FINANCIAL | MARKETS | CENTER

FOR IMMEDIATE RELEASE December 8, 2003

The Bush Fed in Perspective

CONTACT: Tom Schlesinger

(540) 338-7754

On the eve of the Federal Open Market Committee's last meeting of 2003 the U.S. economy is displaying signs of renewed momentum and odds are growing that the Federal Reserve's next move will be to raise interest rates. As Fed-watchers speculate over the fate of the central bank's pledge to maintain easy policy for a "considerable period," the federal funds futures market is predicting that the FOMC will hike its benchmark interest rate by a quarter-point in May with a second increase to follow in July.

The prospect of more restrictive monetary policy represents the latest wrinkle in an unsettled period for the central bank. After basking in the boom of the late 1990s, the Fed and its celebrated chairman have seen their aura of infallibility dim. Earlier this year, criticism of the central bank turned up a notch on two pivotal occasions. In February, Fed chief Alan Greenspan took a series of hits in partisan crossfire over the Bush Administration's proposal for additional tax cuts. And in early summer, the central bank surprised some market participants by cutting its target rate by 25 basis points rather than the 50 points they expected, thereby triggering a rise in long rates that ended a record mortgage-refinancing surge.

These events may or may not turn out to have long-term repercussions for the Fed. But like the current preoccupation with language in the FOMC's policy announcement, the controversies over the budget and the 25 basis points have tended to divert attention from a much larger development: during the first years of George W. Bush's presidency, the Federal Reserve has been remarkably solicitous of economic growth and committed itself to accommodative policy that is extraordinary by the central bank's own standards. The purpose of this report is put that policy in perspective by describing it in the context of central bank actions during parallel periods over the past half-century.

THE BIG EASY

Over the first 30 months of the Bush II Administration, the Fed engineered deeper cuts in its target federal funds rate both in nominal and inflation-adjusted terms than it did during comparable periods in all but one of the preceding 12 four-year presidential terms since 1953 (Table 1). The central bank gained the practical authority to make policy decisions autonomous from the executive branch after negotiating the Treasury Accord in 1951.

Between January 2001 and midyear 2003, the central bank slashed its benchmark short-term rate 13 times, reducing the nominal funds rate by 500 basis points to a rock-bottom one percent (since the funds rate data in Table 1 represents a monthly average they do not reflect a 25-basis point cut that the Fed implemented at the end of June 2003). According to Fed data that go back to 1971, this marks the first time in the past nine presidential terms that all the Fed's funds rate adjustments have

Table 1: Federal Funds Rate Changes: First 30 Months of Presidential Administration

	(Change				st 30 Months of Presidential Administration
Period I				in Real	Number of FOMC Policy Changes ²	Highlights
Jun-03	1.22	-4.76	-0.89	-3.14	1	The month George W. Bush is inaugurated, the Fed executes two rate cuts totaling 100 basis points – the biggest easing in the course of a
Jan-03	1.24		-1.36		1	single month since December 1991. The January 2001 moves initiate a
Jan-02	1.73		0.59		11	long run of extraordinarily accommodative policy.
Jan-01	5.98		2.25			The control hands to solve the foreign and a box OFby in March 4007, there
Jun-99	4.76	-0.49	2.80	+0.59	1	The central bank tweaks the funds rate by +25bp in March 1997, then leaves interest rates undisturbed for 18 months in a "growth experiment"
Jan-99	4.63		2.96		3	that marks the longest period of policy inaction in Greenspan's chairmanship. When the Asian financial crisis deepens, the Fed makes
Jan-98	5.56		3.99		1	three 25bp rate cuts during the fall of 1998. But overall, the Fed adjusts
Jan-97	5.25		2.21			its target rate fewer times than in any previous first-ten-quarters period for which data are available.
Jun-95	6.00	+2.98	2.96	+3.20	1	Encouraged by Greenspan, the Clinton Administration and
Jan-95	5.53		2.73		6	congressional Democrats expend substantial political capital to cut the federal budget deficit. Nevertheless, the Fed subsequently embarks on
Jan-94	3.05		0.53		-	a seven-step rate hike to "preempt" inflation that does not materialize. As a result of these actions, the nominal funds rate doubles between
Jan-93	3.02		-0.24			February 1994 and February 1995.
Jun-91	5.90	-3.22	1.20	-3.25	4	The Fed greets the first President Bush with 100bp of tightening in his
Jan-91	6.91		1.26		5	first two months in office. After misjudging the onset of recession, the central bank lowers rates in 25bp increments throughout 1990 and the
Jan-90	8.23		3.03		5	first half of 1991 – a process it will continue throughout the remainder of the Bush I Administration. A wave of depository institution failures and
Jan-89	9.12		4.45			ensuing credit crunch complicate the Fed's efforts to spur recovery.
Jun-87	6.73	-1.62	3.08	-1.74	1	By negotiating a decline in the dollar and appointing a pro-growth majority to the Board of Governors, the Reagan White House finally
Jan-87	6.43		4.97		8	gains some leverage over Volcker, who remains stubbornly hawkish in
Jan-86	8.14		4.25		8	the face of deflationary pressures during 1986. Before handing the reins to Alan Greenspan in August 1987, however, Volcker allows a mild easing in the real funds rate, modest declines in unemployment and
Jan-85	8.35		4.82			explosive increases in domestic debt growth.
Jun-83	8.98	-10.10	6.40	-0.85	1	Fed Chairman Paul Volcker's anti-inflation crusade triggers recession,
Jan-83	8.68		4.97		10	the highest unemployment since the 1930s and the most visible disputes between the White House and the central bank in the post-Treasury Accord Era. In 1982, the Fed essentially abandons monetary
Jan-82	13.22		4.83		8	targets as an effective basis for policymaking. By the spring of 1983, the Reagan Administration yields to financial-sector lobbying and
Jan-81	19.08		7.25			reluctantly reappoints Volcker to a second four-year term.
Jun-79	10.29	+5.68	-0.60	+0.01	1	After prevailing on President Carter to not reappoint Arthur Burns, Treasury Secretary Blumenthal and CEA chief Schultze watch the G.
Jan-79	10.07		0.79		18	William Miller Fed allow inflation to drift higher in 1978. The following spring, Blumenthal and Schultze take the remarkable step of leaking
Jan-78	6.70		-0.14		4	their view that monetary policy should be more restrictive. While agreeing with them Carter warns the pair to "remain silent on what the
Jan-77	4.61		-0.61			Fed might do unless I specifically approve any so-called leaks."
Jun-75	5.55	-0.39	-3.84	-6.13	12	In 1974, food shortages, an oil embargo and the lifting of wage-price controls inflict successive shocks on the economy. As inflation
Jan-75	7.13		-4.67		10	skyrockets, stingy fiscal policy inadvertently pulls the economy towards recession. So does Arthur Burns' decision to ignore warnings from his
Jan-74	9.65		0.26		21	own staff and stick with a monetary policy of "moderate restraint." By
Jan-73	5.94		2.29			midyear 1975, Nixon is in exile, stagflation is rampant and Herbert Stein says the Fed is "squeezing the economy to death."
Jun-71	4.91	-1.39	0.27	-1.63	6	Blaming Fed policy for his loss to JFK in 1960, Richard Nixon takes office more attuned to the central bank's influence over his presidency
Jan-71	4.14		-1.15		n/a	than any predecessor. Also, according to economic advisor Herbert
Jan-70	8.98		2.80		n/a	Stein, he is "allergic to unemployment" and "impatient with the economics of three yards and a cloud of dust." Nixon's handpicked Fed
Jan-69	6.30		1.90			Chairman Arthur Burns assumes his post in early 1970 and immediately pushes a resistant FOMC in the direction of expansionary policy.

Table 1: Federal Funds Rate Changes: First 30 Months of Presidential Administration

	(Change				
-	Nominal	in			Number	
					of FOMC	
in Office	Funds Rate ¹	Funds Rate	Rate ¹	Rate	Policy Changes ²	Highlights
- 011100	- 10.10					<u> </u>
Jun-67	3.98	+0.08	1.20	-1.73	n/a	With the economy booming at the end of 1965, the Fed raises its discount rate and LBJ summons Chairman Martin to his Texas ranch
Jan-67	4.94		1.48		n/a	for a scolding. As inflationary pressures emerge in 1966, Johnson unsuccessfully employs incomes policy as a substitute for greater fiscal
Jan-66	4.42		2.50		n/a	and monetary restraint. The economy weathers a slump in early 1967 and mildly accommodative Fed policy helps produce the longest
Jan-65	3.90		2.93			sustained period of low unemployment in the post-World War II Era.
Jun-63	2.99	+1.54	1.67	+1.93	n/a	Newly elected President Kennedy convinces the Fed to abandon its bills-only doctrine. In the ensuing Operation Twist, the Fed sells off T-
Jan-63	2.92		1.59		n/a	bills and uses the proceeds to buy long government bonds in a conveniently arranged Treasury offering. While the Operation does not
Jan-62	2.15		1.48		n/a	completely succeed in pulling down long-term interest rates, a fine-tuned combination of mildly restrictive monetary policy and fiscal ease helps
Jan-61	1.45		-0.26			launch the long boom of the 1960s.
Jun-59	3.39	+0.55	2.70	+2.85	n/a	Over the complaints of Eisenhower's CEA, the Martin Fed tightens policy throughout most of 1957 and only reverses direction three months
Jan-59	2.48		1.08		n/a	into that year's recession. In December, lke instructs his CEA chairman to tell the Fed "to put its shoulder to the wheel and do something
Jan-58	2.72		-0.90		n/a	dramatic." Instead, the central bank eases modestly in the first half of 1958, then focuses on reinforcing and institutionalizing Eisenhower's
Jan-57	2.84		-0.15			preference for price stability over other macropolicy goals.
Jun-55	1.64	-0.29	2.38	+0.83	n/a	At the onset of the Eisenhower Administration, Fed Chairman William McChesney Martin hikes interest rates and inaugurates a "bills only" doctrine, committing the central bank to use only short-term Treasury
Jan-55	1.39		2.13		n/a	bills in conducting open-market operations – a move meant to underscore the Fed's new independence. While the Fed reduces rates
Jan-54	1.55		0.42		n/a	during the 1953-54 recession, it partially resists pressure from Treasury for additional ease and guickly shifts to tighter policy in the first half of
Jan-53	1.93		1.55			1955.

Interest rates displayed in the table are average effective federal funds rates for the month listed in the column. Real rates are adjusted for year-over-year CPI. Because funds rate data are not available prior to July 1954, this table imputes the funds rate for previous dates by: a) averaging the yields on 3-month Treasury bills and 90-day prime bankers' acceptances (the short-term rates that correspond most closely to the level and movement of the funds rate during the 1950s and 1960s); and b) correcting that average by an adjustment factor of +1 basis point, which represents the average monthly difference between the funds rate and the T-bill/bankers' acceptance average rate between July 1954 and December 1955.

This column displays the number of funds rate changes announced by the FOMC during: a) the 6-month period leading up to the June 30 dates in the

SOURCES: Board of Governors, Federal Reserve System, H.15 historical series; Federal Reserve Bank of New York, Historical Changes of the Federal Funds Rate & the Discount Rate, Bureau of Labor Statistics, CPI-U historical series. John W. Sloan, Eisenhower and the Management of Prosperity. Herbert Stein, Presidential Economics. Allen J. Matusow, Nixon's Economy. W. Carl Biven, Jimmy Carter's Economy. Anthony S. Campagna, The Economy in the Reagan Years. William Greider, Secrets of the Temple. Steven M. Sheffrin, The Making of Economic Policy. Benard S. Katz, ed, Biographical Dictionary of the Board of Governors of the Federal Reserve System.

been in the direction of ease during the first ten quarters of the term. 1

During the first 30 months of the 13 presidential terms since 1953, the Fed has executed a net increase in its nominal benchmark rate on five occasions and a net decline in the other eight cases. On average, the Fed has cut the nominal funds rate by a net -88 basis points (bp) in the first ten quarters of these 13 terms (the median change was -39bp). By comparison, the central bank has reduced its nominal overnight rate by -476bp during the first two and half years of George W. Bush's Administration. (See "Political Monetary Cycle" on page 5 for a comparison of funds-

1

² This column displays the number of funds rate changes announced by the FOMC during: a) the 6-month period leading up to the June 30 dates in the left-most column; and b) the 12-month period leading up to the January 1 dates in the left-most column. The Fed did not officially target the federal funds rate as a means of implementing policy from October 1979 until the late 1980s. For many years, the FOMC established an acceptable range rather than a specific target for the funds rate. Policy changes recorded in this column include upward and downward adjustments of both specific targets and ranges.

¹ While the Federal Reserve has employed different targets and operating doctrines during the past half century, open market operations have remained its primary mechanism for implementing monetary policy. Similarly, the federal funds rate has remained the policy variable most directly under the Fed's control during this period – the one it uses to effect adjustments in bank reserves (and hence changes across the yield curve and throughout the economy) through open market operations. Therefore this report uses the funds rate as the most consistently telling indicator of Fed policy intent in the post-Treasury Accord Era.

rate changes in the first, second and third years of presidential administrations over the past 50 years.)

Since 1953, the only time the Fed made bigger reductions in the nominal funds rate was in the first ten quarters of Ronald Reagan's first term (January 1981-June 1983). As in the Bush II Era, the Fed did most of its cutting during the first year of Reagan's term. The central bank then continued to prune its nominal target rate aggressively during 1982, when GDP contracted by -2.0 percent and unemployment reached a post-World War II high of 10.4 percent. By contrast, nominal rate reductions during corresponding periods of the second Bush Administration took place under much more favorable output and employment conditions.

Though the Fed eased aggressively in response to recession during the early part of President Reagan's first term, persistently high inflation limited the impact of that easing on real interest rates; in the first two and half years of Reagan's initial term, the real funds rate shrank by less than a full percentage point. In the first ten quarters of the Bush II presidency, however, the decline in the real funds rate (-314bp) has generally tracked the diminution of its nominal counterpart.

As with nominal rates, there is one instance in the past 50 years when the inflation-adjusted funds rate fell further in the first ten quarters of a presidential term than it did between January 2001 and June 2003. During the first 30 star-crossed months of Richard Nixon and Gerald Ford's shared tenure, the Fed cut the real funds rate by a net -613bp, with most of the easing occurring in 1974, when Nixon resigned, Ford took his place, unemployment exceeded eight percent and the economy entered the longest period of sustained negative growth since the Great Depression.

Supporting Fiscal Expansion

During the first ten quarters of the Bush II Administration, Fed policy also remained uncommonly supportive of fiscal ease. As a result of declining tax receipts and increased expenditures, the federal budget swung sharply from surplus to deficit during President Bush's first two-and-a-half years in office. Measured as a share of GDP, this -5.56 percentage point shift (from 1.95 percent to -3.61 percent of GDP) marks the largest single fiscal expansion during the first 30 months of any presidential term since 1953.

Moreover, the Bush II Administration enjoyed a bigger jolt of combined monetary and fiscal stimulus during its first ten quarters than all but one of its post-1952 predecessors (the blue-shaded columns in Table 2 provide an overview of macropolicy stimulus/drag by summing changes in budget balance as a share of GDP and changes in the federal funds rate). Measured by changes in the nominal funds rate, only the first Reagan Administration experienced a larger dose of aggregate monetary-fiscal stimulus than has Bush II. Measured by real funds rate changes, only the shared administration of Richard Nixon and Gerald Ford had an edge over the current White House.

In the past, the central bank has responded to economic downturns by holding up its end of more-or-less coordinated efforts to ease monetary and fiscal policy countercyclically. But during expansions, the Fed has employed both public statements and active policy measures to signal its concern over the potential dangers of rising federal deficits – a dynamic that grew increasingly pronounced during the 1980s and first half of the 1990s. In the Bush II Era, however, the central bank altered this approach.

THE POLITICAL MONETARY CYCLE

Quarters 1-4: During the 1980s, scholars developed and debated the notion of a "political monetary cycle" – a refinement of older political business cycle concepts that sought to interpret the pace of economic activity as a function of incumbent presidents' efforts to ensure their reelection. In the best-known examination of the political monetary cycle, economist Kevin Grier examined patterns of money growth and found that monetary policy typically tightens during the first year of a new presidential administration then grows more accommodative as the incumbent nears the end of his term. (One of the advisers for Grier's dissertation on this subject was former Fed Governor Laurence Meyer, then an academic at Washington University.)

Since the publication of Grier's work and several related studies in the mid-to-late 1980s, little has been written about this aspect of the political economy of monetary policy. However, to the degree that funds rate adjustments tell a story, it appears that the kind of cycle Grier detected through fluctuations in monetary aggregates may have been the artifact of an earlier era.

In four of the six four-year presidential terms since 1981, the nominal funds rate has declined during the first year of the term. In the preceding seven terms (1953-1980), exactly the opposite held true: in five of the seven terms, the nominal funds rate increased during the first year. On average, the nominal funds rate has dropped by a negligible -13 basis points during these 13 terms while the real funds rate dipped by an almost equally negligible average of 37 basis points. (The median changes in the nominal and real funds rate during these periods amounted to +3 and -57 basis points, respectively.)

Since 1953, the -4.25 percentage point decline that occurred in the nominal funds rate in 2001 ranks as the second-steepest drop for the first year of any presidential term, trailing only the -586-basis point plunge recorded in the initial four quarters of President Reagan's first term. Viewed in inflation-adjusted terms, the drop in the funds rate during the first 12 months of the Bush II presidency (-166bp) ranks as the third largest first-year easing, trailing only the first Reagan (-242bp) and Nixon/Ford (-203bp) administrations.

Funds Rate Changes in First 10 Quarters of Presidential Administrations: 1953-2003 (Summary)

	Q1-	-Q4	Q5-	-Q8	Q9-	Q10	Q1-Q10	
	Nom. Real		Nom.	Real	Nom.	Real	Nom.	Real
Number of Funds Rate Increases	7	5	5	7	9	8	5	6
Number of Funds Rate Declines	6	8	8	6	4	5	8	7
Average Change in Funds Rate	-13bp	-37bp	-48bp	-53bp	-1bp	+20bp	-88bp	-70bp
Median Change in Funds Rate	+3bp	-57bp	-24bp	+11bp	+22bp	+23bp	-39bp	-85bp

Quarters 5-8: During the second year of the 13 most recent presidential terms, the nominal funds rate has increased on five occasions and declined on the remaining eight, with the annual change averaging -48 basis points. Meanwhile, the real funds rate has registered seven increases and six declines, for an average of -53 basis points. (Median changes in the nominal and real funds rate during the second year of post-Treasury Accord presidential terms amounted to -24 and +11 basis points, respectively.)

The dip in the nominal funds rate during the second year of the Bush II presidency (-49bp) is virtually identical to the 13-term average. But the drop in the real funds rate (-195bp) is nearly four times the 13-term average of –53bp and ranks third – behind Nixon and Nixon/Ford – in the post-1953 hierarchy of second-year declines.

Quarters 9-10: Since 1953, presidents have generally seen the funds rate rise during the ninth and tenth quarters of their term. The nominal rate has increased during this period in nine of 13 instances – with the Bush II Administration joining the Bush I, Ford and Johnson presidencies as exceptions to the rule. During the first half of 2003, the nominal funds rate diminished by -2bp.

In the 13 cycles, the real funds rate increased on eight occasions and the average Quarter 9-10 adjustment to the real rate equaled +20 basis points. While the real funds rate increased modestly in the first half of 2003 (+47bp), the Bush II White House is one of only two administrations since 1953 to enjoy a negative real funds rate at both the midpoint and the end of the tenth quarter of its term (Bush shares the distinction with partial-term president Gerald Ford).

Table 2: Macroeconomic Indicators

Period in Office	Nominal Federal Funds Rate¹	Real Federal Funds Rate ¹	Unemployment Rate	30-Month Average Unemployment Rate	Annual GDP Growth ²	Ave. Annual GDP Growth, 30 Months	Annual CPI Growth	Cumulative CPI Growth, 30 Months	Federal Deficit/ Surplus as Pct. of GDP³	Change in Federal Deficit/Surplus as Pct. of GDP	Aggregate Fiscal- Monetary Policy Change (Nominal) ⁴	Aggregate Fiscal- Monetary Policy Change (Real) ⁴	Nonfin. Sectors' O.S. Debt as Pct. of GDP ⁵	30-Month Change in Nonfin. Debt- GDP Ratio	O.S. Household Debt as Pct. GDP ⁶	30-Month Change in Household Debt- GDP Ratio	Household Debt as Pct. Disposable Income ⁶	30-Month Change in Household Debt- Income Ratio
Jun-03	1.22	-0.89	6.4	5.4	2.3	1.6	2.11	4.91	-3.61	-5.56	-10.32	-8.70	199.9	+17.3	82.6	+11.5	110.4	+12.9
Jan-03	1.24	-1.36	5.7		2.4		2.60		-2.42				195.1		80.0		106.9	
Jan-02	1.73	0.59	5.6		0.3		1.14		0.21				190.0		75.8		104.1	
Jan-01	5.98	2.25	4.1		3.8		3.73		1.95				182.6		71.1		97.5	
Jun-99	4.76	2.80	4.3	4.6	2.5	3.7	1.96	4.46	1.23	+2.53	+2.04	+3.12	182.6	+2.0	68.2	+2.7	95.0	+4.5
Jan-99	4.63	2.96	4.3		4.3		1.67		0.63				180.8		66.9		93.0	
Jan-98	5.56	3.99	4.6		4.4		1.57		-0.29				179.3		65.6		91.3	
Jan-97	5.25	2.21	5.3		3.6		3.04		-1.30				180.6		65.5		90.5	
Jun-95	6.00	2.96	5.6	6.3	1.1	2.7	3.04	6.94	-2.57	+1.97	+4.95	+5.17	182.3	-0.6	64.2	+2.5	87.6	+5.8
Jan-95	5.53	2.73	5.6		4.0		2.80		-2.90				180.0		63.1		85.9	
Jan-94	3.05	0.53	6.6		2.7		2.52		-3.72				182.7		62.2		83.8	
Jan-93	3.02	-0.24	7.3		3.0		3.26		-4.54				182.9		61.7		81.8	
Jun-91	5.90	1.20	6.9	5.7	0.1	1.8	4.70	12.30	-3.58	-0.98	-4.20	-4.23	185.6	+5.7	62.2	+4.4	83.2	+4.6
Jan-91	6.91	1.26	6.4		1.8		5.65		-3.15				185.6		61.5		82.5	
Jan-90	8.23	3.03	5.4		3.5		5.20		-2.56				181.9		59.7		81.5	
Jan-89	9.12	4.45	5.4		4.2		4.67		-2.60				179.9		57.8		78.6	
Jun-87	6.73	3.08	6.2	7.0	3.6	3.6	3.65	7.58	-2.74	+1.76	+0.14	+0.02	177.4	+24.9	56.5	+8.2	78.3	+12.8
Jan-87	6.43	4.97	6.6		3.4		1.46		-3.83				175.8		55.9		76.7	
Jan-86	8.14	4.25	6.7		3.8		3.89		-4.27				165.1		52.7		72.2	
Jan-85	8.35	4.82	7.3		7.3		3.53		-4.50				152.5		48.3		65.5	
Jun-83	8.98	6.40	10.1	9.0	7.1	2.5	2.58	14.37	-4.90	-2.82	-12.92	-3.67	145.4	+9.8	46.9	-1.1	64.4	-1.8
Jan-83	8.68	4.97	10.4		-2.0		3.71		-5.34				144.4		47.7		64.3	
Jan-82	13.22	4.83	8.6		2.5		8.39		-2.47				136.3		47.2		65.0	
Jan-81	19.08	7.25	7.5		-0.2		11.83		-2.08				135.6		48.0		66.2	
Jun-79	10.29	-0.60	5.7	6.4	0.6	3.6	10.89	23.59	-0.25	+2.73	+8.41	+2.74	134.8	+1.8	47.3	+3.6	67.4	+6.2
Jan-79	10.07	0.79	5.9		5.5		9.28		-0.61				132.9		45.9		65.9	
Jan-78	6.70	-0.14	6.4		4.6		6.84		-2.26				134.0		45.0		63.4	
Jan-77	4.61	-0.61	7.5		5.6		5.22		-2.98				133.0		43.7		61.2 e for 1953-1	

Average effective federal funds rates for the month listed in the column. Real rates are adjusted for year-over-year CPI. See Note 1 to Table 1 for information on imputed funds rate for 1953-1954.

GDP in real (chained 1996) dollars. January data in this column indicate annual GDP growth for the preceding calendar year (for example, the entry in the January 2003 row shows GDP growth for calendar 2002). June data indicate annualized GDP growth for the first two quarters of the designated year (for example, the entry in the June 2003 row shows annualized GDP growth for the first and second quarters of 2003).

Jun-75	Period in Office	Nominal Federal Funds Rate ¹	Real Federal Funds Rate 1	Unemployment Rate	30-Month Average Unemployment Rate	Annual GDP Growth²	Ave. Annual GDP Growth, 30 Months	Annual CPI Growth	Cumulative CPI Growth, 30 Months	Federal Deficit/ Surplus as Pct. of GDP ³	Change in Federal Deficit/Surplus as Pct. of GDP	Aggregate Fiscal- Monetary Policy Change (Nominal) ⁴	Aggregate Fiscal- Monetary Policy Change (Real) ⁴	Nonfin. Sectors' O.S. Debt as Pct. of GDP ⁵	30-Month Change in Nonfin. Debt- GDP Ratio	O.S. Household Debt as Pct. GDP ⁶	30-Month Change in Household Debt- GDP Ratio	Household Debt as Pct. Disposable Income ⁶	30-Month Change in Household Debt- Income Ratio
Jan-74 9.65 0.26 5.1 5.8 9.39 -0.48 132.3 43.9 61.7 Jan-73 5.94 2.29 4.9 5.4 3.65 -2.36 -2.36 132.9 43.4 61.2 Jun-71 4.91 0.27 5.9 4.6 6.7 3.2 4.64 14.04 -2.53 -2.92 -4.31 -4.55 132.7 +0.2 42.8 -1.2 60.1 -4.0 Jan-70 8.98 2.80 3.9 3.0 6.18 0.45 132.5 44.2 63.6 Jan-69 6.30 1.90 3.4 4.8 4.40 0.39 132.5 44.0 64.1 Jun-67 3.98 1.20 3.9 4.1 1.7 4.9 2.78 6.73 -1.13 -1.59 -1.51 -3.32 133.8 -5.2 44.9 -0.8 64.8 -0.2 Jan-66 4.42 2.50 4.0 6.4 1.92 -0.09 134.5 45.1 65.2 Jan-65 3.90 2.93 4.9 5.8 0.97 0.46 133.9 45.7 65.0 Jun-63 2.99 1.67 5.6 6.1 5.0 4.4 1.32 2.68 1.01 +0.61 +2.15 +2.54 138.7 +0.7 43.5 +2.5 63.2 +4.9 Jan-62 2.15 1.48 5.8 2.3 0.67 0.80 136.3 41.1 58.9 Jan-69 3.39 2.70 5.0 5.6 9.5 3.5 0.69 5.43 0.96 -0.64 -0.09 +2.21 130.7 +2.3 36.6 +2.6 53.0 +4.0 Jan-59 2.48 1.08 6.0 -1.0 1.40 -0.74 131.7 36.2 51.9 Jan-55 1.84 2.38 4.2 4.3 9.0 4.3 -0.74 0.38 1.63 +0.69 +0.40 +1.52 129.0 +5.7 31.1 +5.9 45.5 +8.3 Jan-55 1.39 2.13 4.9 -0.7 -0.77 -0.74 0.00 129.5 28.1 40.6 +4.0	Jun-75	5.55	-3.84	8.8	5.9	-0.8	1.5	9.39	25.82	-6.38	-4.02	-4.41	-10.15	134.7	+1.8	43.9	+0.5	59.3	-1.9
Jan-73 5.94 2.29 4.9 5.4 3.65 -2.36 3.0 -2.36 3.0 -4.55 32.7 +0.2 42.8 -1.2 60.1 -4.0 3.67 3.9 3.0 6.18 0.45 3.25 3.9 3.0 6.18 0.45 3.2		7.13	-4.67	8.1		-0.6													
Jun-71 4.91 0.27 5.9 4.6 6.7 3.2 4.64 14.04 -2.53 -2.92 -4.31 -4.55 132.7 +0.2 42.8 -1.2 60.1 -4.0 Jan-70 8.98 2.80 3.9 3.0 6.18 0.45 132.5 44.2 63.6 Jan-69 6.30 1.90 3.4 4.8 4.40 0.39 -1.51 -3.32 133.8 -5.2 44.9 -0.8 64.1 Jun-67 3.98 1.20 3.9 4.1 1.7 4.9 2.78 6.73 -1.13 -1.59 -1.51 -3.32 133.8 -5.2 44.9 -0.8 64.1 Jan-67 4.94 1.48 3.9 6.6 3.46 -0.04 132.9 44.6 65.1 Jan-63 2.99 1.67 5.6 6.1 5.0 4.4 1.32 2.68 1.01 +0.61 +2.15 +2.54 138.7 +0.7 43.5 <td< td=""><td></td><td>9.65</td><td>0.26</td><td>5.1</td><td></td><td>5.8</td><td></td><td>9.39</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		9.65	0.26	5.1		5.8		9.39											
Jan-71	Jan-73	5.94	2.29	4.9				3.65											
Jan-70 8.98 2.80 3.9 3.0 6.18 0.45 132.5 44.2 63.6 64.1 Jun-67 3.98 1.20 3.9 4.1 1.7 4.9 2.78 6.73 -1.13 -1.59 -1.51 -3.32 133.8 -5.2 44.9 -0.8 64.8 -0.2 Jan-67 4.94 1.48 3.9 6.6 3.46 -0.04 132.9 44.6 65.1 Jan-66 4.42 2.50 4.0 6.4 1.92 -0.09 134.5 45.1 65.2 Jan-63 2.99 1.67 5.6 6.1 5.0 4.4 1.32 2.68 1.01 +0.61 +2.15 +2.54 138.7 +0.7 43.5 +2.5 63.2 +4.9 Jan-63 2.99 1.67 5.6 6.1 5.0 4.4 1.32 2.68 1.01 +0.61 +2.15 +2.54 138.7 +0.7 43.5 +2.5 63.2 +4.9 Jan-62 2.15 1.48 5.8 2.3 0.67 0.80	Jun-71	4.91	0.27	5.9	4.6		3.2	4.64	14.04		-2.92	-4.31	-4.55		+0.2	42.8	-1.2	60.1	-4.0
Jan-69 6.30 1.90 3.4 4.8 4.40 0.39 Jun-67 3.98 1.20 3.9 4.1 1.7 4.9 2.78 6.73 -1.13 -1.59 -1.51 -3.32 133.8 -5.2 44.9 -0.8 64.8 -0.2 Jan-67 4.94 1.48 3.9 6.6 3.46 -0.04 132.9 44.6 65.1 Jan-66 4.42 2.50 4.0 6.4 1.92 -0.09 134.5 45.1 65.2 Jan-65 3.90 2.93 4.9 5.8 0.97 0.46 139.0 45.7 65.0 Jun-63 2.99 1.67 5.6 6.1 5.0 4.4 1.32 2.68 1.01 +0.61 +2.15 +2.54 138.7 +0.7 43.5 +2.5 63.2 +4.9 Jan-62 2.15 1.48 5.8 2.3 0.67 0.80 138.1 41.0 58.3 Jan-59 <td>Jan-71</td> <td>4.14</td> <td>-1.15</td> <td>5.9</td> <td></td> <td>0.2</td> <td></td> <td>5.29</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>134.9</td> <td></td> <td>43.7</td> <td></td> <td>60.9</td> <td></td>	Jan-71	4.14	-1.15	5.9		0.2		5.29						134.9		43.7		60.9	
Jun-67 3.98 1.20 3.9 4.1 1.7 4.9 2.78 6.73 -1.13 -1.59 -1.51 -3.32 133.8 -5.2 44.9 -0.8 64.8 -0.2 Jan-67 4.94 1.48 3.9 6.6 3.46 -0.04 132.9 44.6 65.1 Jan-66 4.42 2.50 4.0 6.4 1.92 -0.09 134.5 45.1 65.2 Jan-65 3.90 2.93 4.9 5.8 0.97 0.46 139.0 45.7 65.0 Jun-63 2.99 1.67 5.6 6.1 5.0 4.4 1.32 2.68 1.01 +0.61 +2.15 +2.54 138.7 +0.7 43.5 +2.5 63.2 +4.9 Jan-62 2.15 1.48 5.8 2.3 0.67 0.80 138.1 42.6 61.5 Jan-59 3.39 2.70 5.0 5.6 9.5 3.5 0.69 5.43 <td>Jan-70</td> <td>8.98</td> <td>2.80</td> <td>3.9</td> <td></td> <td>3.0</td> <td></td> <td>6.18</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>44.2</td> <td></td> <td>63.6</td> <td></td>	Jan-70	8.98	2.80	3.9		3.0		6.18								44.2		63.6	
Jan-67 4.94 1.48 3.9 6.6 3.46 -0.04 132.9 44.6 65.1 Jan-66 4.42 2.50 4.0 6.4 1.92 -0.09 134.5 45.1 65.2 Jan-65 3.90 2.93 4.9 5.8 0.97 0.46 139.0 45.7 65.0 Jun-63 2.99 1.67 5.6 6.1 5.0 4.4 1.32 2.68 1.01 +0.61 +2.15 +2.54 138.7 +0.7 43.5 +2.5 63.2 +4.9 Jan-63 2.92 1.59 5.7 6.0 1.33 0.37 138.1 42.6 61.5 Jan-62 2.15 1.48 5.8 2.3 0.67 0.80 138.1 41.0 58.9 Jan-61 1.45 -0.26 6.6 2.5 1.71 0.40 138.1 41.0 58.3 Jan-59 2.48 1.08 6.0 -1.0 1.40 -0.74 131.7 36.2 51.9 Jan-57 2.84 -0.15 4.2 <td>Jan-69</td> <td>6.30</td> <td>1.90</td> <td>3.4</td> <td></td> <td>4.8</td> <td></td> <td>4.40</td> <td></td> <td>0.39</td> <td></td> <td></td> <td></td> <td>132.5</td> <td></td> <td>44.0</td> <td></td> <td>64.1</td> <td></td>	Jan-69	6.30	1.90	3.4		4.8		4.40		0.39				132.5		44.0		64.1	
Jan-66 4.42 2.50 4.0 6.4 1.92 -0.09 0.46 134.5 45.1 65.2 Jan-65 3.90 2.93 4.9 5.8 0.97 0.46 139.0 45.7 65.0 Jun-63 2.99 1.67 5.6 6.1 5.0 4.4 1.32 2.68 1.01 +0.61 +2.15 +2.54 138.7 +0.7 43.5 +2.5 63.2 +4.9 Jan-63 2.92 1.59 5.7 6.0 1.33 0.37 138.1 42.6 61.5 Jan-62 2.15 1.48 5.8 2.3 0.67 0.80 136.3 41.1 58.9 Jan-61 1.45 -0.26 6.6 2.5 1.71 0.40 138.1 41.0 58.3 Jan-59 2.48 1.08 6.0 -1.0 1.40 -0.74 131.7 36.2 51.9 Jan-57 2.84 -0.15 4.2 2.0 2.99 1.60 1.60 +0.40 +1.52 129.0 +5.7 31.1 +5.9 </td <td></td> <td></td> <td></td> <td></td> <td>4.1</td> <td></td> <td>4.9</td> <td></td> <td>6.73</td> <td></td> <td>-1.59</td> <td>-1.51</td> <td>-3.32</td> <td></td> <td>-5.2</td> <td></td> <td>-0.8</td> <td></td> <td>-0.2</td>					4.1		4.9		6.73		-1.59	-1.51	-3.32		-5.2		-0.8		-0.2
Jan-65 3.90 2.93 4.9 5.8 0.97 0.46 139.0 45.7 65.0 Jun-63 2.99 1.67 5.6 6.1 5.0 4.4 1.32 2.68 1.01 +0.61 +2.15 +2.54 138.7 +0.7 43.5 +2.5 63.2 +4.9 Jan-63 2.92 1.59 5.7 6.0 1.33 0.37 138.1 42.6 61.5 Jan-62 2.15 1.48 5.8 2.3 0.67 0.80 136.3 41.1 58.9 Jan-61 1.45 -0.26 6.6 2.5 1.71 0.40 138.1 41.0 58.3 Jun-59 3.39 2.70 5.0 5.6 9.5 3.5 0.69 5.43 0.96 -0.64 -0.09 +2.21 130.7 +2.3 36.6 +2.6 53.0 +4.0 Jan-59 2.48 1.08 6.0 -1.0 1.40 -0.35 130.1 35.7<			_																
Jun-63 2.99 1.67 5.6 6.1 5.0 4.4 1.32 2.68 1.01 +0.61 +2.15 +2.54 138.7 +0.7 43.5 +2.5 63.2 +4.9 Jan-63 2.92 1.59 5.7 6.0 1.33 0.37 138.1 42.6 61.5 61.5 58.9 58.9 58.9 58.9 58.9 58.9 58.9 58.9 58.9 58.9 58.9 58.9 58.9 58.9 58.9 58.9 58.9 58.9 58.3 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>																			
Jan-63 2.92 1.59 5.7 6.0 1.33 0.37 138.1 42.6 61.5 Jan-62 2.15 1.48 5.8 2.3 0.67 0.80 136.3 41.1 58.9 Jan-61 1.45 -0.26 6.6 2.5 1.71 0.40 138.1 41.0 58.3 Jun-59 3.39 2.70 5.0 5.6 9.5 3.5 0.69 5.43 0.96 -0.64 -0.09 +2.21 130.7 +2.3 36.6 +2.6 53.0 +4.0 Jan-59 2.48 1.08 6.0 -1.0 1.40 -0.74 131.7 36.2 51.9 Jan-58 2.72 -0.90 5.8 2.0 3.62 -0.35 130.1 35.7 51.0 Jun-55 1.64 2.38 4.2 4.3 9.0 4.3 -0.74 0.38 1.63 +0.69 +0.40 +1.52 129.0 +5.7 31.1 +5.9 45.5 +8.3 Jan-55 1.39 2.13 4.9 -0.7 -0.74<																			
Jan-62 2.15 1.48 5.8 2.3 0.67 0.80 136.3 41.1 58.9 Jan-61 1.45 -0.26 6.6 2.5 1.71 0.40 138.1 41.0 58.3 Jun-59 3.39 2.70 5.0 5.6 9.5 3.5 0.69 5.43 0.96 -0.64 -0.09 +2.21 130.7 +2.3 36.6 +2.6 53.0 +4.0 Jan-59 2.48 1.08 6.0 -1.0 1.40 -0.74 -0.74 131.7 36.2 51.9 Jan-58 2.72 -0.90 5.8 2.0 3.62 -0.35 130.1 35.7 51.0 Jan-57 2.84 -0.15 4.2 2.0 2.99 1.60 128.4 34.0 49.0 Jun-55 1.64 2.38 4.2 4.3 9.0 4.3 -0.74 0.38 1.63 +0.69 +0.40 +1.52 129.0 +5.7 31.1 +5.9 45.5 +8.3 Jan-55 1.39 2.13 4.9 -0.7					6.1		4.4		2.68		+0.61	+2.15	+2.54		+0.7		+2.5		+4.9
Jan-61 1.45 -0.26 6.6 2.5 1.71 0.40 138.1 41.0 58.3 Jun-59 3.39 2.70 5.0 5.6 9.5 3.5 0.69 5.43 0.96 -0.64 -0.09 +2.21 130.7 +2.3 36.6 +2.6 53.0 +4.0 Jan-59 2.48 1.08 6.0 -1.0 1.40 -0.74 131.7 36.2 51.9 Jan-58 2.72 -0.90 5.8 2.0 3.62 -0.35 130.1 35.7 51.0 Jan-57 2.84 -0.15 4.2 2.0 2.99 1.60 128.4 34.0 49.0 Jun-55 1.64 2.38 4.2 4.3 9.0 4.3 -0.74 0.38 1.63 +0.69 +0.40 +1.52 129.0 +5.7 31.1 +5.9 45.5 +8.3 Jan-54 1.55 0.42 4.9 4.6 1.13 -0.85 +0.69 +0.40 +1.52 129.0 +5.7 31.1 +5.9 45.5 +8.3																			
Jun-59 3.39 2.70 5.0 5.6 9.5 3.5 0.69 5.43 0.96 -0.64 -0.09 +2.21 130.7 +2.3 36.6 +2.6 53.0 +4.0 Jan-59 2.48 1.08 6.0 -1.0 1.40 -0.74 131.7 36.2 51.9 Jan-58 2.72 -0.90 5.8 2.0 3.62 -0.35 130.1 35.7 51.0 Jan-57 2.84 -0.15 4.2 2.0 2.99 1.60 Jun-55 1.64 2.38 4.2 4.3 9.0 4.3 -0.74 0.38 1.63 +0.69 +0.40 +1.52 129.0 +5.7 31.1 +5.9 45.5 +8.3 Jan-55 1.39 2.13 4.9 -0.7 -0.74 0.00 0.00 131.5 30.0 43.4 Jan-54 1.55 0.42 4.9 4.6 1.13 -0.85 1.69 +0.40 +1.52 129.5 28.1 40.6																			
Jan-59 2.48 1.08 6.0 -1.0 1.40 -0.74 131.7 36.2 51.9 Jan-58 2.72 -0.90 5.8 2.0 3.62 -0.35 130.1 35.7 51.0 Jan-57 2.84 -0.15 4.2 2.0 2.99 1.60 128.4 34.0 49.0 Jun-55 1.64 2.38 4.2 4.3 9.0 4.3 -0.74 0.38 1.63 +0.69 +0.40 +1.52 129.0 +5.7 31.1 +5.9 45.5 +8.3 Jan-55 1.39 2.13 4.9 -0.7 -0.74 0.00 131.5 30.0 43.4 Jan-54 1.55 0.42 4.9 4.6 1.13 -0.85 129.5 28.1 40.6		-					0.5		5.40		0.04	0.00	0.04		0.0		0.0		4.0
Jan-58 2.72 -0.90 5.8 2.0 3.62 -0.35 130.1 35.7 51.0 Jan-57 2.84 -0.15 4.2 2.0 2.99 1.60 128.4 34.0 49.0 Jun-55 1.64 2.38 4.2 4.3 9.0 4.3 -0.74 0.38 1.63 +0.69 +0.40 +1.52 129.0 +5.7 31.1 +5.9 45.5 +8.3 Jan-55 1.39 2.13 4.9 -0.7 -0.74 0.00 131.5 30.0 43.4 Jan-54 1.55 0.42 4.9 4.6 1.13 -0.85 129.5 28.1 40.6			_		5.6		3.5		5.43		-0.64	-0.09	+2.21		+2.3		+2.6		+4.0
Jan-57 2.84 -0.15 4.2 2.0 2.99 1.60 Jun-55 1.64 2.38 4.2 4.3 9.0 4.3 -0.74 0.38 1.63 +0.69 +0.40 +1.52 129.0 +5.7 31.1 +5.9 45.5 +8.3 Jan-55 1.39 2.13 4.9 -0.7 -0.74 0.00 129.5 30.0 43.4 Jan-54 1.55 0.42 4.9 4.6 1.13 -0.85 129.5 28.1 40.6																			
Jun-55 1.64 2.38 4.2 4.3 9.0 4.3 -0.74 0.38 1.63 +0.69 +0.40 +1.52 129.0 +5.7 31.1 +5.9 45.5 +8.3 Jan-55 1.39 2.13 4.9 -0.7 -0.74 0.00 131.5 30.0 43.4 Jan-54 1.55 0.42 4.9 4.6 1.13 -0.85 129.5 28.1 40.6																			
Jan-55 1.39 2.13 4.9 -0.7 -0.74 0.00 131.5 30.0 43.4 Jan-54 1.55 0.42 4.9 4.6 1.13 -0.85 129.5 28.1 40.6					12		12		0.38		+0.60	+0.40	+1.52		45.7		15 0		18.2
Jan-54 1.55 0.42 4.9 4.6 1.13 -0.85 129.5 28.1 40.6					4.3		4.3		0.36		+0.09	+0.40	+1.52		+5.7		+5.8		+0.3
	Jan-54 Jan-53	1.93	1.55	2.9		4.0		0.38		0.94				123.3		25.2		37.2	

SOURCES: Board of Governors, Federal Reserve System, H.15 historical series; *Flow of Funds Accounts of the U.S.* Bureau of Labor Statistics, U.S. Department of Labor, Labor Force Statistics from the Current Population Series, historical series; CPI-U historical series. Bureau of Economic Analysis, U.S. Department of Commerce: National Income and Product Account tables 1.1 (GDP) and 3.2 (Federal Government Current Receipts and Expenditures).

³Budget-balance and GDP data are seasonally adjusted, current-dollar quarterly figures at annual rates. January data in this column show budget balances as a share of GDP at the end of the preceding year (for example, the entry in the January 2003 row shows the federal deficit as a percentage of GDP at December 31, 2002). June data in this column show budget balances as a share of GDP at midyear.

⁴These columns display aggregate changes in the funds rate and the federal budget balance as a share of GDP. For example, the combination of a -4.76 decline in the nominal funds rate and a -5.65 percent change in budget

⁴These columns display aggregate changes in the funds rate and the federal budget balance as a share of GDP. For example, the combination of a ⁴.76 decline in the nominal funds rate and a ^{-5.65} percent change in budge balance as a share of GDP yields an aggregate easing of -10.41 (nominal) from January 2001 through June 2003.

Debt of all domestic nonfinancial sectors. Debt and GDP amounts are seasonally adjusted annual rates in current dollars. January data in this column indicate ratios at the end of the preceding year (for example, the entry in the January 2003 row shows the ratio of domestic debt to GDP at yearend 2002). June data in this column indicate the ratio of debt to GDP at midyear.

⁶ Household debt includes home mortgage and consumer credit. Debt, GDP and disposable income are seasonally adjusted annual rates in current dollars. January data in this column indicate ratios at the end of the preceding year; June data indicate the ratio at midyear.

During the 2001 recession, the Fed actually acted less aggressively than it did in the past in matching fiscal ease with accommodative monetary policy. For every percentage point of fiscal expansion that Congress and the White House implemented in the 2001 recession, the central bank reduced its nominal funds rate by -186 basis points and the real funds rate by -92bp - somewhat less than the average for both categories in the nine recessions since 1952. (Table 3 chronicles these changes, showing fiscal and monetary policy responses from the onset of recession to points of maximum fiscal expansion and funds-rate ease during the course of each contraction.)

Table 3: Monetary and Fiscal Policy During Recessions

Duration of Recession	Nom Federal Rate		Funds	Real Federal Funds Rate ¹ at:		Deficit/ us as GDP ²	Monetary Ease per 1 Percentage Point of Fiscal Ease ³		
	Peak	Max. Ease	Peak	Max. Ease	Peak	Max. Ease	Nominal FF Rate	Real FF Rate	
Q1 2001 - Q4 2001 (8 months)	5.98	1.82	2.25	0.19	1.73	-0.51	-186bp	- 92bp	
Q3 1990 - Q1 1991 (8 months)	8.15	6.12	3.33	0.94	-2.82	-3.15	-615bp	-724bp	
Q2 1981 - Q4 1982 (16 months)	15.72	8.95	5.72	3.45	-1.44	-5.34	-174bp	-58bp	
Q1 1980 - Q3 1980 (6 months)	13.82	9.03	-0.09	-4.91	-1.11	-2.47	-352bp	-354bp	
Q4 1973 - Q1 1975 (16 months)	10.01	5.54	2.21	-4.99	-0.48	-3.00	-177bp	-286bp	
Q4 1969 - Q4 1970 (11 months)	9.00	4.90	3.33	-0.67	0.45	-2.12	-160bp	-156bp	
Q2 1960 - Q1 1961 (10 months)	3.92	1.45	2.20	-0.26	1.54	0.40	-217bp	-216bp	
Q3 1957 - Q2 1958 (8 months)	2.99	0.63	-0.29	-2.40	0.92	-1.83	-86bp	-77bp	
Q3 1953 - Q2 1954 (10 months)	2.00	0.96	1.63	-0.17	0.89	-0.90	-58bp	-100bp	

Interest rates displayed in the table are average monthly effective federal funds rates in the first month of the quarter the business cycle reached its prerecession peak and the month the funds rate reached its lowest point during the recession (maximum monetary ease). Real rates are adjusted for yearover-year CPI and the point of maximum real ease is identified separately from the point of maximum nominal ease (in most of the post-1952 recessions the two points occurred in different months). See Note 1 to Table 1 for information on imputed funds rate for 1953-1954.

SOURCES: National Bureau of Economic Research Business Cycle Expansions and Contractions; Board of Governors, Federal Reserve System, H.15 historical series; Bureau of Labor Statistics, CPI-U historical series; Bureau of Economic Analysis, U.S. Department of Commerce: NIPA tables 1.1 (GDP) and 3.2 (Federal Government Current Receipts and Expenditures).

Since the 2001 recession formally ended, however, the Greenspan Fed has adopted a singularly accommodative stance. In the eight recessions that occurred between 1952 and 1991, the Fed waited an average of three months after the trough before raising its nominal benchmark rate - and never took more than five months before increasing the funds rate (see Table 4).

However, two years have now elapsed since the 2001 recession ended and the central bank has still not hiked its benchmark rate. Moreover, during the six quarters following the 2001 trough, the funds rate declined overall in both nominal and real terms – the only time that has occurred in a post-Treasury Accord recovery except for the period of similarly jobless growth that followed the 1991 recession.

This continued easing is especially noteworthy because fiscal policy expanded at a much more rapid clip in the six quarters following the 2001 recession than in any corresponding post-trough period since 1952, with the federal deficit growing by -3.81 percent relative to GDP (see Table 4). During this time, the Fed lowered the real funds rate by -116 basis points, or -30bp for each percentage point of fiscal expansion during the same period.

² Federal budget deficits and surpluses as a percentage of GDP are recorded for the quarters the business cycle reached its pre-recession peak and the budget-balance/GDP ratio reached its lowest point during the recession (maximum fiscal ease). The quarterly budget-balance and GDP data are seasonally adjusted at annual rates and calculated in current dollars.

These columns display peak-to-maximum ease changes in the funds rate scaled to each -1 percentage point change in the federal budget balance as a

share of GDP. [One basis point (bp) equals one one-hundredth of a percentage point.]

Table 4: Post-Recession Monetary Policy

Trough	Interest Tro	Rate at ugh ¹	First Rate Hike After	± Change 18 Months After Trough Quarter ³						
	Nominal FF Rate	Real FF Rate	Trough ²	Nominal FF Rate	Real FF Rate	Federal Deficit/ Surplus as Pct. of GDP				
November 2001	2.09	0.19	?	-60bp	-116bp	-3.81				
March 1991	6.12	1.22	June 1991	-43bp	-99bp	-2.27				
November 1982	9.20	4.61	March 1983	+211bp	+172bp	+1.16				
July 1980	9.03	-4.10	August 1980	+381bp	+963bp	-0.69				
March 1975	5.54	-4.71	June 1975	-29bp	+447bp	+0.11				
November 1970	5.60	0.00	April 1971	-44bp	+242bp	+0.01				
February 1961	2.54	1.18	May 1961	+88bp	+91bp	+0.06				
April 1958	1.26	-2.32	June 1958	+306bp	+318bp	+2.18				
May 1954	1.02	0.27	August 1954	+152bp	+152bp	+2.34				

Interest rates displayed in the table are average monthly effective federal funds rates. Real rates are adjusted for year-over-year CPI. See Note 1 to Table 1 for information on imputed funds rate for 1953-1954.

Indicates first month following trough in which the nominal monthly funds rate exceeded the level recorded in the preceding month.

SOURCES: National Bureau of Economic Research *Business Cycle Expansions and Contractions*; Board of Governors, Federal Reserve System, H.15 historical series; Bureau of Labor Statistics, CPI-U historical series

Borrowed Growth

The Fed's unusually accommodative stance during the first 30 months of the Bush II Administration also manifested itself in the central bank's willingness to allow credit expansion to accelerate at an extremely rapid pace. The resulting cascade of net new debt financed a post-recession period of borrowed growth.

To some degree, credit expansion in the Bush II Era simply represents the continuation of a long-running trend. As Table 2 shows, outstanding credit market debt owed by all domestic nonfinancial sectors – private and public – gradually grew from 123 to 144 percent of GDP between 1952 and 1982. Over the next two decades, however, domestic borrowers' credit market debt soared in relation to output. Household debt followed a similar trajectory.

What distinguished the first ten quarters of the Bush II Administration was the unusual intensity of debt growth relative to economic expansion. Between January 2001 and June 2003, domestic borrowers' outstanding credit-market debt as a share of GDP rose more than 17 percentage points, from 182.6 to 199.9 percent. Since 1952, the Fed has permitted faster credit expansion during comparable periods on only one occasion – a 25 percentage point rise in the ratio of domestic sectors' debt to GDP during the first 30 months of Ronald Reagan's second term.

Perhaps more significantly, the ratio of household debt to GDP grew more rapidly during the first two and a half years of the Bush II Administration than any comparable period since the Treasury Accord. Between the change of administrations in 2001 and midyear 2003, the ratio spiked from 71.1 to 82.6 percent, paced primarily by a surge in home mortgage debt. At the same time, the ratio of household debt to disposable income rose by a record 12.9 percentage points, crossing the 110 percent threshold for the first time at midyear 2003.

Much of the run-up in household borrowing since January 2001 has taken the form of mortgage refinancing, as families used lower interest rates to reduce their monthly mortgage payments (and thereby helped the housing sector keep the economy afloat). Nevertheless, historical data revised by the Federal Reserve in October show that the burden of monthly debt payments by households – measured in both narrow

Indicates first month following trough in which the nominal monthly funds rate exceeded the level recorded in the preceding month.

In these columns, changes in the funds rate are calculated by comparing rates in the final month of the quarter in which the trough occurred and rates a months later.

and broad terms – has remained at an all-time high throughout the Bush II Administration after declining in the mid-1990s (see Table 5).

Table 5: Household Debt Service Ratios [percentages]

Quarterly Average	Q1 1981- Q2 1983	Q1 1985- Q2 1987	Q1 1989- Q2 1991	Q1 1993- Q2 1995	Q1 1997- Q2 1999	Q1 2001- Q2 2003
Debt Service Ratio ¹	10.74	12.05	11.93	11.04	12.23	13.29
Financial Obligation Ratio ²	15.69	17.32	17.20	16.32	17.52	18.24

^{*}Payments on outstanding mortgage and consumer debt as a percentage of disposable personal income.

SOURCE: Board of Governors, Federal Reserve System, Household Debt Service and Financial Obligations Ratios

In addition, the recent surge in cash-out mortgage refinancing had the effect of reducing the aggregate equity that homeowners hold in their houses. Lending on extremely onerous and predatory terms has continued to plague fringe and formerly fringe segments of the credit market. And low real rates do not mitigate the hard fact that debt growth cannot indefinitely exceed economic expansion at the current elevated pace. At some point the economy must grow robustly enough to furnish the income, earnings and tax revenues that enable household, business and government borrowers to service their debt. This imperative is especially relevant today, since interest rates are unlikely to decline further and future debt will be incurred on more expensive terms.

Finally, credit expansion in the Bush II Era has extended the ongoing recomposition of outstanding debt owed by domestic borrowers. While the shares of outstanding credit-market debt owed by businesses and the federal government declined slightly between yearend 2000 and midyear 2003, the share owed by the financial sector rose from 31.7 to 33.3 percent, as enormous volumes of debt issuance by government-sponsored enterprises like Fannie Mae and federally related mortgage pools continued to make financial firms the dominant borrowers in U.S. credit markets (see Table 6). This trend underscores both the growing sectoral imbalance in the mortgage-dominated U.S. credit market and the importance of adequately supervising and regulating GSE activity.

Table 6: Shares of Outstanding U.S. Credit Market Debt Loaned to Domestic Borrowers [percentages]

1953	1963	1973	1983	1993	2000	Q2 2003
45.7	27.5	16.4	18.7	21.2	12.7	12.0
7.2	9.7	9.2	7.4	7.3	4.5	4.7
21.1	30.3	29.9	27.8	26.8	26.6	27.6
23.5	27.4	34.5	32.0	23.4	24.5	22.5
2.5	5.1	10.0	14.1	21.2	31.7	33.3
17.3	25.8	37.1	52.1	71.1	72.6	76.8
	45.7 7.2 21.1 23.5 2.5	45.7 27.5 7.2 9.7 21.1 30.3 23.5 27.4 2.5 5.1	45.7 27.5 16.4 7.2 9.7 9.2 21.1 30.3 29.9 23.5 27.4 34.5 2.5 5.1 10.0	45.7 27.5 16.4 18.7 7.2 9.7 9.2 7.4 21.1 30.3 29.9 27.8 23.5 27.4 34.5 32.0 2.5 5.1 10.0 14.1	45.7 27.5 16.4 18.7 21.2 7.2 9.7 9.2 7.4 7.3 21.1 30.3 29.9 27.8 26.8 23.5 27.4 34.5 32.0 23.4 2.5 5.1 10.0 14.1 21.2	45.7 27.5 16.4 18.7 21.2 12.7 7.2 9.7 9.2 7.4 7.3 4.5 21.1 30.3 29.9 27.8 26.8 26.6 23.5 27.4 34.5 32.0 23.4 24.5 2.5 5.1 10.0 14.1 21.2 31.7

SOURCE: Federal Reserve System, Flow of Funds Accounts of the U.S.

Comparatively Little Bang for the Buck

Despite its accommodative tilt – and despite a simultaneous fiscal expansion of huge dimensions – monetary policy was not notably effective in spurring growth during the first ten quarters of the Bush II Administration. As Table 7 indicates, output increased at a cumulative rate of only 4.12 percent in the six quarters since the 2001 recession ended – the most anemic post-1952 recovery except for the 1991-1992 period and Carter-Reagan transition years (when the economy tumbled back into a recession soon after emerging from the previous one).

²Payments on outstanding mortgage debt, consumer debt, automobile leases, housing rent, homeowners' insurance and property taxes as a percentage of disposable personal income.

Moreover, countercylical monetary ease produced less growth in the wake of the 2001 recession than it did during five of the eight previous downturns. For every 100 basis points of monetary ease the Fed produced during the 2001 recession, cumulative GDP grew by 2.00 percentage points in the six quarters following the downturn – less than half the output growth generated by monetary ease during the 1981-82, 1957-59 and 1953-54 recessions and only two-thirds the average amount of growth linked to monetary policy during the past nine recoveries (Table 7). Similar patterns hold true for the amount of output growth linked to a combination of monetary and fiscal ease.

Table 7: Recovery and Macropolicy Ease

Duration of Recession	Real Monetary Ease (RME) During Recession ¹	Fiscal Ease (FE) During Recession ²	Cumulative GPD Growth in 6 Qs Following Trough ³	Cumulative GDP Growth per 1 Percentage Point of: ⁴		
				RME	RME + FE	
Q1 2001 - Q4 2001 (8 months)	-206bp	-2.24	4.12	2.00	0.96	
Q3 1990 - Q1 1991 (8 months)	-239bp	-0.33	4.05	1.69	1.49	
Q2 1981 - Q4 1982 (16 months)	-227bp	-3.90	11.76	5.18	1.91	
Q1 1980 - Q3 1980 (6 months)	-482bp	-1.36	1.32	0.27	0.21	
Q4 1973 - Q1 1975 (16 months)	-720bp	-2.52	7.78	1.08	0.80	
Q4 1969 - Q4 1970 (11 months)	-400bp	-2.57	8.90	2.23	1.35	
Q2 1960 - Q1 1961 (10 months)	-246bp	-1.14	9.73	3.96	2.70	
Q3 1957 - Q2 1958 (8 months)	-211bp	-2.75	9.83	4.66	2.02	
Q3 1953 - Q2 1954 (10 months)	-180bp	-1.79	9.74	5.41	2.71	
AVERAGE	-323bp	-2.07	7.47	2.94	1.57	
MEDIAN	-239bp	-2.24	8.90	2.23	1.49	

Change in real federal funds rate from pre-recession peak to point of maximum monetary ease. See Note 1 to Table 3 for details.

SOURCES: National Bureau of Economic Research *Business Cycle Expansions and Contractions*; Board of Governors, Federal Reserve System, H.15 historical series; Bureau of Labor Statistics, CPI-U historical series; Bureau of Economic Analysis, U.S. Department of Commerce: NIPA tables 1.1 (GDP) and 3.2 (Federal Government Current Receipts and Expenditures).

ASSESSING THE FED'S CHOICES

Drawing conclusive comparisons between Fed policy choices in different presidential administrations is an inherently difficult task. Changes in macroeconomic conditions, shifts in the central bank's operating assumptions, and the cumulative effect of previous monetary policy decisions all serve to make each presidency somewhat unique from the Fed's perspective.

For example, recent downturns in output and employment obviously appear quite tame compared to the recessions of the mid-70s and early-80s. But the build-up of deflationary pressures over the past two years goes a long way towards explaining why the Fed has eased so aggressively during the Bush II presidency relative to previous periods of contraction and slow growth.

In addition, George W. Bush has been a major beneficiary of the two-decade-long disinflation campaign, the revisionist thinking about sustainable levels of output and unemployment, and the accumulated credibility that have allowed the Fed to keep interest rates at unusually low levels without fear of triggering an upward price spiral. Given the overlapping impacts of war, a burst stock-market bubble and tepid global

² Change in federal budget balance as a percentage of GDP from pre-recession peak to point of maximum fiscal ease. See Note 2 to Table 3 for details.
³ Cumulative change in constant-dollar GDP for the six quarters following the quarter in which the business cycle reached its trough. For example, the top row displays the percentage difference between GDP at the end of Q4 2001 and the end of Q2 2003.
⁴ These columns show cumulative GPD growth in the six quarters following a trough scaled to each 100 basis-point drop in: a) the real funds rate; and b)

⁴These columns show cumulative GPD growth in the six quarters following a trough scaled to each 100 basis-point drop in: a) the real funds rate; and b) the real funds rate and federal budget balance as a share of GDP at the points of maximum monetary and fiscal ease during the preceding peak-to-trough period.

growth, the central bank appears to have had very little cause to tighten policy at any point in the Bush II Administration's first ten quarters.

Nevertheless, assessing the Fed's policy moves of 2001-2003 in light of its past actions inevitably raises two key questions. First, why did such extremely accommodative monetary policy fail over a protracted period to generate commensurately robust output or job growth? And second, has that policy intentionally or unintentionally tilted the political landscape in favor of partisan interests or electoral outcomes?

* * *

Part of the answer to the first question surely lies in the growth-retarding sense of unease produced by September 11's terrorist attacks, growing geopolitical instability and a series of scandals that shook the U.S. corporate and financial sectors. In addition, President Bush's fiscal expansion, while sizeable, packed a relatively weak stimulative punch due to the makeup of its tax cuts and spending increases. Moreover, rising productivity and sectoral shifts in employment appear to have held back the pace of job growth since the end of the 2001 recession.

Meanwhile, the financial sector generated procyclical headwinds that impeded the effects of monetary ease. In contrast to the 1990-1991 recession, the deposit-taking industry neither suffered steep losses during the 2001 contraction nor stymied recovery with a credit crunch. But other parts of the financial economy contributed to the bubble of the late 1990s and hindered the recovery of 2002-2003 in ways that parallel the banking sector's procyclical role a decade earlier

For example, rising pension obligations – the result of inadequate plan contributions in the 1990s, falling equity prices and fixed-income yields in subsequent years, losses on risk-shifting transactions² and the prospect of higher PBGC premiums – have exacerbated profit pressures at companies sponsoring defined benefit plans and curbed their willingness to undertake new investments or hiring. In addition, deep losses in 401(k) plans and other defined contribution programs clearly helped fuel a negative wealth effect that crimped consumption spending.

Finally, the monetary policy implementation process itself has helped undercut the efficacy of Fed decisions. While the financial sector has undergone a major restructuring over the past two decades, the Fed has failed to adapt its basic policy transmission mechanism accordingly. As a result, the eroding effectiveness of that mechanism has weakened the central bank's ability to manage either the up or down sides of economic cycles – a development examined in depth in the 2002 FMC report Rebuilding the Transmission System for Monetary Policy.

* * *

.

² In the Fed's semiannual report to Congress in July 2003, Chairman Greenspan praised risk-shifting derivatives transactions for preventing a recurrence of the banking industry meltdown that took place during the 1991 recession. However, Greenspan acknowledged that credit derivatives had transferred "the costs of default" from banks "largely" to pension funds. "They didn't like it," said the chairman of the pension funds, "but they're still around and they're still viable." To date, neither the Fed nor any other public agency has documented the extent of pension fund losses attributable to credit derivative transactions – or the degree to which these deals have merely relocated risk from banking industry stockholders and bondholders (and the FDIC) to pension plan sponsors, participants and beneficiaries (and the PBGC).

The second question is fundamentally trickier than the first. While the central bank is widely presumed to be "above" politics, its actions always have political ramifications – both in the familiar (campaigns and elections) and fundamental (who gets what in society) senses of the term. FOMC transcripts show that Fed officials occasionally have voiced concerns about public, media and market perceptions of the central bank's influence on electoral conditions. In the Committee's October 1992 meeting, for example, Boston Fed President Richard Syron posed the issue of whether "the credibility of the [Fed] would be hurt by our doing something so close to an election" and Chairman Greenspan commented that he "wish[ed] we had the luxury to sit back and do nothing until after the election, as is the conventional procedure of the FOMC."

On the surface, Fed policy during the Bush II Era may seem suspiciously supportive of the incumbent president on three counts. First, it contrasts sharply with the central bank's decision to raise interest rates in the face of Democratic deficit cutting during the mid-1990s. Second, one of the FOMC members backing easier policy in 2001 and 2003 – Chicago Fed President Michael Moskow – contributed substantial campaign donations to President Bush and Republican party organizations. Third, the central bank's Board of Governors has ostensibly been remade in George W. Bush's image. Thanks largely to Senate Banking Committee Chairman Phil Gramm's effort to block Board nominations in the late 1990s, Bush had the opportunity to name more governors to the Fed earlier in his term than any previous president.

At the same time, however, the historical record suggests it would be most unusual for the Fed to risk its reputation and autonomy by directly aligning itself behind partisan goals. Past FOMC transcripts do not provide any evidence of overt efforts by the Fed to stack the electoral deck (transcripts of FOMC meetings in the Bush II years will only become available to the public beginning in 2006). And the scholarly literature is inconclusive as to the intent and effects – or even the existence – of a political monetary cycle.

Moreover, the second Bush Administration's nominees to the Fed by and large lack a distinct political coloration. Bush's five appointees to the Board include one recycled Clinton nominee, Vice Chairman Roger W. Ferguson, Jr., who is a Democrat. And only one Bush appointee – Governor Mark W. Olson – has evident ties to Republican politics (Olson previously worked for two Republican members of Congress).

In addition, past experience demonstrates that merely having the chance to name an unusually large number of Fed governors in a short period of time does not guarantee a president congenial policy or gratifying economic outcomes. The fates allowed Gerald Ford to appoint five governors during his short tenure in the White House (making Ford the second most prolific nominator of Fed officials behind Bush II) and while Fed policy in 1975-1976 is open to many kinds of criticism, it cannot fairly be accused of improving Ford's chances of reelection.

-

³ Under FOMC rules, the presidents of the Federal Reserve Banks of Chicago and Cleveland take turns as voting members of the Committee in alternating years. According to Federal Election Commission records, President Moskow's political contributions included a \$250 donation to the Republican National Committee in April 2001, at the height of the Fed's aggressive rate cutting early in the Bush II Administration. Moskow's campaign contributions are chronicled in the Q2 2002

edition of *FOMC Alert*.

⁴ The second President Bush also appears to have been nominally more alert to the Fed's impact on his administration's success and reelection prospects than many previous presidents – though this isn't necessarily saying a lot. According to former Carter Administration official Stuart Eisenstadt, he and his colleagues "had no earthly idea of where [Paul] Volcker really stood," when President Carter tapped him to head the Fed. And if Bob Woodward's account in *The Agenda* can be believed, Bill Clinton expressed surprise that "the success of the [White House economic] program and my reelection hinges on the Federal Reserve and a bunch of fucking bond traders."

Ultimately, the extent to which Fed officials allow their judgment to be affected by political considerations is unknowable under the still-opaque conditions (closed-door meetings, unrevealing minutes, delayed release of transcripts) that prevail at the FOMC. Only a more transparent approach would show clearly how the central bank deals with or ignores such considerations.

* * *

In addition to these retrospective questions, the central bank's actions since 2001 also raise a number of forward-looking issues. For example, do the scale, duration and public explanations of the Fed's 2001-2003 easing suggest that fundamental changes are taking place in monetary policy? And what do the central bank's stances in its multiple policy domains (monetary, regulatory, international, etc.) imply for the eventual institutional transition to a new chairman, as the economic, financial and political terrain continues to shift. These questions will be addressed in a second part of this report to be published in FMC's newsletter *FOMC Alert* in early 2004.

Additional FMC material on the Federal Reserve and election cycles can be found online at http://www.fmcenter.org/fmc_superpage.asp?ID=602.

Financial Markets Center PO Box 334 Philomont, VA 20131 (540) 338-7754 phone (540) 338-7757 fax info@fmcenter.org www.fmcenter.org