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SAY GOODBYE TO THE NEW ECONOMIC MAESTRO: A TRIBUTE TO ALAN GREENSPAN

One time jazz musician Alan Greenspan has conducted the economic orchestra with a combination of facts and intuition, producing a melody of stability and prosperity.

"But how do we know when irrational exuberance has unduly escalated asset values, which then become subject to unexpected and prolonged contractions as they have in Japan over the past decade?" Francis Boyer Lecture of The American Enterprise Institute for Public Policy, Washington, D.C., December 5, 1996

In less than 90 days, on January 31st, 2006, we will probably see one of the most monumental changes to financial market history in over 18 years. For almost two decades, Alan Greenspan has held the top post at the Federal Reserve Bank, one of the most, if not the most important central banks in the world. For a whole generation of traders who sprouted during the tech boom, Greenspan is the only Fed Chairman that they know. Greenspan's decisions impact not only Americans, but also every single person or corporation that has exposure to dollar denominated assets.

In the foreign exchange market, it is estimated that US$1.90 trillion changes hands every day with 89.0% of all the transactions involving U.S. dollars, illustrating the influence, that Greenspan has on the global financial markets. The market has scrutinised and analysed everything from the size of his briefcase to every word that he uses and does not use in his speeches. Since taking the top job, Greenspan has managed to navigate the U.S. economy through the 1987 stock market crash, shortly after taking office as Chairman. Later he fought off the effects of the 1991 Gulf War oil spike, the Asian financial crisis of 1997 and the collapse of Long Term Capital Management (LTCM crisis) in 1998. He was also lauded for mitigating the damage from the burst of the Nasdaq bubble in 2001 and the 9/11 incident with only minimal setbacks to the economy. Hence, it was not for nothing that he was referred to as the second most powerful man in the world.

His ability to get the U.S. over the tough hurdles with his characteristically calm and logical demeanour has granted him a semi-divine status amongst both investors, large and small as well as international political figures. During his tenure as Chairman, the U.S. economy grew 16 out of 17 years with only two relatively short recessions on his watch. There is probably no other person who commands as much respect in the financial markets today as Greenspan. What this means is that there are big shoes to be filled up.

Eighteen years later, as Greenspan comes to the end of his long tenure as Fed Chairman, his contributions to the U.S. economy is unquestionable. R. Glenn Hubbard, the Dean of Columbia Business School and former Chairman of the Council of Economic Advisers under President George W. Bush said, "Alan Greenspan has a deeper economic intuition than almost anybody I've ever met". His view is further shared by Richard M. Kovacevich, Chairman and CEO of Wells Fargo & Co. who said that he thinks Greenspan will step down as perhaps the best central banker of all time.

Based on today's economic statistics, there is little reason to doubt this evaluation. Under the Greenspan era, the U.S. has enjoyed one of the longest periods of economic growth and price stability in its history. The Americans used to think that 1.0% to 2.0% growth was normal economic growth, but currently they are starting to look at 3.0% plus as the normal growth rate for the U.S. economy. Taking out the volatile energy and food prices, inflation is still running at 2.0%, compared to the 3.90% rate when Greenspan was appointed as Chairman, while the stock market has more than doubled. In addition, the unemployment rate is lower, productivity growth is nearly a full percentage point faster and real wages are higher compared to when he took over from Paul Volcker as Fed Chairman.

Needless to say, by any standard, it is a splendid performance. Given the economy's excellent performance during the Greenspan years, further study of the Greenspan era should command high priority among monetary economists. Understanding the sources of success will be critical to continuing success in future years.

Characteristics of Greenspan's Era

It is internationally accepted that Greenspan has been an outstanding Fed Chairman. Over the coming years, Greenspan's successor as well as other Fed chairmen will surely want to extend Greenspan's record of policy success. What are the characteristics of Greenspan's era? Most economists and market leaders have to a certain extent agreed to four key characteristics, namely, low inflation credibility, successful crisis management, empirical understanding of the economy and predictability of monetary policy.

Low-Inflation Credibility

Market confidence in the Federal Reserve's ability and willingness to maintain a low trend rate of inflation has been a core characteristic of Greenspan's era. It is to be noted that, Greenspan did not achieve instantaneous market confidence when he took office in 1987, but he built that confidence quickly during his initial years as Fed Chairman.

Recent survey data and the spread between the yields on conventional and indexed Treasury bonds indicates that market confidence in continuing low inflation extends well beyond Greenspan's tenure as Chairman. Institutionalising market confidence in the Federal Reserve is a great accomplishment. However, there is no doubt that going forward the markets will be watching closely to see whether Greenspan's successor will be maintaining a low inflation regime as well. In recent years, market confidence has been so great that only a string of poor policy decisions would have changed inflation expectations. For example, inflation expectations hardly changed in the aftermath of 9/11 and following the oil price increases of 2004-05.

Greenspan's successor will start with a base of institutionalised market confidence, but the market will naturally be somewhat sceptical until the new Chairman has established his or her own track record. Put another way, the Fed's credibility to fight inflation may be somewhat more fragile over the next few years than it has been over the past few years. Almost certainly, future chairmen will address the issue of whether the Federal Reserve should adopt a formal inflation target, which many economists and a number of members of the FOMC, have espoused.

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Successful Crisis Management

Effective crisis management is important not only in dealing with the crises perse but equally important is to instil market confidence in the Federal Reserve. The Federal Reserve has managed crises effectively throughout the post World War II period, but its skills were certainly honed during the Greenspan years. The major crises during these years were the stock market crash of 1987, the financial market disturbance in the fall of 1998 following the Russian default and the near failure of Long Term Capital Management (LTCM) and the terrorist attacks of September 2001.

The Fed's readiness and effectiveness in handling the Y2K event has successfully instilled confidence into the hearts and minds of the U.S. public. This was particularly important, as any over-reaction and/or panic amongst the U.S. public, would sent the financial markets in disarray, resulting in disruptions and subsequently liquidity crisis. The Y2K was testimony to the Fed's commitment to maintain its reliable services to the nation's banking system, the financial markets and the payments systems, while preserving public confidence and supporting reliable government operations. It is to be noted that the Fed provides a central backbone for the payment and settlement system in the U.S., with settlements of more than US$2 trillion every day.

Ahead of the Y2K event and especially following 9/11, the Fed invested heavily in stronger contingency arrangements for communications among policymakers and in infrastructure for maintaining essential payments system services. The low inflation environment clearly makes crisis management easier. For example, the Fed created a huge amount of liquidity following the 9/11 attacks, yet doing so did not raise inflation fears. The Fed withdrew the extra liquidity as markets returned to normal. The Fed's handling of the crisis clearly reduced the impact of the event on the economy.

Empirical Understanding of the Economy

Greenspan has an astounding command of data. He has applied to raw data a deep understanding of economic theory and business practice and that understanding has enabled him to track economic developments in detail. Greenspan's highly informed intuition has enabled him to adjust the stance of policy i.e. the setting of the target Fed funds rate, in a timely fashion. To some degree, Greenspan has institutionalised command over data in the Federal Reserve's staff, especially staff at the Board of Governors. However, Greenspan's own expertise will be hard to match.

Predictability of Monetary Policy

The Greenspan years have seen a significant change in the conduct and transparency of monetary policy with the result that policy actions have become far more predictable to the market. When Greenspan took office in 1987, the Fed did not disclose policy actions on a current basis. Indeed, before 1987 Fed decisions were not only murky to the market but also at times even less transparent within the System, including within the FOMC. Moreover, before Greenspan, many within the Fed believed that policy effectiveness depend on taking markets by surprise.

The evolution to greater transparency proceeded gradually during the Greenspan years. The most important single change was that the Fed began to disclose its decisions on the target Fed funds rate in 1994. Besides disclosure of policy actions, two other features of the conduct of policy has paved the way for greater transparency. One was the quantum of adjustments in the target Fed funds rate increments of 25 basis points and the other was the timing of the adjustments which occurred at regularly scheduled FOMC meetings.

Providing guidance on likely future policy actions is a significant departure for the Federal Reserve Bank. Historically, the Fed and other central banks have been reluctant to provide forward guidance out of a concern that doing so would limit the freedom of action in the event of new information indicating that changed circumstances called for a change in policy direction. If the markets have a thorough understanding of policy, including an understanding that forward guidance is conditional on the information available to the central bank at the time the guidance is issued, then markets should not have difficulty in understanding how new information might require policy action that differs from the guidance.

Inside the Black Box: How Do You Replace Good Hunches?

The concern that some economists voiced also stems from the understanding that a significant part of the Fed's credibility in controlling inflation comes from Greenspan himself and they wonder how his insightful judgment will be replicated. This one particular aspect to Greenspan's handling of monetary policy that seems central to his success can only be described as intuition. Economists like Alan Blinder, Frederic Mishkin and Donald Kohn speak in awe of Greenspan's conviction in the mid-1990s that economic productivity in the United States had begun to accelerate, a trend that he spotted before most other economists, including those who are in the FOMC.

Although a sharp rise in productivity often results in inflationary pressure because wages typically rise as well, Greenspan argued that the productivity surge that the American economy was experiencing was different, as it was driven in part by advancements in information technology that enabled American companies to produce more with fewer workers. The outcome of this internal debate at the Fed was crucial for the U.S. economy since Greenspan was able to convince his colleagues not to make a preemptive strike against inflation by raising interest rates, a policy decision that could have put an unwarranted chill into the economy.

How was Greenspan able to see what so many other talented economists failed to see? The Chairman has a voracious appetite for facts and seems to function as his own economist. As Greenspan has never fully explained his thinking, both Mishkin and Blinder believed that he was acting in part on a well-informed hunch.

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Meet the New Boss

As the expiry to Greenspan's term draws closer, speculations were rife that Greenspan's term may be further extended beyond 31st January 2006 to give the White House more time to broaden the search for possible successors, looking beyond the academic and policy worlds to the corporate world. Furthermore, a short extension could also be attractive to Greenspan, as should he remains at the helm until May 11 2006, he would then be the longest serving Fed Chairman ever, exceeding the 18 years, nine months and 29 days served by William McChesney Martin Jr., from 1951 to 1970.

On October 24th 2005, President Bush ended the long speculated changing of the guard at the Federal Reserve Bank, when he nominated his top economic adviser, Ben Bernanke (pronounced as Ber-NANK-ee), to replace Alan Greenspan. He ousted at least two other potential candidates for the post namely, R. Glenn Hubbard, Dean of the Columbia Business School and former Chairman of the Council of Economic Advisers (CEA) under President George W. Bush and the President of the National Bureau of Economic Research (NBER) and a Harvard economics professor, Martin S. Feldstein. If approved by Congress, Bernanke will be the 14th Federal Reserve Bank Chairman since the inception of the Federal Reserve System in 1913. Bernanke will start on a full 14-year term and at the age of 51, he is likely to be able to sit on the board until 2020.

Looking through the past 13 chairmen of the Fed, Bernanke stands out as one of the most academically proficient choices ever. He has been academic all his life, with more than 70 published articles in economic journals, 2 economic textbooks and editorship of several other academic books and journals behind him. He has been Chairman of Princeton's economics department and still holds a chair as professor at Princeton. Bernanke is also one of the leading experts in monetary theory. His major weakness however is his inexperience in practical finance, since he has not been in the private sector and although he has some experience on the Federal Reserve Bank board, it was a relatively short stint (2002-2005).

Will Bernanke Follow Greenspan's Policies and Strategies?

Within Washington there is a new trend to appoint academic research economists to leading economic policy positions. Several recent Federal Reserve governors and district bank chairpersons are former academicians or researchers, as is Chairman designate Bernanke. As most academic research economists believe in economic models, this particular trend is somewhat disturbing. Most academic research economists believe that although the economy is subject to shocks that make outcomes unpredictable, the economy's structure is supposedly known through their models. The danger is that academic policymakers will be less open and more inclined to ignore new facts in favour of their theories. This approach contrasts sharply with that of Greenspan's, who held strong ideological convictions about markets and government, but believed the economy's structure was inexplicable. This belief has kept Greenspan open despite the strength of his convictions and made him an uncanny central banker.

Although Bernanke is an academic research economist, he could still be one of the most open-minded academicians. He began his career studying the devastating effects of the Great Depression's deflation on the U.S. banking system, which explains his concern about deflation in the last recession and why he advocated such deep interest rate cuts.

Unfortunately, financial markets have less sympathy with this view and rated him as being potentially “soft” on inflation.

Despite that, Bernanke could be expected to continue with Greenspan's policies in ensuring U.S. competitiveness, spurring productivity and continuing the path of strong non inflationary economic growth, which is supported by his immediate statement after being nominated as Greenspan’s successor. Then, Bernanke has expressed the desire to extend Greenspan’s policies and strategies saying that his first priority will be to maintain continuity with the policies and strategies established during the Greenspan era. "If I am confirmed to this position, my first priority will be to maintain continuity with the policies and policy strategies established during the Greenspan years," Bernanke said when his nomination was announced at the White House on October 24, 2005. Furthermore, Bernanke was also a strong supporter of Greenspan’s policies when he was on the Federal Reserve Bank board and shared Chairman Greenspan’s views on most monetary policy issues.

U.S. Stocks Surged on the News…

Finding someone to fill Greenspan’s shoes seems like a daunting task, but the same was said when the U.S. government was looking for someone to fill Greenspan’s predecessor Paul A. Volcker’s shoes. On the day that Greenspan was announced as the replacement for Volcker, the trade weighted dollar index declined by 1.70%, the S&P 500 index slipped 0.50% while Treasury yields increased by 25 to 35 bps. The effect however did not last long as Greenspan has managed to maintain the reputation of the Federal Reserve Bank throughout his tenure.

Prior to Bernanke’s appointment, the markets believed that the U.S. dollar, stocks and bonds could nevertheless experience similar fate due to the uncertainties of whether the new Chairman is competent enough to take such an important role, following Greenspan’s footsteps. However, after the announcement was made, U.S. stocks responded with a big rally, with the Dow Jones Industrial Index (DJIA) posting its biggest one-day gain since April, as fear dissipates among market participants that the Fed would overshoot in raising interest rates, which could result in slower growth. The Dow Jones Industrial Average surged by 169.78 points to 10,385.00 points, an increase of 1.70 percent, the broader S&P 500 index surged by 19.79 points to 1,199.38 points, while the Nasdaq Composite index rose by 1.60 percent or 33.62 points to 2,115.83 points after the nomination.

Bernanke's image on Wall Street has been largely shaped by comments he made in November 2002, in what is now known as the "printing press” comment. Those who criticise called him "helicopter Ben," arguing that he is too worried about deflation and too sanguine about inflation.

…While U.S. Bonds Take a Hit

Conversely, bond prices on the other hand slumped, with the yield on the 10-year Treasury note rising to 4.44% on October 24, 2005 from 4.39% on October 21, 2005 indicating the market's worries about rising inflation, as investors often demand higher yields on bonds when investors perceived that inflation is going to be a threat going forward. This could be due to Bernanke's reputation for favouring inflation targets and the market's perception that he would be less concerned about inflation than Greenspan has been.

Bernanke's image on Wall Street has been largely shaped by the comments he made in his speech "Deflation: Making Sure "It" Doesn't Happen Here", before the National Economists Club, Washington, D.C., on November 21st 2002, in what is now known as the "*printing press*" comment in which he said, "*Like gold, U.S. dollars have value only to the extent that they are strictly limited in supply. But the U.S. government has a technology, called a printing press (or, today, its electronic equivalent), that allows it to produce as many U.S. dollars as it wishes at essentially no cost*."

In the speech, Bernanke detailed how the Fed could use its various tools to spur consumer and business spending, including by jumping into the bond market to directly buy Treasury securities in an effort to push down longer-term interest rates. Combined with federal tax cuts, he said, the effect would be a "*helicopter drop*" of money into the economy, a phrase coined by eminent economist Milton Friedman. The markets perceived his "*printing press*" comment as a signal that the U.S. would adopt inflationary policies and that Bernanke would always tilt toward supporting economic growth, perhaps even if inflation, not deflation, was the issue.

Despite all the criticisms, Bernanke could still be the safest pick for Fed Chairman given his experience within the Federal Reserve Bank working with Greenspan, coupled with his academic expertise and the fact that he does hold some credibility within the international markets. Any other pick could have caused quite a bit of uncertainty in the markets since no one would have known how the prospective Chairman would stand on policies.

Challenges Awaiting Bernanke

In economics there is a theory known as the "*winner's curse*" whereby the winner of an auction over pays. The most that a bidder should have paid is the second highest bid, which is the highest value attached by all other bidders. This curse provides a useful analogy for thinking about Greenspan's replacement. There is a good chance that the "winner", Bernanke, may end up with a bout of the winner's curse.

As Federal Reserve Chairman, Bernanke faces several major challenges. The first is that he is taking office at an extremely difficult economic moment. On one hand, the economy exhibits significant financial fragility that calls for interest rate caution. On the other, it is suffering a bout of oil price inflation. Though higher interest rates are not appropriate for dealing with such inflation, financial markets believed that the Fed should continue with its interest rates tightening campaign to fight off inflation and subsequently push for higher rates. This comes just as the "*Greenspan premium*," earned through a decade of costly anti inflation policy, is being replaced by the "*Bernanke discount*." The net result is that Bernanke will have less room for manoeuvre and will be under greater pressure to raise rates to prove his anti inflation credentials.

The second challenge facing Bernanke is how to deal with asset price bubbles without the recourse to higher interest rates, which could result in the bursting of the housing bubble and subsequently leading to a recession. If the housing bubble bursts and recession ensues, lower interest rates will likely have a similar effect to "pushing on a string." This is because lower interest rates will not benefit households that have refinanced their houses earlier when interest rates were low, while others will find it difficult to refinance, as home values would have fallen.

Among Bernanke's daunting task when he assumes the reins of power at the Fed is to retain foreign investors confidence in U.S. dollar's assets

The third challenge is, Bernanke would probably have to change his views on inflation targeting, which now looks ill advised in light of today's complex inflation and Europe's poor economic performance under inflation targeting. Ironically, Greenspan is said to dislike the idea of inflation targeting because it would lessen his decision-making flexibility. Furthermore, Bernanke has written that asset prices should not be considered independently of their impact on overall inflation. If it transpires that there has been a housing bubble that wreaks widespread havoc when it bursts, he will have to change his views.

Finally, Bernanke will also have to deal with the all time record high current account and trade deficits, which require the U.S. to tap on the surplus savings from the rest of the world to fund U.S. economic growth. In this regard, Bernanke has opined on the circumstances, suggesting that a profligate America is actually doing the world a favour by consuming a global "*savings glut*".

However, the U.S. economy, which currently runs close to US$800 billion current account deficits, requires approximately US$3 billion capital inflow per business day. To accomplish that funding without a sharp drop in the value of the U.S. dollar and/or a sharp rise in interest rates requires extraordinary confidence on the part of foreign investors in U.S. dollar assets. As such, to retain foreign investors confidence in U.S. dollar assets will be among Bernanke's daunting task when he assumes the reins of power at the Fed.

The "Curse" of the First Year

Despite how qualified the prospective candidates are, the "curse" of the first year as Fed Chairman could haunt any of the nominees. Since 1970, every Fed Chairman that assumed the top job has faced a major crisis shortly after entering office. For instance, Arthur F. Burns, Fed Chairman from February 1, 1970, climbed to the top chair only to oversee the beginning of the 1970s bear market, the closing of the gold window and the first oil shock in 1973. When he stepped down, Paul A. Volcker had to fight double digit inflation with the highest Fed funds rate seen ever, resulting in an on-and-off recession from 1979 to 1982. Shortly after taking the top post on August 11, 1987, Greenspan had to deal with the stock market crash of 1987. With the current account deficit at historical high, it would not be much of a surprise if the next Fed Chairman would also be faced with a similar fate.

Source: *Federal Reserve Bank*

Alan Greenspan

Chairman

Alan Greenspan took office on June 19, 2004, for a fifth term as Chairman of the Board of Governors of the Federal Reserve System. Greenspan also serves as Chairman of the Federal Open Market Committee, the System's principal monetary policymaking body. He originally took office as Chairman and to fill an unexpired term as a member of the Board on August 11, 1987. Greenspan was reappointed to the Board to a full 14-year term, which began February 1, 1992, and ends January 31, 2006. He has been designated Chairman by Presidents Reagan, Bush Sr., Clinton, and Bush Jr.

It would probably come as a surprise to most people to discover that Greenspan's first real job was as a jazz musician in the 1940s. Born and raised in Manhattan, Greenspan's first love was music and he studied at the Juilliard School, majoring in the clarinet, after graduating from high school. He later dropped out of Juilliard and spent a couple of years as a regular member of a swing band, Henry Jerome and His Orchestra, where he played the clarinet and tenor saxophone.

Greenspan eventually quit the band and enrolled at the New York University School of Commerce, graduating in 1948 with a Bachelor of Science degree in economics. This was followed a few years later with a Master's in economics from NYU. His first job, in what soon becomes his real life's work, was as an economist at the National Industrial Conference Board, known today as the Conference Board.

A factor that may have shaped Greenspan's approach to monetary policy is that he had always been a professional, rather than an academic economist. He has never taught in any of the great American educational institutions like Princeton or the Massachusetts Institute of Technology. In fact, Greenspan made his living by advising corporations on the future direction of the economy prior to receiving his Ph.D. in economics from NYU in 1977. From 1954 to 1974 and again from 1977 to 1987, he was the President of Townsend-Greenspan & Co., an economic consulting firm in New York. During the three-year hiatus, he served as Chairman of the Council of Economic Advisors under President Gerald Ford.

Greenspan became Chairman of the Federal Reserve in 1987 when he assumed the remaining years of Volcker's unexpired term. President Jimmy Carter had named Volcker as a Fed Chairman in August 1979, during a time of cripplingly high inflation, which he brought to heel by sharply raising interest rates.

Bibliography

Greenspan was born on March 6, 1926, in New York City. He received a B.S. in economics (summa cum laude) in 1948, an M.A. in economics in 1950 and a Ph.D. in economics in 1977, all from New York University. Greenspan also has performed advanced graduate study at Columbia University.

From 1954 to 1974 and from 1977 to 1987, Greenspan was Chairman and President of Townsend-Greenspan & Co., Inc., an economic consulting firm in New York City. From 1974 to 1977, he served as Chairman of the President's Council of Economic Advisers (CEA) under President Ford and from 1981 to 1983, as Chairman of the National Commission on Social Security Reform.

Greenspan has also served as a member of President Reagan's Economic Policy Advisory Board, a member of Time magazine's Board of Economists, a senior adviser to the Brookings Panel on Economic Activity and a consultant to the Congressional Budget Office.

His previous Presidential appointments include the President's Foreign Intelligence Advisory Board, the Commission on Financial Structure and Regulation, the Commission on an All Volunteer Armed Force and the Task Force on Economic Growth.

Before his appointment to the Board, Greenspan served as a corporate director for Aluminium Company of America (Alcoa), Automatic Data Processing, Inc., Capital Cities/ABC, Inc., General Foods, Inc., J.P. Morgan & Co., Inc., Morgan Guaranty Trust Company of New York, Mobil Corporation and The Pittston Company.

His non-corporate positions have included Member of the Board of Trustees, The Rand Corporation, Director, Institute for International Economics, Member of the Board of Overseers, Hoover Institution (at Stanford University) and Vice Chairman and Trustee, Economic Club of New York.

Greenspan has served as Chairman of the Conference of Business Economists, President and Fellow of the National Association of Business Economists and Director of the National Economists Club.

Greenspan has received honorary degrees from Harvard, Yale, Pennsylvania, Leuven (Belgium), Notre Dame, Wake Forest, Colgate and Edinburgh universities. His other awards include the Thomas Jefferson Award for the greatest public service performed by an elected or appointed official, presented by the American Institute for Public Service, 1976 (joint recipient with Arthur Burns and William Simon), elected as a Fellow of the American Statistical Association, 1989, decorated Legion of Honour (Commander) France, 2000, honorary Knight Commander of the British Empire, 2002 and he was the first recipient of the Gerald R. Ford Medal for Distinguished Public Service, 2003.

Box 1: **Key Dates in Greenspan's Tenure at the Fed**

June 2, 1987 — President Reagan nominates Alan Greenspan to replace departing Fed Chairman Paul Volcker.

August 11, 1987 — Greenspan takes office.

September 4, 1987 — Fed raises discount rate by 50 basis points, a move some see partly as an effort by Greenspan to establish his inflation fighting credentials.

October 19, 1987 — Black Monday. The Dow Jones Industrial Average plunges a record 508 points, a 22% slide. The next day the Fed says it is prepared to pump money into the financial system to prevent panic. Greenspan's handling of the crisis later wins wide praise.

August 2, 1990 — Iraq invades Kuwait sending oil prices sharply higher and U.S. consumer sentiment down. The invasion was a key factor behind the recession dated from July 1990 to March 1991.

July 10, 1991 — President Bush nominates Greenspan to a second term as Fed Chairman.

November 17, 1993 — Greenspan, under pressure from Congress to lift a veil of central bank secrecy, says the Fed will begin releasing transcripts of meetings of its policymaking panel immediately compared to the three days lag previously. The move was one of several steps Greenspan would take to increase transparency at the Fed.

February 4, 1994 — In its first-ever announcement of an interest-rate change, the Fed raised the federal funds rate, a benchmark that influences the retail bank prime rate, by 0.25 percentage points in a pre-emptive strike against inflation. The surprise move sends stocks sharply lower. The Fed would end up raising rates seven times over the course of the year in a successful effort to slow growth without tipping the economy into recession, a so called soft landing.

December 20, 1994 — Mexico devalues the peso, sparking a quick-spreading financial crisis.

February 22, 1996 — President Clinton nominates Greenspan for a third term as Fed Chairman.

December 5, 1996 — With the Dow Jones Industrial Index (DJIA) surging to above 6,400 points, Greenspan warns "irrational exuberance" may be inflating asset values. "How do we know when irrational exuberance has unduly escalated asset values?," Greenspan asked rhetorically in what was to become his most famous utterance. The simple fact that the powerful Fed chief raised the question was enough to send financial markets lower around the globe.

April 6, 1997 — Greenspan marries NBC correspondent Andrea Mitchell.

July 2, 1997 — Thailand drops its currency peg, allowing the baht to find its own value. The currency collapses, sparking a financial crisis that quickly sweeps South East Asia and spread to the other parts of the world.

August 17, 1998 — Financial crisis heightened as Russia devalues its rouble, effectively defaulting on rouble denominated debt.

September 23, 1998 — The New York Federal Reserve Bank helps broker a $3.50 billion private sector bailout for hedge fund Long-Term Capital Management, which was on the brink of collapse. Greenspan later tells Congress that Long Term Capital Management's (LTCM) failure could have damaged the world economy.

September 29, 1998 — With the global financial crisis lapping at U.S. shores, the Fed cuts interest rates by 0.25 percentage points, the first rate cut since January 31, 1996. The Fed cut rates again on October 15, 1998 and November 17, 1998.

January 4, 2000 — Clinton nominates Greenspan for a fourth term as Fed Chairman.

January 14, 2000 — Dow Jones industrial average reaches an all-time closing high of 11,722.98 points. The tech-heavy Nasdaq Composite follows, closing at 5048.62 points on March 10, while the broad based Standard & Poor's 500 peaks at 1527.46 points on March 24.

February 2000 — The U.S. economic expansion that began in March 1991 became the longest on record at 107 months. The economy fell into recession in March 2001, ending the expansion at 120 months.

January 25, 2001 — Expressing concern that projections for large and growing federal budget surpluses could mean the federal government would eventually begin accumulating private assets, Greenspan gives his backing to tax cuts. "If long-term fiscal stability is the criterion, it is far better, in my judgment, that the surpluses be lowered by tax reductions than by spending increases," he told the Senate Budget Committee. The comment, which came as the Bush administration was preparing to push a large tax-cut package, was seen by many as highly political.

September 11, 2001 — Hijacked airliners crashed into the World Trade Center, the Pentagon and a field in rural Pennsylvania. The attack deals a blow to the U.S. economy. The Fed responds by cutting interest rates four times before the end of the year, building on a campaign of reductions that began in January. Over the course of the year, the Fed lowers the key Fed funds rate by 475 basis points to a 40-year low of 1.75% at the end of the year. This marked, one of its most aggressive campaigns ever against economic weakness and one credited with pulling the economy quickly out of the recession that began in March.

August 30, 2002 — Greenspan defends the Fed from criticisms that it should have done more in the late 1990s to prevent a stock market bubble from building, saying it was not possible to identify asset bubbles before they burst and that the central bank would have likely raised the interest rates to recession-inducing levels in order to put a lid on the rising stock prices.

Sept. 26, 2002 – Greenspan receives honorary knighthood from Queen Elizabeth II in recognition of his "contribution to global economic stability."

November 6, 2002 — Amid signs of a faltering economic recovery, the Fed slashes rates by a hefty 50 basis points, the first 50 basis points cut since December 2001. The move brought the Fed funds rate to a fresh 40-year low of 1.25%.

February 11, 2003 — Greenspan suggests economic stimulus may not be needed because the economy was poised to recover once the Iraqi war fears are resolved, which creates uneasiness within the Bush administration at a time when it was pushing for a $726 billion, 10-year tax-cut plan.

June 25, 2003 — The Fed cuts rates by another quarter-percentage point, taking the Fed funds rate to 1.0%, the lowest level since 1958.

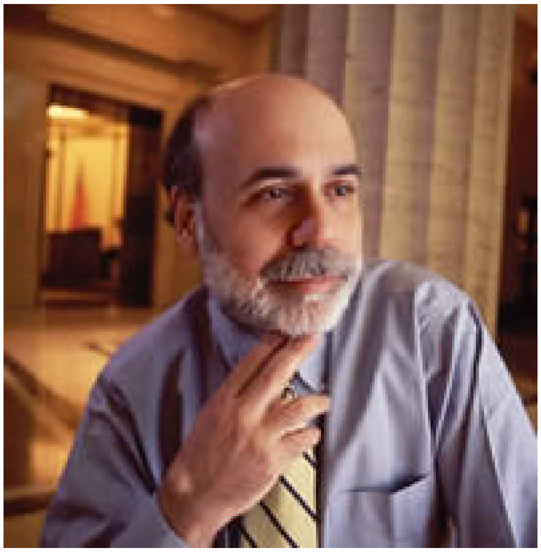
May 18, 2004 — President Bush nominates Greenspan for a fifth term as Fed Chairman. Although Greenspan's four-year term as Fed Chairman will expire on June 20, 2008, his term as a Fed board member will be expiring on January 31, 2006, as he was reappointed to the board after serving 5 years of Paul Volcker's remaining board term i.e. 1987-1992. (Refer to Box 3). While a Chairman can be reappointed, a board member may not serve more than one full 14-year term and a Chairman must be selected from the seven Fed board members. However, a Chairman may continue on the board seat and serve as a Fed Chairman until the President nominates and the U.S. Senate confirms a successor.

June 30, 2004 — The Fed, convinced a sustainable recovery was taking hold, began to move rates up by 25 basis points to 1.25% and says it expects to be able to continue to raise rates at a "measured" pace. The tightening campaign has taken the Fed funds rate to 4.0% in 12 straight quarter-point moves (as at November 1st, 2005). Markets expect the Fed to continue raising rates to bring it up to the normal or neutral rate generally believed to be in the region of 4.25 to 4.75% (assuming the core CPI of about 2.0%).

February 16, 2005 — Greenspan describes the unusually low long-term bond yields in the face of short-term rate hikes by the Fed a "conundrum."

October 24, 2005 — Greenspan appears with Bush, as the President announces his intention to nominate White House economic adviser and former Fed Governor Ben Bernanke to be the new Fed Chairman.

Source: *Reuters*



Ben S. Bernanke

Starting his career with a Ph.D. in Economics from Massachusetts Institute of Technology (MIT) and a long time teaching stint in economics and public affairs at Princeton University, Ben S. Bernanke is probably best known for his term on the Federal Reserve Board of Governors, which he served from August 2002 to June 2005 before he was elected to become the President of the Council of Economic Advisers (CEA).

Source: *Princeton University*

As a member of the board, he has quickly risen in recognition over the short span of his term, as his speeches are essentially the second most analysed by Fed watchers after Alan Greenspan's. His most well known stance includes an unwavering devotion to inflation targeting, which Alan Greenspan opposes. Critiques of Bernanke conferred him nicknames such as "*printing press Ben*" and "*helicopter Ben*", arguing that he is too worried about deflation and too sanguine on inflation. This came as he had been explicitly promising to print money as a manner of increasing liquidity to generate inflation, if necessary. Bernanke has been credited with shaping the policy debate on deflation and helping spur the decision of lowering interest rates to a 45 year low of 1.0%. Other work Bernanke has done indicates his advocacy of combining even more indicators into the models used to determine monetary policy in order to achieve more effective economic stabilisation. He has studied this possibility over the years and penned papers describing possible implementation methods.

Prior to him taking the role as the President of the CEA in June 2005, the market view the move as a preliminary trial position before President Bush names him as the top choice to follow Alan Greenspan, who was head of the CEA under President Ford. Of the top 3 contenders for the position, Bernanke is the last to come into this role.

Having Bernanke as Federal Reserve Bank Chairman would mean that the U.S. would probably be moving to an inflation targeting policy, similar to the ones followed by the European Central Bank and the Bank of England. This would be more restrictive and less flexible than the current policy, but having Bernanke would also mean bringing about greater disclosure to the public and hopefully the credibility to the Fed.

Bibliography

Ben Shalom Bernanke, the son of a pharmacist and a school teacher, was born on December 13, 1953, in Augusta, Georgia. He grew up in Dillon, North Carolina and received his B.A. in economics in 1975 from Harvard University with summa cum laude where he received the Allyn Young Prize for best Harvard undergraduate economics thesis and the John H. Williams Prize, for outstanding senior in the Harvard Economics Department. Four years later, he earned his Ph.D. in economics from Massachusetts Institute of Technology (MIT). After receiving his Ph.D., he started his teaching career at Stanford University's Graduate School of Business. He left Stanford for Princeton in 1985, where he spent 20 years in the faculty as a Professor of Economics and Public Affairs. He has also served as a visiting faculty member at other institutions, including MIT.

Bernanke is currently the Howard Harrison and Gabrielle Snyder Beck Professor of Economics and Public Affairs at the Woodrow Wilson School of Public and International Affairs, Princeton University and is also the Chairman of the Department of Economics. Currently, he is also the Director of the Monetary Economics Program of the National Bureau of Economics Research (NBER).

Bernanke is a Fellow of the American Academy of Arts and Sciences and the Econometric Society. Bernanke is a macroeconomist with interests in monetary policy and macroeconomic history. He is the Editor of the American Economic Review, Associate Editor of Journal of Money, Credit and Banking, Journal of Financial Intermediation, Co. Editor of Journal of Business and Editorial Board of Journal of Macroeconomics. His works have been published in more than 70 academic journals.

Box 2: **How the Federal Reserve Works**

Known as the Fed, the Federal Reserve is the most powerful financial regulatory body in the USA. Its far-reaching actions influence everything from the money supply to mortgage rates.

The following is a primer on the Fed's mission and operations:

- *What is the Fed?*

Created in 1913 by Congress, the Fed is an independent central bank that oversees the U.S. financial and monetary system. It includes seven board governors in Washington and 12 regional banks and bank Presidents from San Francisco to New York.

Policy is set by the Federal Open Market Committee (FOMC), which includes the Fed governors, the President of the Federal Reserve Bank of New York and Presidents from four other regional banks on a rotating basis.

The seven members of the Board of Governors of the Federal Reserve System are nominated by the President and confirmed by the Senate. A full term is fourteen years. One term begins every two years, on February 1st of even-numbered years. A member who serves a full term may not be reappointed. A member who completes an unexpired portion of a term may be reappointed. All terms end on their statutory date regardless of the date on which the member is sworn into office. The Chairman and the Vice Chairman of the Board are named by the President from among the members and are confirmed by the Senate. They serve a term of four years. A member's term on the Board is not affected by his or her status as Chairman or Vice Chairman.

- *What does the Fed do?*

The Fed fine tunes the economy and controls the U.S. money supply by selling and buying Treasury securities on the open market. It tries to keep inflation in check, keep employment high and guard against crashes and other dangers in the markets. The FOMC meets eight times a year to set a target for a key short-term interest rate that influences how much banks and other lenders charge for business and consumer loans.

The FOMC's actions are closely followed by the business world and the Wall Street. The committee's meetings and deliberations are private, although minutes are public record.

The Fed also regulates banks and runs the U.S. payment system, including the processing of millions of checks and electronic fund transfers a day.

- *How much do Fed officials make?*

As set by Congress, the Chairman's salary is $180,100 a year and other governors' paychecks are $162,100 a year. The Presidents of Fed regional banks make from $235,000 (Richmond) to $310,000 a year (New York).

- *Who oversees the Fed?*

The Fed is an independent agency but is subject to congressional oversight and audits by the Government Accountability Office and the Fed's Office of Inspector General. The President appoints governors to 14-year terms, while the Chairman and vice chair serve four-year terms. The Chairman and vice-Chairman can be reappointed until their terms as governor expire.

Source: *USA Today Research and Federal Reserve Bank Board of Governors*

Box 3: **Past Federal Reserve Chairmen**

1. Charles S. Hamlin (August 10, 1914 to August 9, 1916)
2. William P.G. Harding (August 10, 1916 to August 9, 1922)
3. Daniel R. Crissinger (May 1, 1923 to September 15, 1927)
4. Roy A. Young (October 4, 1927 to August 31, 1930)
5. Eugene Meyer (September 16, 1930 to May 10, 1933)
6. Eugene R. Black (May 19, 1933 to August 15, 1934)
7. Marriner S. Eccles[1] (November 15, 1934 to January 31, 1948)
8. Thomas B. McCabe (April 15, 1948 to March 31, 1951)
9. William McChesney Martin, Jr. (April 2, 1951 to January 31, 1970)
10. Arthur F. Burns (February 1, 1970 to January 31, 1978)
11. G. William Miller (March 8, 1978 to August 6, 1979)
12. Paul A. Volcker (August 6, 1979 to August 11, 1987)
13. Alan Greenspan[2] (August 11, 1987 to present)

[1] Served as Chairman Pro Tempore from February 3, 1948 to April 15, 1948
[2] Served as Chairman Pro Tempore from March 3, 1996 to June 20, 1996

Source: *Federal Reserve Bank Board of Governors*