14159...) times 1,000. Pi, the ratio of a circle's circumference to its diameter, is a revered number among mathematicians and, in Armstrong's view, may help explain the model's predictive power.

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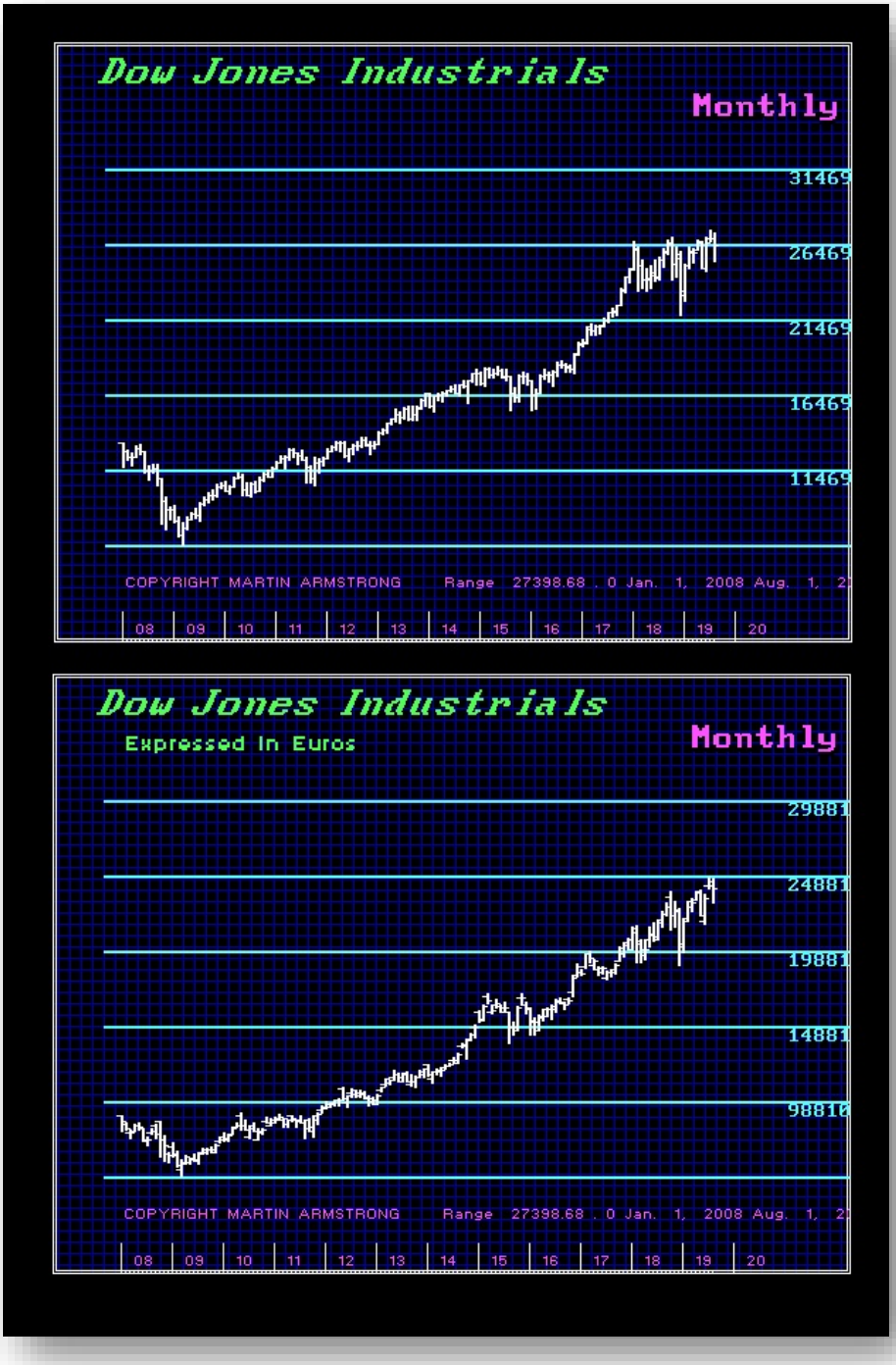
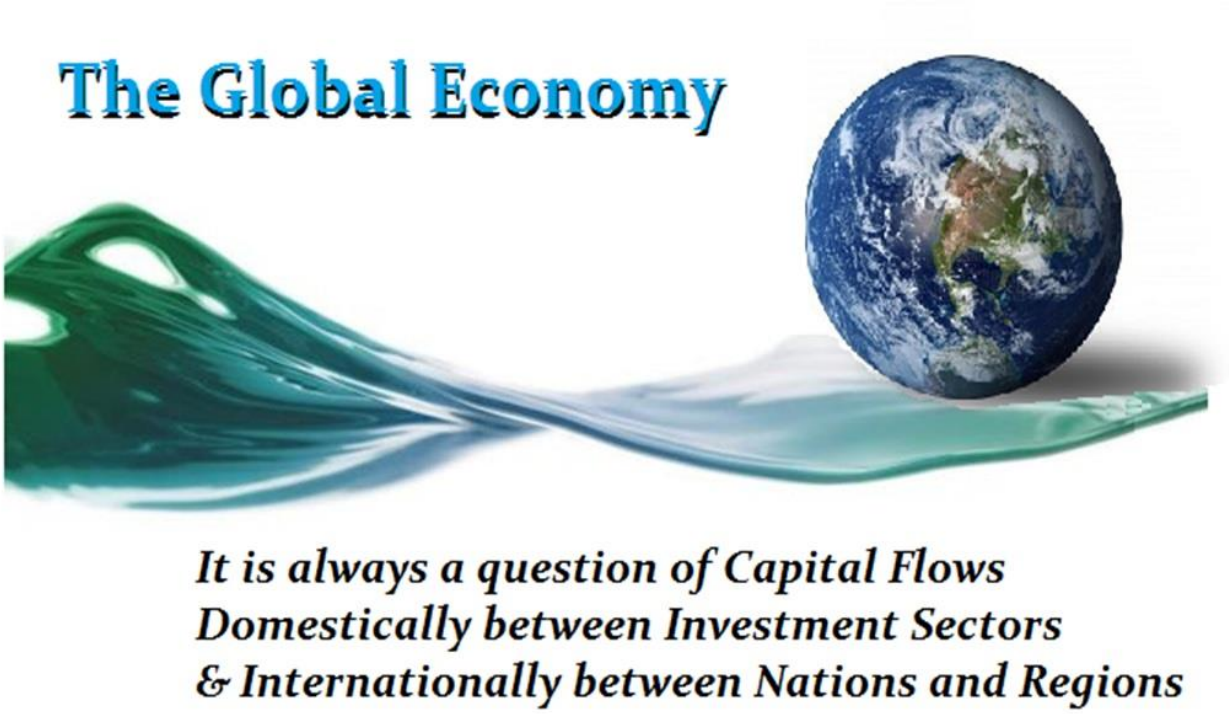
Our models had forecast back at the low in 2009 that the US share market had not only bottomed, but it would make new record highs. That forecast was even reported in Barrons more in disbelief than taking it seriously. Indeed, the rally from 2009 has proven that the vast majority of analysis is nothing more than opinion based upon gut feelings. Traditionally, analysis on a basis of personal opinion is always skewed to predict whatever trend is in motion will remain in motion. This is why the majority of analysis missed this entire rally and been constantly forecast that ever new high would be the last one and a major crash was always about to the unfold.



This has been the Most Hated Bull Market in history. When you look at the market from a global perspective, the US share market was moving higher in terms of all currencies. This is our definition of a Bull Market – something that rises in **ALL** currencies not just the local currency.



It has always been the international movement of capital which distinguishes the great bull markets in history. It is also something that must be monitored internationally6 for such concentrations of capital also historically create the greatest bull market bubbles in history such as the famous 1929 bubble in the United States and the 1989 bubble top in Japan.

Understanding **Capital Flow Analysis** is vital to the survival of all institutions today. This analysis is what we have been known for since it is a tool, we have invented back in the 1980s. To survive the future decisions be it hedging, where to open or close offices, plants, and to even do business, it requires understanding Capital Flow Analysis for the vast majority of losses have historically arisen from decisions which have failed to take into account the fluctuations in currency.

This is our *forte*. We are her to great a global profile of your risks moving forward in this dynamically driven world economy. The vast majority of losses which have undermined corporations and institutions since 1971 has been the inability to adapt to the evolution of the Floating Exchange Rate system that followed the collapse of the Bretton Woods accord.

Quantity Theory of Money & Why Quantitative Easing Failed

THere is a very **major risk** that we face which is never mentioned. That risk is our blind–faith in government being able to control the economy using monetary policies implemented by the central bank. Today, we live in a crazy world where central banks have failed in their **Quantitative Easing** and instead of reviewing their theories, they have instead doubled down pushing rates negative to a historic 5,000 year low. There is no precedent for this. Nobody has ever tried such an experiment. Are they destroying the foundation of our economy putting everything at risk? How do we make decisions in this new world?

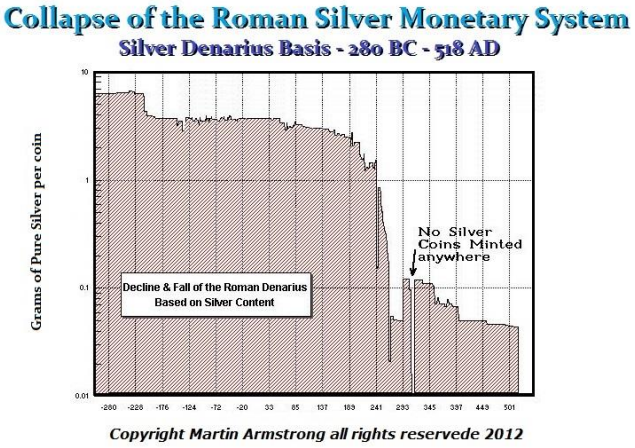
Medieval doctors believed that all disease was in the blood so the cure was to bleed their patients. If the patient died, it was never that their method was wrong, it was that they did not bleed them soon enough.

Central Banks have continued to use Keynesian Economics despite the fact that before he died, John Maynard Keynes told Henry Clay, a professor of Social Economics and Adviser to the Bank of England, that he hoped that Adam Smith's "Invisible Hand" would help Britain out of the economic hole it is in:

"I find myself more and more relying for a solution of our problems on the invisible hand which I tried to eject from economic thinking twenty years ago."

Sir Thomas Gresham (1518-1579)

Central Bankers fail to comprehend that the monetary system has been altered far more than they have ever taken into account. The question of money supply and inflation was philosophically established with **Gresham's Law**. Gresham worked in Amsterdam and witnessed the response to the debasement of Henry VIII in England. His proposition that bad money drove out good money from circulation was one important observation. As countries would debase, people would hoard the old coinage, and actually, the money supply would shrink. It then requires a greater production of debased coinage to maintain an adequate money supply. If this practice continued to extremes as it did between 260 and 268AD in Rome, this results in more debasement and can develop into what people call hyperinflation. Yet, it is much more than simply just producing debased coinage or in modern times printing more money.

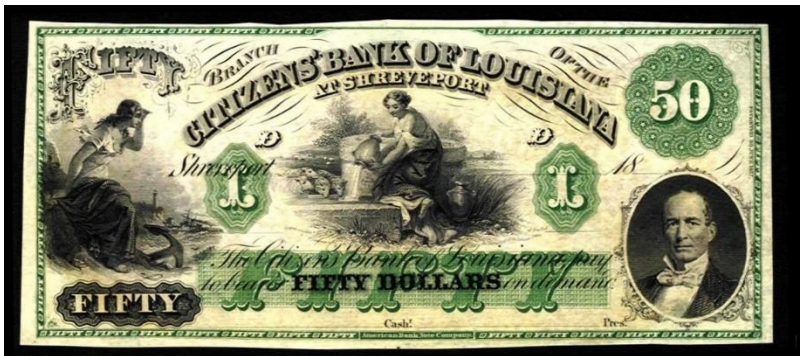


In addition to this observation, what is overlooked is frankly the driving forces behind the foreign exchange markets during the precious metal based monetary system compared to the modern paper monetary system (soon to be electronic based monetary system). Under a precious metal system, the coinage of one nation is compared and exchanged with others based largely on its monetary value based on metal content. If England was at war with France, this had zero impact upon the value of their coinage as long as there was no debasement. Once debasement began, then the exchange rate between one currency and another changed. There was no **Political Risk** to a gold coin if the

£1 Bank of England Issue - Dated March 2nd, 1797

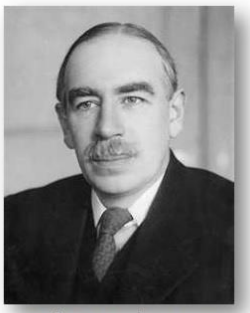
Consequently, this influence of anticipating future value based upon possible political decisions was not readily dominant and the coins of one nation were compared entirely on their metal content rather than political events. When money began to appear as paper currency, this altered the monetary system for then the value of that currency was dependent upon the **"confidence"** of the people in that currency/government. With the introduction of the paper money replacing coins, this introduced **Political Risk** and where individual banks issued their own paper currency, this introduced **Bank Risk** which would unfold as bank runs when people lost confidence in that particular establishment surviving.

The introduction of these two risks are the result of today's modernization of the money supply. They are rarely taken into account as to how they have altered theories.



Citizens' Bank of Louisiana

Milton Friedman
(1912–2006)

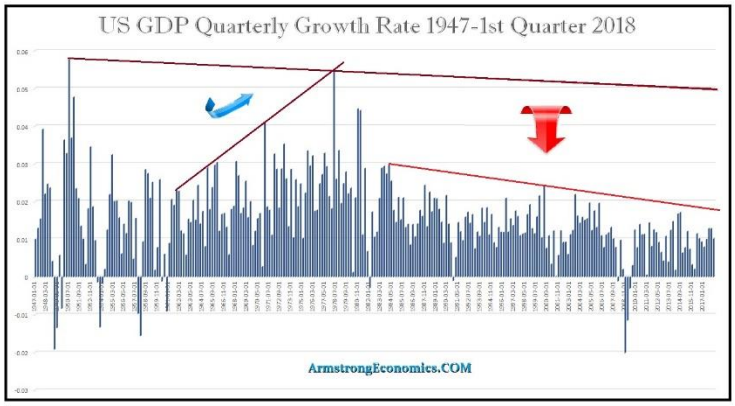


John Maynard Keynes
(1883-1946)

Perhaps there is no other theory in economics which has caused such turmoil than the **Quantity Theory of Money** (QTM). Both Milton Friedman (1912–2006) and John Maynard Keynes (1883–1946) developed their ideas based upon the interpretation of the German Hyperinflation being the result of an increase in the supply of money. Nevertheless, their theories were predicated upon a system that was strikingly different from today for it was the era of gold standards and fixed exchange rates which ended in 1971.

Indeed, taking the **Quantity Theory of Money** (QTM) as the foundation behind everything in economics has been disproven when we just look closer at 10 years of QE by the European Central Bank which has failed to create inflation or stimulate the economy. Additionally, the money supply has expanded dramatically since the 1970s, yet economic growth has been steadily contracting. Each high is lower than the previous since the 1950s.

These economic theories have completely failed to grasp the full scope of the economy and how it functions leaving us with a strange paradox. If we cannot restore economic growth and stimulate the economy with QE, then where does this leave us? Sure, the Fed may try the 1941–1951 peg. But that cannot prevent the crisis.



Now we have **Modern Monetary Theory** (MMT) rising which assumes that we can just expand the money supply without end which will not cause inflation because QE proves there will be no inflation after 10 years. They are ignoring the clash between fiscal policy carried out by government enforcing taxes (**DEFLATIONARY**) and monetary policy in the hand of the central banks expanding money supply (**INFLATIONARY**).

Definition of Money

How we avoid Political Risk demands that we understand what is money. Whatever we may have been taught in school no longer applies. The evolution of the definition of what constitutes money is also what plagues our current situation and our future. Because debt was not considered part of the money supply, then it was believed that if governments borrowed rather than just created money, this would **NOT** be inflationary since the supply did not increase.

A close look at this distinction that debt is **NOT** money is plainly wrong when government bonds are acceptable collateral for borrowing. Debt has been transformed into simply money that pays interest oddly coming full circle. The United States began issuing paper currency during the Civil War and to get people to accept it, they paid interest with a schedule on the reverse of its interest value. Money was starting as hybrid bonds that circulated as part of the money supply.

Banks and the Creation of Money

Then there is the external factor which creates money outside the ability of government to control. The majority of money is created as book–entries by banks. I deposit $100 in my account and the bank lends you $100. We now both have bank statements that clearly show we both have $100 in cash. In this manner, lending creates money. Obviously, the money supply can be increased domestically simply through lending. This is why banks fail because when the recession comes and I demand my $100, they cannot give it to me because they lent it out. If the money was used to purchase real estate, the bank forecloses and dumps the property at a loss to just trying to raise money to meet the demands of people withdrawing.

Capital Flows & the Creation of Money

Money is also created by simple **capital flows**. If I owned a skyscraper in New York and sold it to another American, the transaction is neutral domestically with respect to the money supply. Even if both of us have mortgages, obviously there would be no real increase in the money supply except perhaps my profit. If I owned the building outright, then you are obtaining a mortgage would increase the money supply for I would then be monetizing that asset.

However, let us now introduce a foreign buyer. I sell the building to a Chinese investor. They bring cash into the USA (yuan) and convert it to dollars to purchase the building. Now the domestic money supply has been increased for I have the cash to now spend that domestically and they have the non–liquid asset and have increased the domestic money supply. The very same thing happens when they buy government debt. They increase the domestic money supply.

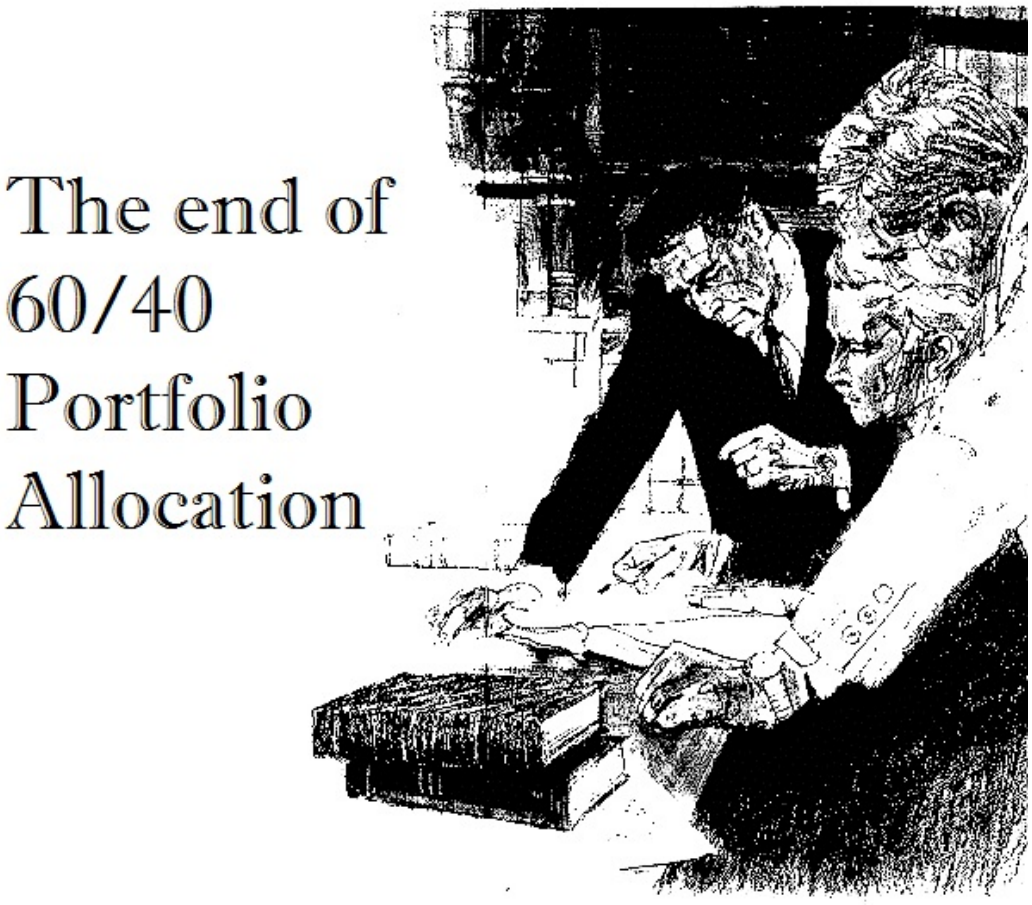
External Creation of Money

There is also the creation of money which is entirely external to the domestic economy. Foreign governments can issue debt in the currency of another nation in order to eliminate currency risk when a currency is free without controls as is the case with the US dollar. Even two private parties in a foreign country can create a private loan in terms of dollars without asking permission of the United States. As a result, lending external to the United States can also blindly increase the supply of dollars within the world economy.

Emerging markets have introduced another problem. In order for them to sell their debt to American institutions seeking higher yield, they issued their debt denominated into US dollars. The sovereign forex–denominated debt burdens vary relative to GDP.

The problem with issuing debt in a foreign currency is that there is never any professional risk analysis or management. The dollar debt rises exponentially in the cost to service that debt as the currency declines irrespective of interest rates. It was that very relationship which sent Germany into hyperinflation during the 1920s.

The third dimension of external debt creation is also beyond the control of central banks and governments. Failure to grasp these drastic changes to the world economy have created risks that institutions and corporations are often unaware of until the crisis explodes in the face when it is often too late to manage.



The End of 60/40 Portfolio Allocation

THe old standard allocation used by most institutions has been the 60/40 rule – 60% equities and 40% bonds. However, when we are at a 5,000 low in interest rates, there isn't a hope or a prayer that can be conjured up to prevent a serious loss. We are facing a period into where interest rates have already bifurcated. Governments have pushed official rates negative and have issued over $15 trillion in negative yielding bonds by the third quarter 2019.

On the other hand, just because the central banks have created artificially low interest rates on public debt, that has not moved banks to lower rates in proportion to the official rate. People seem to look at just the official interest rates set by the central bank and assume rates have declined. Rates have declined insofar as what banks will pay you for your money, but they have not declined in proportion to what they charge you when borrowing.

We have witnessed the greatest gap between official rates and private rates in history. While deposit rates are virtually zero, car loans which are secured, are at about 4.5% in the United States (up to 9.5% outside the USA). The Bank of America, N.A. prime rate was 5.25% as of August 1st, 2019.

In 1981, the Fed's Discount Rate for banks was 14% at the peak. The Prime Rate peaked at 21.5% at that time. This meant that the Prime Rate was 53.5% above the Fed's Discount Rate. In August 2019, the Fed's Discount Rate is 2.75% and the Prime Rate is 5.25% or a 90% markup. The spread between public and private rates has nearly doubled.

Official rates can be manipulated by the central bank for it can control the short–term rates, but not the long–term without instituting some form of capital controls. But they close the free markets in government bonds.

The spread on the private rates v official rates has doubled! This is the real–world rates in the private world. The bankers have NOT passed on the lower interest rates to the people and corporations. The spreads have doubled – not declined nor did they even stay the same. If the spread was the same as it was in 1981, then the Prime Rate should be 4.2% instead of 5.25% and a secured car loan should be 3.4% instead of 4.5%.

The standard text book Asset Allocation of 60/40 no longer remains valid. In fact, this strategy presents monumental risks that can take down institutions in another Lehman Moment.

Strategic Asset Allocation

When it comes to **Strategic Asset Allocation**, we must keep in mind that the typical model is predicated upon the idea that one cannot forecast the future. Therefore, you "hedge" your bets by spreading your assets around so that on some you win, and on others you lose. It is the net hope that you beat the general trend overall. Of course, when deflation rears its head, all bets are off as losses typically mount when the purchasing power of cash rises and asset classes fall in currency terms.

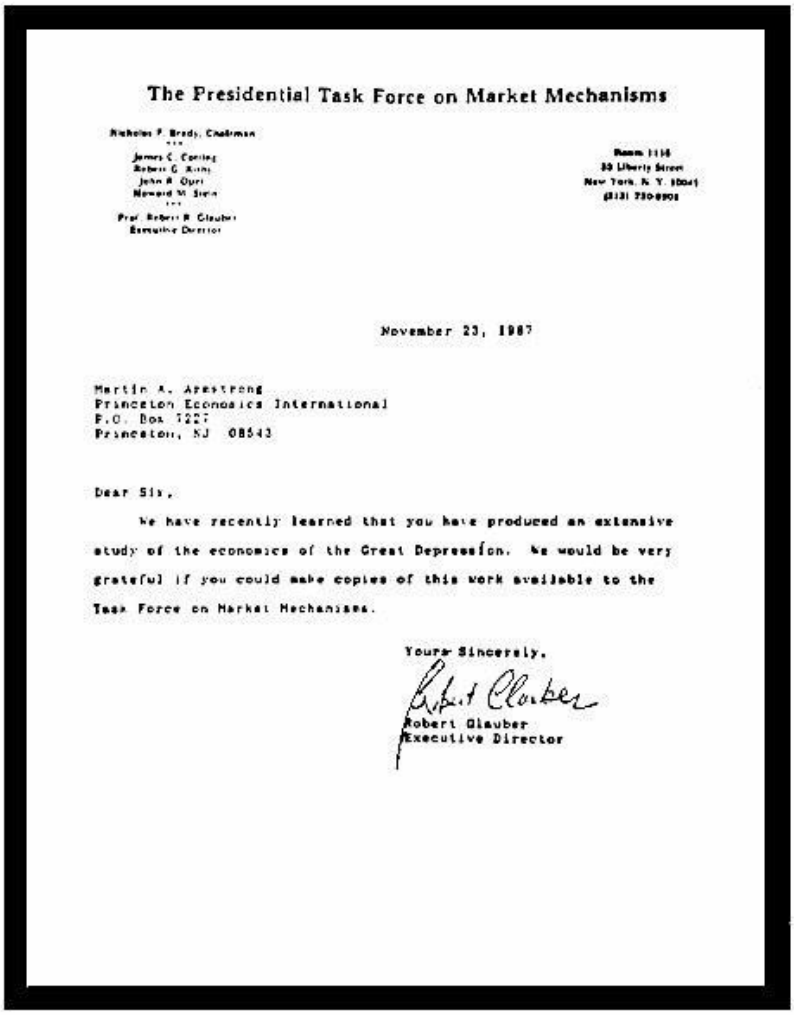
This method of **Strategic Asset Allocation** establishes the base policy mix predicated upon a proportional combination of assets by relying on expected rates of return for each asset class. However, this expectation is further dependent upon the trend in motion for the last few decades. For example, if stocks historically returned 10% per year and bonds returned 5% per year, then the asset mix of 50% stocks and 50% bonds would be expected to return 7.5% per year. What happens when interest rates go negative? The entire game begins to implode. Can **Value Investing** work in the face of negative rates and deflation? This too is a vital question that must be addressed.

All of this then sits on top of currency risk. Is a portfolio to be allocated only with a domestic market? Is the portfolio to be global? In both cases, the underlying currency is very critical. If a currency is crashing, then a domestic portfolio can be at great risk if it have a high concentration of government debt. Typically, if a currency crashes, it is doing so because of country risk. In such a case, even a domestical portfolio must be looked at objectively from a preservation of international capital perspective.

Therefore, whether or not a portfolio is purely domestic or globally allocated, what must also be addressed is the foreign exchange risk. Each and every asset class must be filtered through the eyes of the underlying currency and the cross rate back to the domestic currency for accounting purposes.

Consequently, in **Strategic Asset Allocation** we must select the underlying assets and determine the risk in that particular currency, and then filter it through the model's forecast for that particular currency risk relative to the currency in which the portfolio is subject to accounting.

Understanding How Markets Move



The Presidential Task Force on Market Mechanisms

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November 23, 1987

Martin A. Armstrong
Princeton Economics International
P.O. Box 7227
Princeton, NJ 08543

Dear Sir,

We have recently learned that you have produced an extensive study of the economics of the Great Depression. We would be very grateful if you could make copies of this work available to the Task Force on Market Mechanisms.

Yours Sincerely,

Robert Glauber
Robert Glauber
Executive Director

While the founder of our firm has been called in by numerous governments around the world when the financial markets have created unexpected panics, with nearly 40 years of experience on a global level, what has been revealed is one primary understanding – markets move because the **Majority Must Always Be Wrong**.

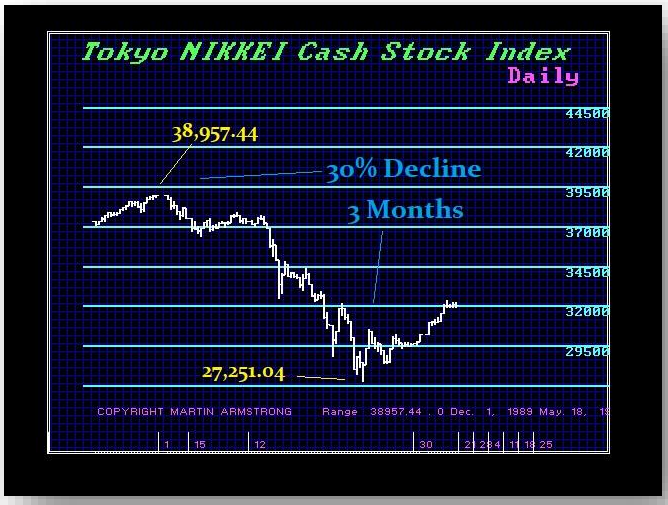
Most people take comfort in the fact that that they are not alone in their decisions to make investment. Some call this the herd mentality. As a consequence, when losses occur, they will take solace in the fact that they are not alone or even boast that they lost less than competitors.

Our founder, Martin Armstrong, has been called in by many governments in time of crisis from China during the Asian Currency Crisis to Britain and the ERM Crisis. But he has also testified before Congress at the House Ways & Means Committee and was sought when they were forming the G5 in 1985 as well as creating the Euro in 1998.

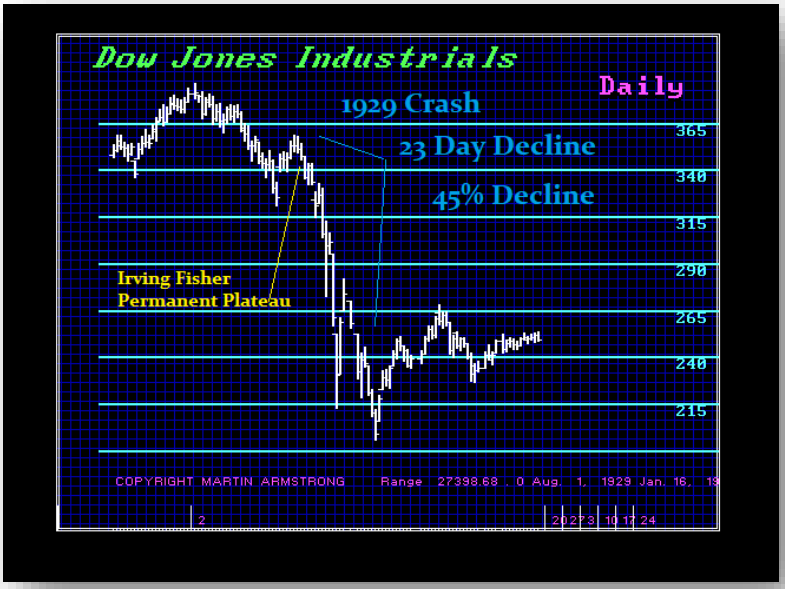
Imperial Hotel Tokyo

All of that said, such experience has contributed to our understanding of how markets move and how crisis events even materialize. Our founder relates one experience when doing an institutional conference in Tokyo at the Imperial Hotel. An individual bribed his way in paying hotel staff in March 1990 a few months after the Nikkei 225 had reached its bubble top and the crash began.

This individual came up and apologized for sneaking in, but he just had to seek help on his investment. He revealed that he purchased the Nikkei 225 on the very day of the high at the end of 1989 and invested $50 million. What was remarkable, was his confession that it was his **first purchase** of stock in his life and he was in his 60's. Here was that mythical investor who actually bought the high in a bubble.



Our founder asked him what made him buy on that fateful day? He explained that stock brokers had been called him every year and said the Nikkei always goes up in January general by 5%. He further explained that every year he watched from the sidelines for about 7 years. In the euphoria of 1989 when everyone was buying and newspapers were printing headlines that called for the market to rise another 20% in the new year, he was captivated by the confidence of the majority. He bought that high print on the market with $50 million. Within 3 months, the market gave up 30% of its value.



The question that always emerges is who done it! Every single investigation into such events begins with the assumption that there was some manipulation or even a plot to undermine the government. President Herbert Hoover launched an investigation into the 1929 crash based upon a rumor that it was a plot to undermine his administration by the rising socialists. Everyone from Rockefeller on down were summoned before Congress as they set out to investigate in search of this mythical short position who overpowered the market creating the crash. They never found anyone and what they discovered was that everyone was long – not short. The **Majority was all Wrong.**

The leading economist of the day was Irving Fisher (1867–1947) who was always quoted during the bull market. Joseph Schumpeter described him as ***"the greatest economist the United States has ever produced"***, to which Milton Friedman agreed. Nonetheless, after the market peaked on September 3rd, 1929 and declined slightly, Fisher came out to reassure the people on October 15th, 2919 stating: "Stock prices have reached what looks like a permanently high plateau…" The panic began 5 days later.

Irving Fisher (1867-1947)

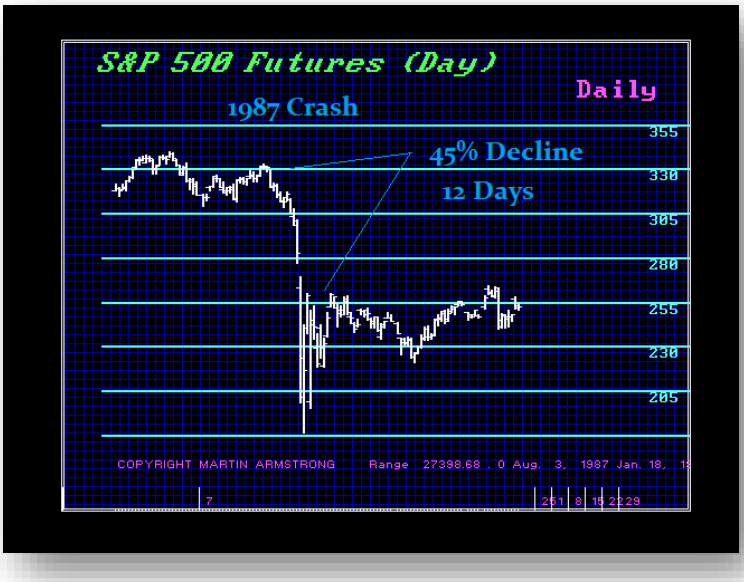
(Top Yale Economist in 1929)

Tuesday 10/15/29: *"Stock prices have reached what looks like a permanently high plateau... There may be a recession in stock prices, but not anything in the nature of a crash... I expect to see the stock market a good deal higher than it is today within a few months."*

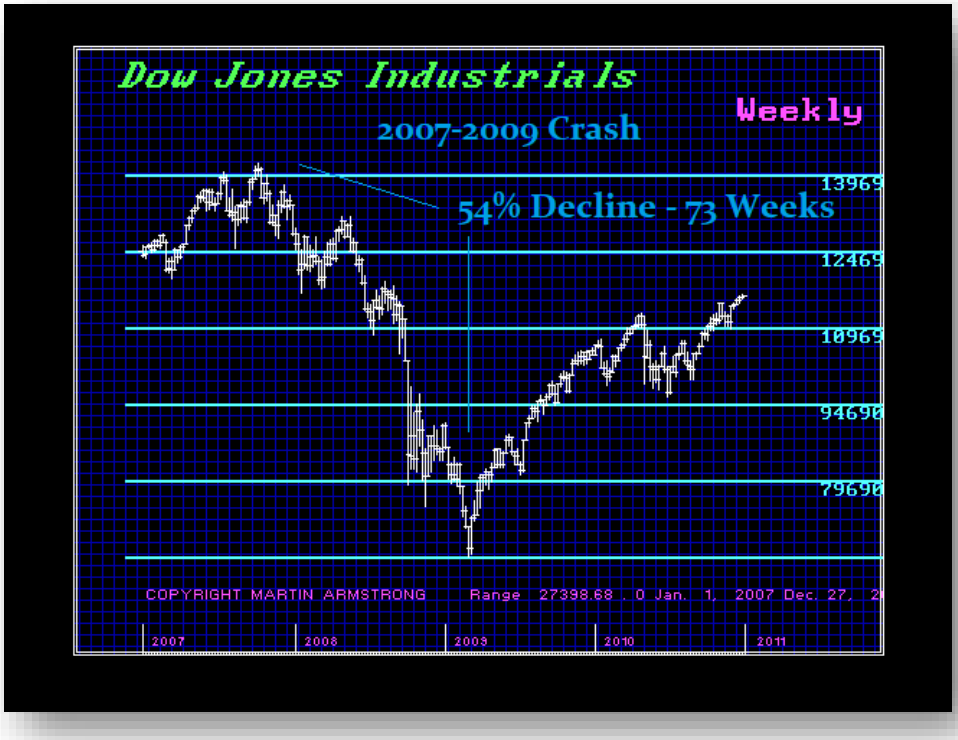
Herbert Hoover
(1874 - 1964)
(President 1929 - 1933)

> But when representative government becomes angered, it will burn down the barn to get a rat out of it.
>
> *memoirs p-130-131*

President Hoover apologized for the witch–hunt he launched in search of this mythical short player who caused the market crash in his memoirs stating that "when representative government becomes angered, it will burn down the barn to get a rat out of it." The entire investigation, which ended up creating the Securities & Exchange Commission (SEC), proved one fundamental truth about markets and panics – **Majority was all Wrong.**

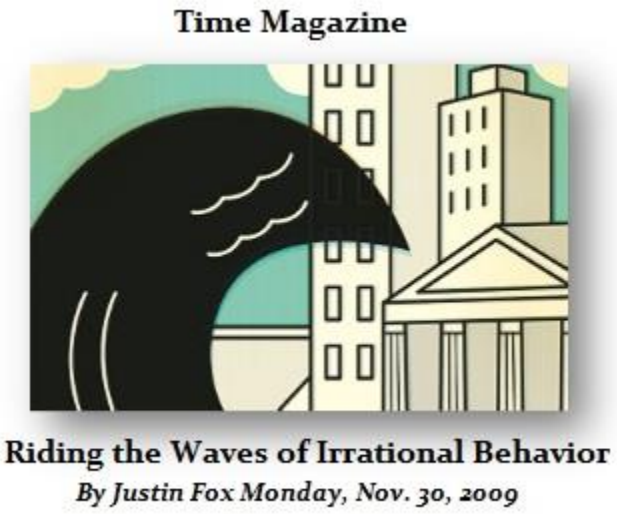


When the 1987 Crash took place and our founder was called in by the Brady Commission after not only forecasting the decline would be 10,000 basis point in two days at one of our World Economic Conferences the weekend before and coming out the day of the low stating the market would then turn back up and make new highs going into 1989. This time the Crash took only 12 days and the decline was 45%. He explained that markets crash because there is NO BID. The Brady Commission concluded once again that the **Majority was all Wrong.**



The 2007–2009 Crash was slower, but actually far more damaging economically. The overall collapse took 73 weeks, but the decline was only 54%. The real crisis was the banking system which devised time bombs in Mortgage Backed Securities which they ended up being bailed out by government taking the losses. Once again, our model not only forecast the decline, it forecast new highs would follow as reported by Barrons and Time Magazine's, Justin Fox wrote that Armstrong's model "made several eerily on-the-mark calls using a formula based on the mathematical constant pi." (Pg 30; Nov. 30, 2009).

Our model was designed to withstand Panics. Being able to measure the amount of Energy that exists within a market is critical to comprehending the risk.


Time Magazine

Riding the Waves of Irrational Behavior

By Justin Fox Monday, Nov. 30, 2009

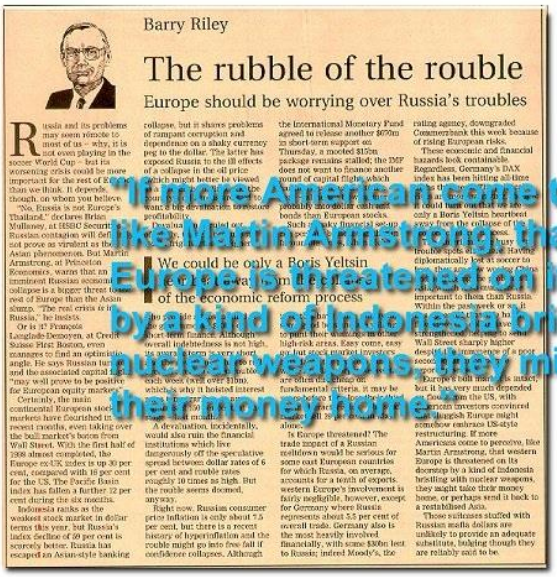
On June 27, 1983, the Wall Street Journal reported that our founder was the highest paid adviser in the world. Equity Magazine in January/February 1990, named our founder "America's top economist". He was named Hedge Fund Manager of the year in 1998 and FX Street named him top currency forecaster who predicted the Swiss peg collapse.

Even **Bloomberg News** begrudgingly had to admit this model "*called Russia's financial collapse in 1998, … also pointed to a peak just before the Japanese stock market crashed in 1989.*" **Bloomberg News** also conceded we wrote in 1997 that the creation of the Euro "'*will merely transform currency speculation into bond speculation,'* leading to the system's eventual collapse." (Bloomberg News 2011).

New Yorker Magazine wrote this "*model singled out, in advance, the day of the October, 1987, crash.*" They also reported this model correctly forecast even the Japanese market where "*December, 1989, which marked the Nikkei's peak before it crashed. This call earned him the magazine Equity's award as the top North American economist…*". Another big forecast "*was July 20, 1998, which turned out to mark the high point in the S. & P. just before a Russian default broke the giant hedge fund Long Term Capital Management and nearly wrecked the financial system.*" (Oct 2009).

Barrons on June 25th, 2011 reported that this model was "*best known for calling the crash of 1987 to the very day.*"

The London Financial Times in June 1998 warned that our firm forecast that Russia would collapse in a matter of weeks back in 1998 which led to the Long–Term Capital Management debacle. Our forecasts of major events and crises around the world for nearly 40 years have been documented. The key element for institutional reliance is a long–term real track record.



Barry Riley

The rubble of the rouble

Europe should be worrying over Russia's troubles

"If more Americans come to perceive, like Martin Armstrong, that western Europe is threatened on its doorstep by a kind of Indonesia bristling with nuclear weapons, they might take their money home."

Energy Model

We developed proprietary models to measure the energy within a market to expose the risks of panics that may appear to be emerge from nowhere. Here you can see as the market was bouncing slightly giving everyone hope, our models turned **NEGATIVE** on Energy warning the market was now vulnerable. At the low in 2009, the Energy was starting to recover as the low on Energy took place the week of February 2nd, 2009 four weeks prior to the price low which came the week of March 2nd, 2009.

Our Energy Model is measuring the buyers against the sellers. It is providing a different measurement of how much "energy" remains in the market from the long-side. Therefore, if people are recently long, it shows to what extent that represents the whole of the market position. A crash is possible when energy is at a high level and a rally is likely when energy is negative.

Stocks close lower on profit taking

The Associated Press

NEW YORK — Stocks retreated from lofty heights Thursday after a European Central Bank official pointed to rising price risks and a major Wall Street bank lowered its sales expectations for Chinese Internet company Baidu.com.

The news caused traders to take profits from big gains made earlier in the session. The Dow Jones industrial average and the Standard & Poor's 500 index had reached record levels after Wal-Mart Stores Inc. lifted its profit forecast.

But ECB governing council member Axel Weber said rising inflation in the euro zone might require additional policy action, according to Dow Jones Newswires. The comments seemed to raise concerns on Wall Street that U.S. inflation could prevent the Federal Reserve from making another rate cut.

Also dampening Wall Street's mood was JPMorgan Chase & Co. lowering its revenue expectations for Baidu.com.

Oil rose $1.78 to $83.08 a barrel on the New York Mercantile Exchange. Gold jumped $10.90 to $751.30 and silver gained 32 cents to $13.88.

TODAY: Labor Department reports on producer price index; Commerce Department reports on retail sales.

INVESTING TIP

Active, index funds have pros, cons

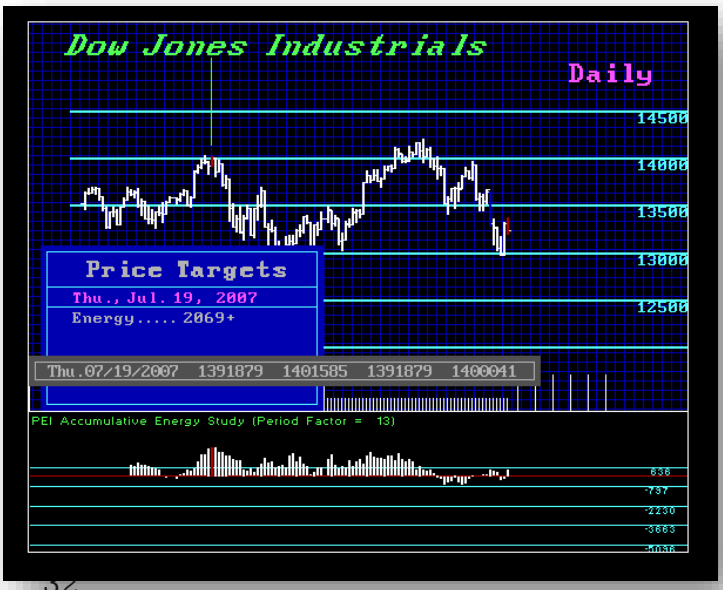
Investors face a head-scratcher when choosing between index mutual funds and actively managed funds, Bankrate.com suggests. Index funds invest in securities to replicate indexes such as the Standard & Poor's 500. There is little in the way of buying and selling involved, resulting in minimal cost to investors. But they passively go in the direction of the market. Actively managed funds invest in securities based on the recommendations of managers who try to beat the street using more focused and up-to-date research, in-depth knowledge of particular sectors, monitoring of market conditions and the ability to respond quickly to changes. But management comes at a price.

— *Gannett News Service*

Poughkeepsie Journal, Poughkeepsie, New York (October 12, 2007, Fri • Page 7B)

Rare will you find some startling news at the peak in a market. Here the day after the high, there was no definitive fundamental news. The European Central Bank simply said they were worried about rising inflation. In America, they claimed that this might prevent the Federal Reserve from reducing rates further. Thus, markets also tend to trade in anticipation of possible events rather than on specific news. This has led to the maxim in trading – buy the rumor, and sell the news. There was just no definitive information that warned a major high was in place as of the previous day.

When we look at our Energy Model on the Daily Level, we can see that it peaked July 19th, 2007. We look for the divergence as we see here. There are new prices highs being made in the Dow Jones Industrial index, yet Energy is not making new highs. This clearly warns that the market is getting tired. It is critical to have unbiased models that are black and white and not dependent on personal opinion.

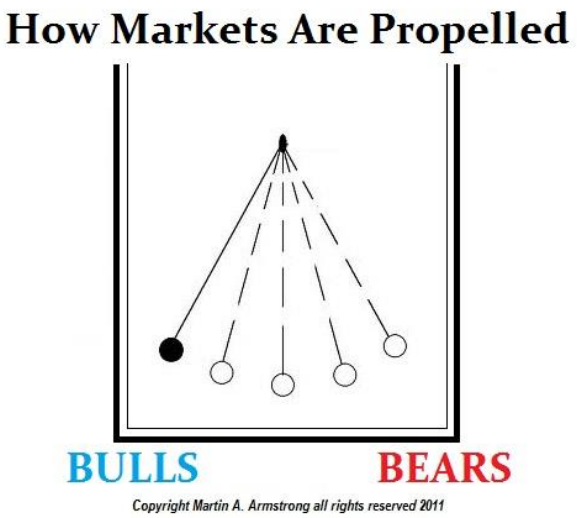


Majority Must Be Wrong

Markets decline **NOT** because of manipulations, huge short players, or other theories that always surface with every crash. There has never been a single huge short position ever discovered who has overpowered the market with every single investigation into panics since that of 1907.

Markets decline **BECAUSE** everyone who has **EVER** thought about buying has already bought. There is no more reservoir of new potential buyers to pick up the ball and take to the goal post. Consequently, the market falls because it has run out of fresh buyers. The last person who ever thought about buying has been sucked in at the top no less.

Once the reservoir of fresh new buyers has been exhausted, then the market begins to lose the upward momentum and people begin to sell. As the majority begin to see prices decline, they turn and try to sell as well. The problem which emerges is often what we call a **Flash–Crash**. Prices plummet **BECAUSE** there is no bid not that there is ever some major short position. In fact, government will inevitable try to outlaw short selling which makes it worse for the ONLY person willing to buy in the middle of a panic is the short position who then looks to take profit by purchasing when all others see is a falling knife. We all know you never try to catch a falling knife. You must wait for it to hit the floor.

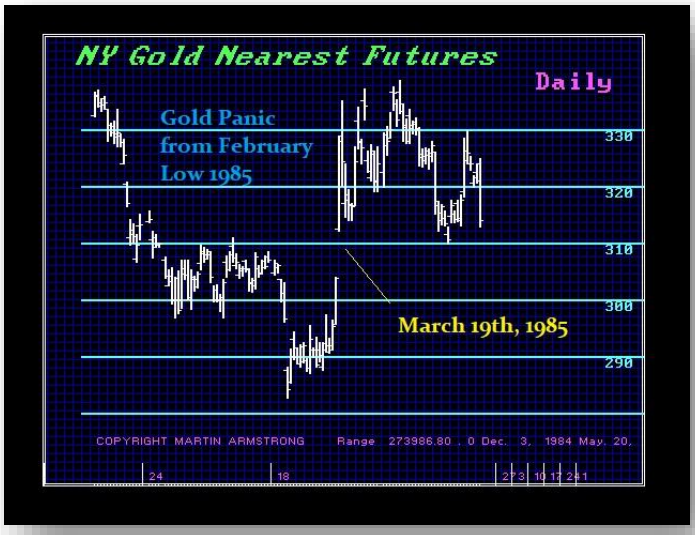


The Pendulum Effect

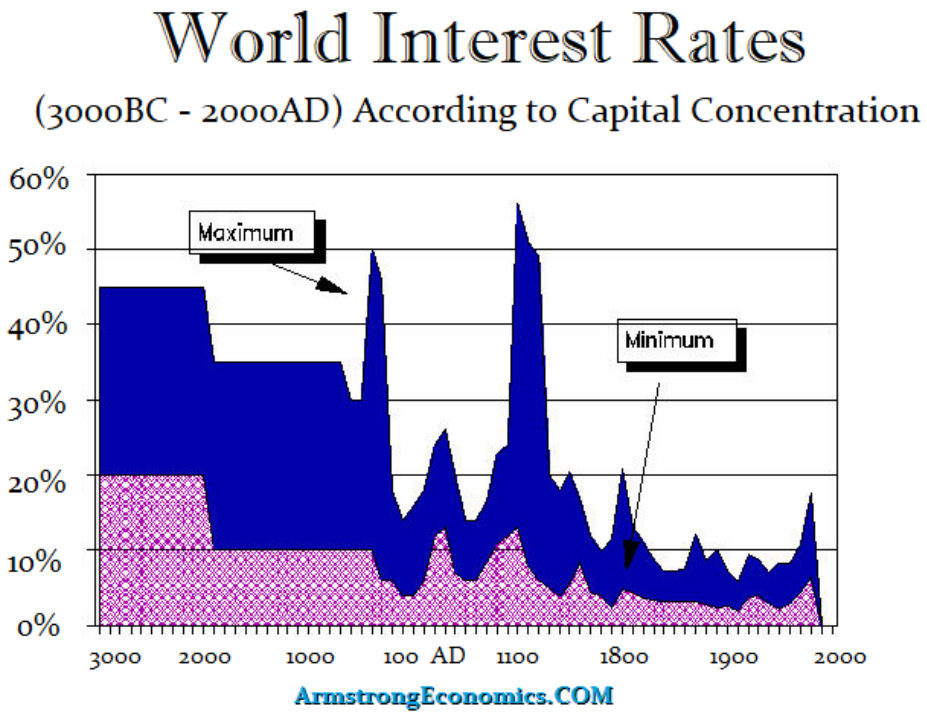
The **Majority Must Always Be Wrong** because this is how markets move. This is what we have identified as the **Pendulum Effect** whereby the majority become trapped which provides the energy to swing in the opposite direction precisely as a pendulum. The energy which creates the movement in a pendulum is that when it moves to one side, its own weight overcomes the momentum and propels it to then move to the opposite extreme.

It is this **Pendulum Effect** which creates the panic move. When the majority tries to sell at a top and they suddenly discover it is like yelling fire in a theatre – a stampede begins and in markets everyone tries to sell and there is no bid.

Likewise, at the low, the majority is bearish and the dominant trade is being short. The **Pendulum Effect** comes into play and as the shorts try to buy back their position, again a stampede takes place causing a panic to the upside for the lack of offers. It was 1985 when Merrill Lynch in Geneva called us in to help with a client who lost $25 million on a single day – March 19th, 1985 being short gold.



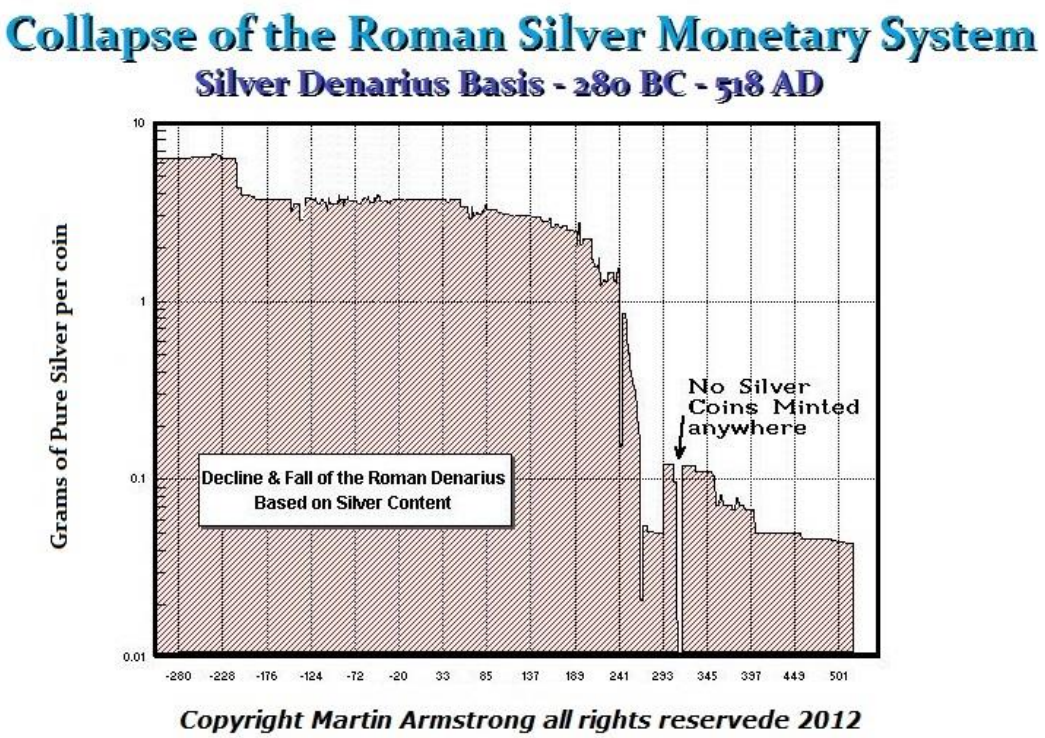
Largest Database on the Monetary System of the World



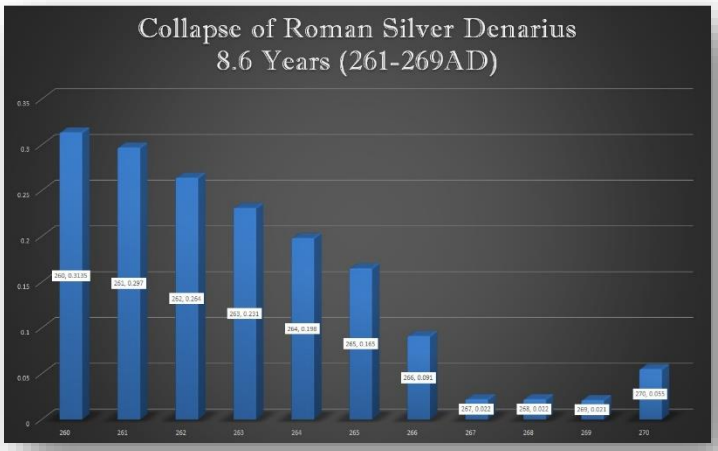
In order to truly understand how the economy moves, it was necessary to create the world's largest database to recreate the **Monetary System of the World** extending back in time 5,000 years. From contemporary records and legal codes such as that of Hammurabi, we were able to assemble many commodity prices as well as legal limitations fixed on interest rates.

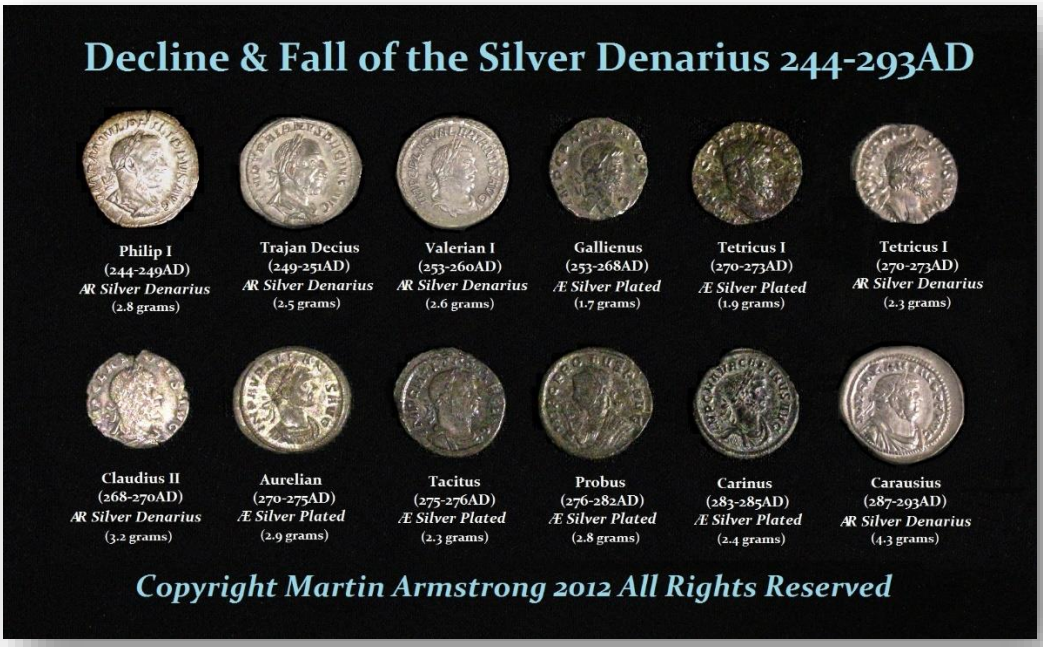
With assembling such a database, we can back–test to see what has happened under certain conditions. This has allowed us to definitively state that the current situation in 2019 is the boldest experiment ever carried out by any government throughout recorded history. We are at a 5,000–year low in interest rates. In medicine, it is illegal to simply try a drug on a human to see what happens. In economics, we find theories being forced upon society with no historical testing whatsoever.

The Code of Hammurabi Black Basalt Stele - Louvre



To assemble the world's largest database to recreate the Monetary System of the world has cost tens of millions of dollars we have poured into research and development. What has emerged is nothing less than monumental. Because Rome used its coinage both as ancient newspapers reporting major events from victories to news monuments being opened like the Colosseum, the coinage has documented and confirm history. Also, because the Roman Emperors pretended there was still a Republic, their titles changed each year to pretend they were elected. This has provided a system to which we can attribute coins to be being minted to a specific year. It has been our database which has enabled the question of how did Rome fall? The collapse of the Roman Monetary System took place in the course of just 8.6 years.

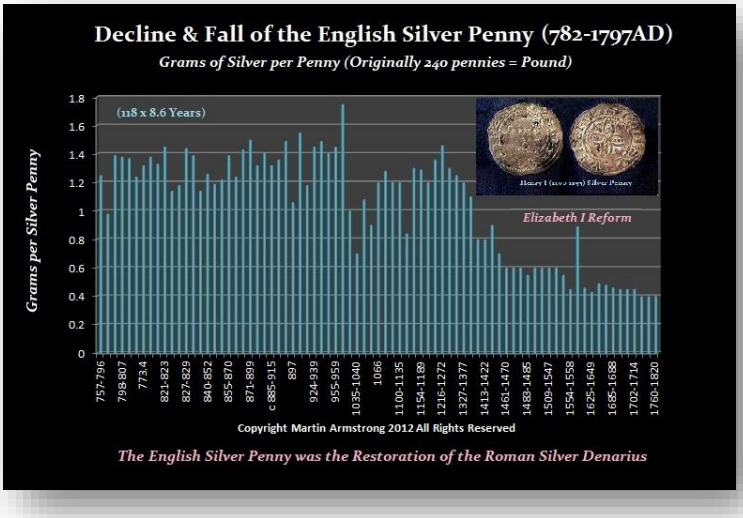




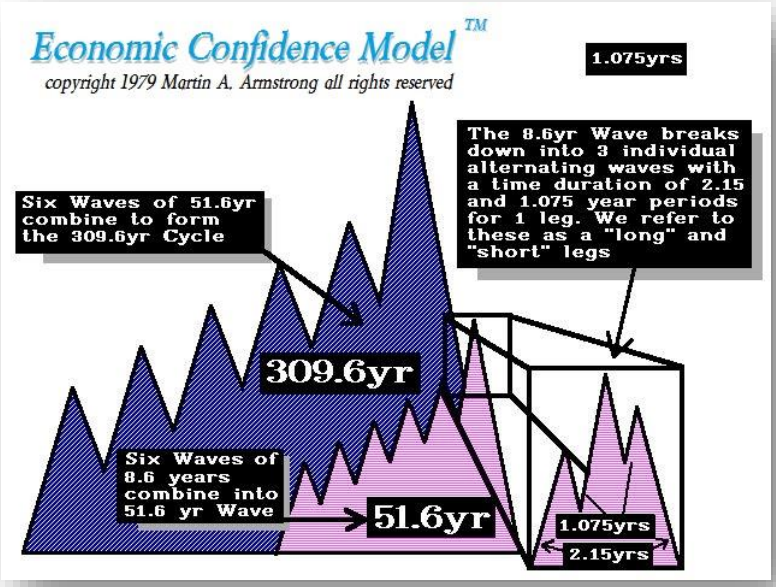
By assembling the actual coinage and testing the metal content, we were able to answer questions that could never have been answered previously. However, we had to reconstruct the entire world through periods of turmoil and great economic expansion.

We have assembled the coinage of all era from Europe, America, to Asia in an effort to document how Empires, Nations, and City–States rise and fall. The most extraordinary realization that emerges is that with each modern crisis and panic, nobody ever asks: Has this been done before? Did it work or fail?

It is like Marxism. People ignore the fact that Communism failed and more people have died in history fighting against Marxism yet modern day politicians always run of the policies of Marx – vote for me and I will give you someone else's money.



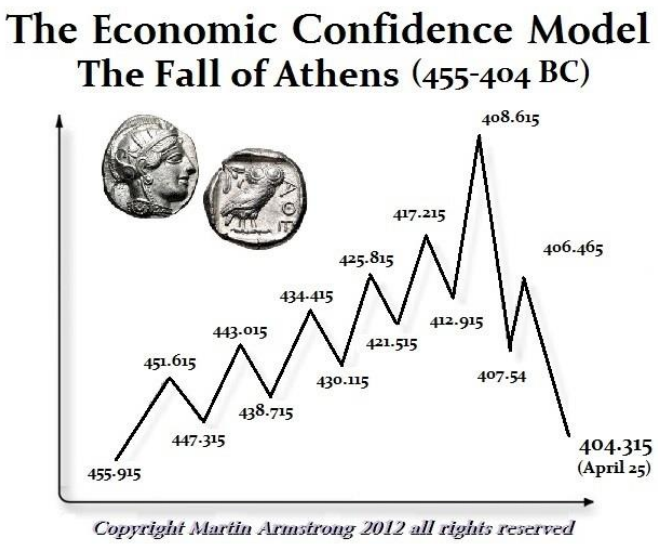
Economic Confidence Model



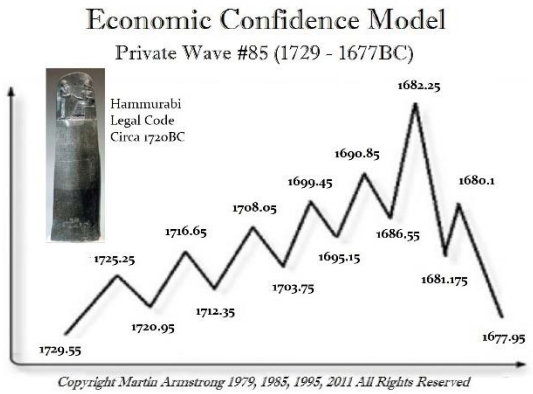
Beginning from the top down, the most critical element today is Institutional/Corporate strategic management is understanding the major trend which is defined by the business cycle. Our founder was investigating financial panics and at the Firestone Library in Princeton, New Jersey, he came across a list of financial panics which began with 1683 and the Turkish invasion seeking to conquer Europe with taking down the head of the Holy Roman Empire. This list was international and covered the period of 224 years with 26 panics. This turned out to be 8.6 years. Its accuracy was uncanny and it was then back tested even into ancient times using the world largest database on the monetary system ever created. This frequency of 8.6 years turned out to often be accurate to the very day. Further research revealed that there were 3,141 days in an 8.6–year cycle. That ended up being precisely Pi. Additionally, we have discovered that it is also fractal with the same pattern emerging on different levels of time.

LISTING OF YEARS IN WHICH PANICS TOOK PLACE INTERNATIONALLY

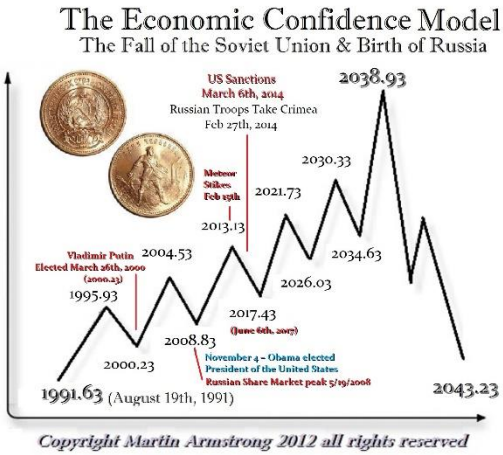
1683							
1711	1720	1731	1745	1763	1772	1783	1792
1814	1818	1825	1857	1866	1869	1871	1872
	1873	1884	1890	1893	1895	1896	1899
1901	1903	1907					



Utilizing the largest database on the Monetary System of the World which we have created, we have been able to back test the discovery of the business cycle we call the Economic Confidence Model. We have numbered each wave extending back into ancient times and tested how it performed against history. The regularity throughout milenia has confirmed the complexity of the business cycle. It is not simply something than man can manipulate as Karl Marx and others has argued. What is also included within the business cycle is nature which is cyclical just as we have the four seasons.

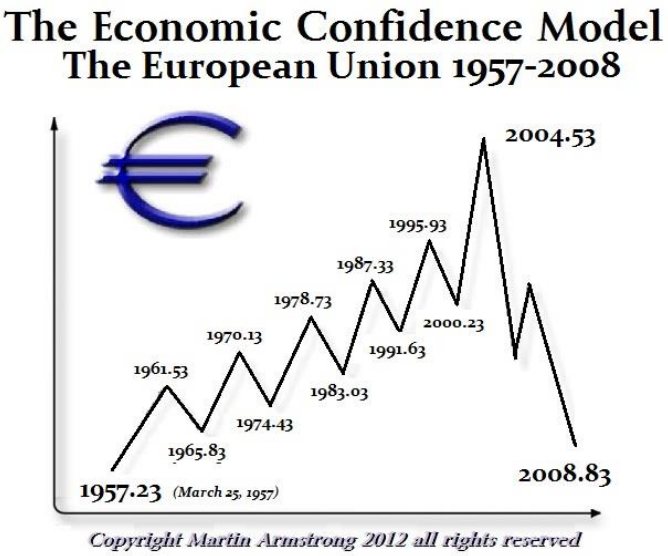


We have also looked at the same frequency applies on isolated countries. The rise and fall of nations follows the business cycle. We have tested this against all major countries looking at both the global level as well as domestic.



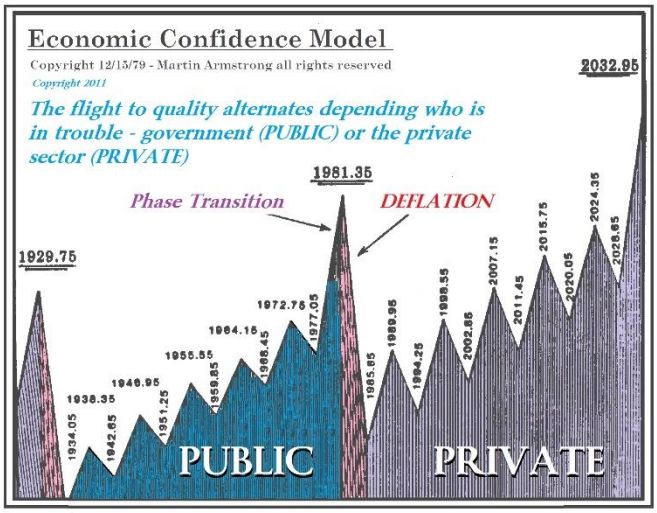
Our forecasts for the decline of Communism in 1989 which began in China and spread to Russia many assumed was because of

communication today. This is actually not the case. The Roman Republic began with the overthrough of their king in 509BC and within one year, Athens overthrew its tyrants and Democracy was born. The same timing which applied in ancient times applies to the fall of Communism.

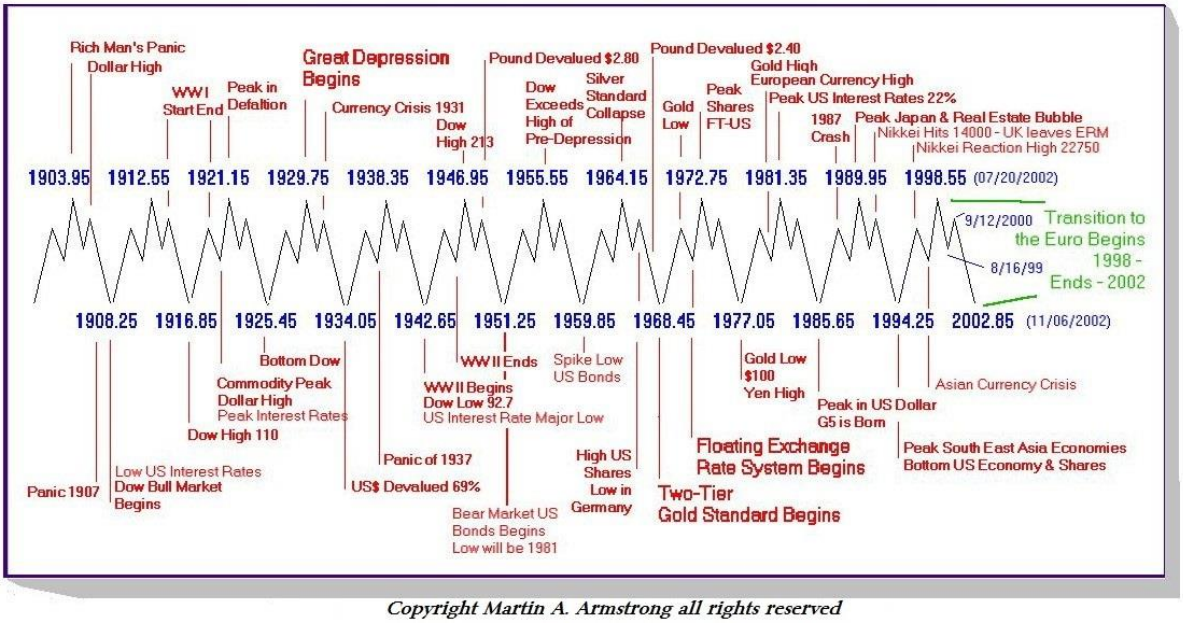


Running the Economic Confidence Model on Europe beginning with the Treay of Rome in 1957, illustrated that the economic peak would be 2004 from which there would be a deflationary crash into 2008. Indeed, it was 2008 which produced the historical high in the Euro at 1.60 to the US dollar.

What also has emerged from this research is that there is a major shift which unfolds every 51.6 years between confidence residing in government (PUBLIC) versus the people (PRIVATE) sector. It has been this shift in **CONFIDENCE** which determines when bond markets do well in contrast to when private assets are where capital will concentrate. Private Waves tend to be much more volatile as we also see these periods when governments are losing power and become more authoritarian.



Economic Confidence Model



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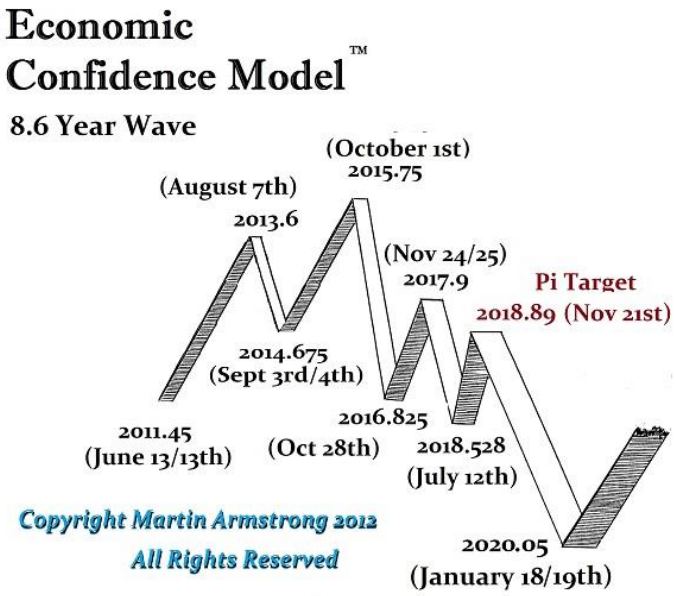
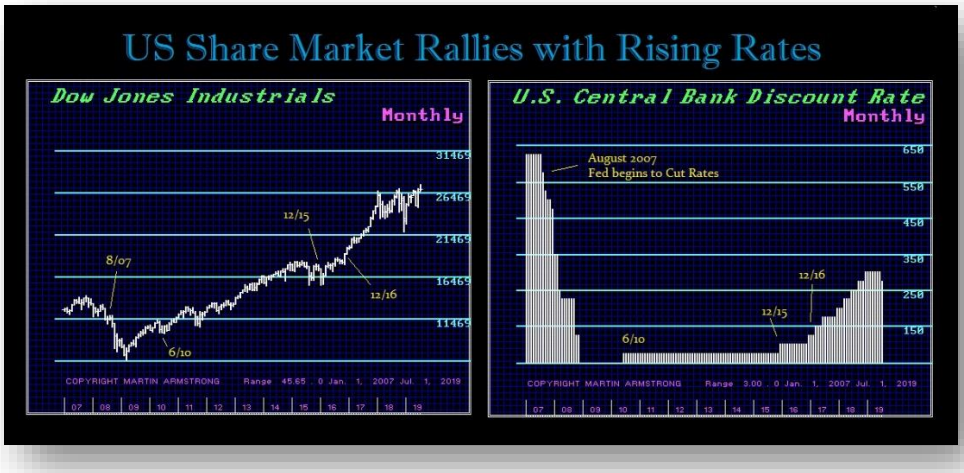
Each wave produces a concentration of capital, but each wave will present a different sector or region where capital will concentrate. This, the 2000 bubble was the DOT.COM Bubble, 1989 was the Tokyo Bubble, 2007 was the mortgage back real estate bubble. Each wave produces a commonality of speculation and investment, but the sector and regions will change.

This model provide one of the best tools for long–term positioning of corporate strategic planning. We can also run this model on your own sales as well as price of your shares to isolate how your company or institution fits into the global scheme of the world economy.

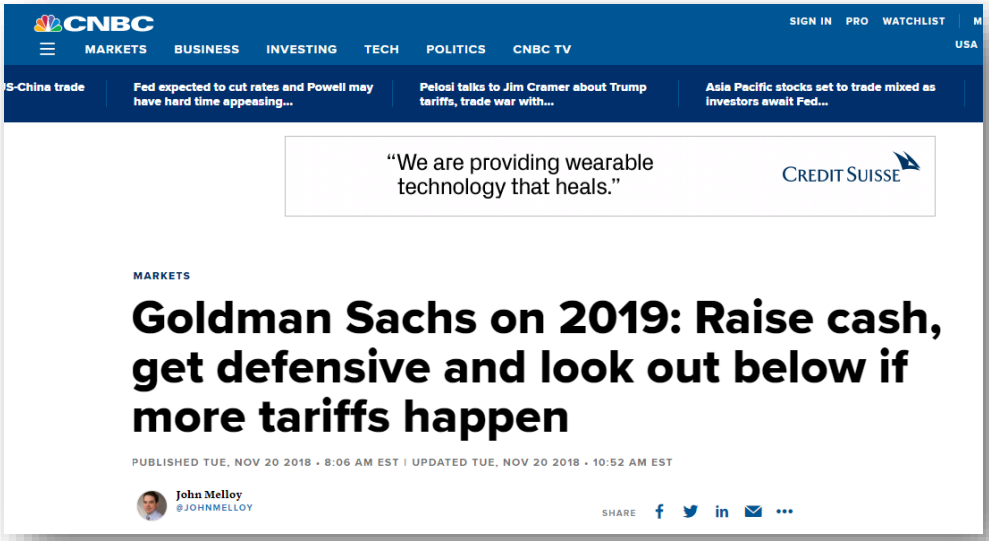


Judgmental & Fundamental Forecasting

While there are many who shun technical models, this tends to emerge from the problem that they do not understand even how to create a model. They cling to old theories such as raising interest rates means stocks decline, which has been consistently incorrect time and time again. Nevertheless, it is repeated in mainstream press making one think it is absolutely true.



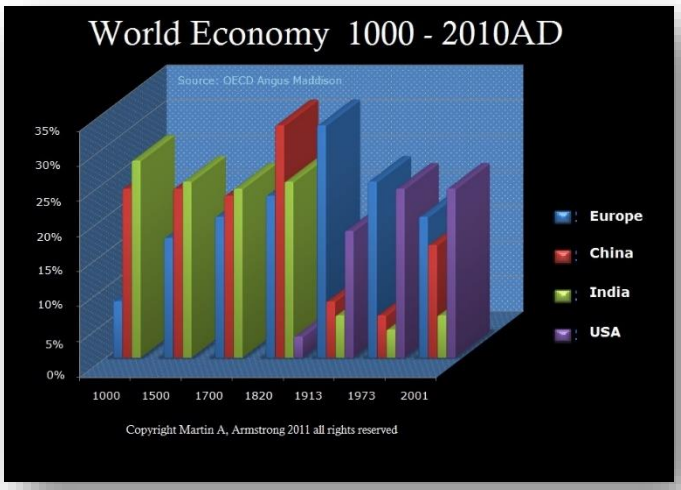
You must also understand that the press needs content. They have their stable of people to put on and they prefer to show predictions that sound logical. Often they are comments based upon what the "believe" the central bank will do next. They certainly do not want to put a technical trader on the air who cannot explain something in fundamental terms. This immediate rally has been the most hated bull market in history.



This rally in the United States stock market from the 2009 low has been the most hated bull market in history. Hedge fund performance has often been fairly poor because many simply did not believe the rally.

Every high there was someone forecasting the crash of all time. Even **Goldman Sachs** told everyone back in November 2018 to sell shares in 2019. This simply illustrates that when humans attempt to reason the movements of the markets they fall serious shy of being accurate because what they are unable to see is beyond the borders of their own shore.

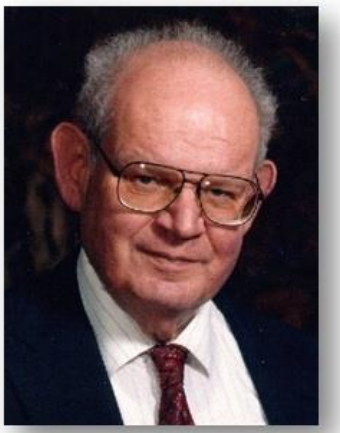
No nation has ever held the title of the Financfial Capital of the World. It has always moved because of the fiscal mismanagement of governments throughout history. To think that someone can made a judgement on the fate of a market without understanding international capital flows and trends globally is just revealing their ignorance of how and why the markets move in the first place.



Random Walk Theory

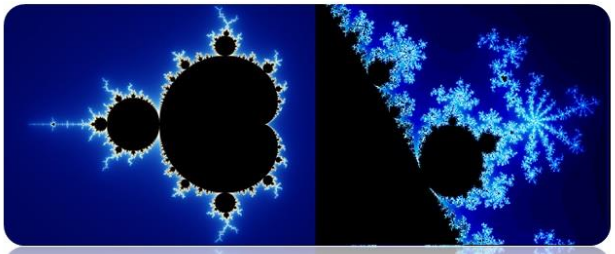
Perhaps the most important discovery made here our research and development was the simple fact that market price and economic movement is anything but random. Those who want to characterize the markets as a random walk merely fail to understand the cyclical nature of everything in the universe. We are subject to cycle – we are born, live, and then die. Nothing escapes the cyclical design in the universe. It is the divine code that ties everything together.

Father of Fractal Geometry, Benoit Mandelbrot (1924–2010) in his book on market behavior with Richard L. Hudson. Mandelbrot was a brilliant mathematician who could see into the field of Economics while standing outside the cabin looking in from a window. He wrote that ***"[t]he profession burns through new theories the way a teenager hops from one new date to another: it meets them, spends some time with them, examines them, finds what it thinks are flaws, and then drops them for a newer face."*** Without a doubt, Mandelbrot hit the nail on the head.



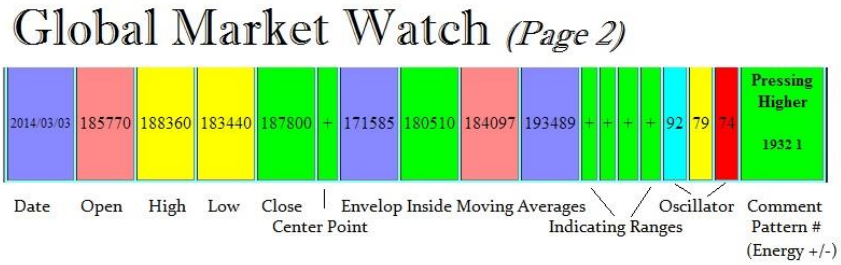
Benoît B. Mandelbrot
(1924–2010)

Mandelbrot was able to reveal that what appeared on the surface to be randomness that economists were calling **Random Walks** of markets, was to expose their ignorance of other fields of hard science. Economics has been a social science where people keep putting forth theories on how to manipulate the world economy and fight the business cycle. Economists have been unable to see the patterns within markets. They cannot see the complexity behind the secret order beyond a single one–dimensional world. Mandelbrot reduced this seemingly chaotic randomness to a mathematical world which be quantified.



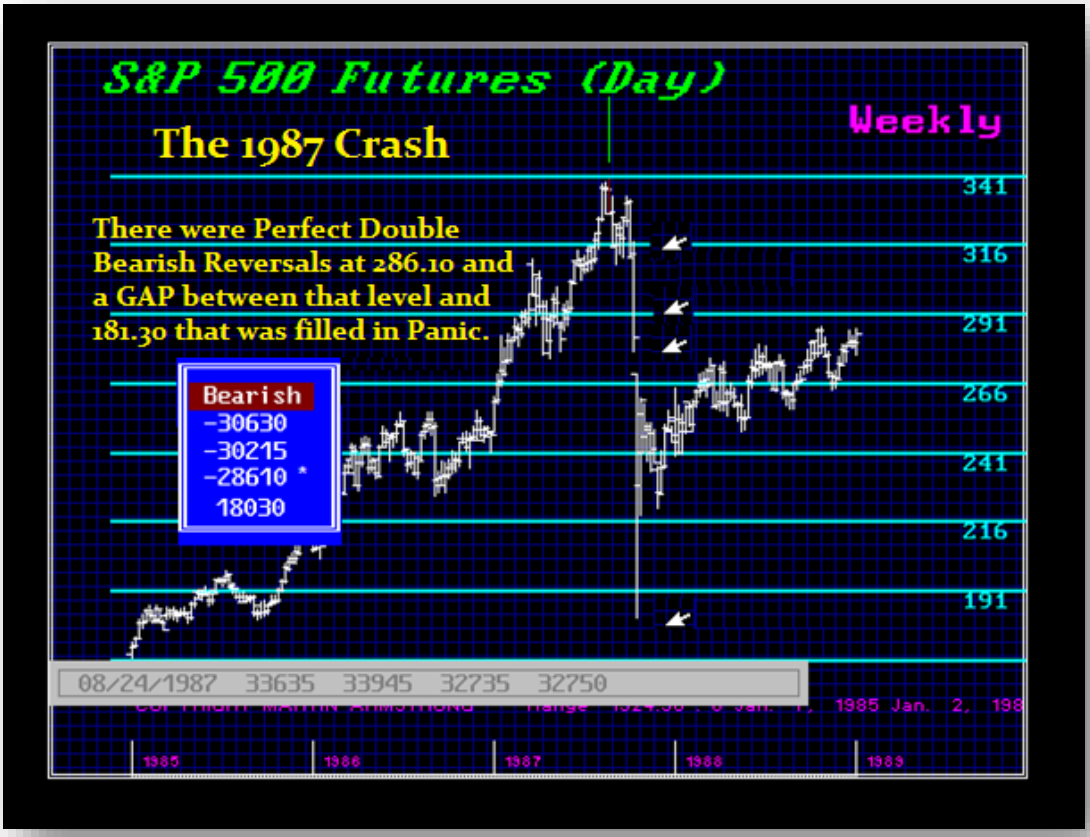
Mandelbrot Set

Everything taught in the field of economics begins with the assumption that activity is random which has kept the field in the realm of merely a social science with no definitive answers to anything. This has been to their self–interest for as long as they insist the economy is random, then the implication has been that they can manipulate it to whatever they desire. That has impacted our liberty and destroyed human rights not to mention led to not just class warfare, but has been responsible for the greatest amount of deaths in record history.



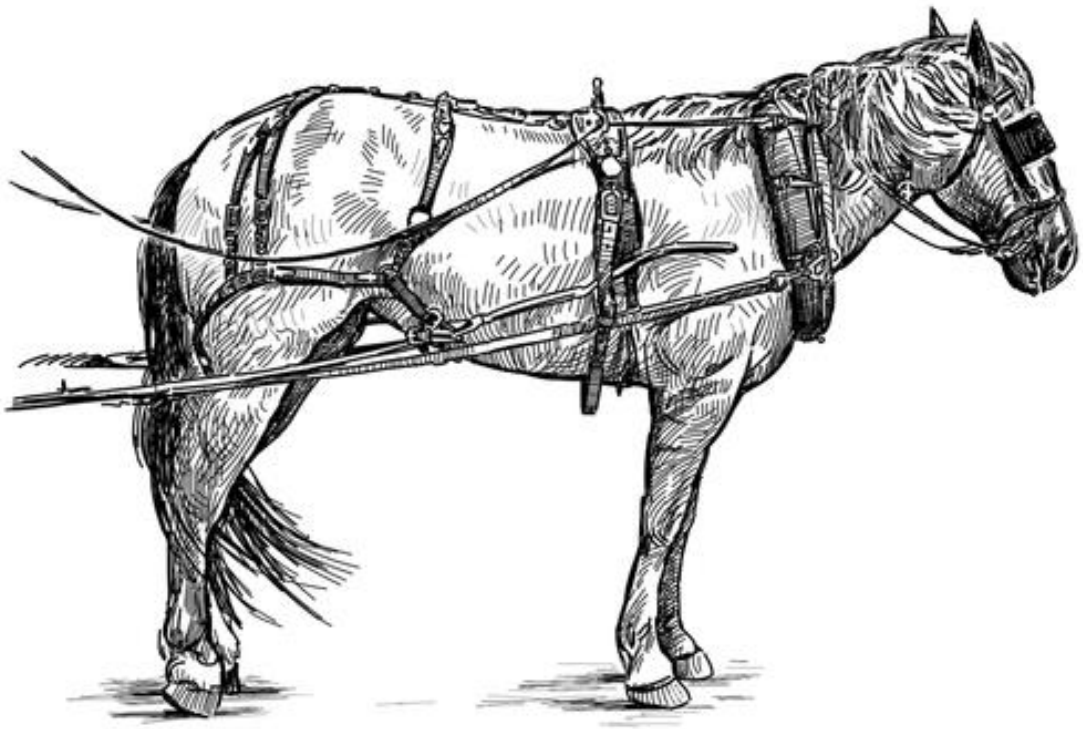
We have also created the most sophisticated pattern recognition system ever devised in economics. Here the computer simply looks for a set of patterns to determine what comes next. It has recorded thousands of patterns demonstrating that at the core is complexity. We have called this model the Global Market Watch which the computer runs on every market every day. This has proven definitively, there is no such thing as a **Random Walk**.

Using the Reversal System



The **Reversal System** stands alone in the midst of conflicting economic theories building upon this simple fact that markets are by no means random. The **Reversal System** is based upon certain principles in physics, which apply to everything around us which includes wave motion. It also assumes that time is not a constant but that the theory of relativity applies.

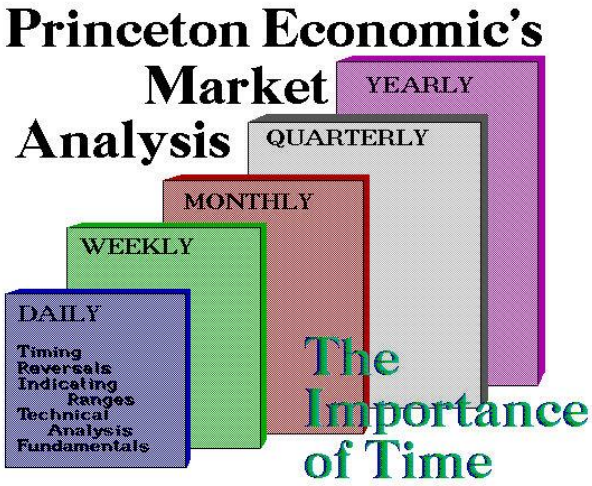
The formula behind the **Reversal System** remains proprietary. It is highly complex for it changes and adapts by expanding and contracting relative to time and price. Therefore, the formula is never exactly the same at any given point as is the case with moving averages or stochastics. Yet the numbers it generates are carved in stone and forever remaining fixed both relative to time and price as well as the complexity of inflation which it also incorporates.



They have developed blinders for horses to prevent them from becoming distracted by peripheral movements. Assume that you are in a house which only has windows in the front like the horse. Your view–port of the outside world would therefore be restricted to only that which stands directly before you. If some adversary were approaching from the rear, you would simply never see him coming. This is why most analysis will fail because it tends to be focused only on domestic issues what the central bank just said or the latest tweet from a politician.

If we look at things on a more global basis, we are adding windows to our house on the sides and rear. Now if anything takes place on any front, we are at least capable of observing it, provided we pay attention.

The **Reversal System** maps out various coordinates within price and statistical movement on many levels. Because the basic assumption is that all things will remain equal, the majority can never see a change coming. The **Reversal System** is able to project precise points in price relative to time by constantly monitoring all levels and dimensions. Its view–port is the world and its accuracy has been generated through the interactions of all component parts.

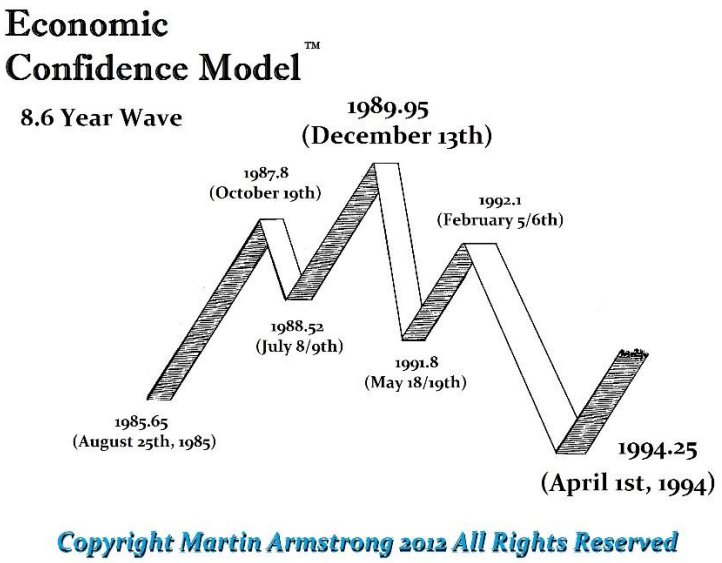


The **Reversal System** will produce four numbers from each low or high. The numbers are "elected" only on a closing basis. Nevertheless, they will often provide intraday key points of support and resistance. We have determined that in order to change the major trend from a Bear Market to as Bull Market, this will be determined only by electing the Reversals on a Monthly Level. Therefore, the markets are indeed fractal. They can flip back and forth on a daily level several times a year. Perhaps once or twice on the Weekly level. Changes in trend unfold only on the Monthly level and higher.

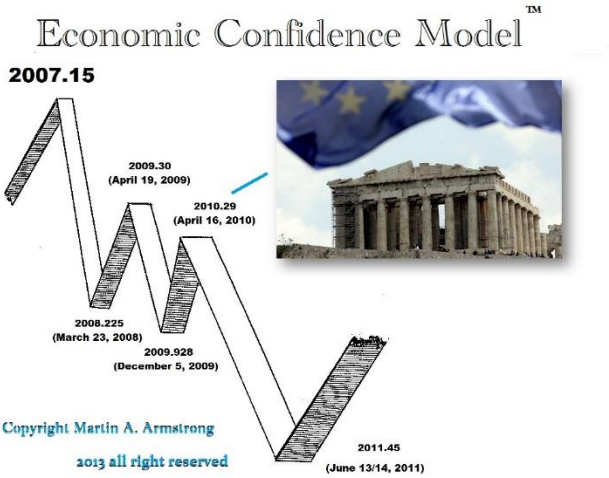
The **Reversal System** conceptual design is therefore quite simple. Based upon physics, total random movement does not exist. Given this premise, the existence of specific pressure points in theory had to exist. For example, the velocity of wind within a storm distinguishes the difference between a tropical storm and a hurricane If water reaches a specific temperature it will boil. There are countless laws which apply in the physical surroundings, yet man seems to have such a high opinion of himself in assuming that he is totally random and not subject to definitive laws.

The **Reversal System** was born through this theory that specific points exist within economic or price movement. Something similar to the last straw, which broke the camel's back – if enough pressure builds in either direction, eventually there must be one final point which, if exceeded or penetrated, signaled a change in trend. This was our scientific quest in searching for unemotional, non–human judgemental approaches to forecasting. The theory proved to be correct, and the last 20 years have been spent in studying this new phenomenon.

DEFINING THE GAP

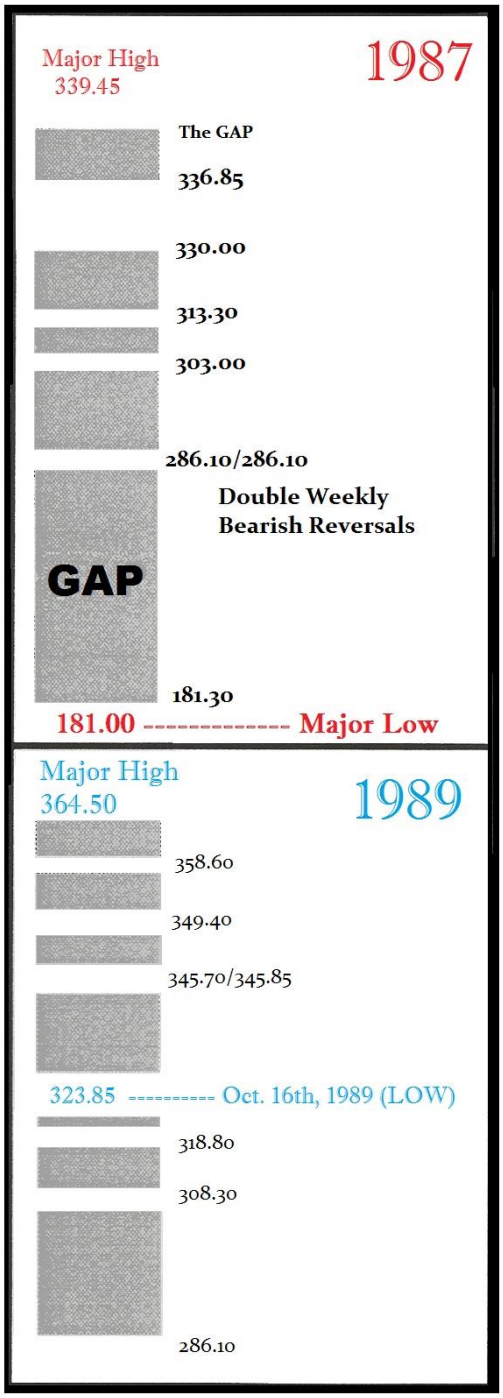


While our timing models told us when, the **Economic Confidence Model** gave us the precise day of October 19th, 1987, it was the **Reversal System** that gave us the price. The precise target was 1987.8. The calculation is to take 365 days and multiple that by .8 which was day number 292 that year. The end of September was day #273. This meant the target would be (292 – 273) = 19.



It has been rather unsettling that so many targets produce precise turning points of events. Whatever seems to take place on that target ends up being a point of focus. For example. 2015.75 was the peak of an 8.6–year cycle and this was precisely the day Russia sent in troops to Syria. That marked the beginning of the Syrian refugee crisis the flooded Europe. The target of 2010.29 was April 16, 2010 when Greece applied for an emergency loan from the IMF beginning the European debt crisis.

Both our timing models and the **Reversal System** have proved to be an incredible discovery of a secret hidden order within the claimed Random Walk of markets. This secret cycle and order to the markets has been tested countless times and in a broad array of markets globally.



Looking at the **Reversal System**, we observe what we call "***Defining the Gap***" which reveals these areas where markets are susceptible to panic moves both down and up in price. These are like air pockets you encounter when flying and the plane will suddenly drop.

These Gaps have been extremely useful in trading as well as an important discovery in how markets move. The **Reversal System** has been able to define these secret gaps in support or resistance where there are no reversals. A "**GAP"** is therefore a void between two **Reversals** or groups of **Reversals**. Whenever a **GAP** has formed within a market, significant sharp swings become possible as the market moves from one side of the **GAP** to the other.

If we look at the one of our famous forecasts concerning the **1987 Crash** both in **TIME** and **PRICE,** we begin to get a sense of how to use this information. The US stock market established a wide **GAP** in support from the August 1987 high which appeared was excessively large. In the S&P 500 futures, that gap formed between 28610 and 18100. The model defined various levels of technical support between 330 and 286, but between 286 and 181 there was nothing that could be found on our models or even technically for that matter.

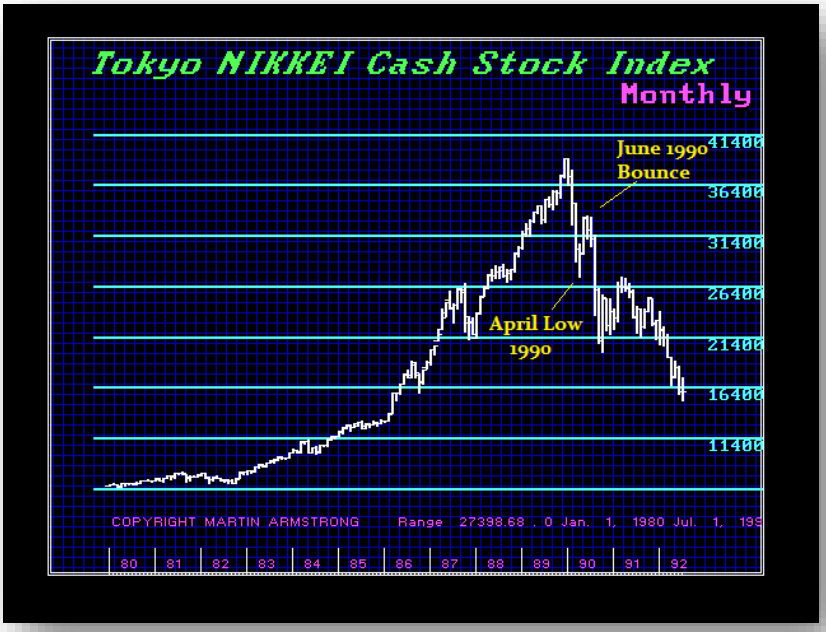
Once the S&P 500 closed below the 28610 level on that fateful Friday, the **GAP** was filled on ***Black Monday!*** All big panic moves take place **ONLY** when such **GAPS** exist within our **Reversal System**. Where the ***1987 Crash*** filled the **GAP** bottoming at 18100 near the Reversal at 18130, looking at the **1989 Crash** it filled the **GAP** as well between 345 and 318 bottoming less precisely at 313.85.

Therefore, while the Economic Confidence Model called the 1987 Crash precisely to the day, it was the **Reversal System** that provided the PRICE target for the low at 18100. Since the **Monthly Bearish Reversal** of 18130 was **NOT** elected during the **'87 Crash**, the long–term uptrend had **NOT** been reversed! This was one vital factor in the forecast that new highs would be achieved by 1989 the very day the market bottomed! The **Reversal System** not only provides us with specific buy and sell signals, it also provides us with a clear indication of a market's strength or weakness.

Another one of our more famous forecasts was projecting the major high for the Nikkei to within a few basis points for the last week in 1989, as well as the precipitous decline down to the 19000 level in 1990.This example illustrates another important indication that is provided by our **Reversal System**. The degree of the move can be classified, to some extent, by **HOW FAST** the **Reversals** are

elected from a **MAJOR** high or low. Here, **ALL** four Major Weekly Bearish Reversals were elected by 11 weeks from the major high! This was a staggering event, for the speed with which this took place herald in what appears to be a 26–year bear market.

In November 1989, we projected a "***final major top***" to occur ideally in the last week of December 1989 near the 39000 level. Our exact target was 38773. The actual high occurred at 38957 the week of December 25. The price and time were provided by our Technical Projection and Empirical Timing Models. Nevertheless, it was our **Reversal System** which mapped out the events that would unfold thereafter.



This first Monthly Bearish Reversal in the Nikkei was 34245 which was elected on the closing of March 1990 29980 and was the first Monthly Bearish Reversal to be elected in 7 years! This enabled our models in April 1990 to project a target low of 19000 which actually occurred the first week of October 1990. The bounce from the April low saw a high at 33345 which came during June 1990.

Whenever **ALL** daily and weekly reversals are elected in conjunction with **AT LEAST ONE** Monthly Reversal from a Major high or low within 3 months of that major event, the momentum of the move thereafter will be exceptionally strong.

This was the case concerning the Nikkei in 1990. It was **NOT** the case for gold in 1980 nor did this occur in the heat of passion during the 1987 Crash.

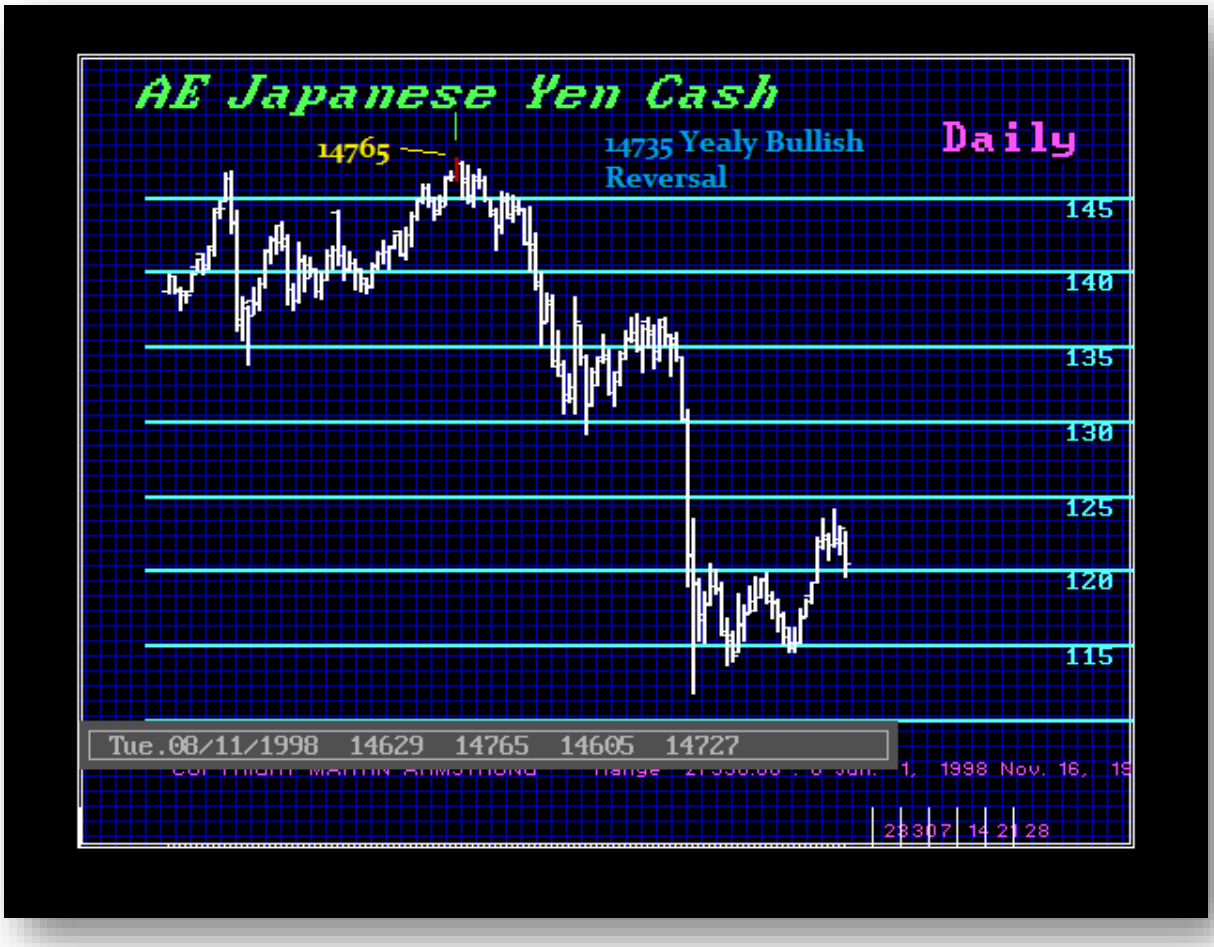
Once the Nikkei elected its first **Monthly Bearish Reversal** at the 32854 level, there was no effective long–term support according to our **Reversal System** until this market reached the 19000–17337 area. With hindsight, all our forecasts to this effect proved to be correct as the Nikkei fell into October 1990.

Just how soon a market begins to elect its **Reversals** from a major high or low is ***very important***. In gold, from the February 1983 high, the first Monthly Bearish Reversal was **NOT** elected until November that same year. Therefore, the subsequent decline was sharp yet orderly and was contained within a 40% range from that high. In the case of the Nikkei, a Monthly Bearish Reversal being elected within 3 months warned of a steeper decline which was closer to the 50% level.

We have found the longer it takes to elect a **Reversal** the lower the degree of volatility thereafter!

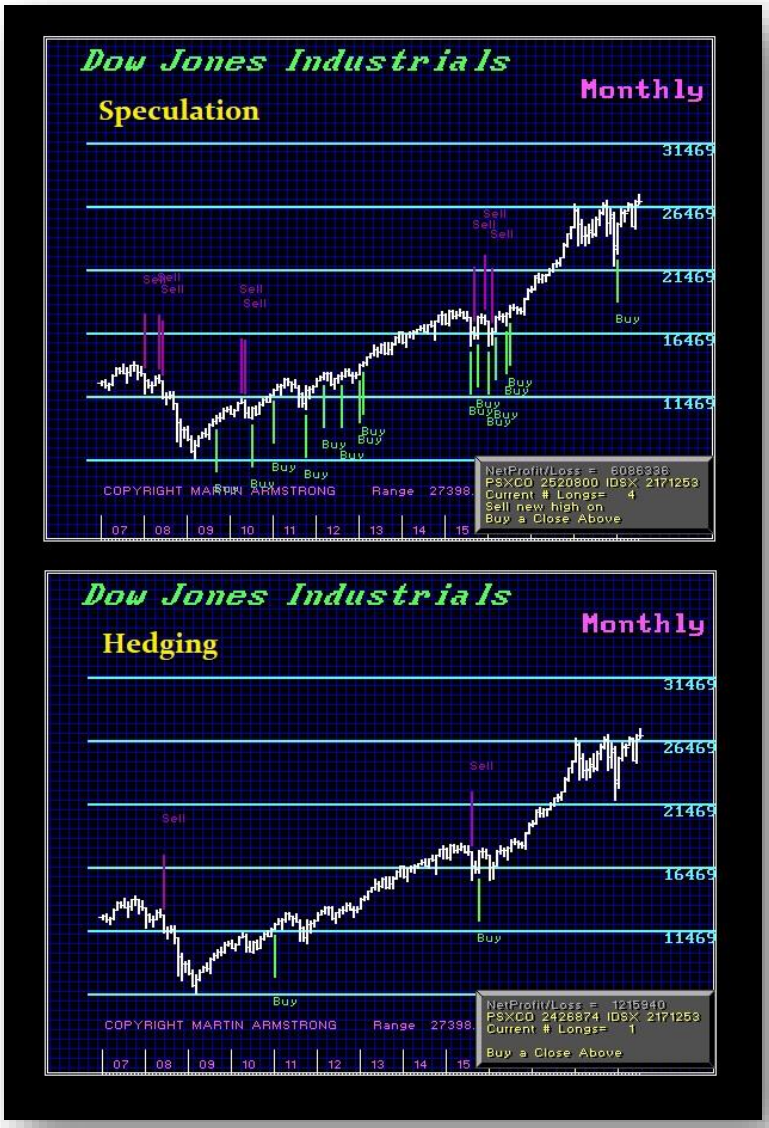
We have also noticed, over time, that the best and most powerful signals generated by the **Reversal System** are **ALWAYS** the signals which fundamentally appear to make the least amount of sense. You could also rephrase this to simply say that the strongest signals are **ALWAYS** the ones that take the greatest amount of courage to trade! Yet at the same time this makes a lot of sense. If you find it difficult to believe a particular buy or sell signal on this model in the midst of wild trading patterns, then it is likely that no one else will believe it either. This normally occurs at the point of maximum ***Economic Entropy*** in a market which means that the smallest amount of pressure at that moment will indeed create the greatest amount of change.

Using the Reversals in the Opposite Direction



It is also possible to use our **Reversal System** in the **OPPOSITE** direction. For example, one could place an order to sell against a **Yearly Bullish Reversal** in the Japanese yen which in 1998 stood at 14735. The market rallied to 14765. On an intraday basis, often the resistance will stand just over the number. Using this methodology, one may have attempted short position against a Yearly Bullish Reversal selling the dollar at 14700 in September 1998 as it crashed to 10300. Likewise, a long position at the 1987 low would have been a good strategy in the S&P 500 just above 181.30 using a protective stop at 178.90.

Hedging vs. Trading



Because our model was originally designed for hedging, we are uniquely in a position to provide institutional hedging analysis on any specific market or your business accounting data. The lack of models designed to provide hedging perspectives rather than speculative provides a much clearer strategy as to when to put on a hedge or lift one because of a major shift in trend.

Hedging positions can remain in play for several years when used on the Monthly timing level. It is possible to shorten this perspective by shifting to the Weekly timing level. This will tend to flip more frequently, so it tends to be dependent upon your hedging horizon.

There have been times where an airline has contracted for 50 planes which were produced in dollars yet their revenue was based upon another currency. The failure to hedge resulted in massive losses which they forced the airline to lay off workers.

Therefore, we offer hedging models that can be tailored to specific contracts with a definitive event horizon for termination, or to hedge a general overall portfolio denominated in a particular currency. The key feature here is the (1) this is an unbiased computer model, and (2) we earn no brokerage fees for getting your firm to take a particular position. We have no such conflicts of interest.

Timing

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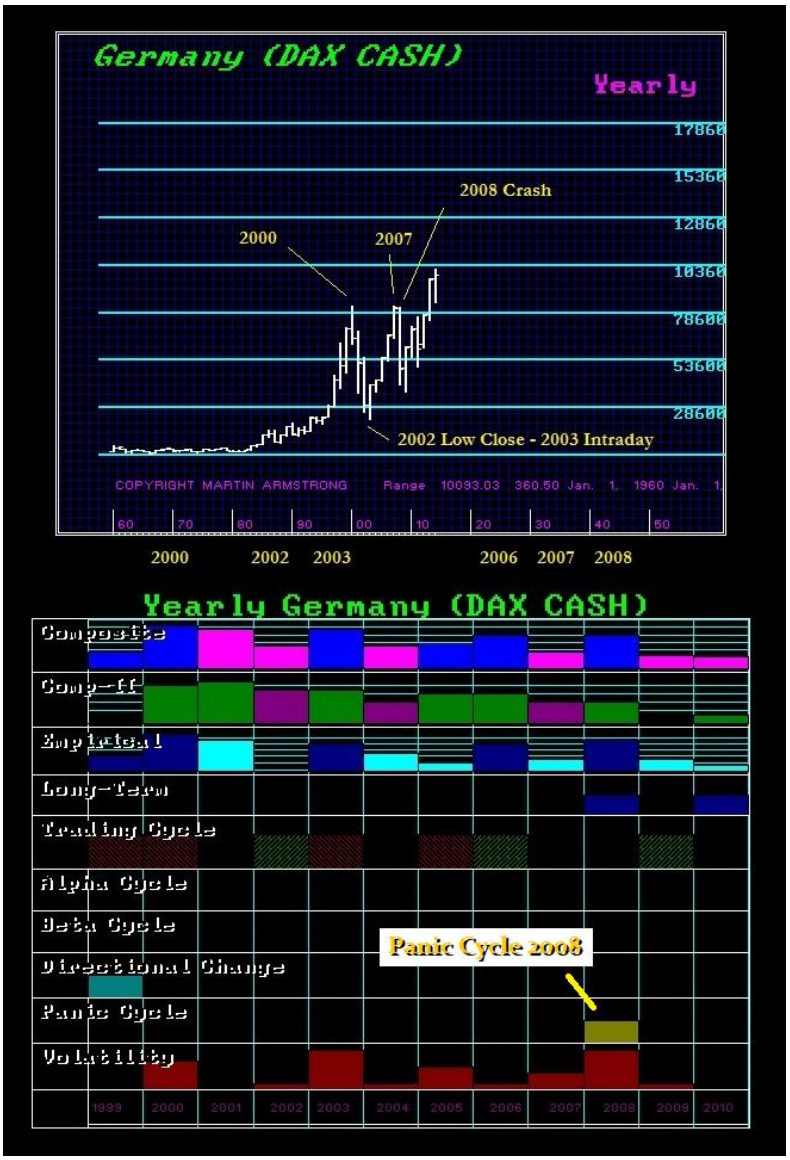
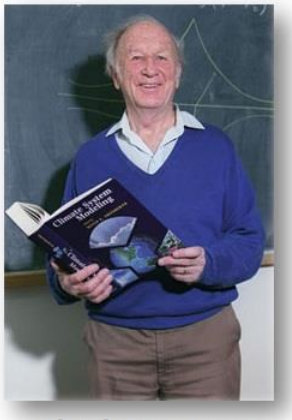


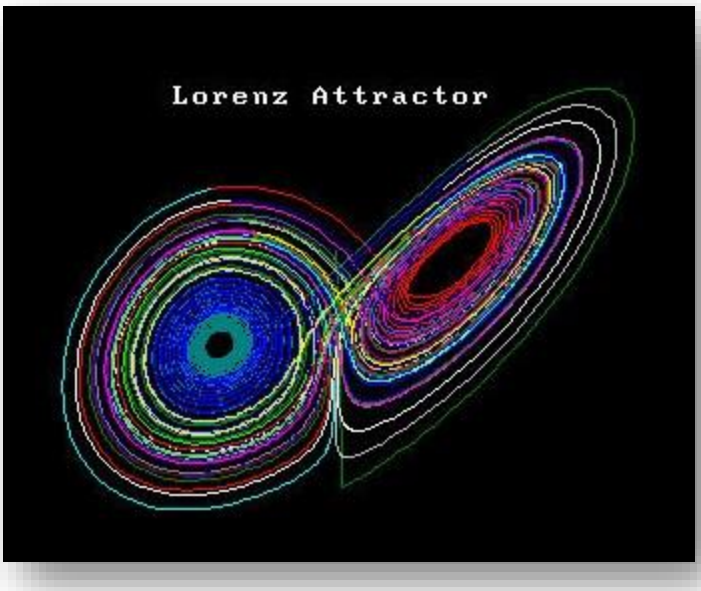
Our specialty has been to define timing. When will something happen? When is a panic ideally due of the ultimate high and low? We produce our famous Timing Arrays which are the accumulative representation of 72 separate timing models. Illustrated here is our Yearly Forecast Array on the German Dax published back in 1999 which can be found even on the **Way Back Machine**. This is a forecast that was produced for the subsequent 12–year period. Note that it not merely picked the turning points, it had also pinpointed a **Panic Cycle** would unfold in 2008.

There are many dimensions to cycles. There are turning points but cyclical trends which also are building in volatility and intensity creating different amplitude in waves. These can become Phase Transitions to the upside or what we have defined as Waterfall Events to the downside.



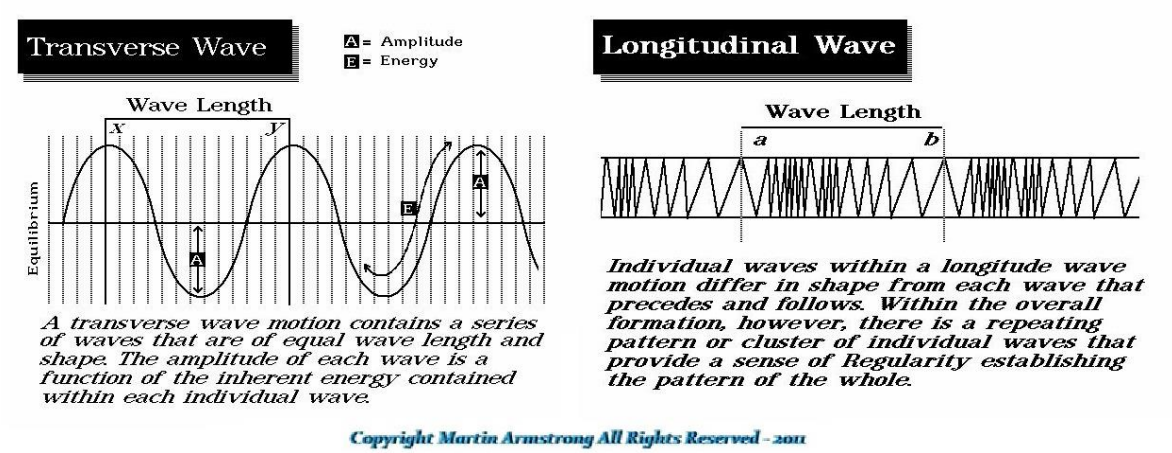
Edward Norton Lorenz
(1917–2008)

It was Edward Lorenz (1917–2008) who is the Father of Chaos Theory which he discovered when he input a huge swath of weather data into a computer. The output was a result which completely shocked him. What the computer exposed was a hidden order from that appeared to be emerge from utter chaos. The computer was able to see patterns humans could not find in the data which was too complex.



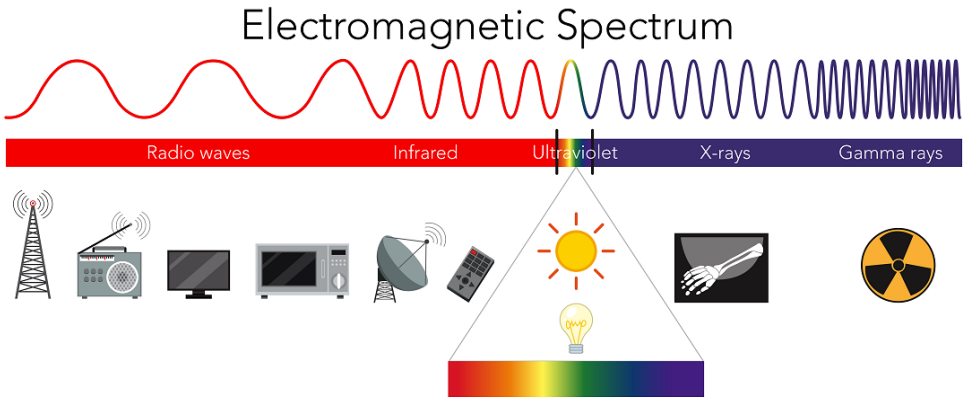
This was the birth of Chaos Theory. It is complex and not always truly observable with the naked eye. This has been revealed with the computer for only there can you see the patterns emerge from what would seem to be just random noise.

The weather data produced the Lorenz Strange Attractor. The data showed that there was a hidden order to what appeared to be just random numbers. As humans, we are not capable of observing the complex structure of everything around us. It is as if we are living in a fictional world where we walk around assuming everything is just random.

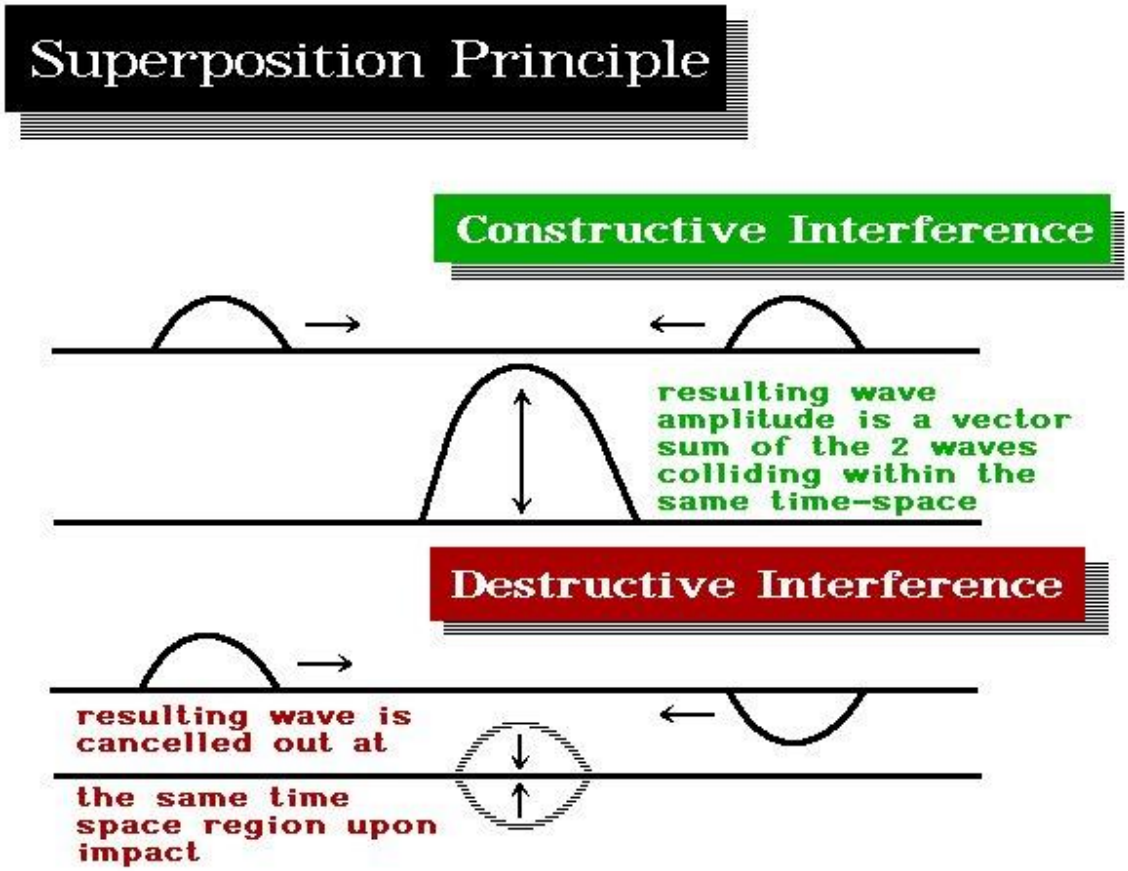


There are two primary types of cyclical movement – Transverse v Longitudinal Waves. The first is a standard cyclical wave with the Wave Length being uniform. This is what people assume cycles must be and if there is no specific event in the assumed direction, they immediately denounce it as fake or does not exist.

These people will never be able to understand cyclical movement for they tend to be very closed minded. The Longitudinal Wave may be a pattern of different Wave Lengths so the outward appearance will be the lack of a cycle for they cannot see the complexity. The Longitudinal Wave structure will materialize as a pattern of Wave Lengths which will repeat rather than each Wave Length being identical.



The electromagnetic waves coming from the Sun vary from TV and Radio to microwaves for cooking, X–Rays, to radiation and each is a different effect based upon the difference in the Wave Length. Sun Light is cyclical.



Complexity builds adding to the confusion for what enters the equation is the **Superposition Principle**. Now you have many cycles impacting others from different markets/instruments and just when you thought a high or low should unfold, sorry, either the opposite or nothing at all. What our model is forecasting at the Turning Point rather than a high or low. A Phase Transition or a Waterfall event can result creating the bubble tops (Constructive Inference) and Cycle Inversions (Destructive Inference). At the same time, the non–event can emerge when two opposite waves collide and cancel each other out.

Therefore, understanding the level of complexity is critical. This is why our Forecasting Arrays are so famous because they provide a visual representation of time moving forward.

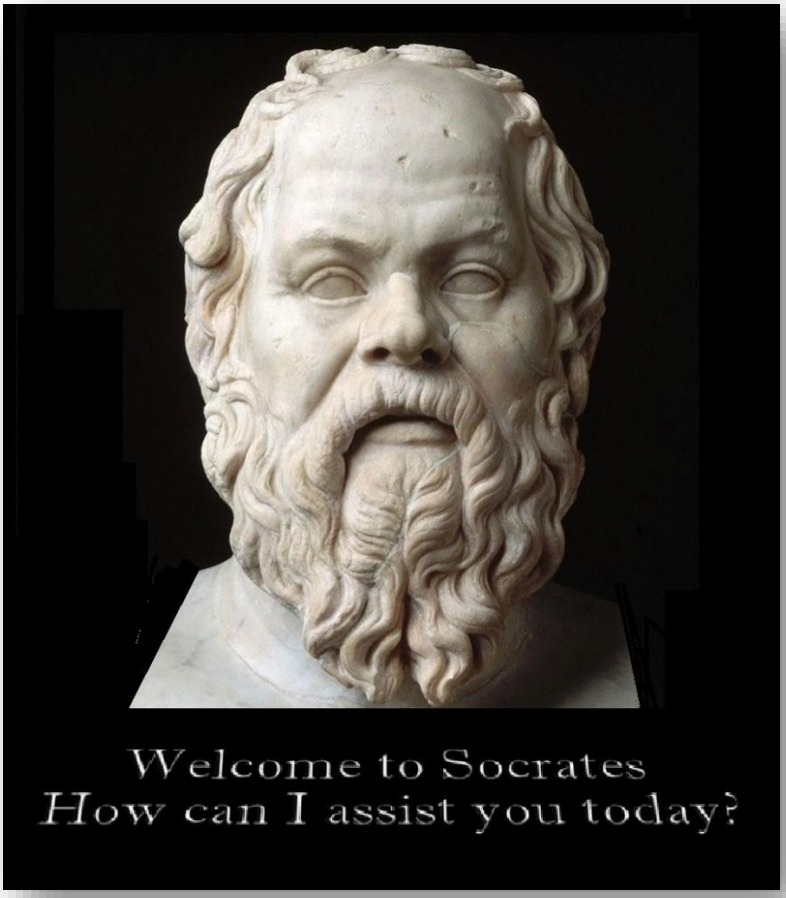
Volatility Models

In addition to our timing models, we also want to know how a market moves. This is accomplished by models designed to identify periods of high and low volatility. The results from this type of model are helpful to identify when often even fundamentals may take place that spook the markets.

The volatility forecasts are given in the same format as the timing models. However, volatility we measure several ways. There is the standard perspective of volatility whereby we measure it from one close to the close of the next session. Yet volatility can also be on the opening from one the previous session's close. The third type of volatility is what we call internal which we measure between the high and low of that session.

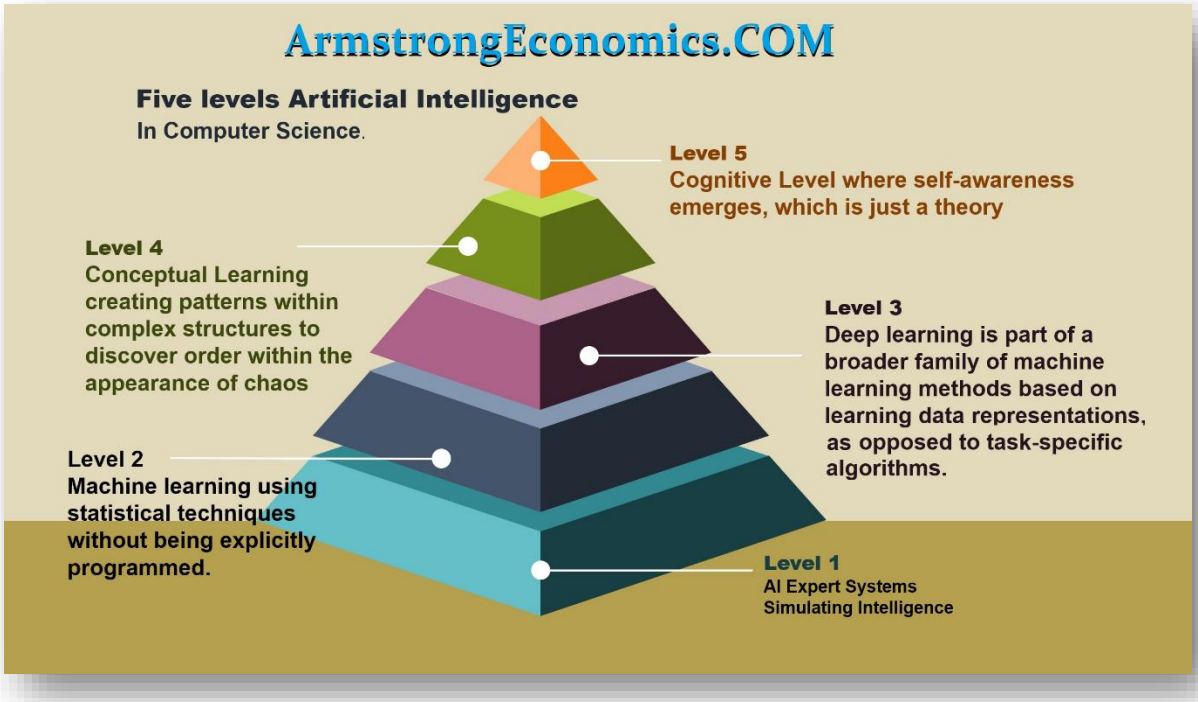
Our volatility models are run on all levels of price activity so they can help tremendously to plan when to focus on the outstanding positions or business operations in a particular area.

Socrates



Our computer technology has been legendary for decades. Most people, probably 99%, pretend that are using Artificial Intelligence but what they have is nothing but an Expert System, which amounts to a look–up table. An Expert System is simply a list of, let's say, diseases with their symptoms. You ask questions and it looks up predefined conclusions and says – wow, you have this disease.

The world economy is far more complex which cannot be done with a look–up table. Real markets are nonlinear and the process by which they move appears to be random on the surface. You simply cannot create a linear model to see nonlinear patterns.



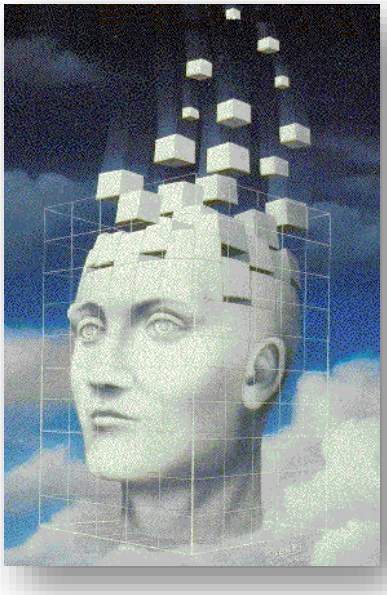
Real Artificial Intelligence is something that learns and analyzes on its own to create its own conclusion. The countless claims of using AI to forecast markets can be distinguished rather easily from rule–based systems. You can take a chart, calculate the cycles, and then project the potential future pattern. Looks nice, but that is just making a calculation that can be done with a pocket calculator. There is nothing original in this process.

What we have created is the **ONLY** fully functioning Artificial Intelligence system which actually writes its analysis as a human being. Creating the world's largest database on the global economy and reconstructing the world's monetary system back to 3,000BC was essential to allow the system to learn from the past.

Merging that accomplishment with the ability to create an actual thinking machine has truly been an achievement that is simply unmatched in the financial world. We gave him the name – Socrates.

Socrates is the only fully functioning artificial intelligence (AI) system. He monitors the entire world by tracking every market and economy as well as tracking global capital flows to provide the only international perspective of the financial

world we live in. Socrates has proven to be the most astonishing computer that has ever been designed; it will place the entire world at your fingertips.



Socrates has provided more than just analysis. Like the discovery of Chaos Theory in Lorenz' data, this system has become a teacher as well demonstrating that traditional thinking and modeling employed in the political–economic–financial world is as antiquated and incapable of provide any glimpse of the future or how the world economy even functions.

Virtually every computer program from Black–Scholes to random walks on down have failed over the past decades for the same reason – they were based upon tiny slices of historical data that led to false assumptions. You cannot expect a programmer to understand markets, no less the political–economic–financial history of the world. Blending both fields together in a dynamic way makes the world comprehensible at last.

Computer models and economic theories have failed because of this total lack of historical data that has prevented their ability to survive a great crash. After failing to see that event, they are sucker–punched by the reversal in trend that typically leads to new highs, as was seen in the 1987 crash. These types of swings to new highs when others expect the trend in motion to stay in motion are missed because human emotions far too often obstruct the view.

Forecasting has been plagued by the basic assumption in our political–economic–financial world that expects the current trend in motion to simply stay in motion. They cannot understand the business cycle or that what goes up must also come crashing down. The only question is WHEN? Socrates will deal with this cyclical aspect to the economy in a comprehensive

manner by covering the changes in trend that models fail to understand.

Socrates is the achievement of gathering the collective knowledge of the human race and learning in a cognitive manner the causes behind the real trends of the rise and fall of markets and economies, as well as the rise and fall of empires, nations, and city–states.

Socrates stands as proof that we are on the threshold of a completely new dawn. This is the achievement of mankind – the threshold of the Age of Reasoning & Awakening – where we take that step forward for mankind by comprehending that not merely is the world not flat. We are all connected, and we indeed need each other to survive this journey we call life and the evolutionary process of civilization. When IBM's Big Blue beat the greatest chess player, Gary Kasparov, something was clearly established. A computer can look at all the possibilities where a human cannot.

Conclusion

Welcome to Armstrong Economics. We have made tremendous strides in the field of analysis and have been the leader internationally for nearly 40 years. We cover more than 1,000 markets and instruments daily which include many nations that there is just no reliable analytical information.

We are not a bank nor a broker and we are completely free of conflicts of interest. Our computer forecasting is consistent and reliable which is the absolute critical factor for major corporate and institutions in the 21st century.

We provide a variety of services tailored to your specific needs and we do so on a global basis. Institutional packages start as low as US$250,000 annually and can handle major portfolios where we can even place a terminal in your facility to have full access covering the entire world for investment portfolios with alerts to warn of specific instruments and potential crises for even as little as $5 million annually.