



ZUGSWANG

In central India, approximately 1,500 years ago, there arose a unique game, called Chaturanga, or “four parts,” referring to the four divisions of an army (elephants, chariots, cavalry and infantry). In the painting above, the deity Krishna is seen playing the game with his consort Radha. Unlike the much older Chinese game of *go*, Chaturanga introduced two new concepts to board games: that different pieces could have different functions, and victory/ (defeat) was determined by the fate of a single piece.



A century or so later, the Persian Empire swept across India, and brought the game back home where it became immensely popular. Over the subsequent centuries, the game was carried by invading armies across North Africa and into Europe, to China, Southeast Asia and into Russia. Today, the game is played by millions of people (and their computers), every hour of every day, in each country on all seven continents.

Chess, as the game is now known in English, is enormously popular throughout the world, but it has a particularly passionate, near-religious, devotion in Russia. For over fifty years, the full apparatus of the state promoted the game, seeking to nurture and develop, as a matter of government policy, the very best players. For the past half-century, the greatest players, the

grandmasters and world champions, came from the (ex-) Soviet Union. From Mikhail Botvinnik, who won the world championship in 1948, to Vladimir Kramnik, the 2000 champion, the Soviets/Russians dominated the game.¹

Among the greatest Soviet grandmasters was Mark Taimanov, born in Ukraine in 1926. Taimanov was unusual in a sport that requires intense study and concentration in that he was simultaneously one of the world’s greatest pianists, featured in the 1960s collection, *Greatest Pianists of the 20th Century*.² To have been the best chess player and the best pianist in the Soviet Union, concurrently, is unimaginable. Between 1948 and 1976, Taimanov played in a record 23 USSR Championships, He won the World Senior Championships in 1993 and

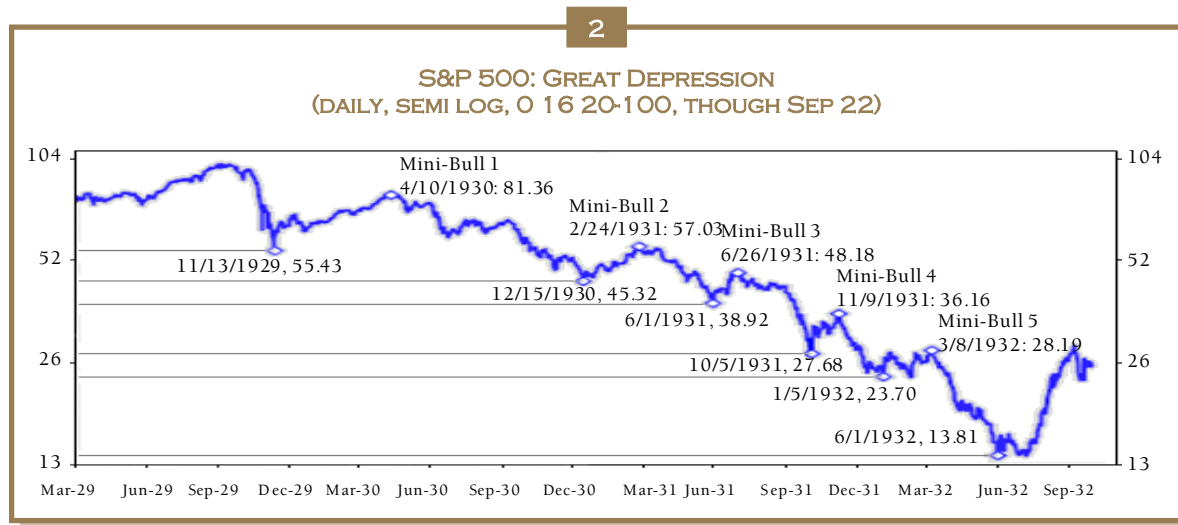
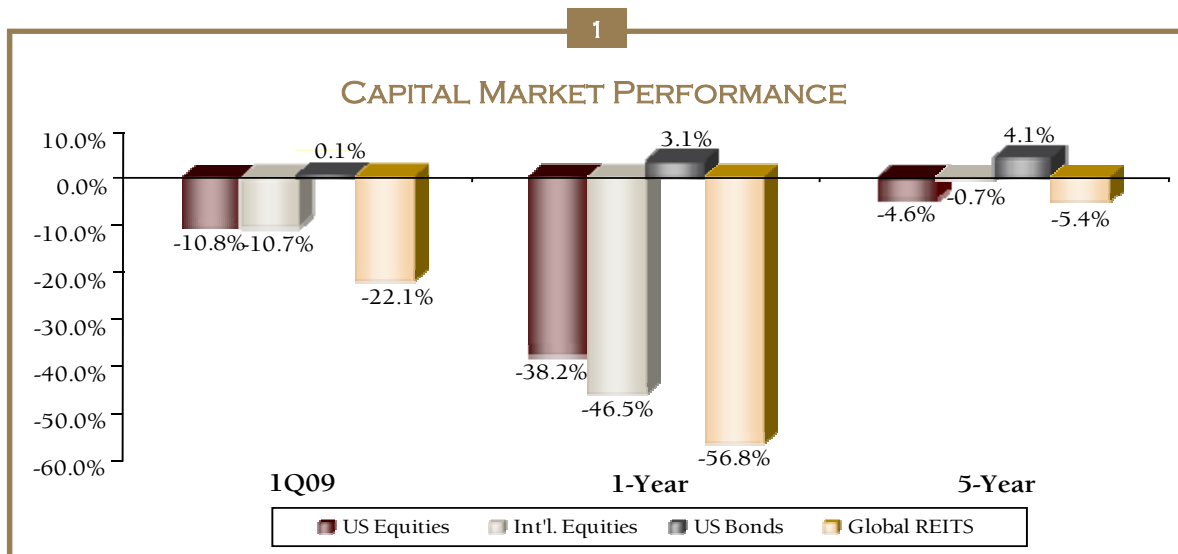
¹ The current champion is Viswanathan Anand of India, who won the title from Kramnik in 2007.

² Playing *Suite for 2 pianos No. 2 ("Silhouettes")*, Op. 23 *Cocquette* by Anton Stepanovich Arensky





“Bipolar describes the emotional state of the markets...”



Courtesy: Laffer Associates

1994. Perhaps his most famous game occurred in the World Championships in 1971. Unfortunately, it was a match he would most like to forget. Upon his return to Moscow, Taimanov was jailed, thrown off of the Soviet team and forbidden even to play piano. That match was one of the greatest of all time, a prelude to an even more famous contest, and in them are lessons for investors today.

Bipolar describes the emotional state of the markets in the first quarter: depressive till early March, manic there-

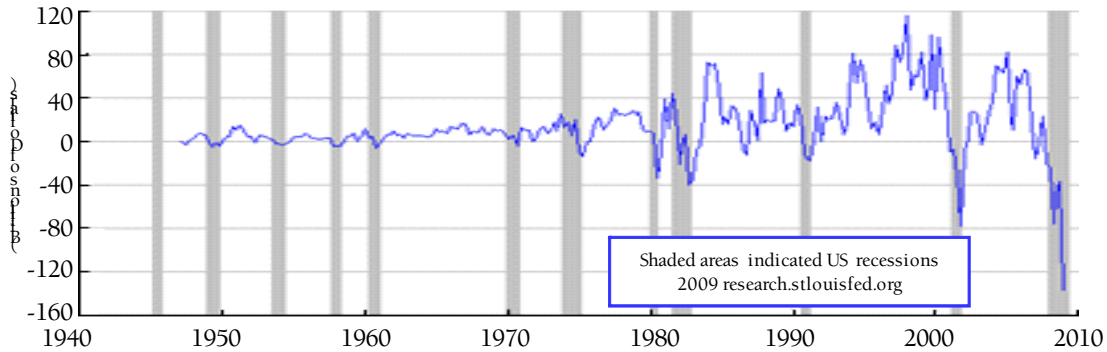
after. The 25% gain off of the 9 March low was the best two-week performance since the 1930s. Indeed, strong, swift rallies in bear markets are common occurrences. In the 86% drop from 1929-1932, there were 5 rallies more than 20% (see Chart 2), 9 rallies greater than 15%, 43 over 5%. In the 60% decline from 1937-1942, there were also 9 rallies in excess of 15%, 52 more than 5%.

Our recent rally was sparked by word that the major banks were, at last, operationally profitable (that is, they made money off of the free



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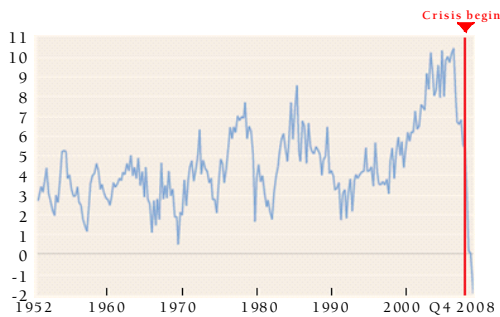
CHANGE IN PRIVATE INVENTORIES (CBI)



Source: U.S. Department of Commerce; Bureau of Economic Analysis

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NET NEW BORROWING BY US HOUSEHOLDS



Includes households and nonprofits; negative figures indicate that households paid back debt instead of borrowing more.

Source: US Bureau of Economic Analysis; US Federal Reserve; McKinsey Global Institute Analysis

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CONFERENCE BOARD CONSUMER CONFIDENCE INDEX



Graphs Courtesy of Morgan Stanley

money given to them by the government, ignoring the massive write-downs of loans they have yet to acknowledge). The collapse of civilization, better than even money at Ladbrokes³ in January, has apparently been forestalled, or at least postponed. Indeed, there is evidence that the *pace* of economic decline has abated (the infamous second derivative), albeit in the context of continuing economic contraction.

US GDP fell more than 6% (annualized) for the second straight quarter. Nearly half the drop came from inventory reductions, the steepest drop on record (see Chart 3), but that was the only (relative) good news (good, because inventory restocking will provide a later boost to output). Commercial construction dropped 44% (its largest quarterly decline since records began in the 1940s), and residential construction fell another 38%. Capacity utilization fell to a record low of 69%, and consumer credit contracted for the first time (see Chart 4). The national unemployment rate is approaching 9% (and is over 11% in California, a post-war high). It is no wonder that consumer confidence fell to its lowest level ever (see Chart 5).

³ Ladbrokes plc is a publicly-traded, legal betting company in the UK.



The decline in home prices sparked some interest among buyers, as both home sales and housing starts bounced higher in the past month. But the big picture for housing remains gloomy, as prices continue to fall (see Chart 6), there is a record number of vacant homes (see Chart 7) and foreclosures spike higher (see Chart 8).

The loss of wealth over the past year or so has been staggering. Equities have dropped about \$30 trillion (55% of world GDP) and \$11 trillion (20% of world GDP) of residential real estate has evaporated. The decline in global wealth has been three times as severe, as a percentage of GDP, as at any time since the 1930s.⁴ Because stocks represent a much larger share of wealth today, this decline has had a bigger impact on wealth destruction than at any time in more than a century (see Chart 9, pg. 5). Households have seen net worth (relative to income) plunge by 23% (see Chart 10, pg. 5).

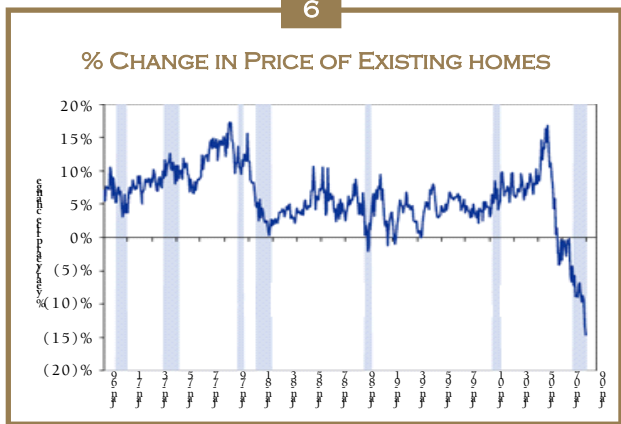
The direct impact of this wealth destruction is less spending, as consumers seek to rebuild through savings. But the secondary effects can be more significant as consumer retrenchment puts pressure on businesses and their highly-gearred lenders. The economy will regain its lost output in a few years, but investors will likely face a much longer recovery period as businesses restructure, raise capital and dilute current owners. The real economy rebounded to 1929 levels by 1937, but real profits didn't recover till 1949, and the stock market didn't touch the 1929 peak in real terms until 1953.

Economic pain is not confined to the United States. Indeed, this global contraction is the deepest and most widespread since the 1930s. The IMF estimates global output will fall (-1.3%) for the first time, with advanced (OECD) economies shrinking 4.3%. World trade is expected to decline more than 10%, also the first contraction in over 50

⁴ Peter Berezin and Swarnali Ahmed, Goldman Sachs.

“Economic pain is not confined to the United States.”

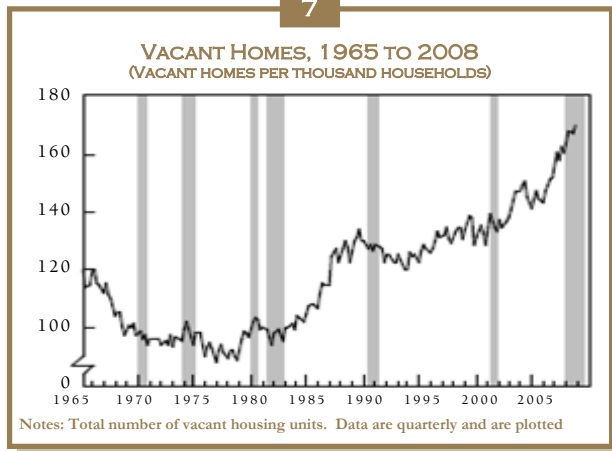
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Courtesy: Goldman Sachs

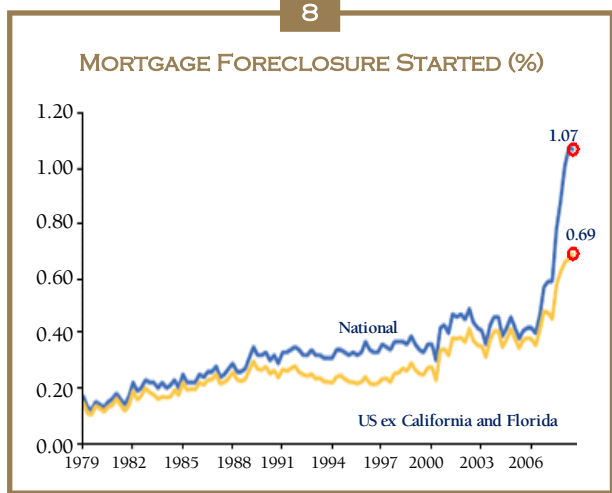
Source: National Association of Realtors

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Source: Congressional Budget Office; Dept of Commerce, Bureau of the Census; Haver Analytics

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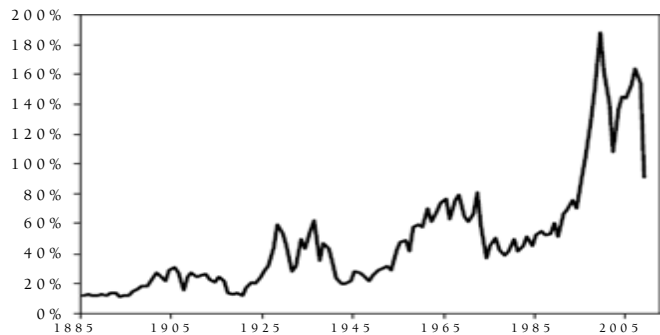


Courtesy: Morgan Stanley;



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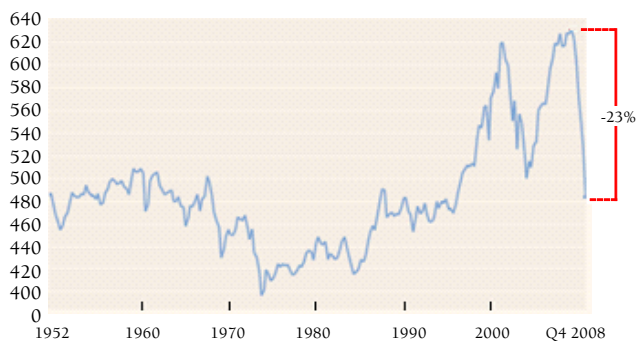
MARKET CAP AS % OF GDP



Source: Boyan Jovanovic and Peter Rousseau, GS Global ECS Research

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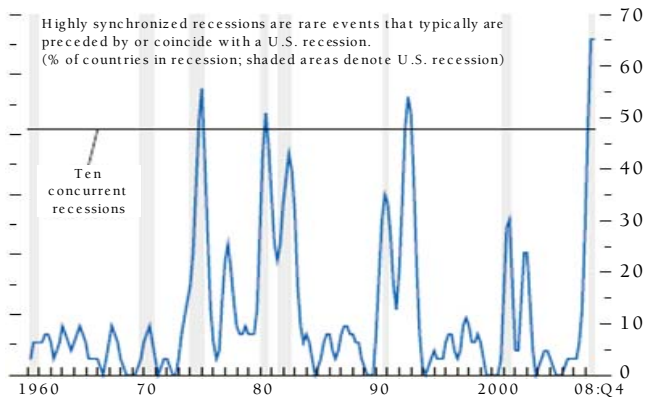
US HOUSEHOLD NET WORTH
RELATIVE TO DISPOSABLE INCOME, %



Source: US Bureau of Economic Analysis, US Federal Reserve, McKinsey Global Institute Research

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% OF COUNTRIES IN RECESSION



Source: IMF staff calculations

years. This is also the most highly synchronous economic contraction (see Chart 11). This synchrony is ominous because it portends both a more protracted and severe downturn as well as a weaker recovery.

Global imbalances, defined as the absolute sum of each country's current account balance, have been cited as a principal and precipitous cause of the economic crisis. In the previous decade, these imbalances nearly tripled, to around \$1.5 trillion, or nearly 6% of world GDP, with the US and China the largest (and complementary) contributors (see Chart 12, pg. 6). Excessive debt-driven consumption in the US fueled by a savings glut in Asia and the Middle East created these enormous imbalances which were an "integral part" (IMF) of global low interest rates and a rise in leverage that fostered the creation of riskier assets and housing price bubbles in the US and elsewhere.

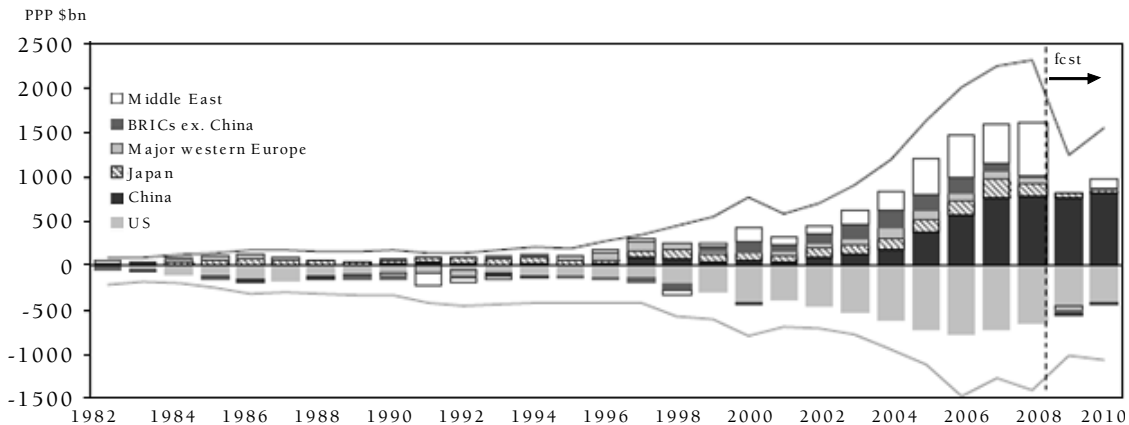
These imbalances are narrowing in the current retrenchment. The US current account deficit is expected to shrink from 6% of US GDP in 2006 to just over 3% this year, but as one deficit shrinks, another, the fiscal deficit, expands. The federal budget deficit, which has never been worse than 6% of GDP (1983), will be 13% of GDP this year (see Chart 13, pg. 6). Across advanced (OECD) economies, the combined fiscal deficits will be close to 9% this year. This explosion of public debt (see Chart 14, pg. 6) is a stop-gap, and the world will eventually have to find a way to reduce more sustainably these structural imbalances. And none of the above data address the looming entitlement deficits, both public and corporate (see Chart 15, pg. 6).

"the most highly synchronous economic contraction"



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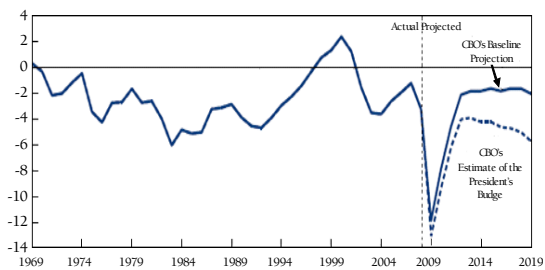
CURRENT ACCOUNT BALANCE IN PPP DOLLARS: SINCE 1980



Sources: IMF, GS Global ECS Research

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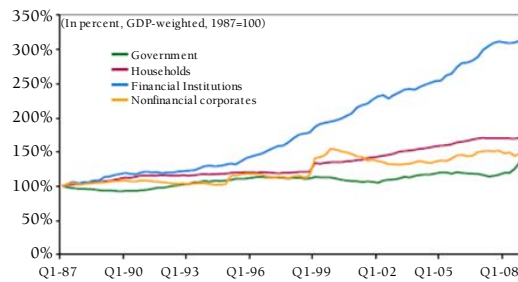
FEDERAL BUDGET DEFICITS OR SURPLUSES, 1969 TO 2019 (% OF GROSS DOMESTIC PRODUCT)



Source: Congressional Budget Office

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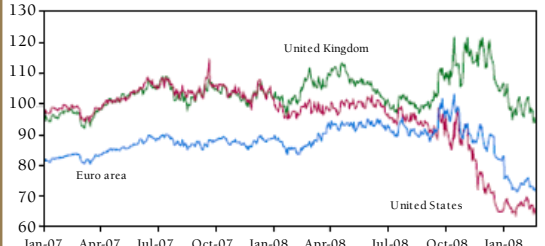
RATIO OF DEBT TO GDP AMONG SELECT ADVANCED ECONOMIES



Sources: Bank of Japan; Bureau of Economic Analysis; Federal Reserve; Office of National Statistics; and IMF staff estimates.

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PENSION FUNDS OF LARGE U.S. AND EUROPEAN COMPANIES: ESTIMATED FUNDING LEVELS

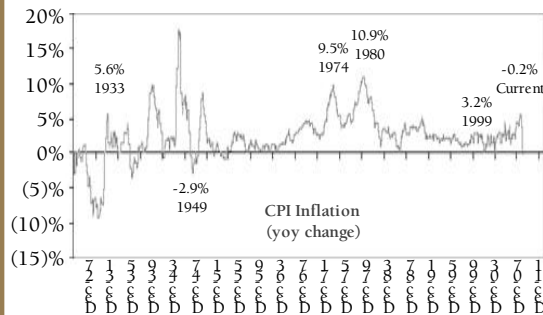


Notes: The funding level for accounting purposes, as a percentage of the net present value of liabilities. The calculations project forward the last publicly reported levels by using movements in market prices and interest rates since then. The U.S., euro area and U.K. companies comprises the constituent firms of the S&P 500, Eurostoxx 50 and FSE 350 Indices.

Source: Henitt Associates

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CPI INFLATION (YOY CHANGE)



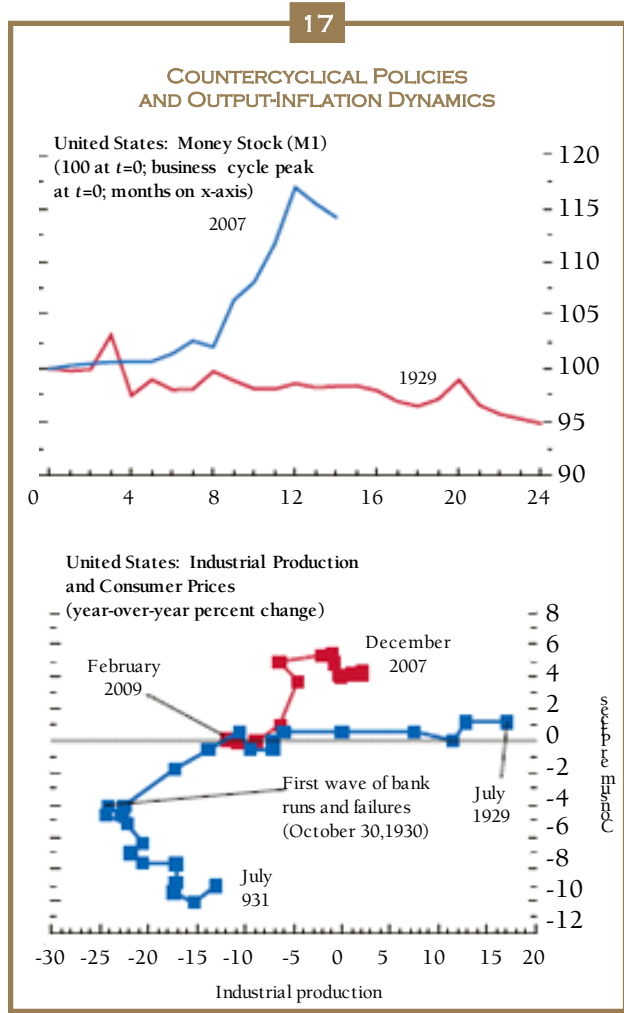
Courtesy: Goldman Sachs



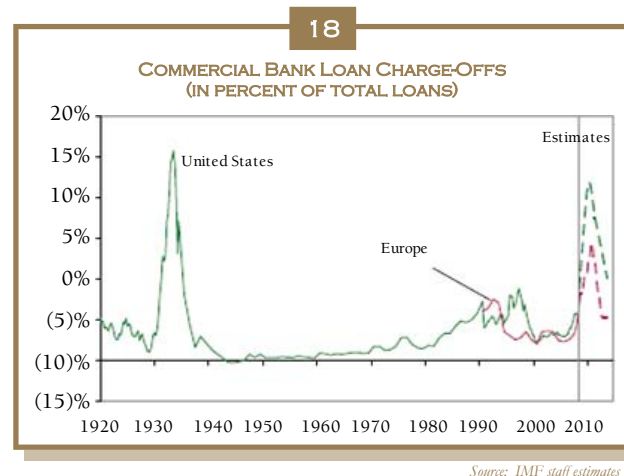
Accompanying growing fiscal deficits is a surge in the money supply, and that has inflationary implications. There is no causal link between deficits and inflation, as inflation is driven exclusively by monetary (not fiscal) policies. Rising fiscal deficits in the early 1980s, for example, occurred in the midst of falling inflation as monetary policy was tight. Monetary policy has been unleashed to combat the current economic contraction: M2 is rising at 15% p.a. and excess bank reserves have exploded from less than \$3 billion a year ago to over \$700 billion today. Given the magnitude of the output gap (supply vs. demand), inflation is not an immediate threat, but when growth does develop, the Fed will have to withdraw these excess reserves or inflation will return. Of course, that can't be done precipitously, as the Fed did in 1936-37, thus aborting the recovery and prolonging the depression. Deflation describes the world today, but a longer view warrants at least a consideration of the alternative (see Chart 16, pg. 6).

The massive monetary response is perhaps the biggest policy difference from the 1930s, and while the economic pain has been real enough, it isn't anything close to what we saw 75 years ago (see Chart 17). Still, there are "worrisome parallels," as the IMF notes: falling asset prices, constraints on lending due to deleveraging, doubts about the solvency of the financial sector.

Governments have gone to great lengths to ensure the viability of the financial system, from guaranteeing deposits to subsidizing funds to outright ownership of banks and insurers. These actions may prevent widespread defaults, but have yet to relieve all of the pressures on financial institutions. Monetary policies have been effective in reducing liquidity premia, as evidenced in the narrowing of the TED and LIBOR spreads, for example, but there remains severe economic stress on financial institutions. Corporate defaults are rising globally and recovery rates on defaulted bonds are falling. The IMF has doubled its estimates of expected write-downs in the US from \$1.4 trillion as of October to \$2.7 trillion most recently. Globally, the Fund sees potential losses



“..worrisome parallels..”





of \$4.1 trillion through next year. Since the start of 2008, the market capitalization of global banks has fallen more than half, from \$3.6 trillion to \$1.6 trillion. Bank earnings, before loss provisions, are expected to fall 50% and charge-offs are forecast to peak at over 4% of total loans, the most since the 1930s (see Chart 18, pg. 7).

Perhaps the best news came from the OECD's annual update of *Society at a Glance*. Americans (again) ranked among the most obese in the developed world, and spent the least time eating (France and Japan appeared at the other end of this measurement). But countries with expanding waistlines and fewer eating minutes had faster economic growth this decade than countries with slimmer, less hurried food patrons. There's hope, after all.

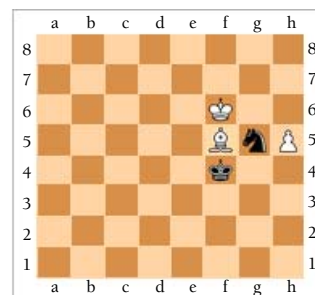
To open the Challengers' Round of the World Championships, Mark Taimanov was well prepared. Former world champion Mikhail Botvinnik and three other grandmasters were appointed as his seconds. Taimanov was determined to win the right to face the reigning world champion, Boris Spassky. But in a sport that boasts a long history of eccentric geniuses, Taimanov faced the most eccentric, most brilliant player of all time.

As a very young boy, he would travel alone by subway from his home in Brooklyn to play chess in Washington Square Park near NYU. In 1957, he became US champion at the age of 14, the youngest ever, and won the title every subsequent year he competed. In 1963, he did not lose or draw a single match. By 1971, he, too, was determined to win the championship from Boris Spassky, a man he had never defeated in five previous attempts.

In a sport of long tradition and convention, Bobby Fischer broke all the rules. His style of play was breathtakingly brilliant, daring and unpredictable. In his second game against Taimanov, who played as black, Taimanov had two pieces remaining and he had the next move, although he certainly would have preferred to pass: if he moved his king he would

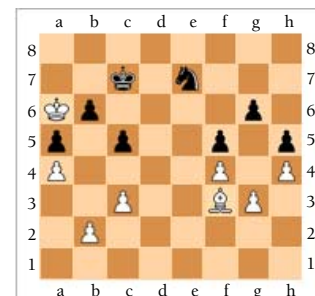
lose his knight, but by moving his knight, he allowed Fischer's pawn to pass and be promoted, thus sealing his fate (see Board-Game 2).

GAME 2



In the middle of the fourth game, Taimanov was similarly forced to move to an inferior position. Fischer's white king (a6) threatens one group of black pawns, and Fischer maneuvered his bishop to force Taimanov's king to retreat, opening the way for the white king to take the pawns (see Board-Game 4).⁵

GAME 4



⁵ Play continued:
57...Nc8
58. Bd5 Ne7
59. Bc4! Ne6
60. Bf7 Ne7
61. Be8

moving the knight would allow the bishop to capture the kingside pawns. The black king must give way.

61...Kd8
62. Bxg6! Nxb6
63. Kxb6 Kd7
64. Kxc5

And White has a win position. Either one of the White's queenside pawns will promote or the white king will attack and win the black kingside pawns and a kingside pawn will promote. Black resigned seven moves later.

⁶ I remember playing alongside, following the moves on TV and in the newspaper.

"..among the most obese.."



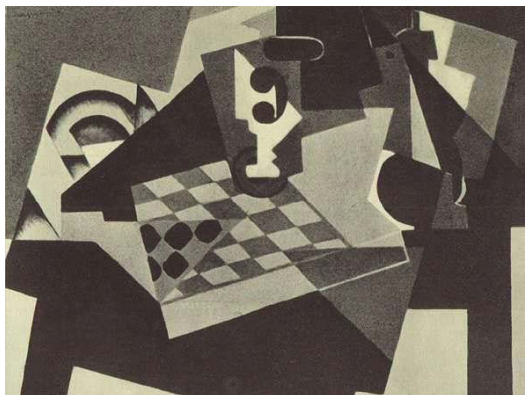
Fischer went on to defeat Taimanov 6-0, and then defeated another grandmaster, Bent Larsen, also 6-0. Fischer had won nineteen consecutive matches without a loss or a draw, a feat never accomplished before or since. And Fischer didn't just win; he annihilated the greatest players of the time. Thus was set up the most famous match in history, against the back drop of the Cold War, Bobby Fischer versus Boris Spassky.

It seems hard to imagine today, but at the time, the world was riveted to the live broadcast and move-by-move analysis of that match.⁶ Fischer blundered, and lost, the first game, and refused to appear for the second, defaulting, and thus apparently sealing his fate, for no one had ever come back from a two-game deficit. All Spassky had to do was draw each game and he would retain his title. But Fischer, in some of the most brilliant games in the annals of chess, took seven games from Spassky, losing only once more, becoming the only American, the only non-Soviet, to be world champion in a span of 60 years.

But let's return to the opening match with Taimanov, and games two and four, where Taimanov was forced to move into an inferior position, and eventual defeat. This is a very unusual development, as most games end when either the defender cannot move except into mate, or mate is achieved with a specific

action. Fischer put Taimanov, twice, in a place where his only choices worsened his position.

Zugswang is the German word meaning "compulsion to move." In chess, the word describes the rare experience of being forced into an inferior position, where each choice of move leads to a weakened state. Zugswang leads, inevitably, to defeat. There is a time for offensive parries, and a time for defensive steps, but a player should never be without options, never compelled to move unless it's favorable. As with chess, as with investing. 🏆



Juan Gris

⁶ I remember playing alongside, following the moves on TV and in the newspaper.

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MAY 2009

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