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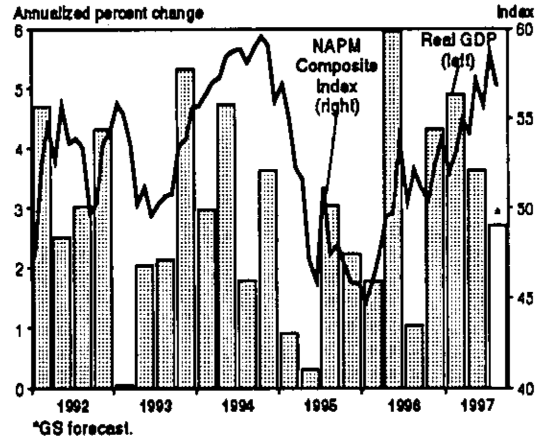
Goldman Sachs

U.S. Economics Analyst

The Asian Drama: Minimal Impact on U.S. Growth

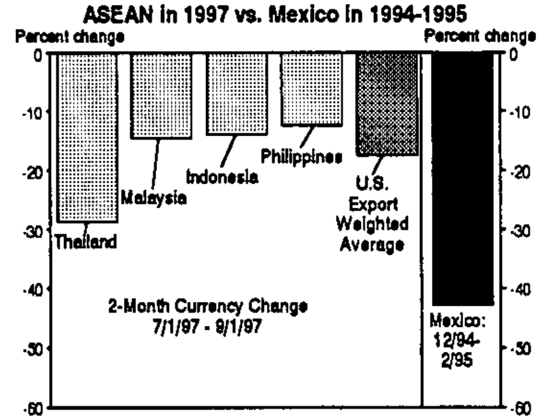
- U.S. economic growth remains on a solid path. Large sales gains posted by retailers, coupled with a small increase in unit sales of light-weight motor vehicles from already high levels, imply that spending rose sharply again in August. Meanwhile, factory indicators, ranging from purchasing managers surveys to orders data to payrolls, suggest firm gains in this sector.
- The August employment report likewise reveals no significant turn in the direction of the labor market. Excluding the effects of the UPS and other strikes, nonfarm payrolls rose 192,000 last month and revisions added another 43,000 to the job rolls. Wage inflation remained on a 3.6% year-to-year track.
- Worries that the Asian currency turmoil could put a significant dent in U.S. growth appear unwarranted, despite our expectation for a major slowing in the region. Using the experience following the 1994 Mexican peso devaluation as a guide, we estimate that U.S. GDP will be cut by no more than 0.1%.
- This small estimate reflects two factors: (1) the ASEAN nations, where currency depreciation has been concentrated, are not apt to suffer nearly as big an adjustment as Mexico did, and (2) these countries account for less than 5% of U.S. exports. The assessment would obviously change with significant contagion outside the region, but this currently appears unlikely.
- Although Federal Reserve officials are becoming more uneasy with the persistent trend in growth, according to one press report, we continue to believe that they will refrain from tightening at the September 30 meeting.

NAPM Index and Real GDP Growth



*GS forecast.
Source: Department of Commerce, NAPM.

Currency Depreciation: ASEAN in 1997 vs. Mexico in 1994-1995



Source: Bank of America.

Trade Recommendations

- Close long March 1998/March 1999 Eurodollar calendar spread positions.
- Sell short December Treasury 10-year note futures on a close below 108.14, with a stop on a close above 109.16.

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September 5, 1997

I. Weekly Wrapup

Economic and Market Overview

U.S. bond yields have oscillated in a relatively narrow range over the past week, with little net change, while stock quotes rebounded sharply after Labor Day. Most recent private and official reports point to a continuation of solid above-trend growth. Retail spending seems to be steaming ahead, as the Goldman Sachs Composite Index of August sales results from major retailers jumped 5.7% on a year-to-year basis for the second straight month. In addition, motor vehicle dealers report a slight further increase in unit deliveries, bringing the July/August average well above that for the second quarter. These figures imply that real personal spending growth should comfortably exceed a 3% annual pace for the quarter as a whole.

Meanwhile, U.S. factories continue to enjoy a sturdy flow of new business. In July, manufacturers' orders rose 0.2% overall and 1.1% outside the volatile aircraft and defense components. Although inventory growth among producers remains faster than in 1996 (+0.5%), this does not look problematic, because shipments are rising even faster, pushing stock-to-sales ratios to new lows. Consistent with these data, purchasing managers reported that August was another strong month for factory activity. The composite NAPM index slipped a notch last month, to 56.8% from 58.6%, but both the new orders and production components remained above 60% for only the second time since late 1994.

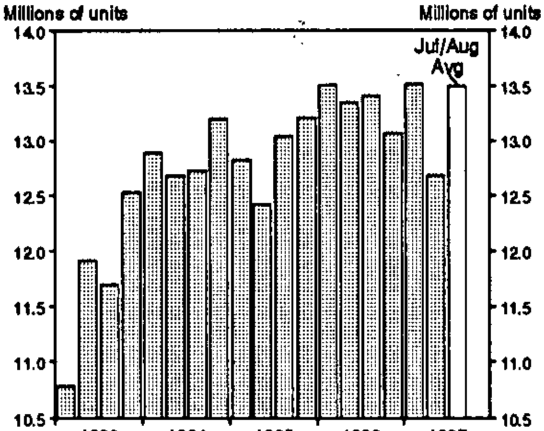
The August employment report likewise revealed no significant shift in the direction of the economy. While nonfarm payrolls rose only 49,000, this was heavily influenced by the UPS strike. Excluding all strike effects, the August increase was 192,000, and revisions to June and July added another 43,000 to the job rolls. Thus, the BLS maintained its recent pattern of uncovering more than 200,000 jobs, on average, in each survey. Net hiring was especially strong in the manufacturing sector (+49,000), confirming other indications of solid momentum in the demand for U.S. goods. Meanwhile, the trend in average hourly earnings remained flat, at 3.6% year to year despite a 0.4% jump in August, and the increase in hours worked, 1.7% at an annual rate in the first two months of the quarter, is consistent with our current estimate that real GDP is advancing at a 2.7% annual rate, although other data suggest that the gain could be larger.

Federal Reserve Policy

It would not be at all surprising if senior Fed officials are losing faith that the U.S. growth slowdown they have long predicted will arrive soon, as a prominent news article has suggested. Not only has personal spending apparently resumed a robust trend, but reports from the factory sector do not indicate any appreciable let-up in output as a consequence of the sharp pickup in stock building. Taken together, these developments imply a reduced potential for business conditions to moderate substantially without a prod from tighter credit.

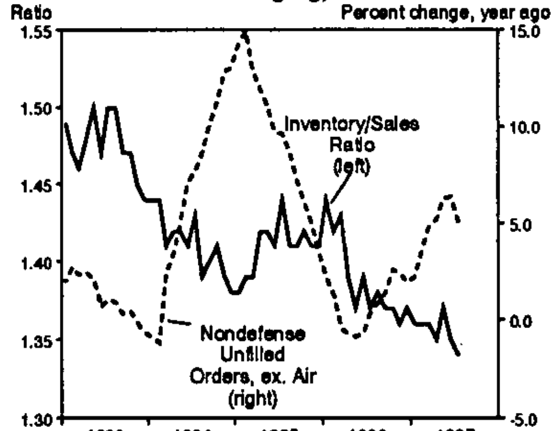
In our view, however, it remains doubtful that central bankers will take action toward higher rates as soon as the September 30 FOMC meeting, due to the likely

Domestic Motor Vehicle Sales



Source: Department of Commerce.

Order Books Bulging, Stocks Lean



Source: Department of Commerce.

contamination of many statistical reports this month by the UPS strike and the heavy dose of important economic information that will become available during October. Having waited this long to tighten further, policy makers probably will have a solid preference for seeing the third-quarter employment cost index and advance GDP report—both slated for release in late October—before taking action.

Fiscal and Political Developments

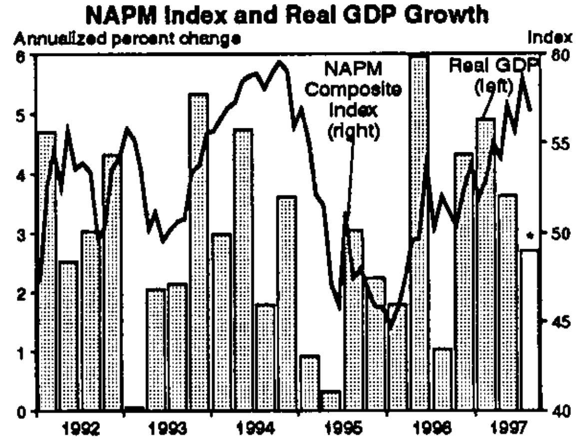
No sooner had Congress reconvened after a month-long vacation than its leaders began talking about how to wrap up this session as quickly as possible. With the budget deal done, and senior lawmakers dismissing the potential for finalization of the tobacco industry pact with the states this fall, the only remaining major legislative topics are the completion of annual discretionary spending appropriations and a presidential request for renewed fast-track trade negotiating authority. In the fast-track effort, the camps will be composed very differently than in the budget conflicts, with President Clinton and the bulk of congressional Republicans standing in favor and many Democrats, led by House Minority Leader Richard Gephardt of Missouri, leading the opposition. The debate promises to be contentious, but in the end the Congress probably will follow its past practices and give the President the special negotiating flexibility he has requested.

Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

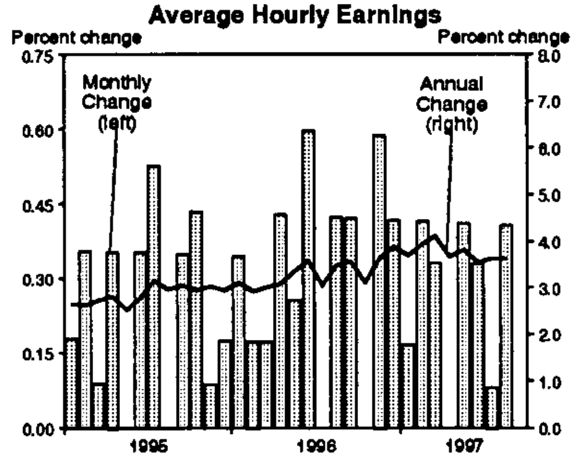
We recommend closing long March 1998/March 1999 Eurodollar futures spread positions, because market participants soon are likely to assign a much higher probability to a rise in short-term rates by next spring, given the strength in most recent activity reports. With the Fed probably on hold until at least November, there is also a growing risk that their "wait and see" policy approach will come to be viewed as potentially risky for the inflation outlook. The longer they delay raising rates to damp economic vigor, the greater are the dangers of a significant upward rate adjustment down the road to keep price and wage pressures contained. Amid heavy issuance of new corporate debt, such an attitudinal shift would probably push up yields on intermediate notes. Therefore, we would look to sell December Treasury 10-year note contracts on a close below 108.14, with a stop on a close above 109.16 in the event this position is triggered.

NAPM Index and Real GDP Growth



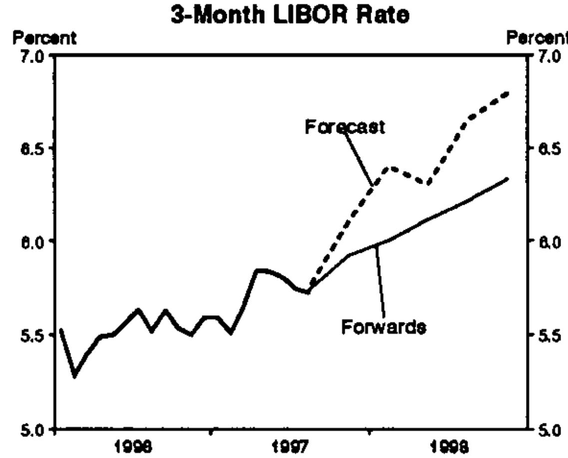
*GS forecast
Source: Department of Commerce. NAPM.

Average Hourly Earnings



Source: Department of Labor.

3-Month LIBOR Rate



Source: Federal Reserve Board. Wall Street Journal.

II. The Asian Drama: Minimal Impact on U.S. Growth

In the last week or two, U.S. financial markets have focused a great deal of attention on the currency crisis in Asia and its potential impact on the U.S. economic outlook. There is no question that the currency and stock-market turmoil unleashed by the devaluation of the Thai baht on July 2 will hurt growth in the region; on the basis of these developments, our Hong Kong based economists foresee a recession in Thailand and slowdowns in several neighboring countries. As a result, U.S. firms with significant exposure in this region are apt to suffer a noticeable loss in business.

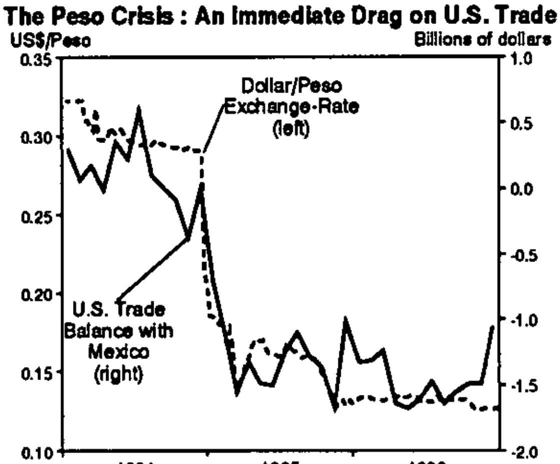
However, it is hard to make the case that the crisis will have a significant effect on the U.S. economy as a whole. Using the experience following the 1994-1995 devaluation of the Mexican peso as a framework for analysis, we estimate that growth in U.S. GDP is unlikely to be reduced by much more than 0.1%. Any materially larger impact would require a significant spreading of the crisis to other countries in the region and to other emerging market economies. While this obviously cannot be ruled out altogether, we currently see sustained weakness as unlikely. Meanwhile, in assessing prospects for U.S. trade, investors should bear in mind that more than two-fifths of U.S. merchandise exports are sold in Canada, Mexico, and Latin America, where the economies are generally strong at the moment.

The Mexican Peso Crisis as a Framework . . .

In attempting to quantify the probable effects of the Asian crisis on U.S. growth, the experience following the Mexico peso devaluation in late 1994 provides a convenient framework for analysis. On December 22 of that year the Mexican government devalued the peso sharply and unexpectedly in an effort to reverse a rapid widening in its current account deficit that had resulted from overly expansive economic policies. In the following year, Mexico's current account deficit fell sharply, from $29.7 billion (7.0% of Mexican GDP) in 1994 to $1.6 billion (0.5%) in 1995.

From the perspective of other nations, this shift in Mexico's current account deficit marked a contraction in annual demand for goods and services of about $27 billion. Because the United States accounts for an overwhelming share of Mexican trade—about two-thirds in 1994—it naturally shouldered the brunt of this adjustment. Thus, as shown in the accompanying chart, the U.S. merchandise trade balance with Mexico moved rapidly from a slight surplus of $1.4 billion in 1994 to deficits of $15.4 billion in 1995 and $17.5 billion in 1996—a cumulative loss of $18.9 billion, or about 1/4% of U.S. GDP in that year.

The Peso Crisis : An Immediate Drag on U.S. Trade



Source: Department of Commerce. Bank of America.

One way to gauge the impact of the Asian crisis is to assume that a comparable current account adjustment occurs in the ASEAN countries—Thailand, Malaysia, Indonesia, and the Philippines—whose currencies have been hit hardest in the current crisis. At present, these nations are running current account deficits averaging 4½% of their GDP, or about $27 billion. Elimination of these deficits would thus represent a reduction of $27 billion in the demand for goods and services to be absorbed by the rest of the world.

By happenstance, this is an amount almost identical to Mexico's current account adjustment in 1995, albeit in a world economy that has grown in the interim. However, its impact around the globe would be distributed quite differently. Whereas the United States accounted for two-thirds of Mexican trade in 1994, it accounted for only 21% of ASEAN exports and 12% of ASEAN imports in 1996.[1] Thus, the U.S. share of such an adjustment would not be much more than $3-$5 billion. Although the secondary effects rippling through other countries onto the U.S. trade balance would boost this figure somewhat, it seems unlikely that the ultimate effect would be more than

[1] These figures are based on data compiled by our Hong Kong based colleagues and presented in the September 2 issue of *The Weekly Analyst* (p. 7). They have been weighted according to OECD data on GDP.

twice as much, or about 0.1% of U.S. GDP (which crossed the $8 trillion annual rate mark last quarter).

. . . But ASEAN in 1997 is Not Mexico in 1994

In fact, we believe it is more likely that the foregoing exercise represents an upper limit to the impact of the Asian currency crisis on U.S. output, inasmuch as the difficulties in Asia seem much more manageable than those that confronted the Mexican authorities 2½ years ago. The 1994 peso devaluation threw the Mexican economy into a free fall in 1995, as real domestic final sales plunged nearly 14% following a 5.5% increase in 1994. By contrast, our economists in Hong Kong envision a downturn of much more modest dimensions in Thailand, where the problems are most severe, and a slowing in growth elsewhere in the region. Their latest forecasts are shown in the table below, both for the ASEAN countries and for the newly industrialized economies (NIEs) of Hong Kong, Singapore, Taiwan, and South Korea.[2]

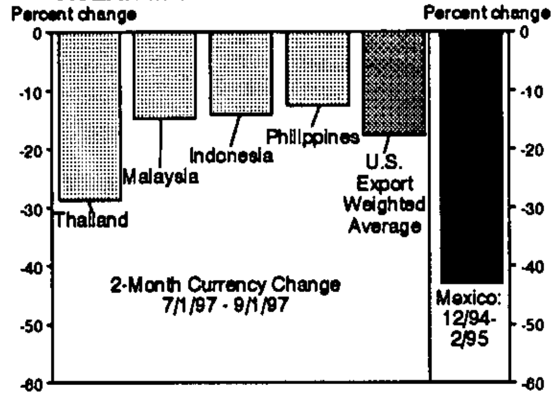
Moreover, even Mexico's devaluation did not quite wipe out its current account deficit. This gap, which reflects (in opposite sign) the annual flow of capital into the country, averaged about ½% of GDP in 1995 and 1996. In 1997, it has begun to move back up, headed to an estimated 1.7% of GDP, as investors have regained confidence. In our view, the result will be a similar pattern, probably with a more muted deficit decline, for the ASEAN region.

Domestic Demand in Asia (%)

	1995	1996	1997E	1998E
ASEAN				
Thailand	8.6	7.3	-1.3	-0.1
Malaysia	13.3	7.1	4.6	0.7
Indonesia	10.2	8.3	4.5	3.7
Philippines	3.7	7.0	6.3	3.7
Average	**9.2**	**7.6**	**3.3**	**2.2**
NIE				
Singapore	8.5	10.6	8.9	5.2
Taiwan	4.5	4.8	7.7	5.4
Korea	8.3	7.9	1.7	1.0
Hong Kong	6.9	3.0	7.5	7.4
Average	**6.9**	**6.3**	**5.0**	**3.7**

Source: Goldman Sachs

Currency Depreciation: ASEAN in 1997 vs. Mexico in 1994-1995



Source: Bank of America.

It may sound strange, given the turmoil now swirling in the Asian currency markets, but this also seems to be the conclusion that participants in these markets have reached, at least so far. Although the ASEAN currencies have dropped sharply in a short period of time, these declines have actually been much less steep than the Mexican peso's decline during the comparable period of that crisis, as shown in the chart above. If the onset of the Asian crisis is marked by the devaluation of the Thai baht on July 2, then it has just passed the two-month mark. By the same time in late February 1995, the peso stood 43% lower against the dollar, headed to a cumulative decline of 55%. Only the Thai baht has depreciated by even half this amount (about 29% as of September 1). Weighted by U.S. exports, which are apt to bear the brunt of the U.S. trade adjustment if the Mexican experience is any guide, the ASEAN depreciation has been about 17½%, or only about two-fifths as steep as the 2-month peso depreciation.[3]

Coupled with the fact that the ASEAN nations make up a much smaller percentage of U.S. exports than did Mexico before its devaluation, the fact that the ASEAN depreciations have been smaller, at least so far, supports the conclusion that the U.S. impact will also be small. In the 12 months ending in June 1997, U.S. exports to ASEAN totaled $27.9 billion, about

[2] Readers interested in more details should see the July 24, 1997, report by Don Hanna entitled *ASEAN-4 Currencies Adrift on Choppy Waters*, and subsequent issues of the *Asia Economics Analyst*, especially the one dated September 1, 1997.

[3] Judging from the fact that imports from Mexico did not deviate markedly from their previous trend, almost all of the U.S. adjustment in that situation appears to have occurred on the export side of the ledger. With the ASEAN exchange rates moving much less sharply, this experience suggests that any effort to dump goods in the United States will not meet with much success.

4.3% of the total value of U.S. merchandise exports over the same period and only 0.35% of U.S. GDP. By contrast, in the 12 months prior to its devaluation, Mexico accounted for 9.9% ($50.8 billion) of U.S. merchandise exports, a figure then worth about 0.73% of U.S. GDP. Thus, from the point of view of export shares and their percentage of total U.S. output, the U.S. exposure in the current situation is slightly less than half what it was in the 1994-1995 Mexican episode. Together with a depreciation only two-fifths as steep, this implies that the U.S. trade adjustment, if confined to exports, would be only one-fifth as large as it was in 1995—again well under 0.1% of U.S. GDP before secondary effects are considered.

Calculations based on U.S. import shares yield only slightly larger effects. The ASEAN countries account for 5.7% of U.S. merchandise imports, versus 7.5% for Mexico prior to its devaluation, or about three quarters as much. Thus, the effect on this basis would be about 30% of the Mexico impact, a figure still comfortably below 0.1% of GDP.

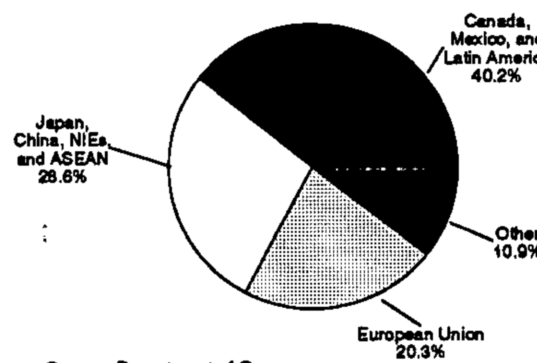
A Significant Impact Depends on Contagion

The message from these various calculations is simple: So far, the steepest currency declines have occurred in countries that, while growing rapidly, are still quite small, both in absolute output and in terms of U.S. trade. Thus, the effects of their adjustments, while painful locally, are too small in the aggregate and too spread out around the world to have a significant impact on U.S. growth.

This assessment would clearly change if the currency crisis were to prove contagious to other nations in the region or elsewhere. In that event, the aggregate hit to domestic demand in the rising number of affected countries would grow, while the ranks of those left to absorb this shock would dwindle. In this regard, the most obvious risk is that currency weakness spreads to the NIE bloc. From a U.S. perspective, contagion to the NIEs would begin to have noticeable effects, as these nations buy almost 12% of U.S. exports, about three times as much as the ASEAN nations.

However, contagion to this region has thus far been limited. The Singapore dollar and the Korean won have depreciated, but by relatively small amounts, and the Hong Kong stock market has suffered a significant setback, albeit after a major upward move. Only in the case of Korea do our Hong Kong-based economists expect material weakness in growth. Indeed, their view is that contagion within ASEAN has probably been overdone; beyond Thailand, only Malaysia is likely to experience a pronounced growth hiatus.[4]

U.S. Export Shares (12 months ending June 1997)



Source: Department of Commerce.

The most common questions raised about the indirect effects on U.S. growth revolve around the impacts on Japan and China. These nations are to the ASEAN crisis what the United States was to the Mexican peso crisis, and it is likely that Japan in particular will suffer growth effects materially larger than those we have estimated for the United States. But here too a measurable U.S. effect depends on contagion outside ASEAN. Although Japan and China send huge percentages of their exports to Asia (44% and 36%, respectively), most of these goods go to the NIE bloc (25% and 31%).

Don't Forget the New World

One final point: In assessing overall prospects for U.S. trade, investors should be wary of focusing too much attention on one region of the world at the expense of others. Although U.S. trade to the Pacific Rim has grown rapidly in recent years, this is not yet the most significant region. That honor belongs to the Western Hemisphere (more accurately, Canada, Mexico, and Latin America), which takes 40% of U.S. exports. Growth in these economies has been robust and is likely to remain so. As a result, the 20%-plus trend in exports to this region should provide a significant offset to any trade weakness that does emerge from the Asian currency drama that is now unfolding.

Ed McKelvey

[4] For details, see the September 1, 1997, issue of the *Asia Economics Analyst*.

Goldman Sachs

Key U.S. Economic Data

	Latest Monthly Data '97 Aug	'97 Jul	'97 Jun	'97 May	6 Mo Trend	12 Mo Trend	Next Release
Nonfarm Payrolls (ch. Thousands)	49	365	222	163	218	207	Oct 3
Unemployment Rate (%)	4.9	4.8	5.0	4.8	4.9	5.1	
Index of Hours Worked (% ch)	0.4	-0.2	0.4	0.3	1.1	2.7	
Average Hourly Earnings (% ch)	0.4	0.1	0.3	0.4	3.2	3.6	
Producer price finished goods index (% ch)	–	-0.1	-0.1	-0.3	-3.0	-0.2	Sep 12
Excluding food and energy	–	-0.1	0.1	-0.3	-0.6	0.0	
Consumer price index (% ch)	–	0.2	0.1	0.1	1.5	2.2	Sep 16
Excluding food and energy (% ch)	–	0.2	0.1	0.2	2.5	2.4	
Retail sales (% ch)	–	0.6	0.7	-0.3	1.8	4.5	Sep 12
Excluding motor vehicles (% ch)	–	0.5	0.4	0.0	2.2	4.3	
Industrial Production (% ch)	–	0.2	0.3	0.0	3.5	3.7	Sep 16
Manufacturing	–	0.1	0.3	0.1	3.5	3.8	
Capacity utilization (%)	–	83.1	82.3	83.3	83.4	83.3	Sep 16
Manufacturing	–	82.1	82.3	82.4	82.4	82.4	
Housing Starts (annual rate, thousands)	–	1447	1447	1402	1469	1452	Sep 17
Single-family	–	1141	1111	1098	1144	1135	
Trade balance (billions, monthly)	–	–	-8.2	-9.5	-9.3	-9.5	Sep 18
Merchandise	–	–	-15.0	-16.4	-16.1	-16.4	
Factory Orders (% ch)	–	–	1.2	-0.5	7.0	4.7	Sep 4
Durable Goods	–	-0.6	2.4	-0.4	13.0	6.1	Sep 25
Personal Income (% ch)	–	0.1	0.6	0.3	6.2	5.4	Sep 29
Wages and Salaries	–	0.0	0.8	0.3	6.2	5.9	
Purchasing Managers' Index (%)	56.8	58.6	55.7	57.1	56.2	54.2	Oct 1
Consumer Sentiment U Mich (Feb 66=100)	104.4	107.1	104.5	103.2	103.4	100.4	Sep 26
Conference Board (1985=100)	129.1	126.5	129.9	127.9	125.0	119.2	Sep 30

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

U.S. Calendar

Focus for the Week Ahead

- Solid year-to-year August sales gains reported by major retailers point to another significant gain in retail sales of goods other than motor vehicles. Although unit sales in that sector rose slightly, the prevalence of discounting at this time of the year suggests that the motor vehicle component will be down (September 12).
- Large increases in gasoline prices point to a sharp upturn in producer prices—the first in 1997. However, pricing probably remained relatively benign outside this sector (September 12).

Economic Releases and Other Events

				Estimate		
Date		**Time**	**Indicator**	**GS**	**Consensus**	**Last Report**
Mon	Sep 8	3:00	Consumer Credit (Jul)	+$6.0 bil	+$5.0 bil	$0.0 bil
Tue	Sep 9	10:00	Non-Farm Productivity (Q2 '97—Revision)	+2.5%	n.a.	+0.6%
Thu	Sep 11	10:00	Current Account Balance (Q2 '97)	-$38.5 bil	n.a.	-$41.0 bil
Fri	Sep 12	8:30	Producer Price Index (Aug)	+0.5%	+0.2%	-0.1%
			Excluding Food & Energy	+0.1%	+0.1%	-0.1%
		8:30	Retail Sales (Aug)	+0.5%	+0.4%	+0.6%
			Excluding Autos	+0.7%	+0.5%	+0.5%

- Wholesale Trade (Tue, Sep 9 - 10:00)
- Richmond Fed Survey (Tue, Sep 9 - 10:00)
- Consumer Sentiment—Prel. (Fri, Sep 12 - 10:00)
- Atlanta Fed Survey (Fri, Sep 12 - 10:00)

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	6.1%	6.4%	6.7%
Forward	5.9	6.0	6.2
2 Yr T-Note	6.2	6.4	6.7
Forward	6.1	6.2	6.3
10 Yr T-Note	6.4	6.5	6.8
Forward	6.4	6.4	6.5

Key Numbers in the Business Outlook

	1997				
	Q2	Q3E	Q4E	1997E	1998E
Real GDP	3.6%	2.7%	3.3%	3.8%	3.1%
Ind. Prod., Mfg.	3.7	2.5	4.3	4.4	4.8
CPI	1.1	1.8	2.2	2.3	2.6
After-Tax Profits*	8.7	5.9	3.6	6.9	2.4
Unemployment	4.9	4.7	4.7	4.9	4.4

* Excluding inventory profits; adjusted for depreciation distortions.

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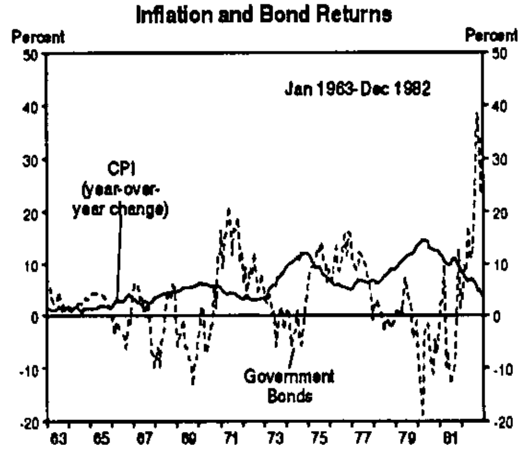
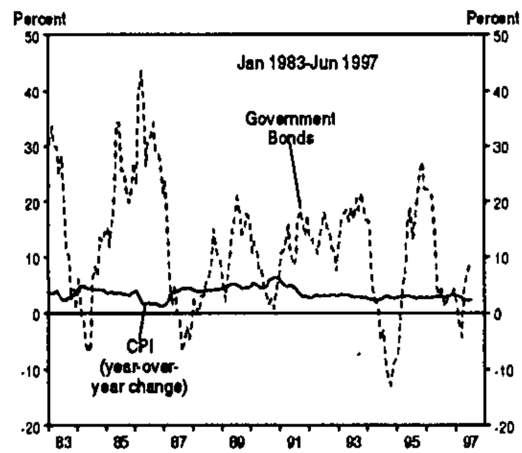
U.S. Economics Analyst

U.S. Monetary Policy: The Shift Back to "Wait and See"

- The economy grew much faster in the second quarter than first reported—3.6% versus 2.2%—with two-thirds of the difference resulting from a narrower-than-expected trade deficit. The other third showed up as an even faster accumulation of inventory than previously estimated and has led us to revise down our third-quarter growth forecast to 2.7% from 3.0%.
- Any growth drag from inventories should prove fleeting, however, inasmuch as most recent data indicate continued solid growth in final demand for U.S. output. A July surge in spending has put real consumer outlays back on a 3%-4½% annual growth track; home sales rose in July, as did orders for durable goods other than military hardware and civilian aircraft; and regional surveys of purchasing agents reported continued strength in the industrial sector in August.
- Although purchasing agents in the Chicago area also reported a pickup in prices paid, most other data suggest that inflation remains subdued. The low and stable rate of inflation in recent years appears, in turn, to have induced Federal Reserve officials to move back toward the "wait and see" approach that dominated U.S. monetary policy making prior to 1979, when bond yield volatility was lower than it is currently and more closely linked to volatility in inflation.
- If this does, in fact, represent a genuine shift, then the risks of an upward spike in inflation have risen. In today's global financial setting, however, market vigilance would probably not permit a full return to the pre-1979 regime as preemptive attacks on the currency and yield-curve steepening would effectively tighten monetary conditions in lieu of overt Fed action.

Inflation and Bond Returns





Sources: Department of Labor. Ibbotson Associates.

Trade Recommendations

- Stay long the March 1998/March 1999 Eurodollar calendar spread, maintaining a target of 70 basis points and a stop on a close below 30 basis points.

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I. Weekly Wrapup

Economic and Market Overview

Prices of U.S. government bonds drifted up slightly during the first half of the week and then surged on news that inventory accumulation had been faster in the second quarter than first reported and confirmation that inflation was subdued. A large portion of these gains evaporated on Friday morning, however, when purchasing managers in the Chicago area reported a stronger-than-expected pace of economic activity in that part of the country and a pick-up in prices paid. Meanwhile, equity prices moved lower on worries that, one way or another, the currency turmoil in Asia, a pace of stockpiling at home seen by many as excessive, or monetary tightening in response to strong growth, could threaten the ideal economic conditions that have sustained profit growth.

Revised estimates for economic activity in the second quarter showed a much stronger growth rate, with real GDP advancing at a 3.6% annual rate versus the 2.2% figure posted a month ago. Almost two thirds of this upward revision reflected unexpectedly narrow trade deficits for May and June, while the remainder was due to a step-up in inventory accumulation, to a $77.7 billion (6.3%) annual rate in real terms. With final sales of goods rising at only about half this clip, the risk of a near-term inventory drag on U.S. growth has clearly risen. Thus, we have lowered our estimate of third-quarter growth to 2.7% from 3.0%. However, this adjustment should not obscure the central fact that demand for U.S. product—measured by growth trends in both real final sales and real domestic final sales—has remained solid, rising about 3% per year.

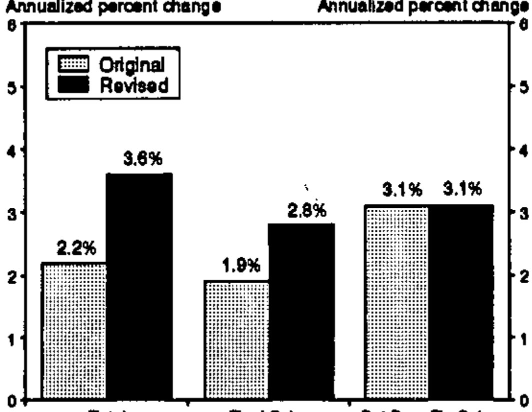
The latest monthly indicators suggest that the strength in final sales has extended into the third quarter. Real consumer spending is on a 3%-4% growth track, judging from the 0.8% increase in outlays reported for July. At the same time, sales of new and existing homes rose 0.8% and 2.2%, respectively, in July, signaling continued buoyancy in demand for new homes and, by extension, real residential investment. Meanwhile, the Conference Board reported a rebound in consumer confidence in August, despite the flutters in stock prices.

Data from the manufacturing sector tell much the same story. Although orders for durable goods fell 0.6% in July, sharp declines in bookings for defense equipment and civilian aircraft—two notoriously volatile categories—masked strength in other areas. Outside these two sectors, orders rose 1.0% in July from an upward-revised base, and bookings for nondefense capital equipment other than aircraft surged 5.3%. Regional surveys generally indicated a continuation of strong growth, with the widely watched Chicago index rising to 64.3% from 60.6%. About half of this increase was due to a spike in the vendor deliveries index, presumably reflecting the UPS strike; the other half was for real.

Federal Reserve Policy

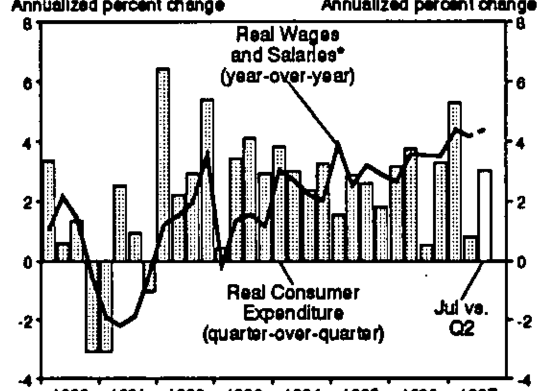
Federal Reserve policy makers have been eerily silent in the wake of last week's release of minutes to the July 1-2 FOMC meeting, which struck a much more hawkish tone than had been anticipated in financial markets. This silence will surely be broken at the

Real GDP During the Second Quarter



Source: Department of Commerce.

Another Spending Lull Ending



*Adjusted for tax-induced changes in income realizations.
Source: Department of Commerce.

annual conference on monetary policy, hosted by the Kansas City Federal Reserve Bank at Jackson Hole, which was just getting under way as this issue of the *U.S. Economics Analyst* went to press. As discussed in more detail in the center section article on pp. 4-6, the remarkable contrast between word and deed that has permeated the FOMC minutes for nearly a year may signal a return to the reactive "wait and see" approach that dominated U.S. monetary policy making before 1979.

Fiscal and Political Developments

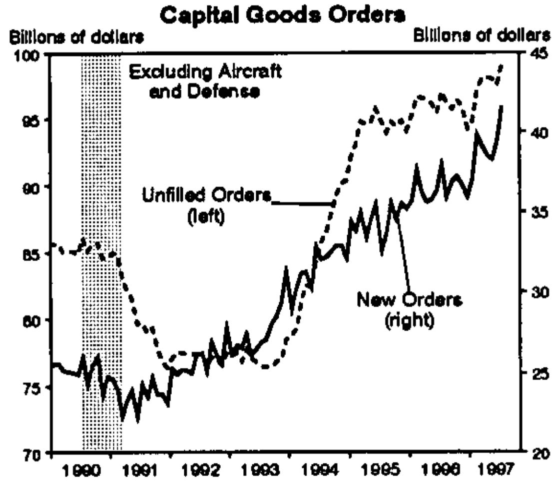
Congress returns from a summer recess on September 2 with completion of appropriations bills as the top item on the agenda. In principle, these bills should be enacted by October 1, the start of the new fiscal year, but in practice they seldom have been. Although the probability of meeting this deadline has generally looked higher this year, fresh signs of fractures within the Republican party suggest that the endgame will not be entirely smooth. At a conference featuring speeches by GOP presidential hopefuls, former Vice President Dan Quayle excoriated the Republican congressional leadership for compromising too much on conservative principles in the most recent budget deal. For his part, Speaker Newt Gingrich, after keeping a low profile during most of the year, has recently stiffened his rhetoric about resisting President Clinton's efforts to soften last year's welfare reform law.

Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

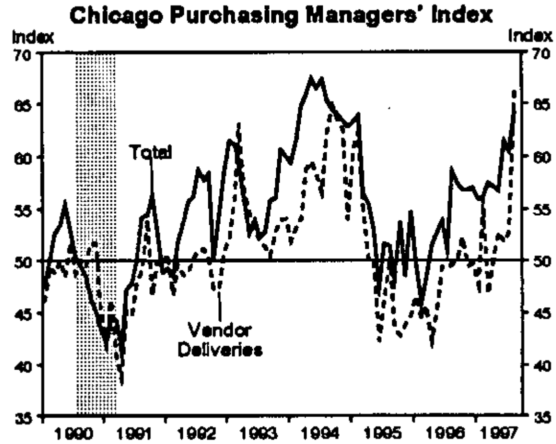
The latest data, showing unbroken growth in final sales but a more rapid rate of inventory accumulation, reinforce our view that Federal Reserve officials will probably feel the need to tighten at some point down the road, but not right away. Thus, we would maintain our recommendation for a long March 1998/ March 1999 Eurodollar calendar spread, keeping the target at 70 basis points and the stop on a close below 30 basis points. Although the apparent reversion to a "wait and see" policy at the Fed raises the risk of a bond yield spike at some point in the future, it is premature to position for this event.

Capital Goods Orders



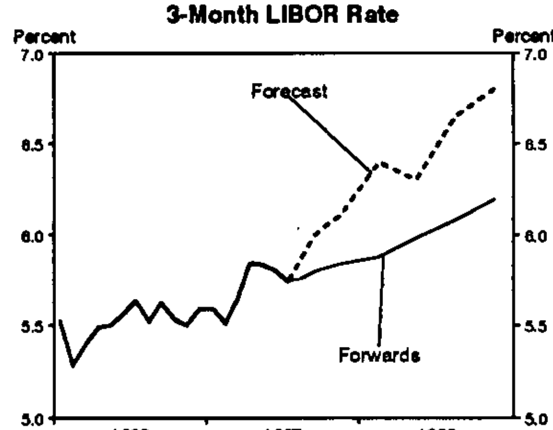
Source: Department of Commerce.

Chicago Purchasing Managers' Index



Source: Purchasing Management Association of Chicago.

3-Month LIBOR Rate



Sources: Federal Reserve Board. Wall Street Journal.

II. U.S. Monetary Policy: The Shift Back to "Wait and See"

Federal Reserve officials have taken two very different approaches in responding to inflation risk over the past forty years. Prior to 1979, the central bank typically waited until inflationary pressures were visible before tightening monetary policy. Beginning in 1979, monetary policy became more aggressive. Tightening moves were often implemented before an uptick in inflation actually had become visible.

Now that inflationary pressures are so subdued, however, it appears that the monetary authorities are slipping back into their old regime. If this were to occur and inflation pressures were to resurface, then interest rates could spike upwards more abruptly than we currently anticipate.

Inflationary Risk and Monetary Policy

The type and degree of inflation risk faced by investors depends on the monetary policy regime pursued by the central bank. U.S. historical experience provides stark evidence of this result. Prior to 1979, U.S. monetary policy was passive in the sense that Fed officials waited for inflation to occur before tightening monetary policy to correct the problem. Given the lags involved between the Fed's response and its impact on the economy, this policy regime led to a broad, upward trend in the inflation rate across business cycles.

Beginning in 1979, Chairman Paul Volcker moved the Fed to a much more aggressive regime designed to purge the economy of inflation and then to keep it low by tightening policy before the onset of a rise in inflation. Alan Greenspan maintained this stance once he became chairman in 1987. The result has been reduced inflation and a substantial increase in the stability of the inflation rate.

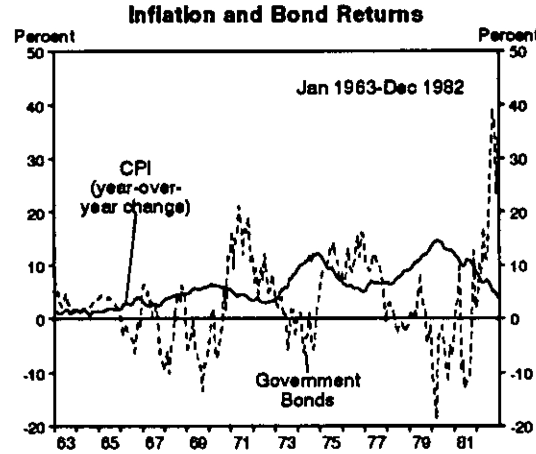
The impact of the change in the conduct of monetary policy on the relationship between inflation and bond returns can be seen in the accompanying charts. Each chart displays the 12-month change in consumer price inflation versus the 12-month U.S. government bond total return (yield plus price change). The scale of the two charts is the same to facilitate comparisons.

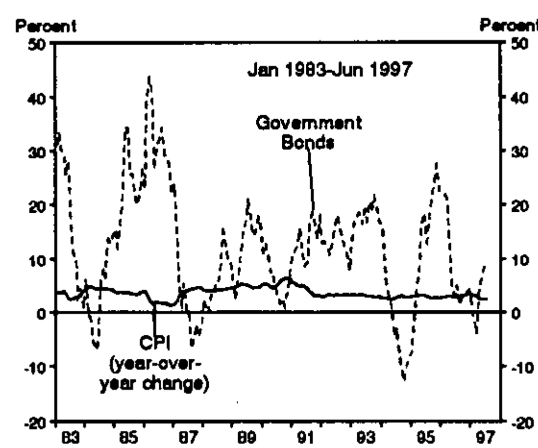
The top chart, which covers the period from 1963 to 1982, shows that inflation and bond market returns were significantly negatively correlated, with both series exhibiting a high degree of volatility. It is easy to see why investors viewed inflation as the primary determinant of bond returns. After all, when inflation moved up, bond returns moved lower. The bottom chart, covering the 1983-1997 period, shows a strikingly different result. Inflation volatility has largely disappeared. Bond market volatility, in contrast, has actually increased somewhat.

The reason for the breakdown between inflation and bond market returns is straightforward. To prevent inflationary pressures from developing, Fed officials were forced to make real interest rates more volatile. Inflation volatility was transformed into real interest rate volatility.

Interestingly, however, inflation risk did not disappear. In fact, the sensitivity of bond returns to

Inflation and Bond Returns





Sources: Department of Labor. Ibbotson Associates.

changes in the inflation rate were actually higher in the 1983-1997 period than earlier. This occurred because changes in inflation provoked a harsher response from the Fed during the latter period. Regression results show that U.S. government bond returns were more than twice as sensitive to a given change in the inflation rate during the 1983-1997 period. This is also borne out by simple correlations, which show that U.S. government bond returns had a higher negative correlation with changes in inflation during 1983-1997 (-0.33), than 1961-1982 (-0.23).

A Shift in Regime?

The core rate of consumer price inflation has not been as low as 2½% since 1973 (and, even then inflation was being artificially suppressed by wage-price controls). During that era, Fed officials were generally following a passive strategy. Thus, it should not be surprising if the same forces that led to passivity during that earlier era were resurfacing now.

In fact, policy already appears to be shifting back to a less preemptive stance. Over the past year, the growth pace has averaged more than 3% and the unemployment rate has declined from more than 5½% at the start of 1996 to 4.8% currently. This has led to a single 25-basis-point tightening of monetary policy. In contrast, in 1994-1995, Fed officials tightened by much more (300 basis points) and to a higher federal funds rate (6%).

The shift also is apparent in Chairman Greenspan's public musings and in the minutes to the July FOMC meeting. For example, in his May speech at New York University, the Chairman felt it necessary to actively defend the mere 25-basis-point tightening step implemented in March. And, in his July Humphrey-Hawkins testimony, Chairman Greenspan suggested that the U.S. economy might have entered a "New Era." Finally, the July FOMC minutes noted "the desirability of a cautious 'wait and see' policy stance at this point."

There are two major reasons for this apparent shift toward a patient "wait and see" approach. First, the shift reflects an increase in uncertainty about what the economy's capacity limits actually are. Over the past year, the inflation news has been consistently better than most historical relationships would have suggested. Although this may just reflect temporary, positive supply shocks (*e.g.*, the benefits of lower import prices generated by an appreciating dollar), it also could represent a more fundamental shift in the structural behavior of the economy.

If the economy can operate at a higher rate of resource utilization without inflation, then a preemptive monetary policy that is based upon historical relationships becomes quite costly. Such a policy regime implies foregoing output, without any offsetting benefit on the inflation side of the ledger.

Second, inflation is very subdued. This has changed the relative costs and benefits of a preemptive versus a passive monetary policy. When inflation is low, the costs of following a passive regime and allowing a modest uptick in inflation to occur before responding with a tighter monetary policy are modest. That is because the costs of a modest rise in inflation are slight because the inflation rate will still not be high enough to significantly influence household and business behavior and resource allocation decisions.

The attractiveness of a preemptive monetary policy is also reduced when inflation is low because a preemptive policy increases the risk of deflation. Policymakers might err and put monetary policy on too tight a setting. From the central bankers' perspective, this would be a particularly unattractive outcome. Deflation would tend to undermine the effectiveness of monetary policy altogether because the monetary authority cannot push nominal interest rates into negative territory.

The change in attitude among central bankers can be summed up by the notion that monetary policy should be one of "opportunistic disinflation." This is an idea that was endorsed by former Fed Vice Chairman Alan Blinder. By definition, this approach represents a more patient, passive approach. An updrift in inflation is resisted, but not prevented, with the big disinflationary gains reaped when the economy weakens and operates below full employment for an extended period.

You Can't Go Home Again

Even if Fed officials wanted to move back to a genuinely passive approach, there are limits on their ability to do so. In particular, financial markets are global and interlinked, so it is easy for investors to discipline quickly a central bank that exhibits behavior that they deem to be inappropriately patient: The currency gets pummeled, bond yields rise, and the yield curve steepens. In essence, if investors decided that the monetary authorities were too patient, the bond risk premium embedded in Treasury yields would widen, effectively tightening monetary conditions.

Interestingly, even when policy is preemptive that is no guarantee that the monetary authorities will not be disciplined by the financial markets. For example, in 1994, bond yields moved sharply higher as the Fed tightened monetary policy. The bond risk premium widened substantially, effectively increasing the degree of tightening in monetary conditions. The rise in bond yields was at least 125 basis points more than one would have anticipated based upon normal yield curve relationships. Based upon our Goldman Sachs monetary conditions index, this extra rise in bond yields was equivalent to about an additional 100-basis-point tightening of monetary policy.

Implications for Financial Markets

Our analysis has three implications. First, inflation risk is present regardless of the monetary policy regime pursed by the Fed. In the passive regime, the inflation risk manifests itself as a rise in actual inflation. In the preemptive regime, the inflation risk is transformed by the central bank into real interest rate risk.

The lesson for the bond market is clear. Deep into a business cycle, bonds tend to perform badly regardless of the monetary policy regime pursued by the Fed. As shown in the accompanying table, the total excess return on government bonds versus cash has generally been negative during the last half of the business cycle in both passive and preemptive monetary policy regimes.

Second, to the extent that Fed officials are shifting back towards a passive monetary policy regime, there is a risk of a sharper shift in monetary policy should inflationary pressures become evident. Having delayed tightening, Fed officials may have to raise rates more aggressively to catch up.

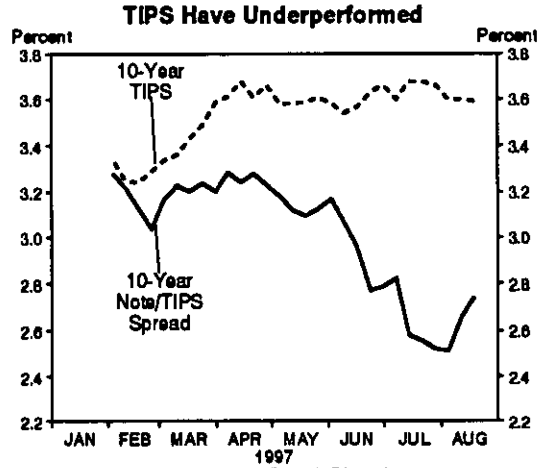
Consequently, while our forecast of a relatively gradual and steady updrift in interest rates has not changed, we are becoming more worried that the

Excess Return of U.S. Govt. Bonds Over Treasury Bills (average annualized rate)

	1st Quartile of Expansion	2nd Quartile of Expansion	3rd Quartile of Expansion	4th Quartile of Expansion
1961-1969	2.7%	-0.4%	-7.7%	-8.2%
1970-1973	10.3	6.6	-0.7	-3.2
1975-1979	1.5	3.9	-10.4	-9.3
1982-1990	-3.2	22.1	-5.1	4.2
Average:	2.8	8.0	-6.0	-4.1

Source: Ibbotson Associates. Our calculations.

TIPS Have Underperformed



Source: Federal Reserve Board. Bloomberg.

adjustment process may be more abrupt. In other words, the fixed-income markets may be well-behaved as long as the patient Fed monetary policy appears appropriate. But once inflation appears, there could be a sharp spike upwards in bond yields, followed by a rapid tightening of monetary policy.

Third, Treasury Inflation-Protected Securities (TIPS) deserve another look. In a preemptive monetary policy regime, TIPS are generally unappealing. The value of inflation protection will be low as the Fed keeps inflation well-contained, and the prices of the securities will be volatile as the Fed's preemptive responses lead to large fluctuations in real interest rates. In contrast, if the monetary policy regime is moving back to one in which the central bank is more reactive, then TIPS obligations will become more attractive as they will offer protection against the initial uptick in inflationary pressure. In this regard, it is noteworthy that the break-even inflation rate between 10-year Treasury note yields and 10-year TIPS has fallen sharply. This indicates that the cost for insuring against a shift in monetary policy regime by purchasing TIPS is currently very low.

In essence, the underperformance of TIPS versus nominal bonds this year implies increasing confidence among investors that the Fed will be preemptive and keep inflation in check. Although this makes some sense given the good inflation performance this year, it also represents an implicit judgment by investors that the Fed will act preemptively. That judgment may be suspect.

Bill Dudley **Steve Strongin**

Key U.S. Economic Data

	Latest Monthly Data '97 Aug	'97 Jul	'97 Jun	'97 May	6 Mo Trend	12 Mo Trend	Next Release
Nonfarm Payrolls (ch. Thousands)	--	316	228	163	245	224	Sep 5
Unemployment Rate (%)	--	4.8	5.0	4.8	5.0	5.1	
Index of Hours Worked (% ch)	--	-0.5	0.4	0.3	2.5	2.8	
Average Hourly Earnings (% ch)	--	0.0	0.3	0.4	3.0	3.6	
Producer price finished goods index (% ch)	--	-0.1	-0.1	-0.3	-3.0	-0.2	Sep 12
Excluding food and energy	--	-0.1	0.1	-0.3	-0.6	0.0	
Consumer price index (% ch)	--	0.2	0.1	0.1	1.5	2.2	Sep 16
Excluding food and energy (% ch)	--	0.2	0.1	0.2	2.5	2.4	
Retail sales (% ch)	--	0.6	0.7	-0.3	1.8	4.5	Sep 12
Excluding motor vehicles (% ch)	--	0.5	0.4	0.0	2.2	4.3	
Industrial Production (% ch)	--	0.2	0.3	0.0	3.5	3.7	Sep 16
Manufacturing	--	0.1	0.3	0.1	3.5	3.8	
Capacity utilization (%)	--	83.1	82.3	83.3	83.4	83.3	Sep 16
Manufacturing	--	82.1	82.3	82.4	82.4	82.4	
Housing Starts (annual rate, thousands)	--	1447	1447	1402	1469	1452	Sep 17
Single-family	--	1141	1111	1098	1144	1135	
Trade balance (billions, monthly)	--	--	-8.2	-9.5	-9.3	-9.5	Sep 18
Merchandise	--	--	-15.0	-16.4	-16.1	-16.4	
Factory Orders (% ch)	--	--	1.2	-0.5	7.0	4.7	Sep 4
Durable Goods	--	-0.6	2.4	-0.4	13.0	6.1	Sep 25
Personal income (% ch)	--	0.1	0.6	0.3	6.2	5.4	Sep 29
Wages and Salaries	--	0.0	0.8	0.3	6.2	5.9	
Purchasing Managers' Index (%)	--	58.6	55.7	57.1	55.6	53.8	Sep 2
Consumer Sentiment U Mich (Feb 66=100)	104.4	107.1	104.5	103.2	102.7	99.7	Sep 26
Conference Board (1985=100)	129.1	126.5	129.9	127.9	123.4	117.8	Sep 30

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

U.S. Calendar

Focus for the Week Ahead

- Payroll data for August should show only a small increase, as the UPS strike offset most of a sturdy, though slightly slower, rate of net hiring. The unemployment rate, unaffected by the strike, appears to have held steady at 4.8%. Gains in hours worked and wages should be modestly above recent trends (September 5).
- Judging from various regional surveys, the nation's purchasing managers are likely to report slightly slower, though still quite firm, conditions in the factory sector. A slowing in vendor deliveries, reflecting the UPS strike, could be a factor holding the index up (September 2).
- Appropriations bills and welfare reform take center stage as Congress returns from its summer recess (September 2).

Economic Releases and Other Events

Date	Time	Indicator	Estimate GS	Estimate Consensus	Last Report
Tue Sep 2	10:00	Purchasing Managers' Index (Aug)	58.0%	58.0%	58.6%
		Domestic Motor Vehicle Sales (Aug)	13.4M	13.2M	13.0M
Wed Sep 3	10:00	Construction Spending (Jul)	+1.3%	+0.8%	-1.1%
	10:00	Leading Indicators (Jul)	0.0%	+0.2%	0.0%
Thu Sep 4	10:00	Factory Orders (Jul)	+0.4%	-0.2%	+1.2%
Fri Sep 5	8:30	Civilian Unemployment Rate (Aug)	4.8%	4.8%	4.8%
	8:30	Nonfarm Payroll Employment (Aug)	40,000	54,000	316,000

- **Congress Reconvenes (Tue, Sep 2)**
- **Treasury Announces 1-Year Bill (Fri, Sep 5 - 2:30)**
- **Fed Chairman Speaks at Stanford University (Fri, Sep 5 - 9:00 p.m., EDT)**

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	5.8%	6.1%	6.3%
Forward	5.9	6.0	6.2
2 Yr T-Note	5.9	6.2	6.4
Forward	6.0	6.1	6.2
10 Yr T-Note	6.2	6.4	6.5
Forward	6.3	6.4	6.4

Key Numbers in the Business Outlook

	1997 Q2	1997 Q3E	1997 Q4E	1997E	1998E
Real GDP	3.6%	2.7%	3.3%	3.7%	3.0%
Ind. Prod., Mfg.	3.7	2.5	4.3	4.4	4.8
CPI	1.1	1.8	2.2	2.3	2.6
After-Tax Profits*	8.7	5.9	3.6	6.9	2.4
Unemployment	4.9	4.7	4.7	4.9	4.4

* Excluding inventory profits; adjusted for depreciation distortions.

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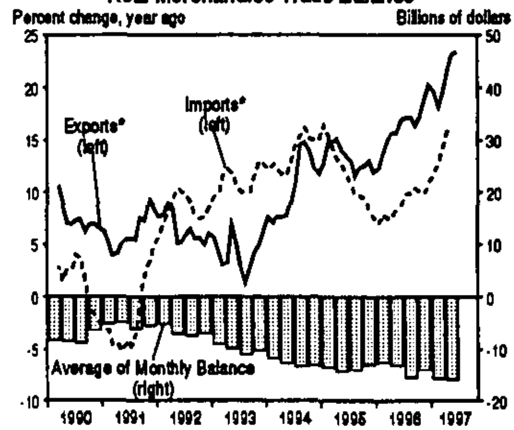
U.S. Economics Analyst

Recent Inventory Surge Not a Major Growth Impediment

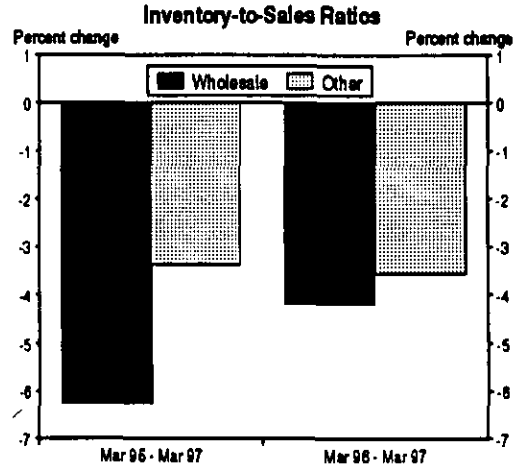
- Words have spoken louder than actions in recent days as the FOMC's decision to stand pat at its most recent meeting was overshadowed by an unexpectedly hawkish tone in the minutes of its previous session. The Committee's inaction in the face of its own clear concerns about the risks of overheating has evidently created some fear that policy will turn from proactive to reactive, judging from subsequent yield curve steepening.
- The recent UPS strike settlement clearly favored union positions in three respects: the conversion of part-time to full-time workers, the control of pension funds, and a schedule of wage increases well above national norms. This underscores the tendency for tight labor market conditions to boost workers' leverage at the bargaining table.
- Most other economic information indicates that growth has been and will remain solid. A sharp trade deficit reduction in June implies that real GDP rose much faster last quarter than the 2.2% annual rate now on record, while sturdy housing starts in July and a firm Philadelphia Fed business survey for August suggest little material change in the growth trend this quarter.
- While upward revisions to the pace of inventory accumulation have removed restocking as a probable source of future growth, our analysis suggests that expectations of a major inventory correction are also unwarranted. This year's step-up in stock building has been concentrated in sectors where orders are clearly strong (*e.g.*, machinery), where deflation may overstate real accumulation (*e.g.*, oil), or where foreign suppliers may shoulder the brunt of any cutbacks (*e.g.*, wholesale stocks).

Real Merchandise Trade Balance



*3-Month Moving Average.
Source: Department of Commerce.

Inventory-to-Sales Ratios



Source: Department of Commerce.

Trade Recommendations

- Stay long the March 1998/March 1999 Eurodollar calendar spread, maintaining a target of 70 basis points and moving the stop up to a close below 30 basis points, from 25 basis points previously.

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I. Weekly Wrapup

Economic and Market Overview

After trading fairly steadily around the 6½% level early in the week, yields on long-term government bonds rose sharply following the release of minutes from the July 1-2 Federal Open Market Committee (FOMC) meeting. That document offered fresh evidence of concern at the central bank about the potential for overheating. The weakening in the bond market also cut short a rebound in equity prices, which have displayed considerable volatility lately.

The settlement of the Teamsters' strike at United Parcel Service (UPS) was a clear victory for labor on the major points of contention—the number of part-time workers to be converted to full-time status and the control of pension funds. In addition, the UPS employees won wage hikes—averaging about 4½% annually over the next five years—that were well above the latest national benchmarks (3.3% for the private-sector wage component of the employment cost index, 3.6% for average hourly earnings). The accord thus underscores the potential for tight labor market conditions to shift bargaining power back toward workers. Against this backdrop, the UPS settlement could mark the onset of a more stressful period in labor-management relations, but it will take some time to determine if this occurs.

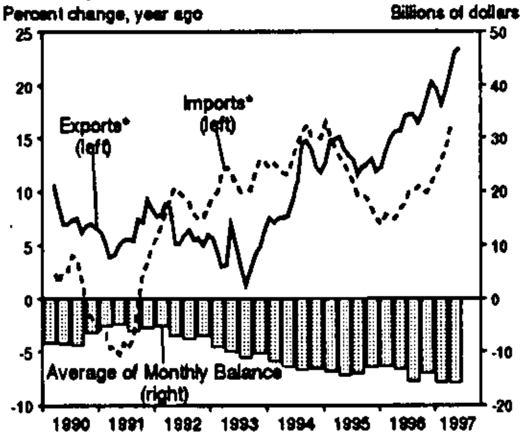
Other recent economic news generally conforms to the view that U.S. growth has been and will remain solid, but with no upward pressure on inflation yet in sight. The most surprising of these indicators was the June foreign trade deficit, which narrowed to $8.2 billion from a downward-revised $9.5 billion gap in May. Although the improvement in June was almost evenly split between exports and imports, it is the strength in exports—especially to other nations in the Western Hemisphere—that has been especially impressive over the past few months. The trade data were much more favorable than had been assumed in the initial estimates for second-quarter GDP; as a result, we estimate that last quarter's growth rate will be revised up to 3.2% from 2.2%.

The latest reports on housing starts and business in the Philadelphia area imply that activity remained firm early in the third quarter. Starts of new housing units held steady in July at a relatively robust 1.45-million-unit annual pace, and the data for May and June were revised up slightly on balance. With stocks of unsold homes quite low, financing terms favorable, and permits for multifamily projects up, it seems likely that this sector will contribute modestly to real GDP growth over the balance of the year. Meanwhile, the Philadelphia Federal Reserve Bank's index of general activity registered 24.3 in August, down slightly from the July reading of 28.1 but still solidly in expansion territory. Indexes of prices paid and received receded despite the ongoing strength, but vendor deliveries slowed—perhaps as a result of the now resolved UPS strike. Although claims for unemployment benefits rose 20,000 in the week ended August 16, the four-week average remains quite low, at 308,000.

Federal Reserve Policy

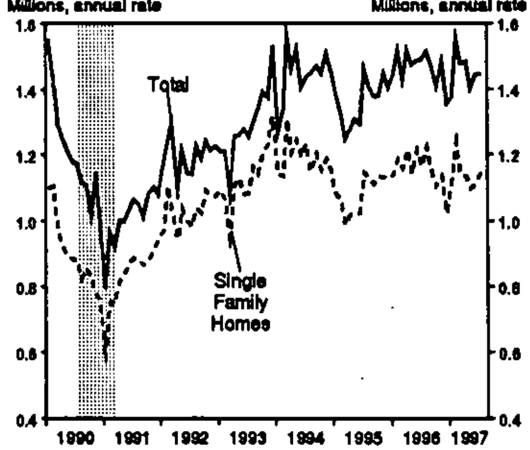
As widely expected by financial market participants, the FOMC kept policy steady at its August 19

Real Merchandise Trade Balance



*3-Month Moving Average.
Source: Department of Commerce.

Housing Starts



Source: Department of Commerce.

meeting. The results from the minutes of the July 1-2 meeting—unanimous decisions to stand pat and to maintain a directive biased toward rate increases—were also unsurprising. But the tone of the minutes was noticeably hawkish in several respects. First, the staff forecast now foresees a declining unemployment rate and rising price pressures. Second, while FOMC members harbor expectations of growth more in line with long-term potential, they clearly see the risks tilted to the high side. Third, the Committee also expressed considerable doubt about the notion that a new era of stronger productivity growth has dawned. Finally, some members thought that monetary policy would need to be tightened in the near future "in the absence of unanticipated weakness in the economy."

Fiscal and Political Developments

The U.S. Treasury posted a deficit of $25.6 billion in July, slightly above market expectations. Relative to our own expectations, the shortfall occurred mainly on the revenue side of the ledger, where a smaller-than-expected increase in personal tax withholdings held the year-to-year gain in total revenues to 5.1% against an average of 7% earlier this year. Outlays were 3.1% above their July 1996 level. Although the latest results were a bit disappointing, they continue the recent pattern of year-to-year improvement and still point to a fiscal 1997 deficit of about $35 billion.

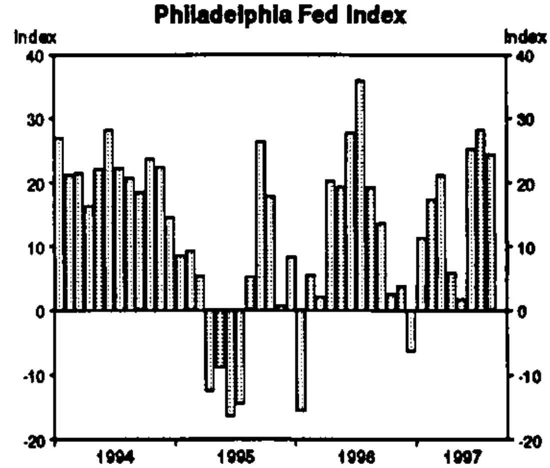
Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

By implying that additional tightening may be required, but holding steady now, Fed officials are confirming a shift towards a "wait and see" attitude. Such a policy course implies that the money market yield curve should steepen further. Thus, we would keep our long March 1998/March 1999 Eurodollar calendar spread position in place, maintaining our target of 70 basis points and moving our stop up to a close below 30 basis points, from 25 basis points earlier.

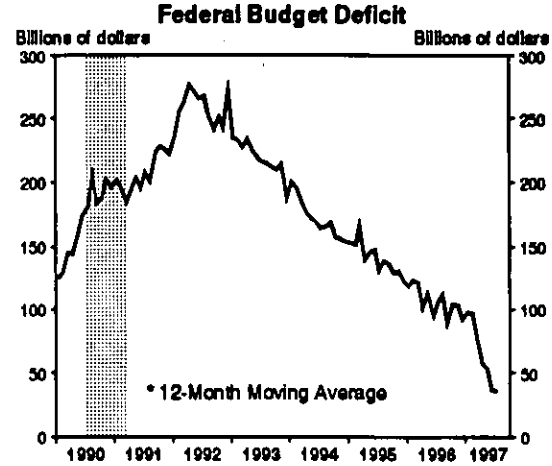
On the long end of the market, a more patient policy stance by the Fed indicates a greater risk of a spike upward in bond yields if and when inflationary pressures become evident. But such pressures probably will not appear until next year. This suggests that a neutral stance on the long end of the curve is still appropriate.

Philadelphia Fed Index



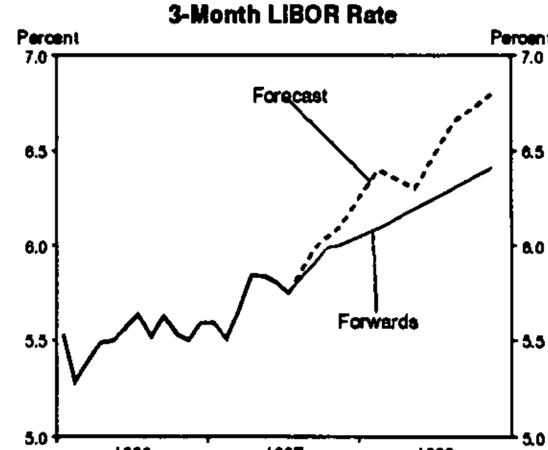
Source: Federal Reserve Bank of Philadelphia.

Federal Budget Deficit



Source: Department of Commerce.

3-Month LIBOR Rate



Sources: Federal Reserve Board. Wall Street Journal.

II. Recent Inventory Surge Not a Major Growth Impediment

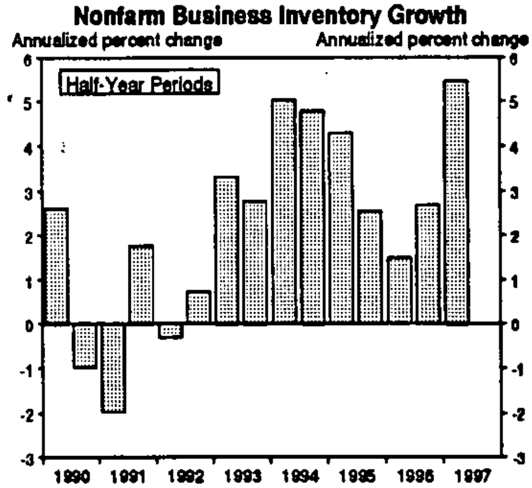
One of the most surprising aspects of the recent update to official GDP statistics was the rapid pace of nonfarm inventory investment during the first half of 1997. At a 5½% annual pace in each of the first two quarters, stockbuilding estimates materially exceeded expectations, raising concerns that significant production restraint will be needed to eliminate excess goods supplies. These worries were compounded by news last week that business inventories soared 0.7% during June, the largest monthly rise in more than two years and substantially more than had been assumed in the GDP calculations.

The recent sharp inventory buildup underscores the importance of fresh solid advances in final sales for the prospects of sustaining above-average economic growth in coming quarters. Our analysis, however, suggests that the degree of the first-half stock acceleration should not be taken by itself as a harbinger of substantially softer industrial sector expansion. Within manufacturing, the inventory upswing has entirely been driven by sectors that are directly tied to orders strength (*e.g.*, machinery producers) or volatility in petroleum activity. Retail stocking rates, meanwhile, actually decelerated a bit over the past two quarters for both durable and nondurable items. Thus, it is only at the wholesale level that current inventory growth looks genuinely problematic, but this may reflect a swelling of unsold imported product, corrections for which might fall most heavily on overseas rather than domestic suppliers.

Inventory Surge Prompts Fears of a Growth Deterioration

After a long period of cautious inventory policies, lasting through most of 1995 and 1996, U.S. firms relaxed those restraints early this year, allowing business stockpiles to rise sharply during the past two quarters. Real nonfarm inventory growth within the past half-year was 5.5% annualized, the fastest rate of this decade, which pushed up slightly the overall inventory-to-sales ratio. In fact, it is possible that this advance estimate understated the actual rise in business stocks, because book-value inventory statistics from June were up 0.7%. This rise substantially exceeded the forecast for that month used by government officials in generating the advance GDP report.

Nonfarm Business Inventory Growth



Source: Department of Commerce.

The stepped-up stocking trend over recent months has generated worries about a possible early retrenchment in domestic goods production, particularly in the event that spending by businesses and consumers proves sluggish going forward. On account of this danger, we recently made a slight downward adjustment to our projection for second-half GDP growth outlook, to 3.1% annualized from 3.4% previously. Other analysts, though, have adopted a notably more pessimistic view of short-term output prospects, on the theory that the recent stocking surge was clearly excessive and will trigger an appreciable slowdown in factory activity.

Rapid Stockbuilding Not Uncommon In Expansion Phases

Now that inventory gains have escalated to a lofty point, this sector no longer can be expected to provide sustainable positive impetus to the economy in the medium term. It is the change in the rate of accumulation that determines the net contribution of stocks to aggregate output growth. Once the inventory buildup reaches a fast rate, therefore, a further strengthening would usually be tied to one of two factors: (1) an explosively strong sales trend, or (2) a sudden, unanticipated slowdown in demand for goods. When an expansion cycle is mature, as in the present environment, either of those developments can spell danger for the business outlook, by provoking an aggressive monetary tightening in the first case, or by triggering an abrupt production pullback in the latter.

Yet, the mere fact of brisk inventory increases should not be taken automatically to suggest a serious impediment to future production gains. It is, in fact, not at all uncommon for firms to expand stockpiles swiftly when the economy has been growing on a steady, solid trend. Since 1970, the mean quarterly rate of nonfarm inventory growth within established expansion phases—that is, outside periods of recession and the first two quarters of an economic upturn—has been 3.8% (annual rate), just below the actual change during the past four quarters (4.1%). In addition, during those periods the two-quarter annualized change in nonfarm stocks has been 4.5% or greater more than one-third of the time (34.6%). With fundamental liquidity, financing, wealth, and confidence determinants of consumer and business spending all still supportive, U.S. firms could logically perceive that there is no obvious reason to clamp down on stockbuilding at this time.

Sources of Recent Stock Acceleration Relatively Concentrated

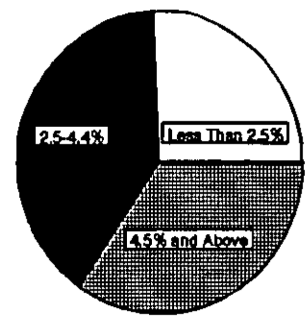
A close examination of the main sources of the first-half inventory surge provides additional grounds for skepticism that a growth-threatening overhang of unwanted goods has developed. In the official GDP statistics (which will be updated on August 28), the acceleration in stockpiling between the last half of 1996 and the first six months of this year was disproportionate in the wholesale sector, which

Growth in Real Nonfarm Inventories, By Sector
(billions of 1992 chain-weighted dollars)

	Pct. Of Total*	First-Half Inventory Acceleration#	Share of Inventory Acceleration
Total Nonfarm	100.0%	$30.4	100.0%
Manufacturing	37.1	10.8	35.5
Industrial Machinery		6.3	20.8
Other Durable		-2.3	-7.6
Petroleum		5.2	17.1
Other Nondurable		1.6	5.2
Merchant Wholesale	22.0	8.3	27.5
Durable		8.6	28.5
Electrical Goods		4.3	14.2
Machinery Equipment		-1.9	-6.2
Other		6.2	20.5
Nondurable		-0.3	-1.0
Nonmerchant Wholesale	3.6	7.0	23.1
Retail	26.5	-2.6	-8.7
Durable		-0.8	-2.8
Nondurable		-1.8	-5.9
Other	11.0	7.0	22.9

* As of December 1996.
\# Difference between the annual rate of real nonfarm inventory growth between January/June 1997 and July/December 1996

Nonfarm Inventory Growth in Established Expansions*, 1970-1996, Two Quarter Changes, Annual Rate



*Excludes recessions and first two quarters of growth periods.
Source: Department of Commerce. Our calculations.

suggests that imports could explain a large component of the phenomenon. Factory and retail inventory growth, meanwhile, has changed little this year except in areas where demand has been particularly robust or stocking is notoriously volatile and subject to valuation difficulties. Following is a review of our findings with regard to inventory changes at the three major goods distribution stages:

Manufacturing—No Broad Acceleration Underway

The proportion of the aggregate first-half inventory acceleration that is currently attributed to factories (37%) fits squarely with that sector's share of total real stocks at the end of 1996 (35.5%). All of the recent upswing in this group, however, is traceable to just two areas—industrial machinery and petroleum—which account for less than 20% of the total factory stock base.

We would not regard the swelling of inventories among machinery producers as worrisome, because those firms typically produce to fill standing orders from final users. It is clear from the GDP and orders data that demand for U.S.-made capital equipment is very strong, so it is doubtful that much, if any, of the buildup in that area was involuntary. As for petroleum, the substantial variation in prices for crude oil since early 1996 raises a question about whether real stock levels are being measured accurately. Even if petroleum inventories at manufacturers are too high, corrective efforts can be expected to have a limited impact on domestic output, given that the majority of petroleum products consumed in the U.S. are acquired from abroad.

In all the remaining factory categories, which comprise over four-fifths of inventories held within the sector, businesses actually experienced a small net deceleration in goods accumulation rates during the first half on average. Hence, it does not seem that there has been a large or widespread rise in stockbuilding rates within manufacturing. That interpretation is consistent with the results of the National Purchasing Management Association's survey; the NAPM inventories index for January/June averaged 43.6%, up only about 1 point from late 1996, and still below the 1992-1995 average (44.8%).

Retail—Slower Accumulation, Declining Stock/Sales Ratios

The sturdy gains in consumer spending on goods during the first half of 1997 (3.4% at an annual rate versus the second half of last year) have helped to keep stocks lean at retail companies throughout the period. In fact, the accumulation rate slowed slightly for both durable and nondurable goods at these outlets over the latest six months. Monthly book-value data from June place the inventory-to-sales ratio at 1.505 for all retailers, down almost 1% from last December. For retailers (excluding motor vehicles dealers) as well, the stock/sales ratio has declined on balance since the end of 1996. Thus, it is hard to see evidence of any undesired buildup at the retail level of U.S. goods distribution.

Wholesale—An Import-Led Bulge?

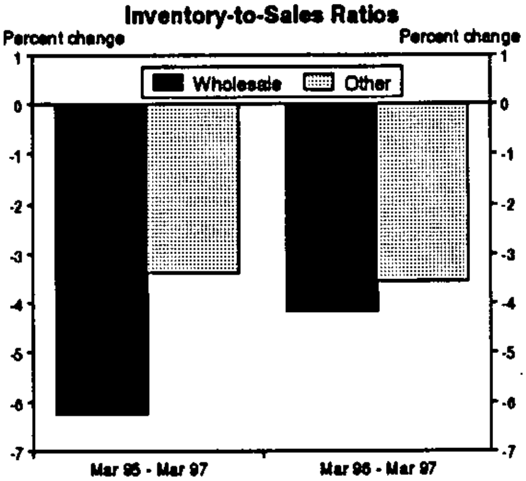
It is in the wholesale group of trade firms where by far the disproportionate jump in stock accumulation rates has occurred lately. On current estimates, over 50% of the inventory growth pickup during the first two quarters took place among merchant and nonmerchant wholesalers, whereas these firms possessed only about one-fourth of all nonfarm inventories at the end of 1996. It is probable that this acceleration will appear even more pronounced when the next set of GDP revisions are issued on August 28, because the June business inventory report showed a 1.9% jump among wholesalers, the biggest for any month in five years. That pushed the wholesale inventory-to-sales ratio above 1.25 for the first time since last September.

Although the sudden swelling of these stockpiles certainly is eye-catching, it may not be a signal of plainly excessive ordering by that industry. Prior to last quarter, the inventory-to-sales ratio had been declining swiftly at the wholesale level; in March it stood 4.2% lower than a year earlier and 6.2% below that of March 1995. These declines were larger than occurred among other types of goods producers or distributors during the same intervals. Thus, one possible explanation for surging wholesale stocks is that firms have been endeavoring to restore supplies that were unexpectedly depleted in earlier periods.

Of course, it also may be that wholesalers in general or in specific businesses have overestimated demand, and will be forced to cut orders to suppliers going forward. Under those circumstances, some depressing effects on domestic output no doubt would be felt. Such restraining influences should be mitigated, however, to the extent that the first-half wholesale stock bulge represents imported products. Many foreign goods enter the U.S. market through these intermediaries, rather than being shipped directly to retail firms or final purchasers. Hence, foreign firms might be expected to bear a significant portion of the burden for any wholesale stock trimming that develops.

John Youngdahl

Inventory-to-Sales Ratios



Source: Department of Commerce.

U.S. Calendar

Focus for the Week Ahead

- Chairman Greenspan is scheduled to be the first speaker at the annual Kansas City Federal Reserve Bank's Jackson Hole conference on monetary policy (August 29).
- Real GDP growth appears to have been considerably faster in the second quarter than initially reported, due mainly to a smaller-than-expected trade deficit in June and perhaps also a more rapid rate of accumulation of unsold goods. Year-to-year growth in after-tax profits should top 10% (August 28).
- Favorable financing conditions and other consumer fundamentals suggest that sales of new and existing homes strengthened in July from already high levels (August 26 and August 29).
- Solid gains in retail sales, coupled with increases in service outlays on energy and brokerage commissions, imply a significant increase in consumer spending in July (August 29). Meanwhile, surveys of consumer attitudes are likely to show continued high levels of confidence in August (August 26 and August 29).

Economic Releases and Other Events

Date	Time	Indicator	Estimate GS	Estimate Consensus	Last Report
Tue Aug 26	8:30	Durable Goods Orders (Jul)	0.0%	+0.1%	+2.3%
	10:00	Existing Home Sales (Jul)	+2.0%	+0.2%	-2.8%
	10:00	Consumer Confidence (Aug)	130.0	126.5	126.5
Thu Aug 28	8:30	Real GDP (Q2 '97—Prel.)	3.2%	+2.6%	+2.2%
	8:30	Chain-Weight Price Index (Q2 '97—Prel.)	1.4%	+1.4%	+1.4%
Fri Aug 29	8:30	Personal Income (Jul)	+0.2%	+0.2%	+0.6%
	8:30	Personal Consumption (Jul)	+0.6%	+0.7%	+0.3%
	10:00	New Home Sales (Jul)	+1.3%	-2.3%	+6.1%
	10:00	Chicago Purchasing Managers' Index (Aug)	59.0%	n.a.	60.6%

- **APICS Survey (Thu, Aug 28 - 10:00)**
- **Help-Wanted Index (Thu, Aug 28 - 10:00)**
- **Consumer Sentiment—Final (Fri, Aug 29 - 10:00)**
- **Kansas City Fed Conference on Monetary Policy—Jackson Hole, WY (Fri, Aug 29 - 10:15)**

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	5.8%	6.1%	6.3%
Forward	5.9	6.0	6.2
2 Yr T-Note	5.9	6.2	6.4
Forward	6.0	6.1	6.2
10 Yr T-Note	6.2	6.4	6.5
Forward	6.3	6.4	6.4

Key Numbers in the Business Outlook

	1997 Q2	1997 Q3E	1997 Q4E	1997E	1998E
Real GDP	2.2%	3.0%	3.2%	3.5%	3.0%
Ind. Prod., Mfg.	4.4	3.5	4.2	4.7	4.9
CPI	1.1	1.6	2.2	2.3	2.6
After-Tax Profits*	9.8E	3.9	2.2	6.3	3.3
Unemployment	4.9	4.7	4.7	4.9	4.4

* Excluding inventory profits; adjusted for depreciationdistortions.

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Key U.S. Economic Data

	Latest Monthly Data				6 Mo	12 Mo	Next
	'97 Jul	'97 Jun	'97 May	'97 Apr	Trend	Trend	Release
Nonfarm Payrolls (ch. Thousands)	316	228	163	327	245	224	Sep 5
Unemployment Rate (%)	4.8	5.0	4.8	4.9	5.0	5.1	
Index of Hours Worked (% ch)	-0.5	0.4	0.3	-0.4	2.5	2.8	
Average Hourly Earnings (% ch)	0.0	0.3	0.4	0.0	3.0	3.6	
Producer price finished goods index (% ch)	-0.1	-0.1	-0.3	-0.5	-3.0	-0.2	Sep 12
Excluding food and energy	-0.1	0.1	-0.3	-0.1	-0.6	0.0	
Consumer price index (% ch)	0.2	0.1	0.1	0.1	1.5	2.2	Sep 16
Excluding food and energy (% ch)	0.2	0.1	0.2	0.3	2.5	2.4	
Retail sales (% ch)	0.6	0.7	-0.3	-1.1	1.8	4.5	Sep 12
Excluding motor vehicles (% ch)	0.5	0.4	0.0	-0.6	2.2	4.3	
Industrial Production (% ch)	0.2	0.3	0.0	0.4	3.5	3.7	Sep 16
Manufacturing	0.1	0.3	0.1	0.3	3.5	3.8	
Capacity utilization (%)	83.1	82.3	83.3	83.6	83.4	83.3	Sep 16
Manufacturing	82.1	82.3	82.4	82.6	82.4	82.4	
Housing Starts (annual rate, thousands)	1447	1447	1402	1483	1469	1452	Sep 17
Single-family	1141	1111	1098	1133	1144	1135	
Trade balance (billions, monthly)	--	-8.2	-9.5	-8.7	-9.3	-9.5	Sep 18
Merchandise	--	-15.0	-16.4	-15.5	-16.1	-16.4	
Factory Orders (% ch)	--	1.2	-0.5	1.4	7.0	4.7	Sep 4
Durable Goods	--	2.4	-0.4	1.8	13.0	6.1	Aug 26
Personal Income (% ch)	--	0.6	0.3	0.2	6.2	5.4	Aug 29
Wages and Salaries	--	0.8	0.3	0.0	6.2	5.9	
Purchasing Managers' Index (%)	58.6	55.7	57.1	54.2	55.6	53.8	Sep 2
Consumer Sentiment U Mich (Feb 66=100)	107.1	104.5	103.2	101.4	102.7	99.7	Aug 29
Conference Board (1985=100)	126.5	129.9	127.9	118.5	123.4	117.8	Aug 26

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

Goldman Sachs

U.S. Economics Analyst

Low Inflation, Cloudy Growth Outlook Keep Fed on Hold

This issue of the U.S. Economics Analyst is in an abridged, four-page format. The center section and the tables of historical and forecast data have been omitted. Our regular format will resume with our next issue, dated August 22, 1997.

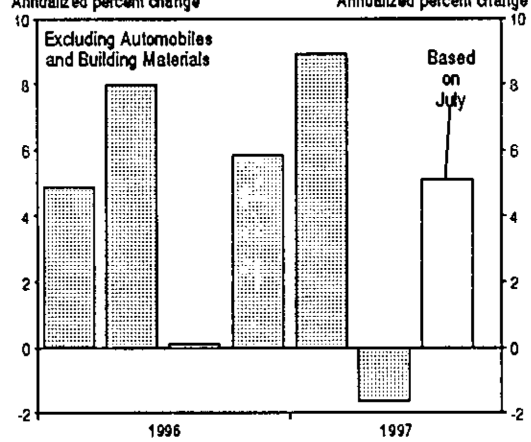
- July producer and consumer price data highlight the current lack of inflationary pressure in the U.S. economy, especially in the goods sector. This allows Federal Reserve officials considerable room for patience in evaluating possible changes in monetary policy. Hence, there is virtually no risk of an interest rate hike at the FOMC meeting next Tuesday.

- Prospects for an economic growth rebound this quarter, however, have improved in light of a solid rebound in consumer purchases last month. The fundamentals for household spending remain very positive, and this should enable firms to work off inventory excesses while maintaining a solid expansion of production.

- The strike by 185,000 members of the Teamsters union against United Parcel Service has dragged on throughout the payroll employment survey week. This means that the labor statistics from August, as well as many related data releases, will be significantly contaminated by effects from this job action, complicating efforts to track business activity trends.

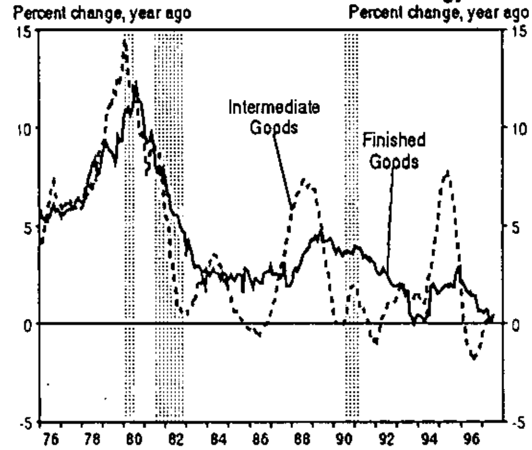
- Federal courts may well reject the presidential item veto statute, on the grounds that it violates the constitutional separation of powers between the branches of government. We do not, however, regard this law as a crucial tool for federal budgetary restraint.

Retail Outlays Are Rebounding



Source: Department of Commerce.

Producer Price Index Ex. Food & Energy



Source: Department of Labor.

Trade Recommendations

- Stay long the March 1998/March 1999 Eurodollar calendar spread with a stop on a close below 25 basis points and a target of 70 basis points.

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Issue No: 97/33
August 15, 1997

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Important disclosures appear on the inside back cover.

I. Weekly Wrapup

Economic and Market Overview

Strong cross-currents buffeting the dollar exchange rate caused prices of U.S. financial assets to be choppy in the past week, with a downward bias in the equity market. Suspicions that the economy would regain speed this quarter were lent support by official figures on July retail sales, which confirm earlier signs that household spending on goods has re-accelerated. Total retail outlays climbed 0.6%, and purchases rose 0.5% in the core group that excludes motor vehicles (about which manufacturers provide superior information) and building materials (which are reclassified as housing expenditures). Thus far in the quarter, retail spending in the core areas has grown 4.5% annualized, virtually the same as the first-half average (4.4%). This fits with our view that the volatility in personal demand between the first and second quarters was largely a function of aberrant weather, and that the current underlying annual pace of real consumption remains at or above 3%.

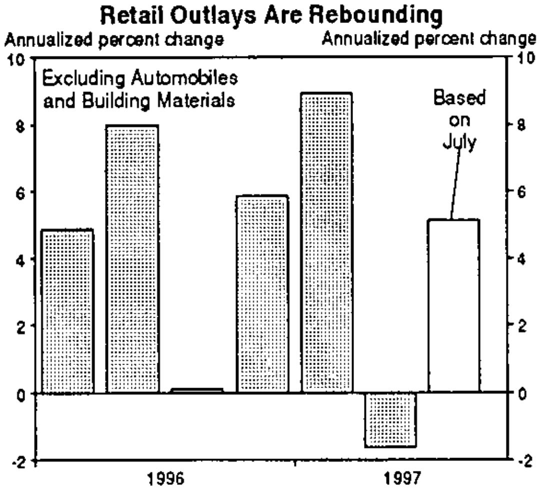
Industry conditions, by contrast, appear softer than was suggested by the robust July NAPM survey. Total industrial output edged up just 0.2% last month, with a 0.1% rise in the manufacturing area. These gains fell short of capacity additions, causing utilization rates to fall to the lowest levels since late 1996. To some extent, the factory results were depressed by questionable seasonal adjustments in the motor vehicle area, where unit assemblies are estimated to have dropped 6%. Nevertheless, even outside of motor vehicles, factory production growth has slowed down to a 2.3% annual rate so far this quarter versus 5.0% in the first half.

Goods prices remain exceptionally tame, but service pricing has firmed a bit lately. The producer price index has fallen in every month so far during 1997, including a 0.1% July dip. Excluding food and energy, prices were down 0.1% for producer finished goods and flat for items at the intermediate processing stage. Similarly, consumer prices for goods other than food and energy slipped 0.1% last month and were up less than 1% from a year earlier. At the same time, the CPI for non-energy services has risen 0.3% in each of the last six months, a somewhat faster pace than was evident earlier. This area has been boosted in part by a pickup in shelter costs for owner-occupied housing, perhaps in response to the strengthening of residential real estate values.

Federal Reserve Policy

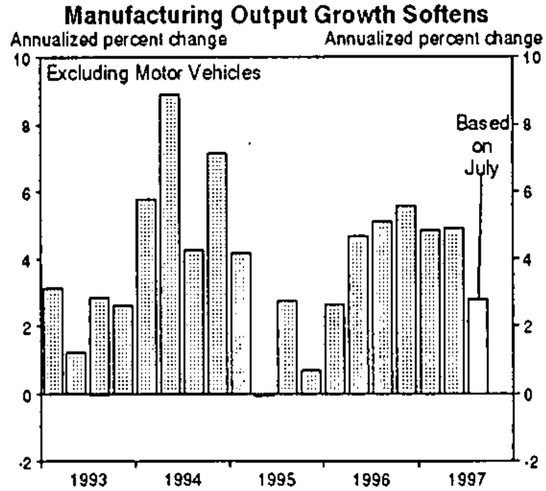
Senior Fed policy makers might be tempted to cancel next Tuesday's FOMC meeting, given the extremely low probability that any change to interest rates will be made at that time. Price pressures remain very muted overall and virtually non-existent in the goods sector of the economy, so there is little sense of urgency even among those who believe higher rates will ultimately be required to prevent an inflationary squeeze on resources. Although the recent strength of consumer spending raises doubts about official projections of a moderating growth trend, it is still a bit early to ditch that forecast, and central bankers can take some comfort from the softening of factory output and utilization figures. In addition, the nearly two-week-old Teamsters union strike against United Parcel Service is bound to muddy the statistical

Retail Outlays Are Rebounding



Source: Department of Commerce.

Manufacturing Output Growth Softens



Source: Federal Reserve Board.

waters for awhile, complicating the always difficult task of discerning changes in business conditions. Thus, the case for monetary patience at this point seems quite compelling.

Fiscal and Political Developments

President Clinton has exercised his new item veto power for the first time, canceling three provisions in the tax and spending legislation he signed into law last week. These actions—which are estimated to save around $600 million for the Treasury over five years—are likely to trigger legal challenges to the constitutionality of the item veto statute, which was passed in 1996. There is significant potential for the item veto to be overturned by the courts, because it is specifically designed to shift power over the content of legislation from Congress to the president, and that may well be held to violate the express separation of powers laid out by the framers of the U.S. Constitution. We do not place a high value on the item veto as an aid to budgetary control, because it is not clear that it will materially change the proclivities of politicians with respect to special-interest spending and tax preferences. Yet, should the item veto be held invalid, that might be perceived by some market participants as a major blow to prospects for long-term fiscal discipline.

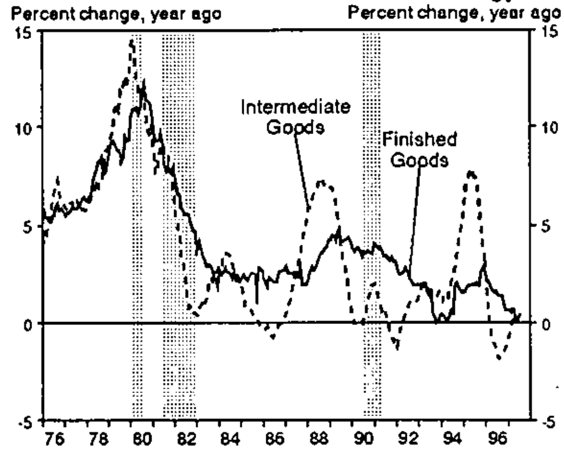
Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

We continue to favor a long position in the March 1998/March 1999 Eurodollar futures calendar spread, with a stop at 25 basis points and a target of 70 basis points. Impressions of a steady Fed policy course for the near term will no doubt gain reinforcement from the outcome of the FOMC meeting on Tuesday, but renewed firmness in consumption suggests that real GDP growth will remain solid enough to sustain downward pressure on resource supplies, which will keep alive fears of a further tightening at some point.

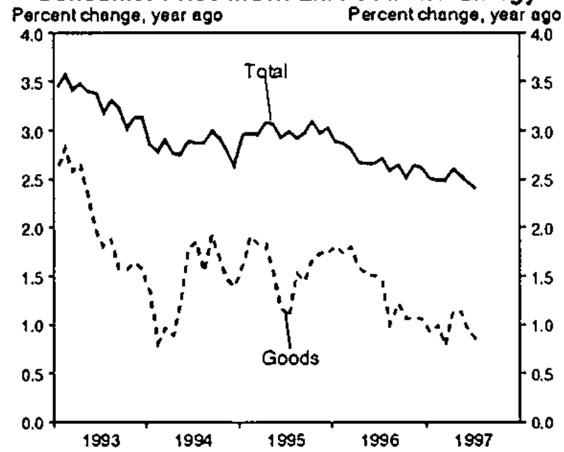
The U.S. bond market remains trapped in a tug-of-war between favorable fundamental information (e.g., benign inflation data, declining federal borrowing needs) and a sloppy technical position, which arose when the brisk summer rally forced short position covering and outright buying to hedge implied option exposures. For now, we prefer to stay neutral on T-bond contracts, with an eye to possibly establishing a tactical long stance should yields move up sharply in the near term.

Producer Price Index Ex. Food & Energy



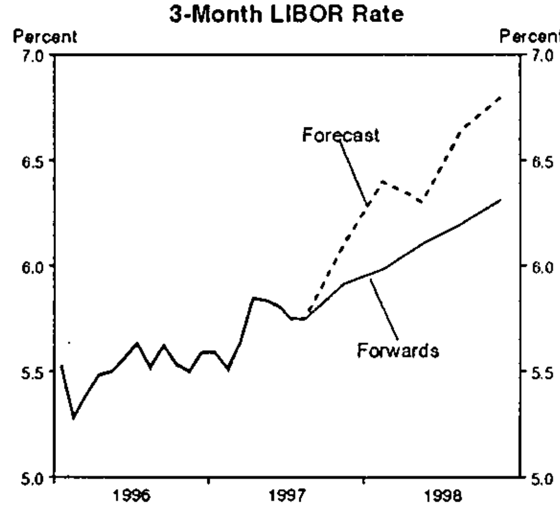
Source: Department of Labor.

Consumer Price Index Ex. Food and Energy



Source: Department of Labor.

3-Month LIBOR Rate



Source: Federal Reserve Board, Wall Street Journal.

Goldman Sachs

U.S. Calendar

Focus for the Week Ahead

- Lean supplies of unsold new houses and supportive credit conditions for private residential investment probably led home builders to increase production of dwellings during July (August 19).
- The total U.S. trade gap should have remained wide in June, despite an expected reduction in the dollar value of petroleum imports. Exports are likely to have declined somewhat, especially with regard to civilian aircraft and nonmonetary gold (August 20).
- Federal finances continued to improve in July versus the year-earlier month, as individuals boosted their tax withholding in response to high tax liabilities last spring (August 21).
- The tenor of discussion at the July FOMC meeting, as revealed by official minutes, may help clarify the degree to which Chairman Greenspan's comfort with current economic circumstances and monetary policy prospects is shared by his central bank colleagues (August 21).

Economic Releases and Other Events

Date	Time	Indicator	Estimate: GS	Estimate: Consensus	Last Report
Tue Aug 19	8:30	Housing Starts (Jul)	+1.0%	+0.1%	+4.8%
Wed Aug 20	8:30	Trade Balance (Jun)	-$10.0 Bil	-$10.0 Bil	-$10.2 Bil
Thu Aug 21	10:00	Philadelphia Fed Survey (Aug)	20.0%	22.0%	28.1%
	2:00	Federal Budget Balance (Jul)	-$21.5 Bil	-$24.0 Bil	-$26.9 Bil

- FOMC Meeting (Tue, Aug 19)
- Import & Export Prices (Tue, Aug 19 - 10:00)
- Treasury Announces 2- and 5-Year Notes (Wed, Aug 20 - 2:30)
- July FOMC Minutes (Thu, Aug 21 - 2:00)

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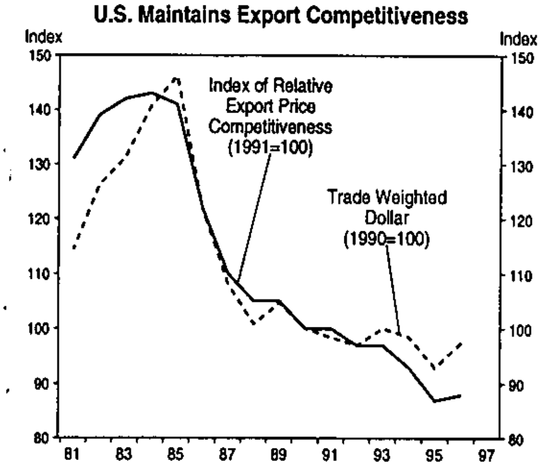
U.S. Economics Analyst

U.S. Trade: Close to Neutral, Some Downside Risk

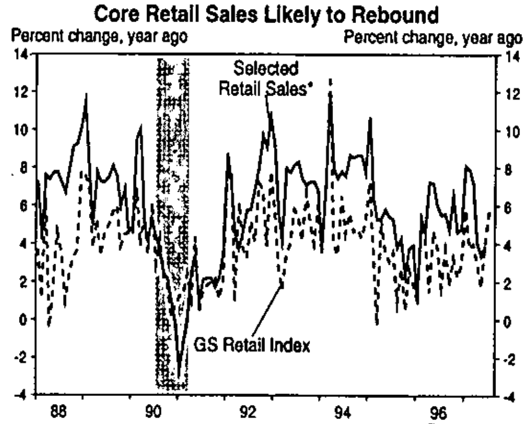
- The biggest risk to our view that above-trend growth will lead to further Fed tightening and upward pressure on interest rates comes from the trade sector. If the drag on the economy from trade intensified, that would help to pull the U.S. economy back to a trend growth rate without higher interest rates.
- In particular, our analysis suggests that the net trade balance is performing about as expected. Some further drag may occur over the next year, but it is likely to be modest. The biggest shift has been that trade liberalization and globalization has caused export and import growth to exceed historical norms.
- The biggest question is whether recent developments in Southeast Asia will hurt U.S. exports. We do not expect a significant impact as exports to Thailand are very small, contagion to other countries in the region should be limited, and exports to the region have already slowed sharply.
- Evidence that consumer spending has rebounded from a weather-induced, second-quarter lull has proliferated. But Fed officials are still likely to be patient for now as long as inflation remains moderate.
- The main effect of the UPS strike will be to cloud the August/September economic data as orders, sales, and possibly even production are disrupted somewhat. The strike would have to drag on much longer than anticipated to have a lasting impact on the economy's trajectory.

U.S. Maintains Export Competitiveness



Source: OECD. Morgan Guaranty Trust Company.

Core Retail Sales Likely to Rebound



*Durable goods, excluding autos, plus the general merchandise and apparel components of nondurable goods.
Sources: Department of Commerce. Goldman Sachs.

Trade Recommendations

- Stay long the March '97/March '98 Eurodollar calendar spread with a target of 70 basis points and a stop on a close below 25 basis points.

The next issue of the U.S. Economics Analyst will be an abbreviated 4-page edition.

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Important disclosures appear on the inside back cover.

I. Weekly Wrapup

Economic and Market Overview

The U.S. bond and equity markets marked time until late in the week, when bond yields moved higher and the impact spilled into the equity market. With few immediate distractions from statistical news, fixed-income market participants were free to focus on the unusually dense schedule of debt sales by the Treasury and several large corporations. In particular, sales of three new Treasury coupon issues raised a net $11.2 billion, which represents more than all of the new funding officially projected for this quarter.

Aggregate sales figures from the nation's major retailing firms were strong, with the Goldman Sachs same-store sales index up 5.7% versus July 1996. While the year-to-year comparison is inflated somewhat, due to the sales damping influences of the 1996 Olympics, the retailer reports nevertheless suggest a continued solid rebound in nonauto spending last month. Meanwhile, motor vehicle dealers have reported a surprisingly strong 13.4 million annualized unit sales volume for domestic cars and light trucks, which exceeds the second-quarter average by 6%. These reports point to a sturdy rise in both total and nonauto retail sales next Wednesday—we now expect increases of 0.8% and 0.6%, respectively.

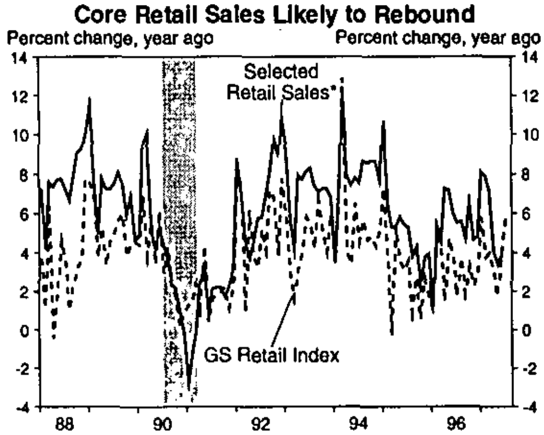
Weekly indicators of business conditions also have stayed upbeat, consistent with a view that real GDP growth has reaccelerated to an above-trend pace. Adjusted initial unemployment insurance claims have been at or below 300,000 for three straight weeks, a sign that the earlier claims bulge was a product of seasonal adjustment difficulties during the annual vehicle plant shutdowns for model changeover. Mortgage applications for home purchases remain on an upward path, and the ABC/Money Magazine poll of consumer attitudes is at a new all-time high.

Federal Reserve Policy

Anecdotal reports compiled by the Fed district banks in the latest "Beige Book" describe a revival in consumption activity during June and July, as well as a further expansion of manufacturing production and sturdy levels of commercial construction. Labor markets were once again described as strengthening and generally tight, and while wage pressures are said to be "generally subdued," a number of districts noted that employee compensation gains have accelerated in some sectors. Strong competitive pressures continue to be cited as a major impediment to upward pricing flexibility.

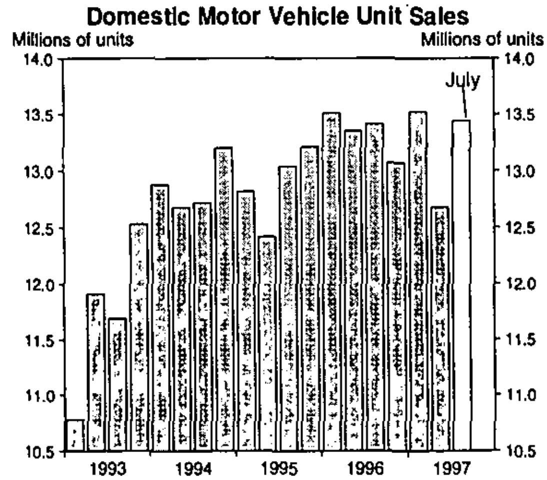
Although such comments do not imply a significant change in economic conditions, they do highlight the policy dilemma faced by Chairman Greenspan and other senior Fed officials. If consumption rebounds sharply in the second half—perhaps spurred by soaring household wealth—then it is quite unlikely that overall GDP growth will moderate enough to alleviate downward pressure on the unemployment rate. Since changes in compensation lag behind labor market developments, the FOMC must make an informed judgment about what level and pace of decline in unemployment might foster inflationary dangers. At the same time, it would be very difficult for central bankers to hike rates at a time when

Core Retail Sales Likely to Rebound



*Durable goods, excluding autos, plus the general merchandise and apparel components of nondurable goods.
Sources: Department of Commerce. Goldman Sachs.

Domestic Motor Vehicle Unit Sales



Source: Department of Commerce.

businesses are saying they cannot raise prices. Caught in this bind, Greenspan and Co. will likely keep policy steady until November or later, by which time they should have much more information bearing on the issue of whether the economy is still growing faster than its sustainable trend.

Fiscal and Political Developments

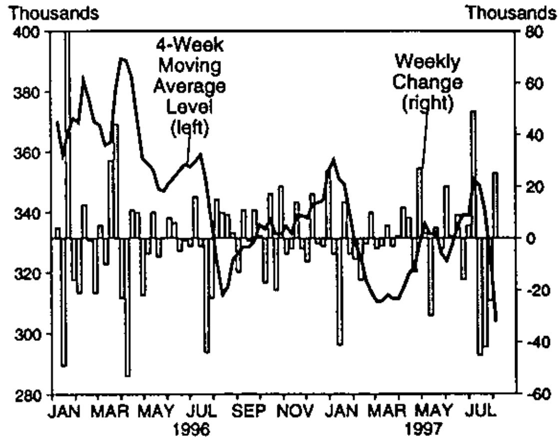
It will take at least until the end of this month before a complete set of revised official budget estimates is published by either the White House or the Congressional Budget Office. This week, however, President Clinton revealed that his budget office has lowered its internal forecast for the fiscal 1997 shortfall to $37 billion, bringing it into line with our prediction of $35 billion. The President also said that the fiscal 2002 budget outlook may imply a surplus of more than $20 billion, rather than the slim amount earlier anticipated. These statements lend official support to the deficit assumptions in our recent analysis of Treasury financing needs ("Deficit Drop Presses Treasury to Revamp Funding Structure", *U.S. Economics Analyst*, August 1, 1997), possibly adding weight to our suggestion that debt managers should study various alternative borrowing schedule structures to prepare for the possibility that the current auction timetable will yield persistently excessive cash supplies.

Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

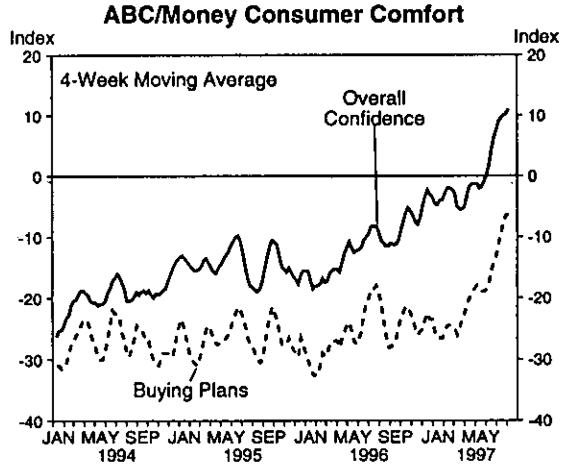
The retail sales and inflation reports will set the tone for the fixed income market over the next few weeks. Because the retail sales report is likely to be firm, even as inflation stays well-behaved, we would stick with our bearish bias in the short-end, keeping our March '97/March '98 Eurodollar calendar spread trade in place, with a target of 70 basis points and a stop on a close below 25 basis points. In terms of the long-end of the market, we are much more ambivalent. Faster growth may heighten fears of Fed tightening, but if such growth occurs without visible inflation pressures, that should temper what has become an abrupt sell-off. Also, the quarterly refunding essentially completes the Treasury's net issuance requirements in the third quarter, so the technical condition of the market should be relatively positive. A wait-and-see attitude seems best for now, with a willingness to take either a short or long position should the market overreact to incoming new information.

Initial Jobless Benefit Claims



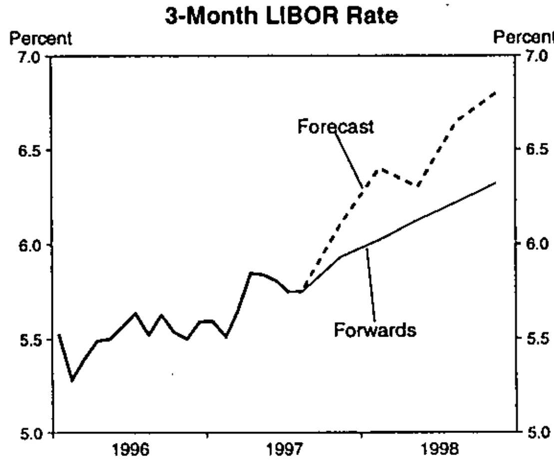
Source: Department of Labor.

ABC/Money Consumer Comfort



Source: ABC/Money Magazine.

3-Month LIBOR Rate



Source: Federal Reserve Board. Wall Street Journal.

II. U.S. Trade: Close to Neutral, Some Downside Risk

Although U.S. economic growth has proven to be much stronger in 1997 than generally expected, it has so far been an entirely home grown affair. After narrowing sharply in late 1996 and widening almost as sharply in early 1997, the trade balance appears to have exerted a modest additional drag on the U.S. economy in the second quarter, cutting 0.6 percentage points from the preliminary annualized growth estimate for that period. For the year as a whole, we estimate that the real trade deficit will be slightly larger than in 1996, although lower oil prices will probably prevent an increase in the nominal deficit.

Our latest analysis of U.S. trade flows reconfirms our earlier findings that relative growth in real domestic demand abroad versus at home is by far the most important factor in determining whether foreign trade will boost or restrain U.S. growth. This analysis also shows that exports and imports have both risen more rapidly in the last three years than would have been predicted by prior relationships, but with little effect on the trade balance. The pattern of these surprises suggests that trade liberalization may have increased the sensitivity to growth still further.

Thus, the key to whittling down the stubborn U.S. trade deficit remains a pickup in growth outside the United States, especially in Europe and Japan. Given the halting pace of recovery in these regions, and the lagged effects of dollar appreciation over the past two years, it seems ill-advised at the moment to hinge any forecast of U.S. growth on trade improvement. By the same token, worries that the currency turmoil in Southeast Asia set off by Thailand's devaluation will hurt the U.S. trade deficit in coming months, as the Mexican peso crisis did two years ago, seem overblown. On balance, we are inclined to remove the slight tilt toward trade improvement from our outlook for 1998 and to assume a continuation of this sector's neutral posture until prospects of an upswing in world growth come into clearer view.

Growth in Demand Reigns Supreme

The constant element in our ongoing analysis of U.S. trade flows is that growth in domestic demand in the destination country is by far the most important factor governing growth in both U.S. exports and imports. Changes in the exchange rate play a distinctly secondary role.

Export and Import Demand Functions, 1973-1996

Causal Variable	Exports	Imports
Demand growth	+1.32	+2.22
Change in exchange rate*	-0.70	--
Change in relative import prices, lagged 1 year	--	-0.35
Constant Term	+2.52	+0.33
R^2 (adjusted)	0.70	0.75

Note: Equations specified in percentage changes and fitted to annual data.
* Sum of coefficients for concurrent changes in exchange rate and lags of 1 and 2 years.
Source: Commerce Department. Morgan Guaranty Trust Company. Our estimates.

Our latest take on these relationships, based on statistical analysis of annual data for the 1973-1996 period of floating exchange rates and shown in the table above, indicates the following:

1. A one percentage point increase in growth abroad will boost U.S. export growth about twice as much as a one-point drop in the trade-weighted value of the U.S. dollar—an income elasticity of +1.3 versus a price elasticity of -0.7. Moreover, the growth impact is fairly immediate (within the same year) whereas the dollar impact stretches out over a two-year interval. Not surprisingly, merchandise exports (not shown) exhibit slightly stronger growth and exchange rate sensitivity than exports of services, which respond belatedly to growth and loosely to the exchange rate.

2. On the import side of the ledger, the difference between these growth and price effects is even larger. Each additional percentage point of U.S. domestic demand growth can neutralize more than a six-point increase in the price of imports relative to the price of domestically-produced output. In contrast to exports, however, it is the imports of services that are more responsive, both to growth in domestic demand and to changes in the relative price of imports.

Large But Offsetting Errors

Of course, the ultimate test of these relationships is their ability to predict future changes in exports and imports. To perform this test, we reestimated the relationships for the 1973-1993 period and used the

Growth in Trade Surpasses Predictions

	1994	1995	1996
Export Growth			
Actual	8.2	11.1	8.3
Predicted*	4.7	5.2	5.1
Difference	3.5	5.9	3.2
Import Growth			
Actual	12.1	9.0	9.1
Predicted*	9.0	6.0	6.3
Difference	3.1	3.0	2.8

* Based on equations shown in Table 1, refitted to 1973-1993 period.
Source: Our estimates.

results to make predictions for the out-of-sample 1994-1996 interval. The results, summarized in the table above, show a systematic tendency for growth on both sides of the trade ledger to exceed expectations, with a small net overstatement of the recent trade deficit deterioration.

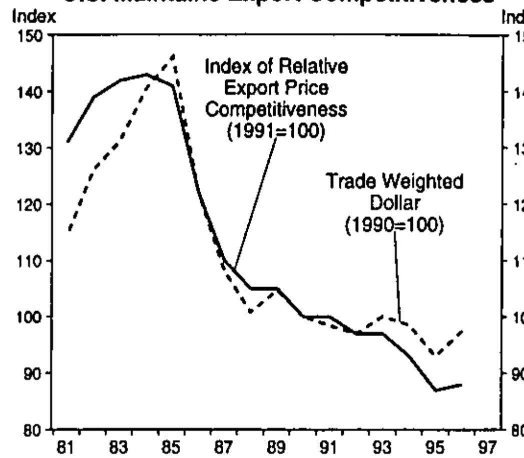
The details:

1. Real exports rose 3 to 6 percentage points faster per year than predicted from 1994 through 1996. The underestimation occurred mainly in exports of merchandise; for services, the errors were slightly less than 2 percentage points in 1994 and 1995 and negligible in 1996.

2. Import growth over this same period was fairly consistent at about 3 percentage points faster than predicted per year. Unlike exports, the larger misses on imports were in the services component, which rose 4-5 percentage points faster than estimated in 1995 and 1996.

3. Although errors for exports and imports were significant in each instance, they were in the same direction and therefore offsetting to a large degree. If the relationships through 1993 had been used, without updates, to project the real trade balance through 1996, the largest error in any annual change in the real trade balance would have been only 0.3% of real GDP ($17.7 billion in chain-weighted 1992 dollars) in 1995. The cumulative error would have been only $13.8 billion, a negligible 0.1 percentage point per year average impact on annual growth.

U.S. Maintains Export Competitiveness



Source: OECD. Morgan Guaranty Trust Company.

This pattern of errors suggests that the increasingly global orientation of businesses worldwide, coupled with the lowering of international trade barriers, has caused the flow of goods to accelerate, both into and out of the United States. Notably, the combination of aggressive pricing of U.S. exports and a shift in the export mix toward high-tech items, whose prices have fallen sharply, has virtually neutralized the rise in the dollar's exchange value over the past two years, as shown in the chart above. So long as this continues, it seems likely that the relative demand growth in the United States vis-à-vis the rest of the world will call the tune for the U.S. trade balance.

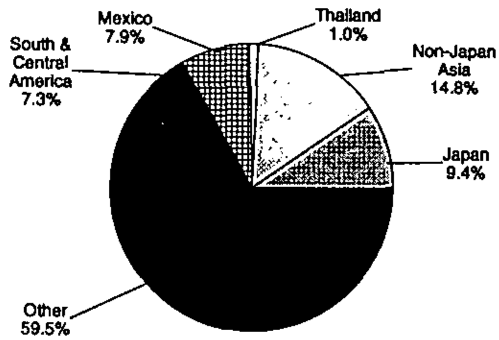
Thailand in 1997 is not Mexico in 1994

One particular growth risk that has surfaced in recent weeks is the series of currency realignments now going on in Southeast Asia, which was prompted by the devaluation of the Thai baht in early July. To some analysts, the threat that this poses to growth in the region spells trouble for the U.S. trade deficit and, by extension, the continuation of strong U.S. growth.

The model for this line of reasoning is the experience from the Mexican devaluation of December 1994, which caused a $20 billion swing in the U.S. trade balance with that country and contributed to a sharp slowing in U.S. growth in 1995. However, there are several reasons why Thailand in 1997 is not likely to be a replay of Mexico in 1994.

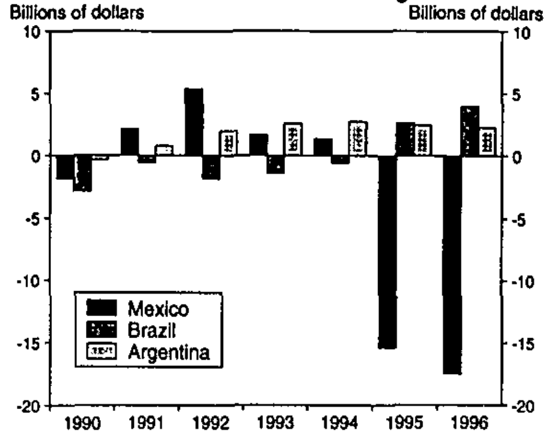
1. **The Thai baht devaluation was not a surprise.** This move had been anticipated for weeks, whereas the 1994 peso devaluation occurred literally overnight and came as a complete surprise to the foreign exchange markets.

U.S. Exports by Country (1996)



Source: Department of Commerce.

U.S. Trade Balances with Latin American Nations: No Clear Evidence of Contagion



Source: Department of Commerce.

2. **Thailand is a much smaller trading partner of the United States.** Last year, U.S. exports to Thailand were $7.2 billion, or only about 1% of total U.S. merchandise exports. In contrast, Mexico ranked as the third largest U.S. export market (behind Canada and Japan) in the year prior to the 1994 devaluation, accounting for almost 10% of U.S. merchandise exports. Thus, for the problems in Thailand to have a material effect on the U.S. trade balance and growth outlook, they would have to spread to other nations in the region.

3. **Severe currency problems in one country are not necessarily contagious.** Although Mexico's devaluation and subsequent correction of its trade deficit sparked concerns about similar corrections in other Latin American countries, the U.S. trade position with Brazil actually moved in the opposite direction between 1994 and 1995 while the position with Argentina held steady, as shown in the accompanying chart. In addition, revisions to IMF rules, undertaken in response to the Mexican peso crisis, help reduce the likelihood of contagion in currency crises by requiring member nations to disclose more information about their economies and policies. Greater transparency about such matters translates into less uncertainty and fewer instances in which financial markets will draw unwarranted parallels to other countries.

4. **Exports to the region have already weakened.** Over the past year, exports to Asia (including Japan) have risen about 5%, down substantially from the 25%-30% growth in 1995. Thus, any further weakening would occur from an already reduced pace. In contrast, exports to Mexico rose about 25% in the year leading up to the peso devaluation, reflecting the implementation of the NAFTA accord.

In addition to these trade-related differences, it should also be noted that fiscal and monetary policy are not the suppressants to growth now that they were in the 1994-1995 period. Thus, it seems quite unlikely that the currency turmoil now unfolding in Southeast Asia will have much effect on the U.S. trade balance and growth rate unless they have a significant impact on growth in the entire Asian region, including Japan.

Implications for the U.S. Outlook

Trade improvement has been a feature of our 1998 growth outlook all year, based on expectations of an upswing in growth abroad, although it has never been a very powerful one. In our previous forecast, for example, we had expected that a narrowing of the trade balance would add about 0.2 percentage points to real GDP growth next year. Although we continue to expect recovery in Europe and Japan, the combination of uncertainty about this outcome, the lagged (though weak) effects of dollar appreciation, and the prospect of a small impact from problems in Southeast Asia suggest that it is probably prudent to remove this source of anticipated stimulus for now.

Ed McKelvey

Key U.S. Economic Data

	'97 Jul	'97 Jun	'97 May	'97 Apr	6 Mo Trend	12 Mo Trend	Next Release
	Latest Monthly Data						
Nonfarm Payrolls (ch. Thousands)	316	228	163	327	245	224	Sep 5
Unemployment Rate (%)	4.8	5.0	4.8	4.9	5.0	5.1	
Index of Hours Worked (% ch)	-0.5	0.4	0.3	-0.4	2.5	2.8	
Average Hourly Earnings (% ch)	0.0	0.3	0.4	0.0	3.0	3.6	
Producer price finished goods index (% ch)	--	-0.1	-0.3	-0.6	-3.4	-0.1	Aug 13
Excluding food and energy	--	0.1	-0.3	-0.1	-0.3	0.1	
Consumer price index (% ch)	--	0.1	0.1	0.1	1.4	2.3	Aug 14
Excluding food and energy (% ch)	--	0.1	0.2	0.3	2.4	2.5	
Retail sales (% ch)	--	0.5	-0.3	-1.1	3.3	3.8	Aug 13
Excluding motor vehicles (% ch)	--	0.3	0.0	-0.6	3.9	3.8	
Industrial Production (% ch)	--	0.3	0.2	0.4	3.8	3.8	Aug 14
Manufacturing	--	0.3	0.3	0.3	4.2	4.5	
Capacity utilization (%)	--	83.5	83.5	83.6	83.5	83.4	Aug 14
Manufacturing	--	82.5	82.6	82.6	82.6	82.4	
Housing Starts (annual rate, thousands)	--	1452	1385	1483	1454	1454	Aug 19
Single-family	--	1110	1082	1133	1138	1135	
Trade balance (billions, monthly)	--	--	-10.2	-8.7	-9.8	-9.6	Aug 20
Merchandise	--	--	-17.0	-15.5	-16.7	-16.5	
Factory Orders (% ch)	--	1.2	-0.5	1.4	7.0	4.7	Sep 4
Durable Goods	--	2.4	-0.4	1.8	13.0	6.1	Aug 26
Personal Income (% ch)	--	0.6	0.3	0.2	6.2	5.4	Aug 29
Wages and Salaries	--	0.8	0.3	0.0	6.1	5.9	
Purchasing Managers' Index (%)	58.6	55.7	57.1	54.2	55.6	53.8	Sep 2
Consumer Sentiment U Mich (Feb 66=100)	107.1	104.5	103.2	101.4	102.7	99.7	Aug 29
Conference Board (1985=100)	126.5	129.9	127.9	118.5	123.4	117.8	Aug 26

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

U.S. Calendar

Focus for the Week Ahead

- Retail sales in July are likely to be significantly firmer than the market consensus. July auto sales were very strong, and the chain store sales reports indicate a sharp rebound in nonauto sales is also likely (August 13).
- Producer prices will be scrutinized for evidence that rapid gains in output are causing strains to develop in the manufacturing sector. Auto prices should be soft, reflecting increased incentives, helping moderate inflation at the wholesale level (August 13).
- Consumer prices are likely to continue to be well-behaved, as a decline in gasoline prices helps hold down the overall increase (August 14).
- Industrial production is likely to show significantly more strength than suggested by a straightforward reading of the July hours worked data as auto output rises sharply, causing the aggregate capacity utilization rate to tick up slightly (August 14).

Economic Releases and Other Events

Date	Time	Indicator	Estimate GS	Estimate Consensus	Last Report
Tue Aug 12	10:00	Non-Farm Productivity (Q2 '97—Prel.)	+0.5%	n.a.	+2.6%
Wed Aug 13	8:30	Producer Price Index (Jul)	+0.2%	+0.1%	-0.1%
		Excluding Food & Energy	0.0%	+0.1%	+0.1%
	8:30	Retail Sales (Jul)	+0.8%	+0.4%	+0.5%
		Excluding Autos	+0.6%	+0.4%	+0.3%
Thu Aug 14	8:30	Consumer Price Index (Jul)	+0.1%	+0.2%	+0.1%
		Excluding Food & Energy	+0.2%	+0.2%	+0.1%
	8:30	Business Inventories (Jun)	+0.6%	+0.3%	+0.2%
	9:15	Industrial Production (Jul)	+0.5%	+0.3%	+0.3%
	9:15	Capacity Utilization (Jul)	83.6%	83.5%	83.5%

- Atlanta Fed Survey (Tue, Aug 12 - 10:00)
- Richmond Fed Survey (Tue, Aug 12 - 10:00)
- Univ. Of Michigan, Consumer Sentiment—Prel. (Fri, Aug 15 - 10:00)
- National Assoc. Of Homebuilders Survey (Fri, Aug 15)

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	5.8%	6.1%	6.3%
Forward	5.9	6.0	6.2
2 Yr T-Note	5.9	6.2	6.4
Forward	6.0	6.1	6.2
10 Yr T-Note	6.2	6.4	6.5
Forward	6.3	6.3	6.4

Key Numbers in the Business Outlook

	1997 Q2	1997 Q3E	1997 Q4E	1997E	1998E
Real GDP	2.2%	3.0%	3.2%	3.5%	3.0%
Ind. Prod., Mfg.	4.4	3.5	4.2	4.7	4.9
CPI	1.1	1.6	2.2	2.3	2.6
After-Tax Profits*	9.8E	3.9	2.2	6.3	3.3
Unemployment	4.9	4.7	4.7	4.9	4.4

* Excluding inventory profits; adjusted for depreciationdistortions.

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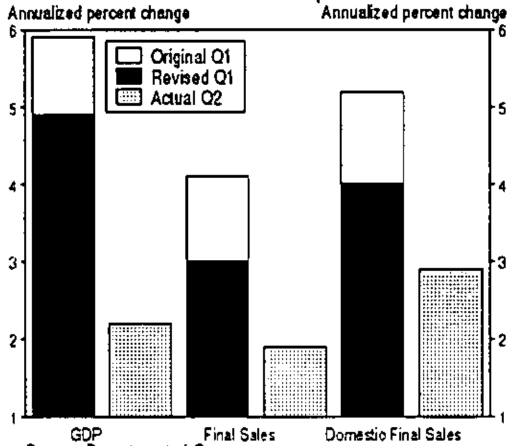
U.S. Economics Analyst

Deficit Drop Presses Treasury to Revamp Funding Structure

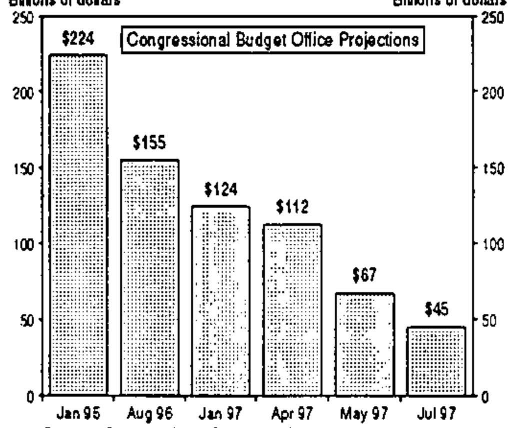
- The economic news over the past week has been mixed. On one hand, the GDP report indicated less growth momentum in the first half of 1997. Large downward revisions to the growth rate of output and final demand in the first quarter and a higher pace of inventory accumulation were the main culprits. On the other hand, economic conditions apparently strengthened in July, with a strong payroll gain and a rise in the National Purchasing Managers' index. Most data suggest that a pickup in the growth pace is very likely this quarter.
- In addition, new era adherents did not get much support from the GDP revisions. The upward revisions to growth over the past few years that were expected generally did not materialize. There is little support in the official government statistics that productivity growth—boosted by heavy spending on technology—has increased on a sustainable basis.
- The budget deficit continues to melt away, causing the Treasury's borrowing program to raise more cash than is needed. Up to now, the result has been a big paydown of Treasury bills and a lengthening of the average maturity of the debt.
- As the good news on the deficit continues to keep net issuance low, the Treasury is likely to make more fundamental adjustments to its mix of bill, note, and bond financing in 1998. A reduction in the size and/or frequency of the monthly 2-year and 5-year note auctions is the most likely outcome.

Slower Growth in Real Output and Sales



Source: Department of Commerce.

The Incredible Shrinking Fiscal Year 1997 Deficit



Source: Congressional Budget Office.

Trade Recommendations

- Stay long the March '98/March '99 Eurodollar calendar spread, with a target of 70 basis points and a stop on a close below 25 basis points.

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I. Weekly Wrapup

Economic and Market Overview

The mood in financial markets shifted sharply on Friday as firmer economic news raised questions about whether Fed officials really could stay on the sidelines indefinitely. In contrast, the market rallied sharply earlier this week as the data did not obviously contradict the rosy scenario implied by Federal Reserve Chairman Greenspan in his Humphrey-Hawkins testimony the previous week.

The week's economic data were quite mixed. On the softer side, real GDP growth and final demand were revised down sharply in the first quarter. Combined with second quarter GDP growth that was in line with expectations, rising 2.2% (annualized), and a higher pace of inventory accumulation, the GDP report indicated that the economy had less forward momentum than expected.

However, this picture was contradicted by much of the data for July. In particular, labor market conditions continued to tighten and production remained firm. Strength in the labor markets was visible in the 316,000 jump in payrolls, a drop in the unemployment rate to 4.8% in July, and a 22,000 decline in initial unemployment claims in the latest week to 277,000. The weaker elements of the payroll employment report such as the drop in aggregate hours (-0.5%) are more suspect as there appear to be seasonal adjustment problems for hours worked that result in weakness during the first month of the quarter. Similarly, the National Purchasing Managers' report was firm, with the index rising to 58.6 in July from 55.7 in June. The strength was fueled mainly by a big rise in the production component, which rose to 64.4 from 56.0 in June.

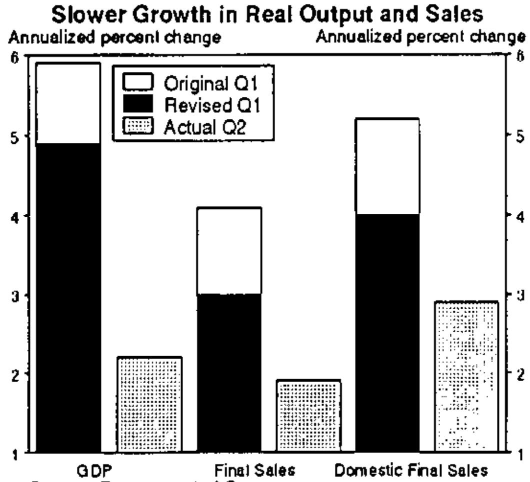
On the inflation front, the data were generally more tame. For example, there were few signs of labor cost pressures. Average hourly earnings in July were unchanged and the 0.8% increase in total compensation costs and in wages in the second quarter was in line with market expectations. The GDP chain-weight deflator for the second quarter also was quiescent, rising only 1.4% at an annual rate. However, there were signs that the manufacturing sector has diminishing slack. For example, the vendor performance component firmed to 55.3 in July from 54.6 in June, and the prices paid component also moved higher.

Demand indicators were unrevealing as the two major confidence indices moved in opposite directions in July, and the strength in new home sales in June (+6.1%) was offset by a big downward revision to May sales.

Federal Reserve Policy

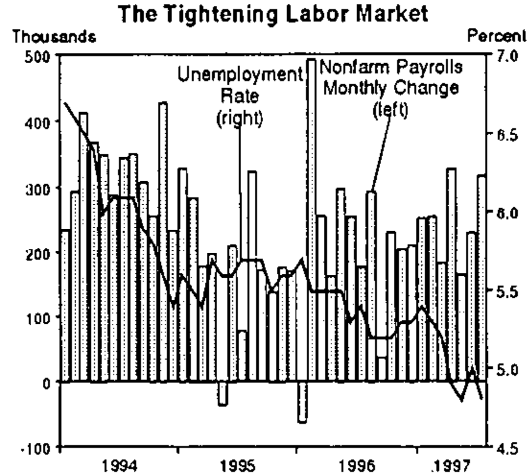
The tightening of the labor markets and the slowdown in vendor deliveries probably have made Fed officials a bit more nervous about the risks that the economy could begin to overheat. That view should be reinforced by the revised GDP data, which show no productivity miracle and, thus, suggest that the top acceptable growth pace for the U.S. economy on a sustainable basis is no more than a 2½% annual rate. At the same time, the lack of upward pressure on labor compensation costs and the higher rate of

Slower Growth in Real Output and Sales



Source: Department of Commerce.

The Tightening Labor Market



Source: Department of Labor.

inventory accumulation suggests that Fed officials will continue to be patient. There are few signs that the economy is currently operating at too high a level of resource utilization, and the already rapid growth of inventories limits the scope for a production boom.

Fiscal and Political Developments

The balanced budget legislation turned out to be disappointing in a number of key respects: The size of the tax cut package expanded to $95 billion over five years, from the $85 billion agreed upon originally; structural reforms to Medicare proposed by the Senate such as gradually raising the qualifying age for coverage to 67 from 65 were dropped; and the tax code was made much more complicated, with new tax credits for children and education and a new type of tax-advantaged retirement account created by the legislation. At the same time, there were some attractive goodies for investors, including a reduction in the top long-term capital gains tax rate to 20% from 28%. An additional capital gains tax cut to 18% was added for assets held more than five years, but investors will not be able to take advantage of that low rate until 2006.

In the end, the robust economy has made the legislators' efforts to reduce the budget deficit increasingly irrelevant. In fact, with most of the spending cuts backloaded and the tax cuts beginning in 1998, the legislation is likely to shift fiscal policy slightly in the direction of stimulus next year.

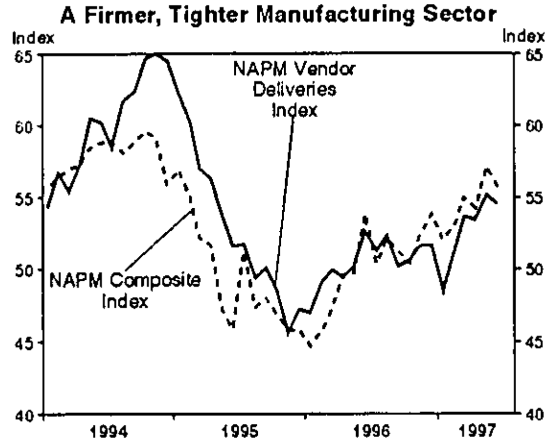
Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

Although no change in monetary policy is likely anytime soon, sentiment could continue to shift back towards the notion that further monetary policy tightening moves will be required eventually. As a consequence, we would keep our March '98/March '99 Eurodollar calendar spread trade in place, with a target of 70 basis points, and a stop on a close below 25 basis points.

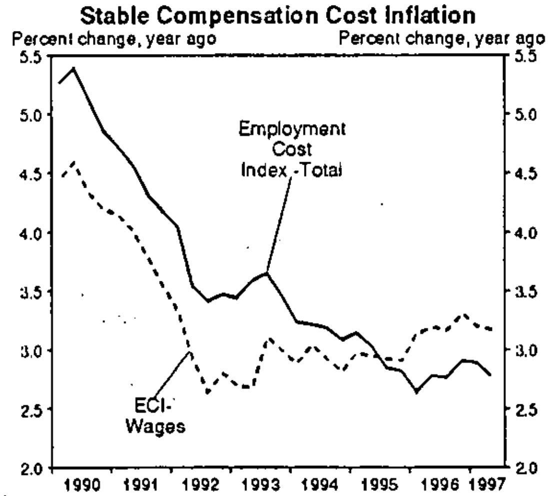
On the long end of the curve, we remain neutral. Although new supply could cause indigestion problems, especially in light of Friday's stronger data, the recent rally in the long end of the market appears to have a solid foundation given the good inflation news, the downtrend in Treasury supply, and the fact that U.S. monetary policy is locked on hold for the time being.

A Firmer, Tighter Manufacturing Sector



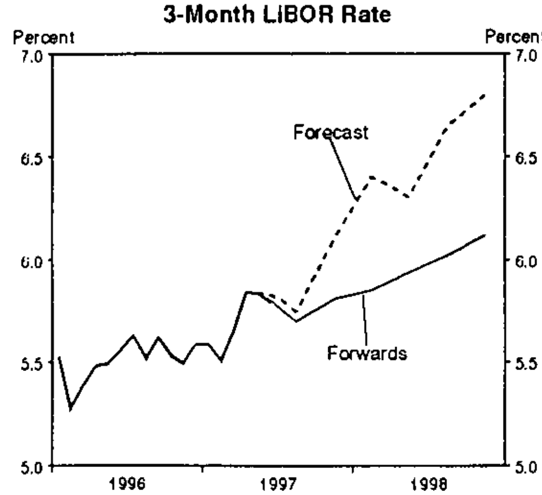
Source: Department of Labor. National Association of Purchasing Management.

Stable Compensation Cost Inflation



Source: Department of Labor.

3-Month LIBOR Rate



Source: Federal Reserve Board, Wall Street Journal.

II. Deficit Drop Presses Treasury to Revamp Funding Plans

For the first time in many years, debt managers at the U.S. Treasury face the possibility that their borrowing program as presently constructed might generate persistent excessive cash inflows. A steep rise in tax receipts, substantially deriving from strength in personal non-withheld payments, has driven the federal deficit far lower than anyone expected this fiscal year, to less than 0.5% of GDP. Meanwhile, President Clinton and Congressional leaders have finalized an agreement aimed at generating annual fiscal surpluses throughout most of the coming decade. These two developments point to a far more modest medium-term federal market funding need than seemed possible just six months ago.

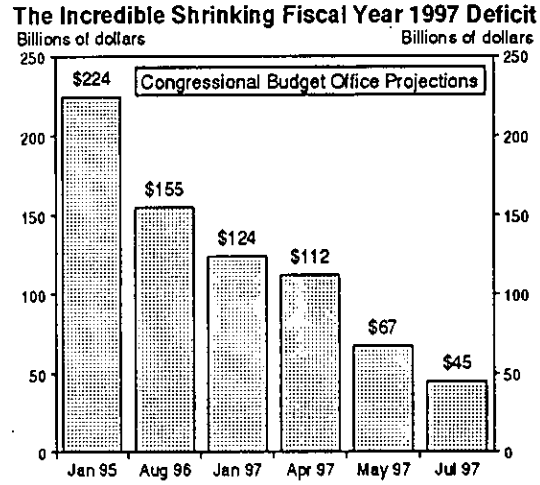
While some downward adjustments to the Treasury's borrowing structure have already been made, further significant steps could well be required to forestall a drift into sustained over-funding in coupons and a consequent unintended extension of the average marketable debt maturity. Based on estimates of how official budget deficit forecasts will appear following enactment of this year's budget, our calculations indicate that a continuation of current Treasury coupon debt financing patterns over fiscal years 1998-2002 will generate $100 billion more than is required to meet future cash needs. That would force a further huge contraction in the publicly held supply of short-term Treasury bills, which already has shrunk sharply as a proportion of the total debt.

A reconfiguration of Treasury borrowing sometime within the next year would help to mitigate or eliminate clear imbalances in recent funding activity among different maturity sectors. One option that deserves careful scrutiny is a reduction in the frequency of note sales, since in many months the need for funds from those flotations has been obviated by surging personal tax payments.

A Huge Drop in Budget Deficits . . .

The decline this year in both official and private estimates of the federal budget shortfall has been stunning. Just last August, the Congressional Budget Office was looking for a $155 billion deficit in fiscal 1997. That projection fell to $124 billion in January, $112 billion by early April, $67 billion in May, and, more recently, to under $50 billion. We, too, have slashed our estimate for this year's fiscal gap, from $115 billion last September to a present figure of $35 billion, which would be just 0.4% of GDP.

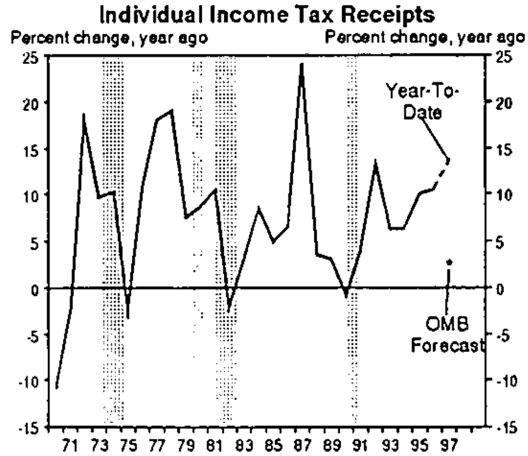
The Incredible Shrinking Fiscal Year 1997 Deficit



Source: Congressional Budget Office.

This is not the first time in the 1990s that the budget deficit has come in comfortably below expectations. What is different this time, however, is both the magnitude and the main source of the surprise. Relative to what the CBO expected last August, the deficit this year will apparently be lower by at least $110 billion (1.4% of GDP) and quite possibly more. Soaring receipts from individual tax payments account for a large percentage of this deviation. Through the first nine months of fiscal 1997, income tax payments by individuals had escalated 13.8% from the same stretch a year earlier, compared to only a 2.5% rise predicted by the President's budget office in February. If that growth differential holds up, it will yield an additional $76 billion of revenues for the

Individual Income Tax Receipts



Source: Department of Treasury,
Office of Management and Budget.

full year. A large portion of this overage has come from higher quarterly estimated payments and final settlements, rather than regular tax withholding. This suggests that a key factor in the recent deficit collapse was a swelling of capital gains income tax payments, driven by hefty increases in household asset values over the past few years (detailed information about the capital gains portion of current income tax receipts is unlikely to become available for some time).

The 1997 budget results have had materially favorable effects on future deficit estimates through two main channels. First, the fact that personal tax payments significantly exceeded expectations for a second consecutive year has led official and private estimators to sharply raise their sights for future receipts. In early May, the CBO advised the Congressional budget committees and the White House to assume $45 billion of extra revenues for all future years as a preliminary guess at this change. Second, the rapid narrowing of the budget imbalance greatly aided the Clinton Administration and Congress toward a final accord this week on a package of tax and spending changes crafted to achieve projected budgetary surpluses in fiscal years 2002-2007. Although this deal actually adds slightly to the deficit for next year, it contains meaningful reductions to projected mandatory spending, which greatly enhances the potential for keeping deficits low after 1999.

. . . Implies a Much Reduced Treasury Market Funding Need

The shockingly rapid decline in current and projected budget deficits carries direct and important financial implications for the U.S. Treasury. In particular, the need to raise money in the public debt markets to finance federal government activities has shriveled, and might soon give way to annual redemptions for the first time since the 1950s. We believe the revised budget reports from Congressional and White House estimators later this summer will anticipate a small budget deficit rise in fiscal years 1998-1999, to around $55-$60 billion, followed by a steady decline toward near-balance in fiscal 2001 and surpluses from 2002 through 2007. If that proves correct, then based on our projections of future nonmarketable financing (e.g., through savings bonds), and assuming stable year-end cash balances, the implied average annual net Treasury market funding requirement for 1998-2002 will be around $17 billion, or 0.2% of GDP. That compares to net borrowing of approximately 3½% of GDP from 1980 through 1996.

Treasury Market Borrowing Outlook, 1997-2002
(fiscal years, $ billions)

	1997	1998	1999	2000	2001	2002
Budget Deficit*	$35.0	$60.0	$55.0	$45.0	$20.0	-$5.0
Less:						
Decline in Cash Balance	-2.0	6.2	0.0	0.0	0.0	0.0
Non-Marketable Borrowing	10.0	13.0	16.0	17.0	17.0	19.0
Net Market Financing	$27.0	$40.8	$39.0	$28.0	$3.0	-$24.0

* Our estimates of revised Congressional Budget Office outlook, following enactment of the bipartisan budget agreement.

Source: Our calculations.

Treasury Borrowing Structure Has Drifted Toward Excessive Coupon Funding

This sudden near evaporation of borrowing requirements clearly caught Treasury officials off balance. In fact, between May 1996 and February 1997 they actually introduced seven new coupon debt auctions on an annual basis (including quarterly issues of inflation-indexed securities), partly based on an expectation that higher funding volumes would be needed. Two of those seven additional sales have since been canceled, but the net impact still has been to offset almost half the sequential reductions to coupon auction sizes since the spring of 1996. Hence, while total annual borrowing has fallen $100 billion or more, the volume of net coupon sales has dipped by only about $38 billion. Consequently, there has been a steep falloff in short-term bill financing, with that sector of the market on a course to shrink nearly $55 billion (7%) in fiscal 1997. As a percentage of total marketable debt outstanding, Treasury bills now comprise just 20%-21%, down from 23% two years ago and 30%-34% in the early 1980's.

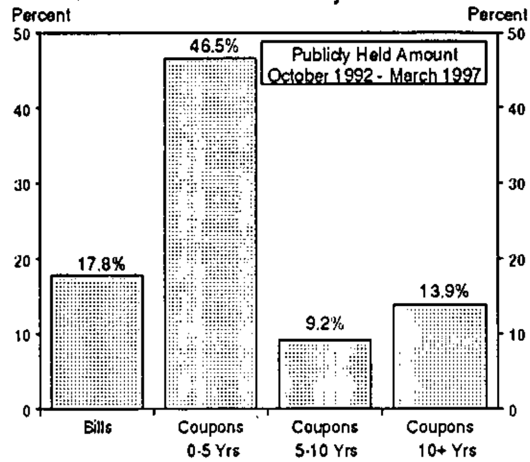
In the absence of fresh, substantial cutbacks in the auctions of notes and bonds, this migration in debt outstanding toward longer-duration issues could continue for many years. We calculate that, using the present schedule and sizing for its regular debt offerings, the Treasury is due to raise more than its total cash needs from the market in coupons alone during three of the next five years. That would cause an additional net redemption of more than $100 billion bills over that interval, eliminating nearly 20% of the publicly held supply. Moreover, if the deficit estimates are cut by just an additional $25 billion—less than a quarter of this year's deviation—then the present deficit outlook and coupon financing structure would imply continuous reductions to bill supplies throughout the next ten years. It is very doubtful that Treasury officials would wish to let bill supplies plunge in this fashion.

Market Financing by Sector, Fiscal 1997-2002
($ billions)

	1997	1998	1999	2000	2001	2002
Est. Net Market Financing	$27.0	$40.8	$39.0	$28.0	$3.0	-$24.0
Coupon Issue Sales[1]	564.3	528.0	528.0	528.0	528.0	528.0
Coupon Issue Maturities[2]	483.1	509.0	504.8	472.8	469.8	493.6
Net Coupon Borrowing	81.2	19.0	23.2	55.2	58.2	34.4
Implied Bill Borrowing	-54.2	21.8	15.8	-27.2	-55.2	-58.4
Percent of Market Debt Outstanding:						
Coupons	79.4%	79.0%	78.8%	79.7%	81.3%	82.8%
Bills	20.6%	21.0%	21.2%	20.3%	18.7%	17.2%

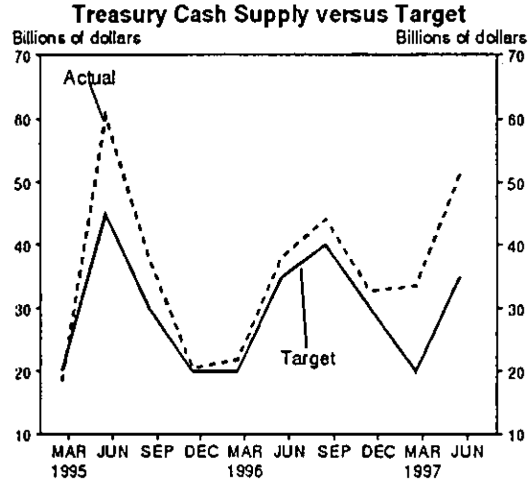
1- Based on current auction sizes and funding cycles.
2- Adjusted for estimated Federal Reserve purchases.
Source: Department of Treasury. Our calculations.

Recent Growth in Treasury Market Debt



Source: Department of Treasury.

Treasury Cash Supply versus Target



Source: Department of Treasury.

Further Deficit Drop Would Weigh for Borrowing Program Reforms

Thus, it would appear there is a need for debt managers to study possible structural changes to the Treasury financing cycles, for implementation in the event that federal borrowing needs continue to fall and threaten major unintended debt structure changes. As part of such an evaluation, it would be appropriate to consider how recent budgetary developments have affected seasonal cash flows, as that information could be helpful in choosing how best to target debt sales going forward.

The fastest-growing part of the publicly held federal marketable debt by far has been coupons with maturities under five years. Between the end of fiscal 1992 and March 1997, that portion soared 46.5% while the other broad segments (Treasury bills, coupons of 5-10 years, and coupons longer than 10 years) rose between 9.2% and 17.8%. It would seem, therefore, that the monthly 2-year and 5-year note sales (which now total $324 billion per year, over 60% of all coupon funding) are especially ripe for reduction, either in size, frequency, or both.

Such cutbacks in the monthly notes would also make sense from a cash management standpoint. One area where the Treasury has had obvious difficulty of late is in holding down peaks in its cash supplies. For more than two straight years, the cash balance target for quarter-end has been routinely exceeded; for example, on June 30 it was $51.3 billion compared to a $35 billion stated objective. The consistency of these cash overshoots is striking, given that officials are able to routinely adjust their debt sales, and it suggests that seasonal Treasury cash flow patterns may have changed to a meaningful degree. Steps to scale back coupon borrowing at the end of each quarter might be an appropriate way to address the rising pressures for reduced coupon funding volumes, and also would mitigate the propensity for regular upward spikes in Treasury cash at those times.

John Youngdahl

Goldman Sachs

Key U.S. Economic Data

	'97 Jul	'97 Jun	'97 May	'97 Apr	6 Mo Trend	12 Mo Trend	Next Release
	Latest Monthly Data						
Nonfarm Payrolls (ch. Thousands)	316	228	163	327	245	224	Sep 5
Unemployment Rate (%)	4.8	5.0	4.8	4.9	5.0	5.1	
Index of Hours Worked (% ch)	-0.5	0.4	0.3	-0.4	2.5	2.8	
Average Hourly Earnings (% ch)	0.0	0.3	0.4	0.0	3.0	3.6	
Producer price finished goods index (% ch)	--	-0.1	-0.3	-0.6	-3.4	-0.1	Aug 13
Excluding food and energy	--	0.1	-0.3	-0.1	-0.3	0.1	
Consumer price index (% ch)	--	0.1	0.1	0.1	1.4	2.3	Aug 14
Excluding food and energy (% ch)	--	0.1	0.2	0.3	2.4	2.5	
Retail sales (% ch)	--	0.5	-0.3	-1.1	3.3	3.8	Aug 13
Excluding motor vehicles (% ch)	--	0.3	0.0	-0.6	3.9	3.8	
Industrial Production (% ch)	--	0.3	0.2	0.4	3.8	3.8	Aug 14
Manufacturing	--	0.3	0.3	0.3	4.2	4.5	
Capacity utilization (%)	--	83.5	83.5	83.6	83.5	83.4	Aug 14
Manufacturing	--	82.5	82.6	82.6	82.6	82.4	
Housing Starts (annual rate, thousands)	--	1452	1385	1483	1454	1454	Aug 19
Single-family	--	1110	1082	1133	1138	1135	
Trade balance (billions, monthly)	--	--	-10.2	-8.7	-9.8	-9.6	Aug 20
Merchandise	--	--	-17.0	-15.5	-16.7	-16.5	
Factory Orders (% ch)	--	1.2	-0.5	1.4	7.0	4.7	Sep 4
Durable Goods	--	2.4	-0.4	1.8	13.0	6.1	Aug 26
Personal Income (% ch)	--	0.6	0.3	0.2	6.2	5.4	Aug 29
Wages and Salaries	--	0.8	0.3	0.0	6.1	5.9	
Purchasing Managers' Index (%)	58.6	55.7	57.1	54.2	55.6	53.8	Sep 2
Consumer Sentiment U Mich (Feb 66=100)	107.1	104.5	103.2	101.4	102.7	99.7	Aug 29
Conference Board (1985=100)	126.5	129.9	127.9	118.5	123.4	117.8	Aug 26

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

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U.S. Calendar

Focus for the Week Ahead

- Construction spending should rebound in June, led by a recovery in public outlays, which fell sharply in May (August 4).
- The Federal Reserve's beige book report will be scrutinized for signs of faster growth or incipient inflation pressures (August 6).
- The Treasury quarterly refunding takes place with $16 billion 3-year notes, $12 billion 10-year notes, and $10 billion 30-year Treasury bonds to be auctioned (August 5-7).
- Chain-store sales reports for July are likely to indicate a continuing recovery in consumer spending (August 7).

Economic Releases and Other Events

Date	Time	Indicator	Estimate GS	Estimate Consensus	Last Report
Mon Aug 4	10:00	Construction Spending (Jun)	+1.5%	+1.0%	-1.8%
Tue Aug 5	10:00	Leading Indicators (Jun)	0.0%	+0.2%	+0.3%
Thu Aug 7	3:00	Consumer Credit (Jun)	+$5.0 Bil	+$5.0 Bil	+$3.0 Bil

- Treasury 3-Year Note Auction (Tue, Aug 5)
- Fed Beige Book (Wed, Aug 6 - 2:00)
- Treasury 10-Year Note Auction (Wed, Aug 6)
- Wholesale Trade (Thu, Aug 7 - 10:00)
- Chain-Store Sales Results (Thu, Aug 7)
- Treasury 30-Year Bond Auction (Thu, Aug 7)
- Treasury Announces 1-Year Bill (Fri, Aug 8 - 2:30)

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	5.8%	6.1%	6.3%
Forward	5.7	5.8	6.0
2 Yr T-Note	5.9	6.2	6.4
Forward	5.8	5.9	5.9
10 Yr T-Note	6.2	6.4	6.5
Forward	6.0	6.1	6.1

Key Numbers in the Business Outlook

	1997 Q2	1997 Q3E	1997 Q4E	1997E	1998E
Real GDP	2.2%	3.0%	3.2%	3.5%	3.0%
Ind. Prod., Mfg.	4.4	3.5	4.2	4.7	4.9
CPI	1.1	1.6	2.2	2.3	2.6
After-Tax Profits*	9.8E	3.9	2.2	6.3	3.3
Unemployment	4.9	4.7	4.7	4.9	4.4

* Excluding inventory profits; adjusted for depreciationdistortions.

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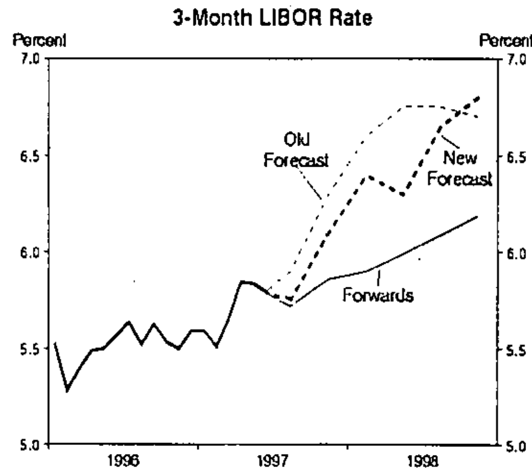
U.S. Economics Analyst

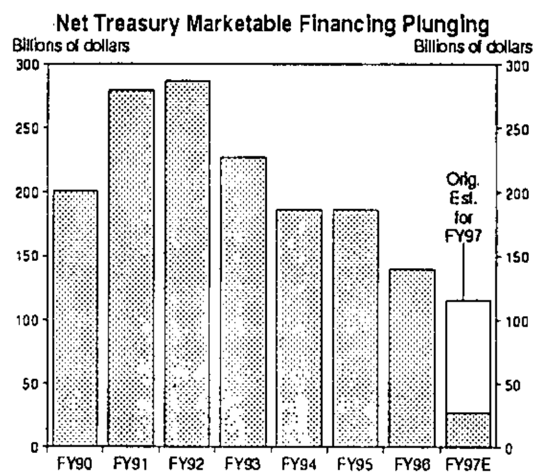
Our Views Have Changed

The Interest Rate Outlook: A Slower, Gentler Climb

- We are changing our interest rate forecast to reflect the likelihood that Fed officials will be patient in tightening monetary policy in response to above-trend growth. We now anticipate only a single further 25 basis-point tightening of monetary policy this year, in the fourth quarter, with a more gradual series of tightening steps in 1998 than we earlier anticipated.
- Bond yields are also likely to be better behaved, thanks to the large decline in supply, low volatility, and continued demand from abroad spurred by relatively wide interest rate differentials. These factors should help narrow the bond risk premium further. Some modest updrift in bond yields, however, remains likely once Fed officials begin tightening again.
- We agree with Chairman Greenspan about many issues: The business cycle has changed in some significant respects and most evidence suggests that productivity growth has increased. However, we disagree about a crucial detail: the notion that the economy will slow to a trend growth pace on its own, without a tighter monetary policy being put in place first.
- Without slower growth, the pressure on labor resources will intensify, and wage inflation will climb. Eventually this pressure should push inflation slowly higher.
- Higher productivity can delay the day of reckoning by allowing higher real wage growth before this pressure spills into prices. But, if the unemployment rate is below NAIRU, then the wage pickup should persist until it overwhelms any improvements in productivity growth.



Source: Federal Reserve Board. Wall Street Journal.



Source: Department of Treasury.

Trade Recommendations

- Roll the long December '97/December '98 Eurodollar calendar spread into a March '98/March '99 Eurodollar calendar spread, with a target of 70 basis points and a stop on a close below 25 basis points.

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July 25, 1997

Goldman Sachs

I. Weekly Wrapup

Economic and Market Overview

Investors in U.S. securities markets were cheered by key aspects of Federal Reserve Chairman Greenspan's mid-year monetary policy testimony to Congress. Suggestions that short-term interest rates will be held steady for awhile, and comments admitting the possibility that high productivity gains could account for the lack of pricing strains encouraged investors.

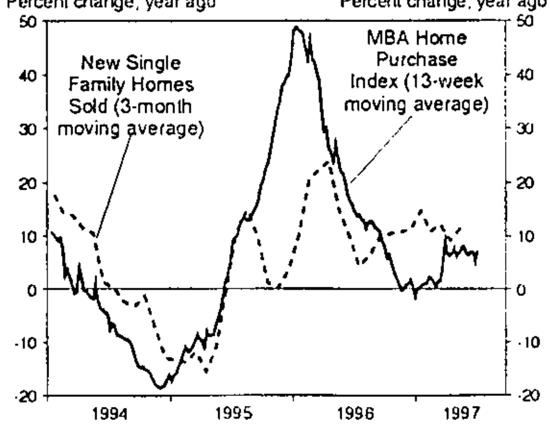
The few new pieces of information about business conditions indicate that the economy continues to expand at a moderate pace. The weekly survey by the Mortgage Bankers Association continues to display strength in mortgage applications for new purchases. In the past thirteen weeks, the average level of that index has reached the highest point in the 1990s and is up more than 9% from a year earlier. That suggests low mortgage finance rates and high levels of consumer confidence are providing firm support to housing demand. Durable goods orders in June rose by 2.3%, boosted by increases in aircraft. But, excluding transportation, the increase was a more modest 0.8%, and strength in non-defense capital goods orders excluding aircraft in June (+1.7%) was partially offset by a downward revision to May (now -0.5% from +0.3%). Non-defense capital goods shipments rose by 1.4% in June, continuing a pattern of strength, which implies firm investment spending in next week's second quarter GDP report.

Federal Reserve Policy

Chairman Greenspan's prepared testimony to Congress this week contained admissions that special factors might permit stronger economic growth without inflationary consequences. He restated his belief that official statistics on productivity are understated and noted that inflationary expectations have recently abated. At the same time, the Fed chief and other senior central bankers warned that some of the factors that have permitted current happy circumstances to develop could be purely temporary. Forecasts of FOMC members for economic activity and inflation, for example, do not indicate a change in their opinion about what rate of growth on current measurement techniques is consistent with stable price gains. Their outlook anticipates annualized real GDP growth of 2.0%-2.5% for the rest of this year (following a roughly 4% first-half outturn) and the same pace during 1998. They view such growth as consistent with roughly stable resource utilization; the unemployment rate is projected to hover in a 4.75%-5.0% range through the end of 1998. Against that backdrop, they expect consumer price inflation to pick up a little, to 2.5%-3.0% next year.

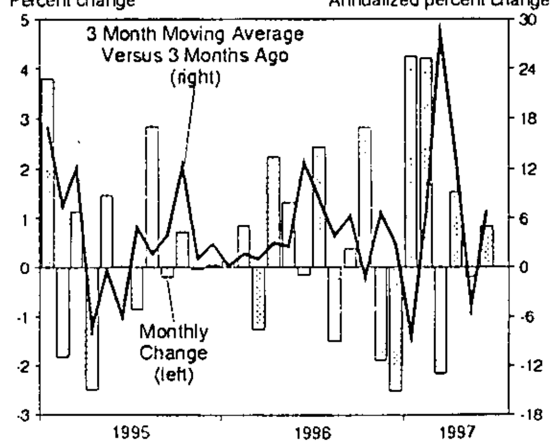
Taken together, these forecasts confirm that Fed leaders believe economic output has moved up into a zone of possible modest danger for inflation, but they also think those risks will not be realized because growth will assume a stable, trend trajectory. Even if the economy materially outstrips officials' expectations, it will take time for that to be obvious, and perhaps even longer for the FOMC to undertake a monetary policy response in the absence of discernibly greater price or wage pressures. Thus, no Fed rate hikes should be forthcoming any earlier than the mid-November FOMC meeting.

Mortgage Applications Suggest Firm Home Sales



Source: Mortgage Bankers Association. Department of Commerce.

Durable Goods Orders ex. Transportation



Source: Department of Commerce.

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Fiscal and Political Developments

It turns out that estimators at the Congressional Budget Office were exactly correct in their forecast last week that the budget deficit for the first nine months of fiscal 1997 would total just $11 billion. This makes it very doubtful that the deficit for the whole year ending September 30 will be as high as the $45 billion figure leaked by White House analysts two weeks ago. Our latest estimates for the 1997 and 1998 fiscal shortfalls have fallen to $35 billion and $40 billion, respectively. Rapid, unexpected improvement in the fiscal balance is no doubt intensifying pressure on Treasury debt managers to aggressively study options for permanently reducing coupon debt sales starting next year.

The final steps of writing the May budget settlement into law may take awhile to negotiate. House and Senate conferees reached agreement on a tax package which, not surprisingly, split many differences between the measures passed by the respective bodies. They now have taken that package to representatives of President Clinton, who is opposed to some key elements. Time is running short for the two sides to strike a bargain prior to the congressional summer recess, set to begin on August 1. With House Republicans embroiled in an intramural fight over leadership and the deficit falling faster than anyone expected without a budget pact, the President may conclude that the incentives to compromise toward getting a tax cut lie mostly with the GOP.

Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

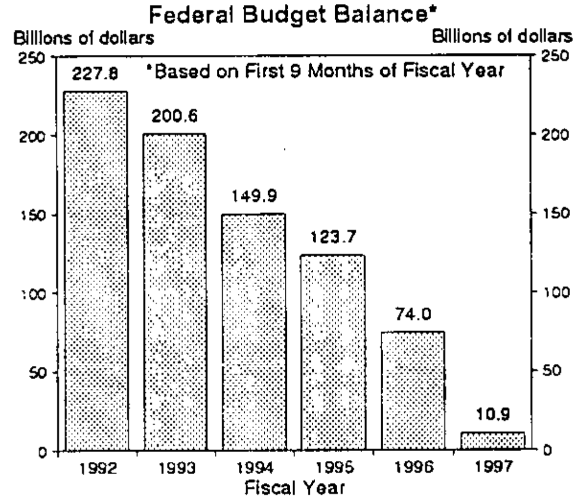
The rally in the short end of the yield curve in response to Greenspan's remarks appears overdone given that he hinted that the Fed would not hesitate to tighten should the economy prove to be stronger than anticipated. At the same time, because monetary policy tightening is clearly not close at hand, we would continue to express our bearishness cautiously through the use of Eurodollar calendar spreads where the passage of time does not tend to lead to losses via convergence. We would roll the long December '97/December '98 Eurodollar calendar spread into March '98/March '99 (currently 31 basis points), with a stop on a close below 25 basis points and a target of 70 basis points. On the longer end, we remain neutral. The shrinkage in the bond risk premium that is taking place is well-justified in our view.

FOMC Projections, 1997 - 1998

Indicator	Federal Reserve Governors and Reserve Bank Presidents Central Tendency (percent)
1997	
Change, fourth quarter to fourth quarter [1]	
Nominal GDP	5 to 5-1/2
Real GDP	3 to 3-1/4
Consumer Price Index	2-1/4 to 2-1/2
Average level in the fourth quarter	
Civilian Unemployment Rate	4-3/4 to 5
1998	
Change, fourth quarter to fourth quarter [1]	
Nominal GDP	4-1/2 to 5
Real GDP	2 to 2-1/2
Consumer Price Index	2-1/2 to 3
Average level in the fourth quarter	
Civilian Unemployment Rate	4-3/4 to 5

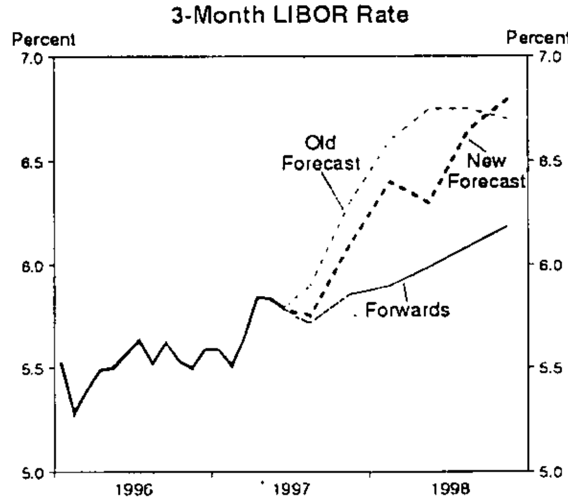
[1] Change from average for fourth quarter of previous year to average for fourth quarter of year indicated.
Source: Federal Open Market Committee.

Federal Budget Balance*



Source: Department of Treasury. Our calculations.

3-Month LIBOR Rate



Source: Federal Reserve Board. Wall Street Journal.

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II. The Interest Rate Outlook: A Slower, Gentler Climb

We have become less bearish in terms of our U.S. interest rate outlook. We agree with Chairman Greenspan that the inflation news has been good and that productivity growth may have increased. However, we do not agree with the Fed forecast that the economy is likely to slow on its own to a trend pace of growth. Thus, we think that Fed officials will still be forced to tighten monetary policy eventually.

For short term rates, we now anticipate only one additional tightening move of 25 basis points this year. Chairman Greenspan will tend to be patient as long as inflation is well-behaved. In 1998, additional tightening steps to a 6½% federal funds rate still appears likely. However, it will take longer to get to 6½% because inflationary pressures are likely to become evident more slowly.

For long term rates, we anticipate that 30-year Treasury bond yields will trade mainly in a 6¼%-6¾% range over the balance of 1997, with bond yields rising to around 7% by late 1998. Reduced Treasury securities supplies and low bond market volatility imply a lower bond risk premium and a flatter yield curve. However, if short term rates rise, expectations concerning the future path of short term rates will also shift upwards, pushing up rates all along the yield curve.

Benign Inflation

Inflation has been the biggest positive surprise for interest rates. Not only have producer prices fallen for six consecutive months, but core consumer price inflation has also edged down. Even wage pressures have been more moderate than expected. For example, in the second quarter, average hourly earnings rose at only a 2.8% annual rate, down from about 4% during the prior two quarters.

The good inflation news has had three major implications. First, benign inflation has made Fed officials less willing to act preemptively to tighten monetary policy. They are more uncertain about the economy's speed limit and how low the unemployment rate can fall before there is an inflationary consequence.

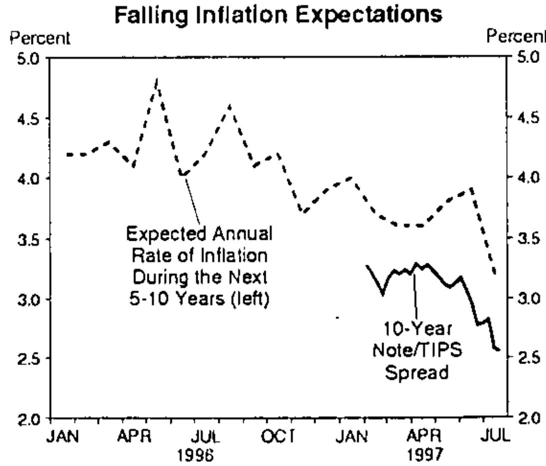
Second, the decline in inflation has led to a large adjustment downward in inflation expectations. For example, in the University of Michigan consumer confidence survey, households now expect inflation to average 3.2% (annualized) over the next five to ten years, down from 4.0% six months earlier. The decline in inflationary expectations can also be seen by examining the relationship between yields on 10-year Treasury notes and 10-year Treasury inflation-protected securities (TIPS). The difference in yields, which represents the breakeven inflation rate, has declined to 2.5% currently from 3.2% in March. The decline in inflationary expectations has also reassured Fed officials about the inflation outlook. Chairman Greenspan has noted that inflation typically occurs more rapidly when households and businesses expect it to rise.

Third, the decline in inflation and inflation expectations has helped to tighten monetary conditions slightly by raising the level of real short-term interest rates. As shown in the accompanying chart, the real Goldman Sachs Monetary Conditions Index (GS-MCI) has climbed to 100.67 from 99.46 six months ago, even as the nominal index has stayed relatively steady.

Revised Interest Rate Forecast (quarter-end)

	1997		1998			
	Q3	Q4	Q1	Q2	Q3	Q4
Fed Funds	5.50	5.75	6.00	6.00	6.25	6.50
3 mo LIBOR	5.75	6.10	6.40	6.30	6.65	6.80
2 Yr Treas	5.85	6.20	6.40	6.35	6.65	6.80
10 Yr Treas	6.15	6.35	6.50	6.50	6.75	6.85
30 Yr Treas	6.40	6.60	6.70	6.70	6.90	7.00

Falling Inflation Expectations



Source: University of Michigan. Federal Reserve Board. Bloomberg.

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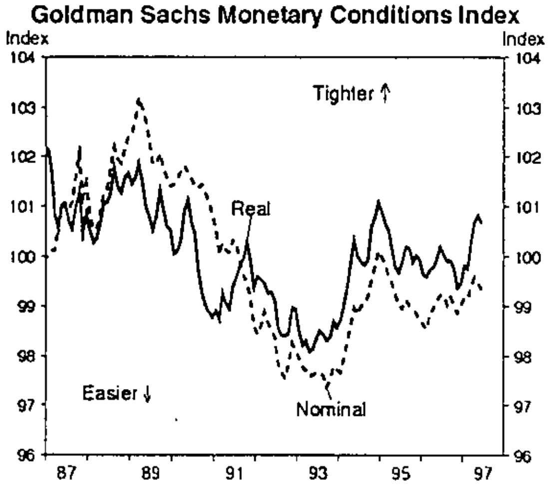
Higher Productivity

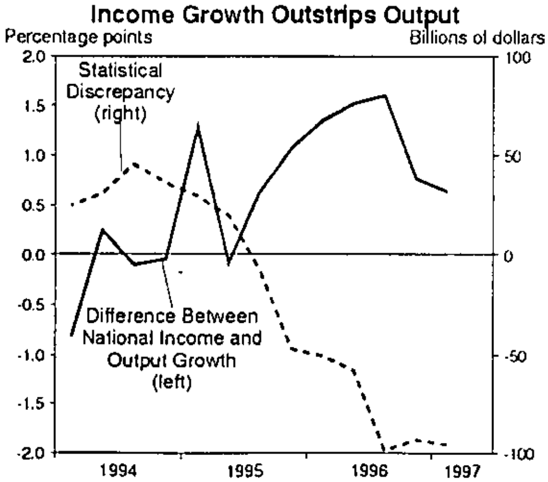
Evidence of higher productivity growth has also provided support to the fixed income market. Although the official statistics do not currently show a definitive turn upwards (the surge in the first quarter probably mainly reflects the pickup in the growth rate), higher productivity growth is the most plausible explanation for why profit margins have continued to rise even as compensation costs have begun to drift upwards. Also, the notion that productivity growth has climbed recently gains support from the large rise in the statistical discrepancy that balances the income and product sides of the national income accounts. National income has been growing more rapidly than nominal GDP over the past two years, suggesting that the output measure of economic activity may be understating growth. The fact that government tax receipts have been growing rapidly also suggests that the higher growth rate of national income may paint a more accurate picture of the pace of economic activity and of productivity growth.

Goldman Sachs Monetary Conditions Index



Source: Goldman Sachs.

Income Growth Outstrips Output



Source: Department of Commerce.

Such a productivity surprise is important because it means that the pickup in wages generated by a tight labor market may be able to be accommodated by productivity gains, rather than passed along via higher prices. In essence, higher productivity growth delays the day of reckoning. The climb in real wage growth caused by an unemployment rate below the non-accelerating inflation rate of unemployment (NAIRU) can go on longer without an inflationary consequence when productivity growth moves higher.

Reduced Treasury Supply

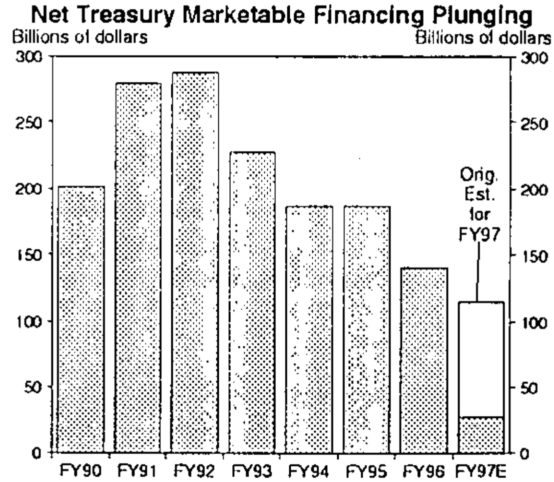
Unanticipated, sharp reductions in net Treasury issuance also have helped support the bond market. At the start of the year, we had anticipated that net issuance would total about $115 billion in fiscal year 1997. Revised estimates from the Treasury (to be announced on Monday, July 28) should imply net issuance of only about $27 billion this year.

Implications for Interest Rates

Lower inflation and higher productivity growth imply that Federal Reserve officials are likely to be more patient in tightening monetary policy. Thus, even with an above-trend growth pace, we anticipate only one further tightening step in 1997 (no sooner than the November FOMC meeting) and a slower, more drawn-out tightening process in 1998.

Better inflation and higher productivity growth, however, do not obviate the need (and likelihood) of Fed tightening should the economy grow above 3% as we expect over the next year. Although higher

Net Treasury Marketable Financing Plunging



Source: Department of Treasury.

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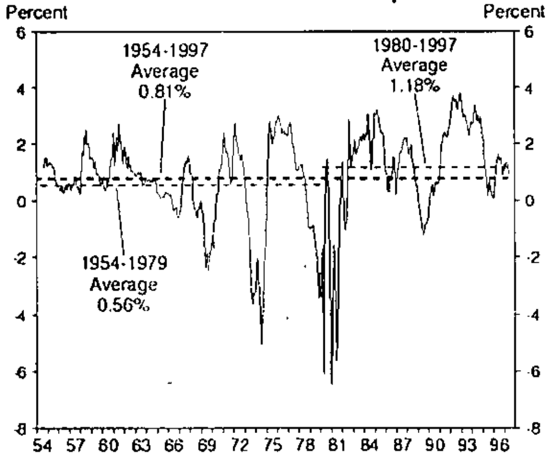
productivity growth would delay the pass-through of higher real wages into prices, higher inflation would still occur eventually once the real wage gains climb sufficiently to outstrip productivity growth. The day of reckoning might be postponed, but it is unlikely to be prevented altogether.

For long term rates, there is greater reason for optimism. In particular, the bond risk premium (the difference between bond yields and the expected trajectory of short-term interest rates) should continue to shrink due to the reduction in Treasury supply, low bond price volatility, and the fact that interest rate differentials between the United States versus Germany and Japan are likely to remain wide. As shown below, the spread between 10-year Treasury note yields and the federal funds rate has averaged 118 basis points since 1980. This is far wider than the average 56-basis-point spread over the prior 27-year period. With Treasury supply sinking, bond price volatility falling, and interest rate differentials between the U.S. and Japan and Germany remaining wide, further shrinkage in the bond risk premium appears likely. For the 30-year Treasury bond, a bond risk premium of about 75-100 basis points compared to an average of about 130 basis points over the 1980-1996 period appears about right.[1]

Despite this, bond yields are likely to drift higher once it becomes clear that further monetary policy tightening moves are likely. That is because a further shift in monetary policy will alter expectations about the future path of short term rates, which plays the

10-Year Note/Fed Funds Spread



Source: Federal Reserve Board.

dominant role in determining the level of long term rates. The magnitude of the rise in long term rates will depend critically on the inflation news. Good news implies less monetary policy tightening and a narrower bond risk premium. Bad inflation news implies a more aggressive Fed, credibility issues, and a bigger upward revision to the expected path of short term rates.

Most likely, an uptrend in the inflation rate will not be visible until well into 1998. This suggests that 30-year Treasury bond yields will trade mainly in a 6¼%-6¾% range over the remainder of 1997. In 1998, once inflation drifts higher, market participants should begin to anticipate that more Fed tightening will be required, and that will likely cause bond yields to rise further to around 7%.

Risks to the Forecast

The risks to our revised forecast appear to be evenly balanced. On one hand, growth may be stronger-than-expected, putting more pressure on resources and requiring a more aggressive response from the monetary authorities. This could occur if global economic growth rebounds faster than expected and/or if the strength of the stock market leads to greater consumer spending and a decline in the household saving rate. Similarly, any increase in productivity growth could be short-lived. After all, productivity growth has historically exhibited a strong cyclical component, slowing sharply as the business cycle has become more mature. In this case, the inflation improvement of recent months could be reversed quickly, causing market participants to lose confidence in the Fed. This would imply a wider, rather than a narrower, bond risk premium and higher interest rates across the yield curve.

On the other hand, growth could be slower and inflation better-behaved than anticipated. In this case, Fed officials could be patient, without any loss of confidence. This outcome might occur if a stronger dollar and/or weaker growth abroad increased the drag on the economy from the trade sector.

As long as growth remains above-trend, it is only a question of when (not whether) Fed officials will be forced to tighten monetary policy further. Higher productivity growth and benign inflation may push back that day of reckoning, but as long as labor markets are tightening and wages rising, it is unlikely to be postponed altogether.

Bill Dudley

[1] See "The Bond Risk Premium and the Brave New Business Cycle", *U.S. Economics Analyst*, February 7, 1997 for more details.

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Key U.S. Economic Data

	Latest Monthly Data '97 Jun	'97 May	'97 Apr	'97 Mar	6 Mo Trend	12 Mo Trend	Next Release
Nonfarm Payrolls (ch. Thousands)	217	166	327	182	233	212	Aug 1
Unemployment Rate (%)	5.0	4.8	4.9	5.2	5.1	5.2	
Index of Hours Worked (% ch)	0.4	0.4	-0.4	0.1	2.3	2.3	
Average Hourly Earnings (% ch)	0.3	0.3	0.0	0.3	3.2	3.5	
Producer price finished goods index (% ch)	-0.1	-0.3	-0.6	-0.2	-3.4	-0.1	Aug 13
Excluding food and energy	0.1	-0.3	-0.1	0.2	-0.3	0.1	
Consumer price index (% ch)	0.1	0.1	0.1	0.1	1.4	2.3	Aug 14
Excluding food and energy (% ch)	0.1	0.2	0.3	0.2	2.4	2.5	
Retail sales (% ch)	0.5	-0.3	-1.1	-0.3	3.3	3.8	Aug 13
Excluding motor vehicles (% ch)	0.3	0.0	-0.6	0.0	3.9	3.8	
Industrial Production (% ch)	0.3	0.2	0.4	0.4	3.8	3.8	Aug 14
Manufacturing	0.3	0.3	0.3	0.4	4.2	4.5	
Capacity utilization (%)	83.5	83.5	83.6	83.6	83.5	83.4	Aug 14
Manufacturing	82.5	82.6	82.6	82.7	82.6	82.4	
Housing Starts (annual rate, thousands)	1452	1385	1483	1479	1454	1454	Aug 19
Single-family	1110	1082	1133	1142	1138	1135	
Trade balance (billions, monthly)	--	-10.2	-8.7	-7.8	-9.8	-9.6	Aug 20
Merchandise	--	-17.0	-15.5	-14.9	-16.7	-16.5	
Factory Orders (% ch)	--	-0.7	1.4	-1.7	0.6	2.4	Aug 1
Durable Goods	2.3	-0.4	1.8	-2.8	12.8	6.0	Aug 26
Personal Income (% ch)	--	0.3	0.2	0.6	5.9	5.8	Aug 1
Wages and Salaries	--	0.3	0.1	0.7	6.8	6.7	
Purchasing Managers' Index (%)	55.7	57.1	54.2	55.0	54.5	53.1	Aug 1
Consumer Sentiment U Mich (Feb 66=100)	104.5	103.2	101.4	100.0	101.0	98.6	Aug 1
Conference Board (1985=100)	129.6	127.9	118.5	118.5	122.0	116.2	Jul 29

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

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U.S. Calendar

Focus for the Week Ahead

- The employment cost index report will be closely analyzed for signs of rising compensation cost inflation. Such an outcome would be consistent with an unemployment rate below NAIRU (July 29).
- Real GDP growth in the second quarter slowed sharply, but mainly due to swings in the weather. Just as important as the second-quarter figures will be the benchmark revisions. These revisions may indicate faster output growth and higher productivity over the past few years (July 31).
- Payroll employment growth should remain firm, with the unemployment rate likely to stay steady as labor force growth begins to pick up again (August 1).

Economic Releases and Other Events

Date	Time	Indicator	Estimate GS	Estimate Consensus	Last Report
Tue Jul 29	8:30	Employment Cost Index (Q2 '97)	+0.8%	+0.8%	+0.6%
	10:00	Consumer Confidence (Jul)	130.0	130.0	129.6
Wed Jul 30	10:00	New Home Sales (Jun)	+1.5%	-1.5%	+7.1%
Thu Jul 31	8:30	Real GDP (Q2 '97—Adv)	+2.1%	+2.0%	+5.9%
	8:30	Chain-Weight Price Index (Q2 '97—Adv)	+1.7%	n.a.	+2.7%
	10:00	Chicago Purchasing Managers Index (Jul)	59.0%	n.a.	61.5%
Fri Aug 1	8:30	Civilian Unemployment Rate (Jul)	5.0%	4.9%	5.0%
	8:30	Nonfarm Payroll Employment (Jul)	+200,000	+190,000	+217,000
	8:30	Personal Income (Jun)	+0.6%	+0.4%	+0.3%
	8:30	Personal Consumption (Jun)	+0.3%	+0.3%	+0.3%
	10:00	Factory Orders (Jun)	+1.4%	+0.9%	-0.7%
	10:00	Purchasing Managers Index (Jul)	56.0%	56.0%	55.7%
		Domestic Motor Vehicle Sales (Jul)	12.6M	n.a.	12.2M

- Treasury Announces Market Borrowing Estimates (Mon, Jul 28 - 3:00)
- Treasury Announces August Refunding (Wed, Jul 30 - 1:45)
- APICS Survey (Thu, Jul 31 - 8:30)
- Help-Wanted Index (Thu, Jul 31 - 10:00)
- Consumer Sentiment—Final (Fri, Aug 1 - 10:00)

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	5.8%	6.1%	6.3%
Forward	5.8	5.9	6.0
2 Yr T-Note	5.9	6.2	6.4
Forward	5.9	6.0	6.1
10 Yr T-Note	6.2	6.4	6.5
Forward	6.2	6.2	6.3

Key Numbers in the Business Outlook

	1997 Q1	1997 Q2E	1997 Q3E	1997E	1998E
Real GDP	5.9%	2.1%	3.7%	3.8%	2.8%
Ind. Prod., Mfg.	5.3	4.4A	5.7	5.0	4.4
CPI	2.4	1.1A	1.6	2.3	2.6
After-Tax Profits*	9.0	7.7	3.8	5.1	2.6
Unemployment	5.3	4.9A	4.7	4.9	4.6

* Excluding inventory profits; adjusted for depreciationdistortions.

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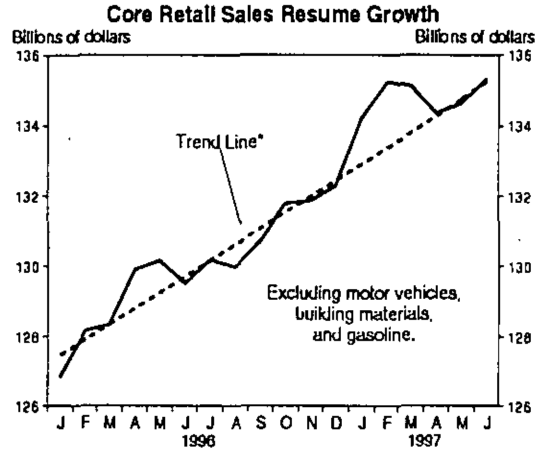
U.S. Economics Analyst

Wages and Prices: Resource Utilization Does Matter

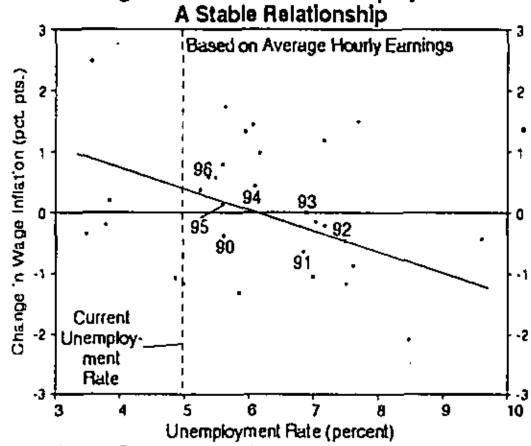
- The U.S. economy is enjoying the best of both worlds—growth with little to no inflation. The momentum in growth appears to have picked up at mid-year, judging from reports on retail sales, housing starts, industrial output, and business conditions in the Philadelphia area. But this momentum has yet to affect retail prices, which posted another minuscule increase in June.
- In his Humphrey-Hawkins testimony, Chairman Greenspan will probably try to avoid fostering complacency, but also the implication that Fed officials are bent on shutting down the party. Thus, the FOMC's "central tendency" ranges are likely to paint an outlook of moderate growth, stable unemployment, but gently rising inflation.
- Although the link between unemployment and inflation has broken down for the time being, two others—between wages and unemployment and between prices and capacity utilization—have remained intact. The recent stability of price inflation in the face of rising wage inflation thus reflects the lack of pressure on capacity and has been achieved mainly via aggressive cutting of nonwage costs, including benefits.
- Against this backdrop, we retain our view that wage inflation will continue to pick up by about 0.4% to 0.5% per year. Price inflation, on the other hand, is apt to pick up more slowly—not much more than ¼% over the next year. Sooner or later the prospect of an upturn in inflation will provoke monetary tightening, although probably not until the fourth quarter at the earliest.

Core Retail Sales Resume Growth



*Based on growth from 4Q95 to 4Q96.
Source: Department of Commerce.

Wage Acceleration and Unemployment: A Stable Relationship



Source: Department of Labor.

Trade Recommendations

- Stay long the December '97/December '98 Eurodollar calendar spread with a target of 70 basis points and a stop on a close below 30 basis points.

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Goldman Sachs

I. Weekly Wrapup

Economic and Market Overview

U.S. equity and debt securities prices have sustained upward momentum in recent days, with major stock indexes scaling new heights and 30-year Treasury bond yields falling below 6½%. These further market rallies have occurred against a backdrop of broadly favorable economic news, on both activity and prices.

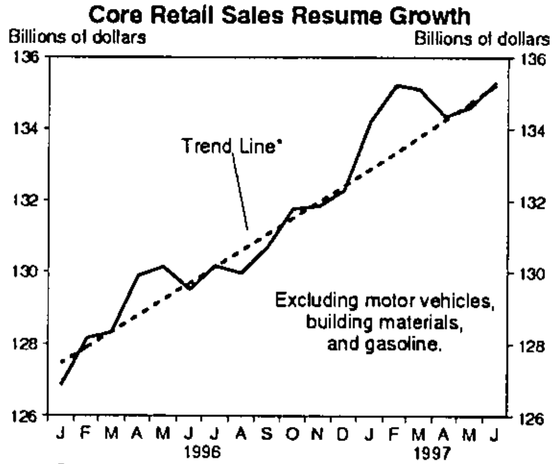
Although it is too early to be confident of a rebound in real growth this quarter, evidence that the economy was on an upswing at the end of the spring is accumulating. Retail sales climbed 0.5% in June, both overall and in the subgroup that excludes motor vehicles, building materials (which are intermediate housing expenditures and, hence, excluded from calculations of personal spending) and gasoline (where price changes dominate the pattern of current-dollar sales). This core measure has now recovered all the ground lost in March and April. Data for June also revealed a 4.8% jump in housing starts and a 0.3% rise in industrial production, both overall and in the factory sector. Outside the motor vehicle industry, where strikes held down production, factory output rose at a 5.6% annual rate in the April/June period, versus 4.8% in the first quarter. More recently, firms in the Philadelphia Federal Reserve district reported a further pickup, as their survey index of general conditions for July rose to 28.1% from 25.2%. The one weak activity indicator was a setback in the U.S. trade deficit, to \$10.2 billion in May from an upward-revised \$8.7 billion in April. Exports fell 0.8% despite an increase in commercial aircraft shipments abroad, while imports rose 1.0%.

Remarkably, strength in the domestic economy has not yet stirred up retail pricing pressures. In June, the CPI edged up just 0.1% both in total and in the core excluding food and energy. However, in recent months there has been an increasing bifurcation of retail price trends. Goods quotes have softened, in part because of the firm dollar and weak business conditions abroad, while service price inflation has shown a slight tendency to rise, possibly reflecting a pass-through of faster wage gains.

Federal Reserve Policy

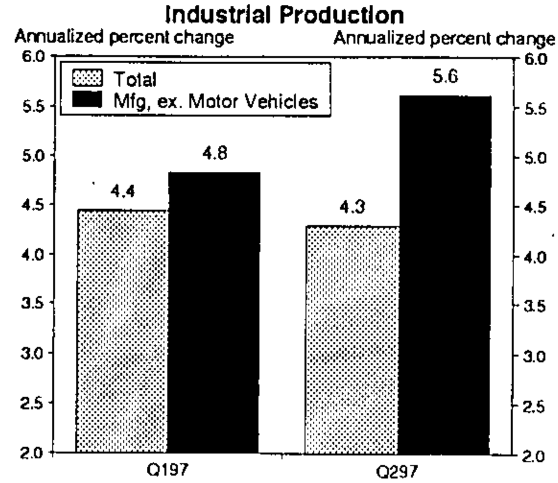
When he testifies before Congress at the Humphrey-Hawkins next Tuesday and Wednesday, Chairman Greenspan faces the delicate task of framing his remarks so that they neither foster complacency about future inflation risks nor fuel concerns that the Fed will wreck the present favorable economic and financial market environment. Toward that end, the FOMC's "central tendency" ranges for growth, inflation, and unemployment are likely to depict projections of moderate growth, continued high labor utilization, and the potential for a mild uptick in price pressures. In our judgment, the Committee's forecast for real GDP growth is most likely to be 3%-3¼% for 1997 and 2%-2½% for 1998, which would imply no significant probability of a sustained return to the above-3% pace of 1996 and early 1997. To indicate that they see their growth expectations as consistent with stable resource utilization, the FOMC members are likely to put the year-end unemployment rate at around 5%, both for this year and next. At the same time, a projection for slight acceleration in consumer

Core Retail Sales Resume Growth



*Based on growth from 4Q95 to 4Q96.
Source: Department of Commerce.

Industrial Production



Source: Federal Reserve Board.

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prices over the next 12 to 18 months would signal a belief on the part of a majority of FOMC members that U.S. output has already crossed into the zone of rising inflation risk. That would provide a warning that more precautionary monetary tightening could occur later this year if economic activity rebounds strongly.

Fiscal and Political Developments

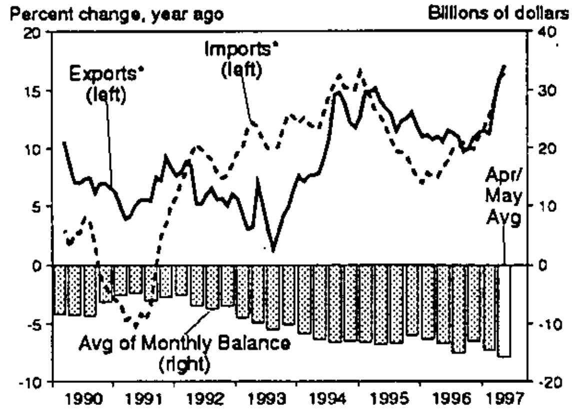
The news regarding the U.S. budget outlook just keeps getting better. In advance of the fiscal report for June due July 22, analysts at the Congressional Budget Office have said they believe the deficit for the first nine months of fiscal 1997 totaled just $11 billion, down from $74 billion in the same period a year earlier. This suggests that even in the unlikely event that no further deficit decline is recorded this quarter, the full-year shortfall would be under $45 billion. With deficit projections declining so sharply, the U.S. Treasury is likely to consider, by early next year, further restructuring its debt financing program so as to forestall persistent over-funding through its regular coupon auctions. One reasonable approach to this issue would be to reduce the frequency of 2-year and/or 5-year note sales versus the present monthly timing. Such a change would allow debt managers to mitigate cash balance spikes that have been occurring routinely in the second halves of months with seasonally large personal and corporate tax remittances.

Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

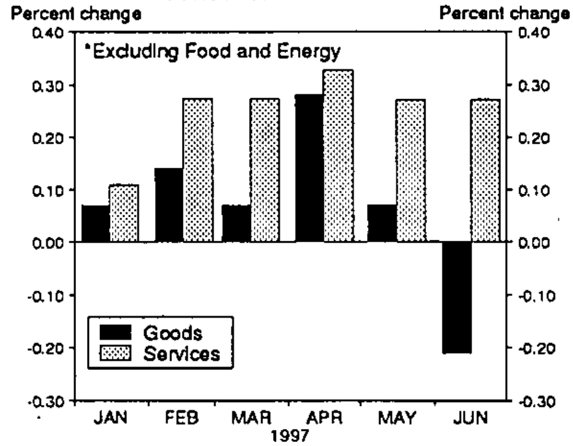
The combination of further evidence of a rebound in economic activity and a neutral-to-cautionary tone from Chairman Greenspan should be sufficient to dampen the enthusiasm of market participants for fixed-income assets somewhat. However, with the next Fed policy move not likely until the fourth quarter at the earliest and investors more tolerant of growth in the absence of inflationary pressures, it is too soon to put aggressive short positions in place. This is especially true in the long end, where bonds are also benefiting from reduced supply, lower volatility, and the still-wide interest rate differentials of the U.S. versus Japan and Germany. To reflect our mild bearish bias at the short end, we would continue to be long the December '97/December '98 Eurodollar calendar spread, with a target of 70 basis points and a stop on a close below 30 basis points.

Real Merchandise Trade Balance



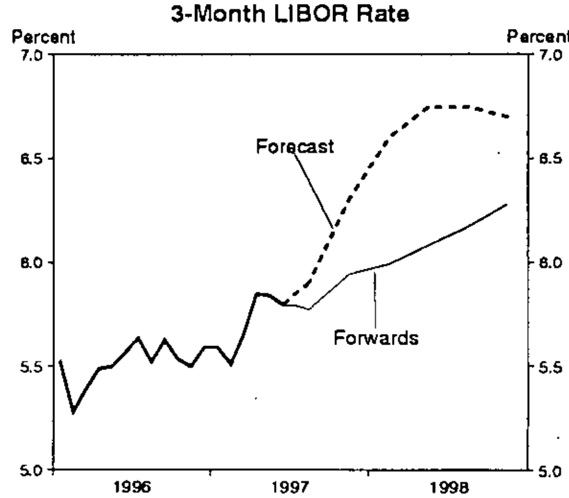
*3-Month Moving Average.
Source: Department of Commerce.

Consumer Price Index



Source: Department of Labor.

3-Month LIBOR Rate



Source: Federal Reserve Board. Wall Street Journal.

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II. Wages and Prices: Resource Utilization Does Matter

To most economists, the biggest surprise in recent years has been the failure of inflation to pick up in response to persistent declines in unemployment. As noted in a recent issue of this weekly, four straight years of falling unemployment with steady to slightly lower price inflation have caused many to cut their estimates of NAIRU—the Non-Accelerating Inflation Rate of Unemployment—and some to abandon the concept altogether.[1]

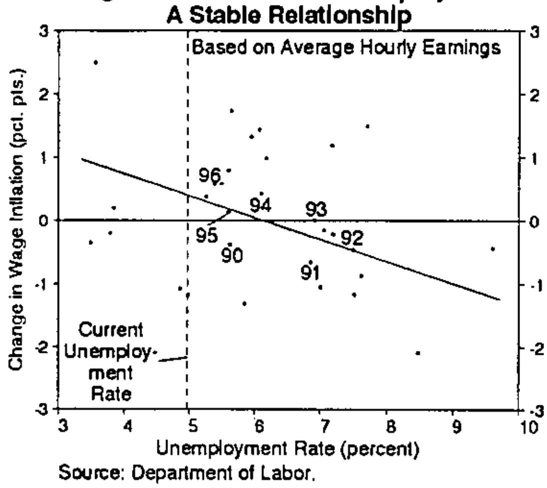
The implication of this more radical view, that U.S. economic growth knows no bounds, runs afoul of two links in the U.S. inflation process that have remained remarkably stable in recent years. One is the linkage between wage inflation and the unemployment rate. The other is the connection between price inflation and capacity utilization. Both look virtually the same in the 1990s as they have over the past 30-40 years.

With profit margins expanding, this leaves only two possible ways to explain why price inflation has been so stable in the face of modest wage acceleration—intensive control of costs other than wages and rising growth in labor productivity. U.S. companies have certainly exercised tight control over nonwage costs, reducing the annual growth in fringe benefit costs from 6% to 2% over the past three years and cutting other costs for the first time in 28 years. Their success in boosting output per hour worked is not so clear in the economy-wide data, although this may change when benchmark revisions to gross domestic product are released later this month.

These recent gains in corporate efficiency, while impressive, cannot stave off inflation indefinitely in a situation where low (and probably still falling) joblessness implies continued wage acceleration, on the order of 0.4%-0.5% per year. At some point, this upward trend will come into conflict with the flat to slightly downward trend of price inflation. By the same token, the evidence reviewed in the analysis that follows reinforces the lesson that inflation normally gears up at a very gradual pace. Thus, absent some unexpected shock, such as a sharp rise in energy prices, price inflation is unlikely to rise much more than ¼% per year when it finally does turn up, most likely over the next year.

[1] See "Declining Unemployment Signals Rising Risk of Inflation," *U.S. Economics Analyst*, pp. 4-6, June 27, 1997.

Wage Acceleration and Unemployment: A Stable Relationship



Source: Department of Labor.

Two Loose But Stable Links

1. Wages and Unemployment

With the decline in unemployment in recent years having failed to signal a pickup in price inflation, the logical first question is whether the linkage between wage inflation and the unemployment rate has also come unglued. The answer is not very much, judging from the chart above. It shows each year's change in wage inflation on the vertical axis, measured as the fourth-quarter-to-fourth-quarter change in average hourly earnings, against the average unemployment rate for that same year on the horizontal axis.

Several things stand out in the chart. First, wages do tend to accelerate as unemployment declines; over the past three decades unemployment rates under 6¼% have normally produced some upward move in wage inflation. Second, the relationship is obviously far from a tight one; in fact, there have been no fewer than five counterexamples to the above rule since the mid-1960s. Third, wage inflation picks up only gradually as unemployment drops below this critical level; as illustrated by the line in the chart, a jobless rate of 5¼%, one percentage point below 6¼%, will typically cause wage inflation to rise by about 0.3%-0.4% per year.

Finally, and most importantly for the current analysis, the relationship appears to have remained essentially intact in the 1990s despite massive downsizing and heightened worker insecurity. These years, shown individually in the chart, are clustered around the same trade-off that has existed since the mid-1960s.

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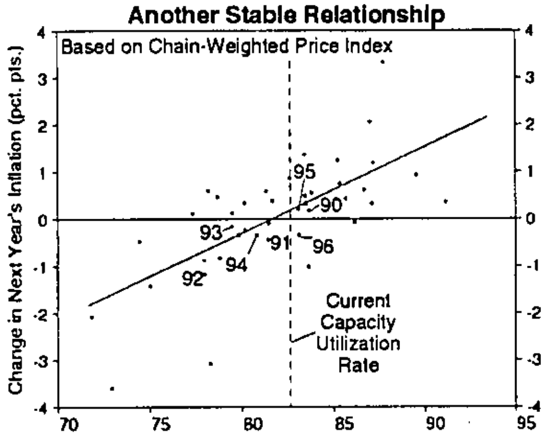
Price Acceleration and Utilization: Another Stable Relationship



Source: Department of Labor, Federal Reserve Board.

Naysayers might dismiss this result on account of bad data. After all, the average hourly earnings figures are routinely criticized as an inadequate measure of wages and salaries. They cover only production and nonsupervisory workers, fail to include some forms of pay, and fail to correct for shifts in overtime and the mix of workers among different types of jobs. However, they are apparently good enough for the purpose at hand. The employment cost index for private-sector wages and salaries yields results almost identical to those obtained from the average hourly earnings data for the period from 1980 to the present.

2. Prices and Utilization

The linkage between price inflation and capacity utilization has also shown little evidence of changing in recent years. This is illustrated in the chart above, which plots each year's factory utilization rate (on the horizontal axis) against the following year's change in price inflation, as measured by movements in the chain-weighted GDP price index (vertical axis).

Like the link between wages and the unemployment rate, the price/utilization link is far from tight. It also implies that price inflation rises only gradually in response to increases in utilization; each additional point of utilization lifts the following year's inflation rate by about 0.2 percentage points, on average. And finally, the "frictional" point at which inflation tends to start rising—when utilization is in the vicinity of 81½%—has not shifted materially in the 1990s.

Although utilization has hovered in a slightly higher 82%-83% range for most of the past three years, the stability of inflation during this period hardly marks a significant departure from the historical norm given the small impact that an extra point of utilization has on price inflation and the imprecision of this effect. Likewise, the gradual upward drift in wage inflation that has occurred over the past three years is very much in keeping with what has happened in the past when the unemployment rate fell below 6%.

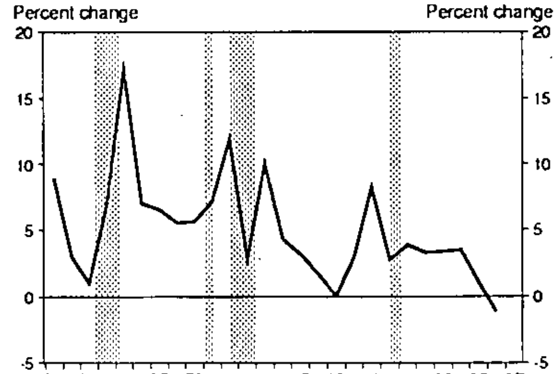
Three Ways to Fill the Wage/Price Gap

How has the U.S. economy managed to deliver stable to falling price inflation when wage inflation has been rising for three years? There are three possibilities: (1) U.S. firms have suffered a profit margin squeeze; (2) they have offset rising wage inflation by reducing the rate at which other costs are increasing; and/or (3) gains in labor productivity have been large enough to cover the difference.

A margin squeeze has clearly not occurred. In fact, the share of national income flowing to the corporate bottom line has risen to its highest level in nearly two decades. Companies included in the S&P 500 index have also reported higher margins, on average.

By contrast, cost containment has definitely been a factor restraining price inflation. The most obvious example has been the effort by employers to trim sponsored health plan benefits and induce employees to join cheaper managed care options. This has been a major driving force behind the drop in the inflation rate for fringe benefits to 2% in 1996 from 6% in 1993, offsetting the rise in wage and salary inflation. Companies also appear to have cut other costs, judging from the fact that the index of nonlabor costs per unit of output for the private nonfarm sector has fallen in 1996 for the first time in 28 years despite a rise in profits, which are included in the index.

Unit Nonlabor Costs



Source: Department of Labor.
Note: Nonlabor costs include depreciation, indirect business taxes, interest and rental payments, proprietors' income, and corporate profits.

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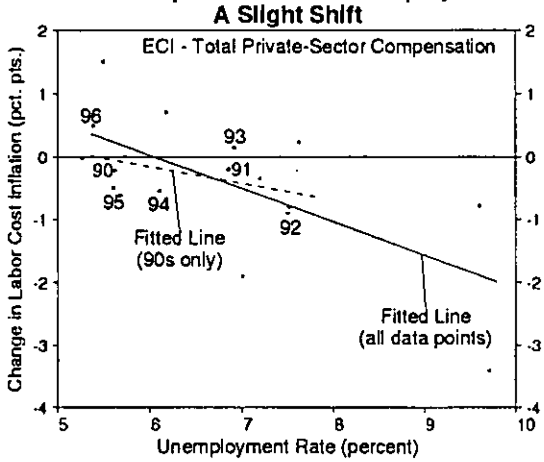
Total Compensation and Unemployment: A Slight Shift



Source: Department of Labor.

At first blush, the lack of sustained upward pressure on the inflation rate for total compensation appears to contradict our earlier conclusion that behavior in the labor market has not really changed. And in fact, when the ECI for total compensation of workers in the private sector is substituted for average hourly earnings, the relationship does appear to have shifted in recent years, as shown in the chart above. Whereas data on total employment costs for private sector workers imply that NAIRU has averaged 6.1% since 1981, close to the result for wages and salaries alone, data for the 1990s imply a NAIRU of only about 5¼%. Taken at face value, the recent behavior of the employment cost index also implies that the effect of a one-point decline in the unemployment rate has dropped to about ¼% per year in added labor cost inflation, down from slightly more than ½% for the period as a whole.

However, in our view, this does not mark a significant shift in the way the U.S. labor market works, for two reasons. First, the difference between the seven observations of the 1990s and the nine available for the 1980s falls well within the bounds of statistical error. Put differently, the history of this data series is so short that a much bigger shift would be required to establish that a change had really occurred. Second, the use of total compensation to locate the NAIRU implies that workers bargain just as hard for benefits as they do for wages, and see the two as more or less fungible. This strains credibility. Although the aging work force is presumably taking more interest in the value of those benefits, very few are in a position to calculate their value.

The case for a pickup in labor productivity growth is much harder to make, at least with the aggregate data currently on record. Although real GDP rose 4.1% from the first quarter of 1996 to the first quarter of 1997, all but about 1 percentage point of this increase was accounted for by a surge in labor input, reflecting strong net hiring and a rise in the average work week.

This view of the world may change when benchmark revisions to real GDP growth are released on July 31. At that time, Commerce officials are widely expected to announce a significant upward revision to recent real GDP growth, based on indications—including a surge in U.S. Treasury revenues—that the income generated by the production of the goods and services included in GDP has risen faster than GDP itself, as currently estimated. If so, then the national data will offer belated confirmation, at least to some degree, of the anecdotal reports of significant productivity gains.

Implications for the Economic Outlook

While fresh data of this sort would certainly help explain the stability of recent inflation, the story does not end there insofar as the outlook is concerned. Over time, there is no reason to expect wage inflation to stop rising, even if the unemployment rate remains at its current 5%. At this level, wage inflation is apt to drift up about 0.4% per year, and this upward drift should pick up speed gradually if, as we expect, a resumption of strong growth in real GDP pushes the unemployment rate down farther.

For inflation to remain stable in this situation, the strides companies have made toward cost cutting and productivity improvement must intensify further. If, for example, the new GDP data reveal that companies have boosted labor productivity by 2% over the past year, then next year's gain has to be close to 2½% to offset the rise in wage inflation. Moreover, the current favorable trends in fringe benefit and other costs have to be maintained. Alternatively, if no pickup in productivity growth occurs, then these trends must improve still further. With nonlabor costs already falling and healthcare providers itching to raise premiums, this is a tall order indeed.

There is a clear bright spot in this analysis, however. One overriding message in the relationships between wage inflation and unemployment and between price inflation and capacity utilization is that inflation gears up very slowly as the economy stretches its resource limits. Given recent utilization levels, it seems likely that price inflation will rise no more than ¼% over the next year.

Ed McKelvey

Goldman Sachs

Key U.S. Economic Data

	Latest Monthly Data '97 Jun	'97 May	'97 Apr	'97 Mar	6 Mo Trend	12 Mo Trend	Next Release
Nonfarm Payrolls (ch. Thousands)	217	166	327	182	233	212	August 1
Unemployment Rate (%)	5.0	4.8	4.9	5.2	5.1	5.2	
Index of Hours Worked (% ch)	0.4	0.4	-0.4	0.1	2.3	2.3	
Average Hourly Earnings (% ch)	0.3	0.3	0.0	0.3	3.2	3.5	
Producer price finished goods index (% ch)	-0.1	-0.3	-0.6	-0.2	-3.4	-0.1	August 13
Excluding food and energy	0.1	-0.3	-0.1	0.2	-0.3	0.1	
Consumer price index (% ch)	0.1	0.1	0.1	0.1	1.4	2.3	August 14
Excluding food and energy (% ch)	0.1	0.2	0.3	0.2	2.4	2.5	
Retail sales (% ch)	0.5	-0.3	-1.1	-0.3	3.3	3.8	August 13
Excluding motor vehicles (% ch)	0.3	0.0	-0.6	0.0	3.9	3.8	
Industrial Production (% ch)	0.3	0.2	0.4	0.4	3.8	3.8	August 14
Manufacturing	0.3	0.3	0.3	0.4	4.2	4.5	
Capacity utilization (%)	83.5	83.5	83.6	83.6	83.5	83.4	August 14
Manufacturing	82.5	82.6	82.6	82.7	82.6	82.4	
Housing Starts (annual rate, thousands)	1452	1385	1483	1479	1454	1454	August 19
Single-family	1110	1082	1133	1142	1138	1135	
Trade balance (billions, monthly)	--	-10.2	-8.7	-7.8	-9.8	-9.6	August 20
Merchandise	--	-17.0	-15.5	-14.9	-16.7	-16.5	
Factory Orders (% ch)	--	-0.7	1.4	-1.7	0.6	2.4	August 1
Durable Goods	--	-0.7	1.8	-2.8	2.6	2.7	July 25
Personal Income (% ch)	--	0.3	0.2	0.6	5.9	5.8	August 1
Wages and Salaries	--	0.3	0.1	0.7	6.8	6.7	
Purchasing Managers' Index (%)	55.7	57.1	54.2	55.0	54.5	53.1	August 1
Consumer Sentiment U Mich (Feb 66=100)	104.5	103.2	101.4	100.0	101.0	98.6	August 1
Conference Board (1985=100)	129.6	127.9	118.5	118.5	122.0	116.2	July 29

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

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U.S. Calendar

Focus for the Week Ahead

- Chairman Greenspan delivers his semiannual Humphrey-Hawkins testimony before the House Banking Committee on Tuesday afternoon, July 22, and before the Senate Banking Committee on Wednesday morning, July 23. In an effort to keep options open and represent views of other, more hawkish FOMC members, he is apt to strike a modestly cautionary tone (July 22 and 23).
- The durable goods report for June should show broad-based strength in bookings. Orders for defense equipment, commercial aircraft, other types of capital equipment, and motor vehicles are all likely to register significant gains (July 23).
- Congressional Budget Office indications that the federal government was only $11 billion in the red for the first nine months of the year imply a June surplus of $54 billion, a bit higher than prevailing Wall Street estimates. If the CBO report proves true, then our $50 billion esitimate for the year as a whole may prove to be too high (July 25).

Economic Releases and Other Events

Date	Time	Indicator	Estimate GS	Estimate Consensus	Last Report
Tue Jul 22	2:00	Federal Budget Balance (Jun)	+$50.0 Bil	+$50.0 Bil	+$34.3 Bil
Fri Jul 25	8:30	Durable Goods Orders (Jun)	+1.9%	+1.3%	-0.7%
	10:00	Existing Home Sales (Jun)	-2.0%	-1.9%	+4.4%

- Humphrey-Hawkins Testimony (Tue, Jul 22 - 2:00, Wed. Jul 23 - 10:00)

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	6.0%	6.3%	6.8%
Forward	5.8	6.0	6.1
2 Yr T-Note	6.4	6.6	7.1
Forward	5.9	6.0	6.1
10 Yr T-Note	6.8	7.0	7.2
Forward	6.2	6.3	6.3

Key Numbers in the Business Outlook

	1997 Q1	1997 Q2E	1997 Q3E	1997E	1998E
Real GDP	5.9%	2.1%	3.7%	3.8%	2.8%
Ind. Prod., Mfg.	5.3	4.4A	5.7	5.0	4.4
CPI	2.4	1.1A	2.2	2.4	3.0
After-Tax Profits*	9.0	7.7	3.8	5.1	2.6
Unemployment	5.3	4.9A	4.7	4.9	4.6

* Excluding inventory profits; adjusted for depreciationdistortions.

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U.S. Economics Analyst

Weather Was the Culprit for the Q2 Slowdown

- The sharp slowdown in the growth pace in the second quarter is an illusion created by the interaction of unusual weather patterns—a warm winter followed by a cool spring—with the seasonal adjustment factors.
- Weather was the culprit behind the slowdown because the swings in momentum were concentrated in weather-sensitive areas such as consumer outlays and construction spending. Moreover, the second quarter slowdown in these areas was unaccompanied by any corresponding deterioration in the fundamentals supporting household spending or construction activity.
- As a consequence, the economy is likely to grow faster again this quarter, and the view embodied in financial asset prices that Fed officials are done tightening monetary policy is likely to prove to be much too optimistic.
- Retailers' reports on June business suggest that spending may be picking up again, but other reports have been on the soft side. Consumer credit balances rose at less than a 3% annual rate in May, producer prices remained benign in June, and initial claims for jobless benefits jumped 40,000 in early July, although mainly due to model change-over in the auto industry.
- Minutes of the May 20 FOMC meeting show that Fed officials came close to tightening policy again at that session and that they are beginning to doubt earlier judgments that current policy settings are restrictive. It appears that Chairman Greenspan has been the primary advocate for an unchanged policy.

A Warmer Winter

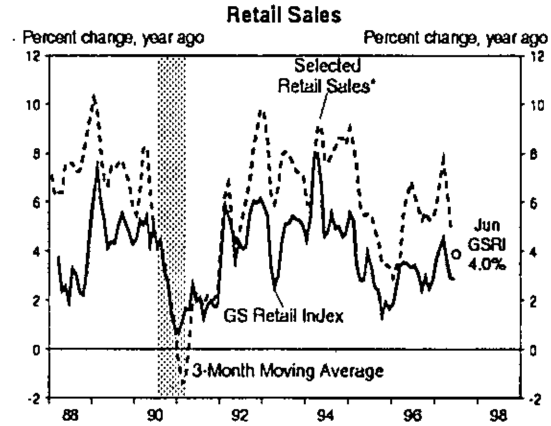
	Heating Degree Days			Versus	Versus
	1997	1996	Normal	1996	Normal
Jan	922	932	948	Warmer	Warmer
Feb	666	735	768	Warmer	Warmer
Mar	555	699	611	Warmer	Warmer

A Cooler Spring

	Heating Degree Days			Versus	Versus
	1997	1996	Normal	1996	Normal
April	405	372	339	Cooler	Cooler
May	209	181	140	Cooler	Cooler
June	55	43	36	Cooler	Cooler

Source: Climate Prediction Center.

Retail Sales



*Durable goods, excluding autos, plus the general merchandise and apparel components of nondurable goods.
Sources: Department of Commerce, Goldman Sachs.

Trade Recommendations

- Stay long the December '97/December '98 Eurodollar calendar spread with a target of 70 basis points and a stop on a close below 30 basis points.

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Issue No: 97/28
July 11, 1997

Goldman Sachs

I. Weekly Wrapup

Economic and Market Overview

In a week with comparatively little new information to digest, expectations of continued optimal economic performance—moderate growth with no pickup in inflation—reigned supreme in U.S. financial markets. Thus, prices of fixed-income securities drifted up further, while major equity price indices fluctuated, with less clear direction, around record levels.

The consumer credit report for May reinforced the widely held perception that consumers have folded up shop. Although April's net change in outstanding installment balances was revised up, these balances rose only $3.0 billion in May, a 2.9% annualized increase. Auto credit fell $1.7 billion and revolving balances were up only $700 million. As a result, the year-to-year growth in revolving credit dropped below 10% for the first time in 3½ years.

Meanwhile, initial claims for jobless benefits jumped 40,000 in the week ending July 5 to 377,000—the highest level in more than a year. However, officials at the Bureau of Labor Statistics cited temporary layoffs in the motor vehicle industry, in conjunction with plant closings for model changeover retooling, as a principal reason for the increase.

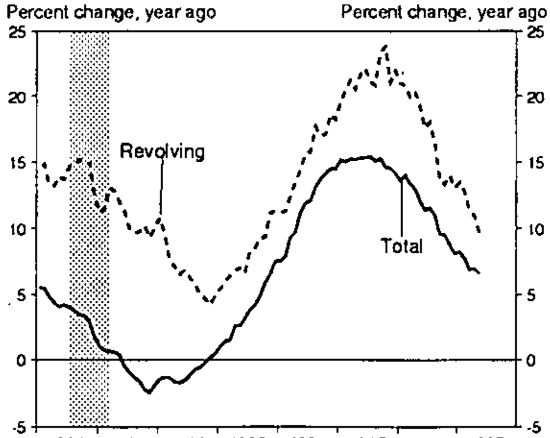
Retailers' reports on June sales were modestly upbeat, according to our retail industry analysts. Their gauge of year-to-year same-store sales—the Goldman Sachs Retail Index—rose to 4.0% in June from 1.7% in May. This index normally runs 2 to 3 percentage points below the year-to-year growth in retail sales of comparable items (general merchandise, apparel, and durable goods other than motor vehicles). After adjustment for this difference, these reports imply that expectations for sales of goods other than motor vehicles, currently centered around a 0.5% gain for June, are probably too low. If so, then June could mark the beginning of the next spending rebound.

The producer price index for finished goods edged down in 0.1% in June, dragged down by a surprising 0.9% drop in food prices. Prices of goods other than food and energy were up 0.1%, both at the finished and intermediate stages of processing. Although the June report was slightly less favorable than its predecessors, it still fell well short of indicating any inflation problem in the goods sector of the economy. Both core indices are essentially where they were one year ago, as is the index for all finished goods.

Federal Reserve Policy

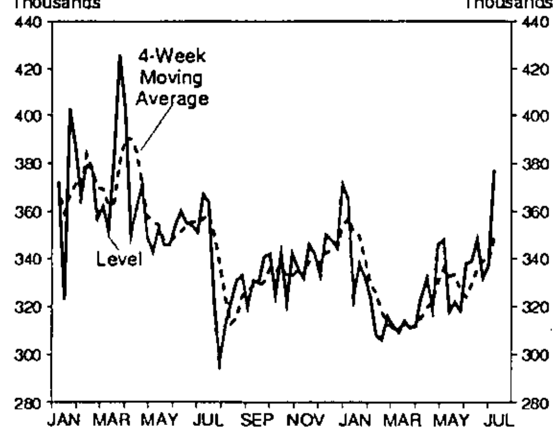
The Federal Open Market Committee came close to tightening policy at its May 20 meeting, judging from the minutes recently published for that session. The reinstatement of an asymmetric directive, leaning in the direction of higher interest rates, was no surprise. However, for the first time since last summer, one of the district bank presidents—Alfred Broaddus of the Richmond Bank—lodged a dissent to the decision to stand pat. Beyond this, "some" of the members (presumably this means more than two) were said to have favored tightening but were willing to be patient for the time being. The minutes also revealed some softening in the Committee's long-standing judgment that real interest rates were already high enough to slow the economy.

Consumer Credit



Source: Federal Reserve Board.

Initial Unemployment Claims Filed



Source: Department of Labor.

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It seems clear, both from this account and from recent financial press reports, that Chairman Greenspan has been the primary advocate of an unchanged policy. Thus, the Humphrey-Hawkins testimony, slated for July 22, will be even more important than normal in assessing the Chairman's frame of mind. In our view, he has no incentive to feed the complacency that has already swept the U.S. financial markets. They are already priced to a scenario where the next move in policy, whenever it comes, is as likely to be an easing as a tightening, and Mr. Greenspan is widely perceived to have embraced the "New Wave" school of productivity miracles. Against this backdrop, his most likely tactic will be to repeat the warnings of February—that the exemplary economic performance of recent years cannot last indefinitely.

President Clinton has formally nominated Edward M. Gramlich of the University of Michigan and Roger W. Ferguson of McKinsey and Co. to vacancies on the Federal Reserve Board. Their views on how long the benign economic conditions can persist are not well known, but will undoubtedly be the focus of congressional hearings later this summer.

Fiscal and Political Developments

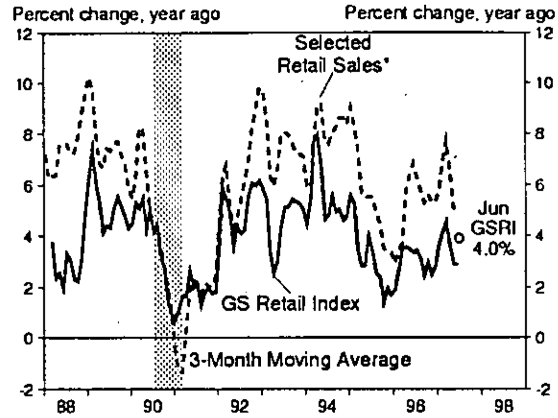
With Congress out of session for the Fourth of July holiday, there has been no further visible progress on implementation of the budget accord despite ongoing negotiations. However, tax revenues continued to be strong in June, resulting in a further reduction in our estimate of the fiscal 1997 budget deficit. We now estimate only a \$50 billion shortfall, down from \$70 billion previously, and the risks still tilt slightly toward an even smaller figure.

Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

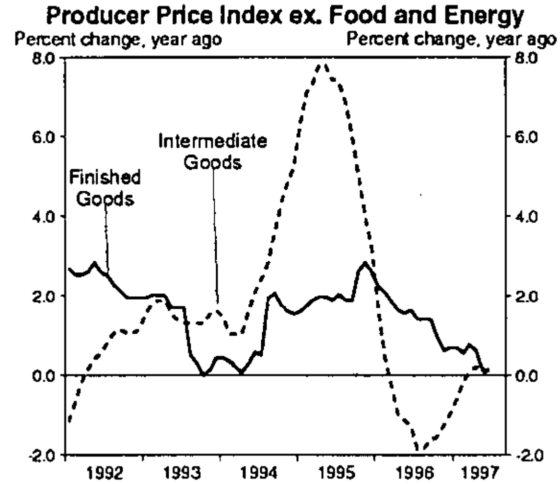
Although Fed tightening is clearly not imminent given Chairman Greenspan's inclination to be patient, Fed officials are unlikely to be finished pushing up the federal funds rate. The growth pace is likely to pick up again given that the second-quarter slowdown appears largely weather-induced; this should push the unemployment rate lower, eventually leading to a slow rise in inflationary pressures. For this reason, we would continue to be long the December '97/December '98 Eurodollar calendar spread, with a target of 70 basis points and a stop on a close below 30 basis points. This spread should widen as the prospects for Fed tightening become more apparent.

Retail Sales



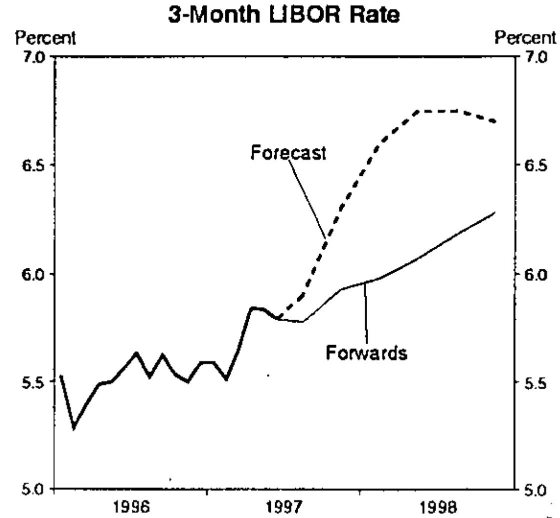
*Durable goods, excluding autos, plus the general merchandise and apparel components of nondurable goods.
Sources: Department of Commerce. Goldman Sachs.

Producer Price Index ex. Food and Energy



Source: Department of Labor.

3-Month LIBOR Rate



Sources: Federal Reserve Board. Wall Street Journal.

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II. Weather Was the Culprit for the Q2 Slowdown

The apparent sharp slowdown in the pace of economic growth in the second quarter from the first is largely an illusion created by the interaction of unusual weather with the seasonal adjustment process. Unusually mild winter weather tempered the magnitude of the declines that typically occur in retail spending and construction activity. Applying the seasonal adjustment factors that implicitly assume an average winter, the result was a growth surge. In the spring, the process was reversed. Having fallen less than normal during the winter, household outlays and construction spending did not rise as much as typically occurs each spring. Unusually cool spring weather also worked to hold down the size of the rebound. After seasonal adjustment, both consumption and construction spending in the second quarter were unusually weak.

This means that the best description of the economy's growth trajectory is neither the strong first quarter nor the weak second quarter. Instead, the average growth pace during the first half—around 4% (annualized)—better describes the economy's underlying momentum. This suggests that the market's confidence that Fed officials have achieved another "soft" landing is overdone and that further monetary policy tightening moves will prove necessary later this year and/or in 1998, once the economy's strength becomes apparent again.

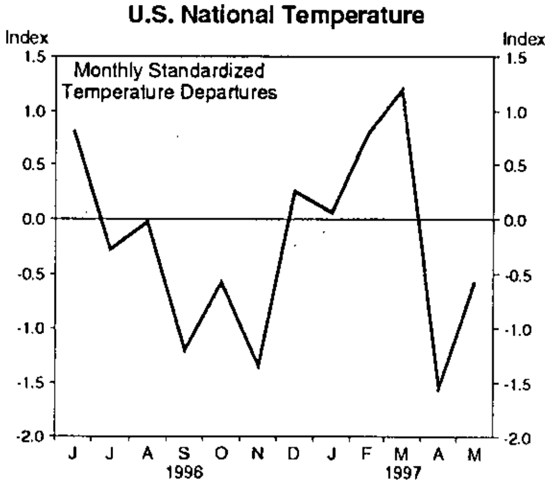
Weather Was the Culprit

Support for the notion that weather was the culprit is broad-based: The weather was unusual, its impact was visible in those areas that are weather-sensitive, the fundamental determinants of those areas showing weakness in the second quarter did not deteriorate, and the slowdown was not evident in areas more resistant to the vagaries of the weather.

Obviously, for weather to be the culprit, it first has to be unusual. And, in early 1997 it certainly was. As shown in the accompanying chart, which illustrates the deviation of the average temperature in the United States from normal over the past year, a cool autumn was followed by a mild winter and a very cool spring. This created the conditions conducive to strong consumer spending and construction activity in the first quarter, followed by weakness in the second.

Ranking the 1997 weather compared to average, one finds that the winter was unusually mild in both February and March. February was much warmer compared to average, ranking 79 out of the past 103 winters (with 1=coldest), and March was even warmer relative to the norm, ranking 91 out of 103. In contrast, April ranked 6 out of 103 and May 33 out of 103. Moreover, the May ranking would have shown even more of a skew toward coolness except that warm weather in the western United States partially offset unusually cold weather in the eastern half of the country. Regionally, some of the swings in the weather were even more pronounced. For example, in the Northeast region, February 1997 was unusually mild, ranking 97 out of 103. In contrast, in May, this region was unusually cool, with a ranking of 5.

U.S. National Temperature



Source: National Climatic Data Center.

Temperature Ranking
(out of 103 winters since 1895)*

	Jan	Feb	Mar	Apr	May
Northeast	57	97	51	29	5
East North Central	46	81	58	33	9
Central	34	87	77	10	3
Southeast	63	86	95	11	2
West North Central	43	78	72	11	54
South	42	57	81	3	10
Southwest	70	52	94	18	88
Northwest	69	66	80	35	93
South	84	62	99	59	102
National	51	79	91	6	33

* 1 = coldest

Source: National Climatic Data Center.

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A Warmer Winter

	Heating Degree Days 1997	1996	Normal	Versus 1996	Versus Normal
Jan	922	932	948	Warmer	Warmer
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June	55	43	36	Cooler	Cooler

Source: Climate Prediction Center.

Judged on a population-weighted, heating-degree day basis (the number of degrees by which the mean daily temperature fell below 65 degrees Fahrenheit), the first quarter was about 8% warmer and the second about 30% cooler than average. Thus, the weather data help to explain why the normal seasonal adjustment process did not work well this year.

The notion that weather was the culprit also gains support from the fact that the big fluctuations in the pace of economic activity occurred primarily in those areas that have historically been sensitive to weather: Consumer outlays and construction spending. Real consumer spending declined from a 5.7% annualized growth pace in the first quarter to about 1.5% in the second quarter, and real construction spending appears to have declined by about 2% (annualized) in the second quarter, after rising 2.4% during the first quarter. These swings account for virtually all of the decline in the real GDP growth pace in the second quarter from the first.

Over the past decade, two of the largest changes in the weather pattern occurred during the winters of 1989/1990 and 1990/1991. In December 1989, the weather was unusually cold, and this was followed by a mild January. In February 1991, the weather was unusually mild, following a January that was colder than normal in much of the country (although this does not show up in the aggregate heating degree data). In both cases, total retail sales, retail sales of durable goods, real construction spending, and housing starts were weak and then recovered sharply when the weather became unusually mild. The experience during the first half of 1997 was just a more drawn out example of how the weather can affect the seasonally adjusted data.

The fact that the fundamental determinants of consumer spending and construction outlays have not deteriorated also suggests that the slowdown is just a statistical artifact created by the weather. For the consumer, the fundamentals supporting spending actually improved in the second quarter. The monthly change in payroll employment climbed slightly to about 237,000 per month, from about a 228,000 per month pace in the first quarter; consumer confidence measured by the Conference Board and University of Michigan indices both increased sharply, climbing to 129.6 and 104.5 in June from 118.5 and 100.0 in March, respectively, and the stock market advanced briskly during the second quarter.

Similarly, on the construction side, the fundamentals supporting increased outlays have improved. Borrowing costs are lower today than at the end of the first quarter. Similarly, the inventory of unsold new homes continues to shrink. In May, the unsold inventories of new homes was 280,000, down from 362,000 a year earlier. At the current sales pace, this is just a 4.1 months supply and close to a record low, well below the 6.0-6.5 months supply considered normal.

Finally, areas of the economy that have historically not shown much sensitivity to the weather have not exhibited weakness. In contrast, if the slowdown in consumer outlays and construction spending were truly evidence of a generalized slowdown, then that slowdown should also be apparent in areas that are

Two Examples of the Weather's Impact in the Past

	Heating Degree Days	Compared to Normal	Retail Sales (% chg) Total	Durable	Real Construction Outlays (% chg)	Housing Starts (% Chg)
Dec '89	1103	+265	0.3	-1.4	-1.9	-7.4
Jan '90	746	-192	2.9	7.2	2.1	24.0
Jan '91	948	+10	-1.6	-4.0	-3.8	-17.6
Feb '91	661	-115	1.7	4.7	1.5	20.9

Source: Department of Commerce.

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not sensitive to the weather. However, industrial production expanded briskly in the second quarter, and the NAPM index was higher during the second quarter (55.7%) than it was in the first (53.4%).

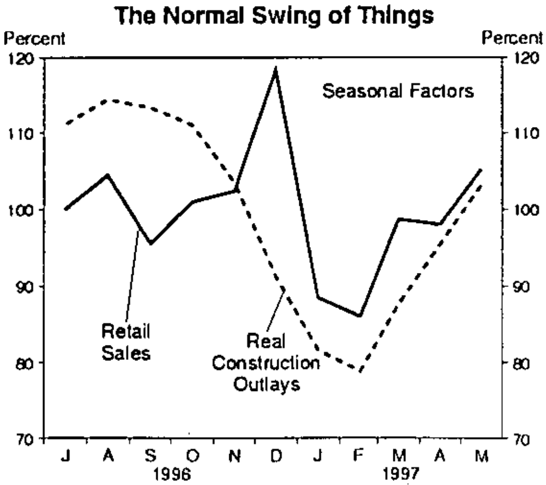
Small Deviations Have Big Consequences for the Growth Trajectory

Unusual weather has a powerful effect on the seasonally adjusted data for two reasons. First, for retail sales and construction spending, the normal seasonal swings induced by the weather are very large. This means that even small deviations from the normal pattern can lead to large changes in the seasonally adjusted growth rates. As shown below, the pattern of such spending varies sharply over the year, falling sharply from the autumn to a low point in February, and then rising again in the spring.

Second, it does not take a very large deviation from normal to achieve a big shift in the annualized growth pace. For 4% annualized real GDP growth to be distorted into 6% real GDP growth in the first quarter and 2% in the second, the weather only has to shift ½% of the output from the second quarter to the first.

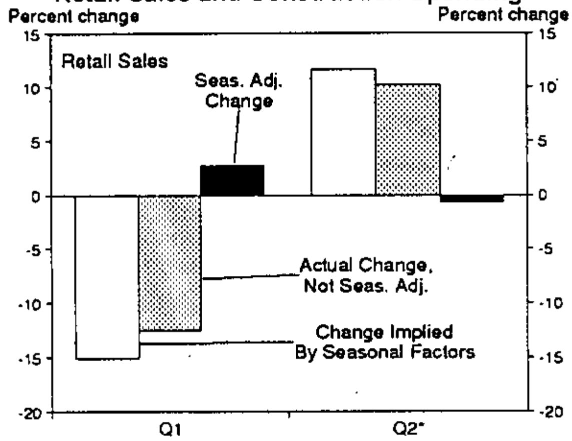
Over the past two quarters, the deviation of retail sales and construction spending from their normal pattern were very small compared to the shifts in the not seasonally adjusted data. For example, in the first quarter, retail sales fell by 12.5% on a not seasonally adjusted basis, slightly less than the 15.1% decline built into the seasonal factors. After seasonal adjustment, this resulted in a 2.7% increase. Conversely, in the second quarter, construction spending typically rises sharply. This year, the rise was slightly more muted than normal. The result was the 0.7% seasonally adjusted decline registered for the quarter to date. But when annualized, these deviations are large. For example, annualizing the first quarter rise in seasonally adjusted retail sales results in nearly an 11% growth rate.

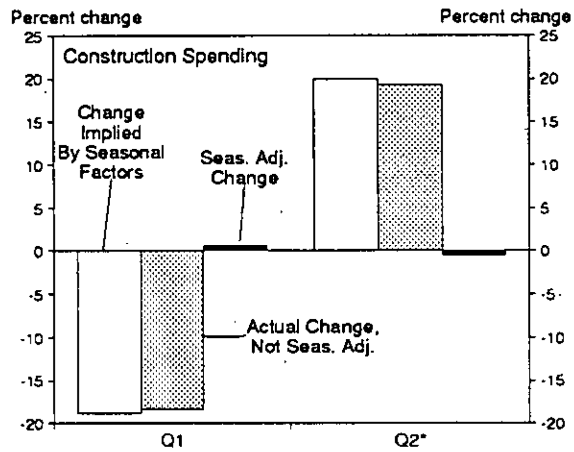
The Normal Swing of Things



Source: Department of Commerce.

The Impact of Weather on Retail Sales and Construction Spending





*April/May average.
Source: Department of Commerce.

Implications for Financial Markets

The recent sharp rally in the fixed-income markets is based, in part, on the slowdown in second quarter growth. If this slowdown is an illusion caused by the weather, as seems likely, then financial market participants have become too sanguine about the outlook for monetary policy. After all, if the economy is really on a 4% growth track, rather than a 2% growth track, then the unemployment rate will keep falling, a "soft" landing has not been achieved, and further monetary policy tightening lies ahead.

Bill Dudley

Goldman Sachs

Key U.S. Economic Data

	Latest Monthly Data				6 Mo	12 Mo	Next
	'97 Jun	'97 May	'97 Apr	'97 Mar	Trend	Trend	Release
Nonfarm Payrolls (ch. Thousands)	217	166	327	182	233	212	August 1
Unemployment Rate (%)	5.0	4.8	4.9	5.2	5.1	5.2	
Index of Hours Worked (% ch)	0.4	0.4	-0.4	0.1	2.3	2.3	
Average Hourly Earnings (% ch)	0.3	0.3	0.0	0.3	3.2	3.5	
Producer price finished goods index (% ch)	-0.1	-0.3	-0.6	-0.2	-3.4	-0.1	August 13
Excluding food and energy	0.1	-0.3	-0.1	0.2	-0.3	0.1	
Consumer price index (% ch)	--	0.1	0.1	0.1	1.6	2.3	July 16
Excluding food and energy (% ch)	--	0.2	0.3	0.2	2.5	2.5	
Retail sales (% ch)	--	-0.1	-0.9	-0.3	4.4	3.2	July 15
Excluding motor vehicles (% ch)	--	-0.1	-0.5	0.0	4.3	3.2	
Industrial Production (% ch)	--	0.4	0.3	0.4	4.3	4.3	July 16
Manufacturing	--	0.5	0.2	0.4	5.0	5.0	
Capacity utilization (%)	--	83.7	83.6	83.6	83.5	83.4	July 16
Manufacturing	--	82.7	82.6	82.7	82.6	82.4	
Housing Starts (annual rate, thousands)	--	1397	1468	1479	1438	1457	July 17
Single-family	--	1088	1116	1142	1122	1143	
Trade balance (billions, monthly)	--	--	-8.4	-7.8	-9.3	-9.5	July 18
Merchandise	--	--	-15.1	-14.9	-16.3	-16.4	
Factory Orders (% ch)	--	-0.7	1.4	-1.7	0.6	2.4	August 1
Durable Goods	--	-0.7	1.8	-2.8	2.6	2.7	July 25
Personal Income (% ch)	--	0.3	0.2	0.6	5.9	5.8	August 1
Wages and Salaries	--	0.3	0.1	0.7	6.8	6.7	
Purchasing Managers' Index (%)	55.7	57.1	54.2	55.0	54.5	53.1	August 1
Consumer Sentiment U Mich (Feb 66=100)	104.5	103.2	101.4	100.0	101.0	98.6	July 18
Conference Board (1985=100)	129.6	127.9	118.5	118.5	122.0	116.2	July 29

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

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U.S. Calendar

Focus for the Week Ahead

- Retail sales of goods other than motor vehicles appear to have strengthened in June, in part because of a rebound in sales of building materials. However, this improvement will probably be masked by a decline in auto sales (July 15).
- The consumer price report for June shapes up as a plain-vanilla continuation of past trends (around 2½% annualized), with food prices rising somewhat faster (July 15).
- The May trade balance is likely to show a setback from the $8.1 billion average posted for March and April. Exports should be down, in part reflecting a decline in shipments of nonmonetary gold, and imports are expected to be flat (July 18).
- A sharp decline in inventories of unsold homes over the past year, coupled with improving financing conditions and rising mortgage applications, point to a rebound in housing starts for June (July 17).

Economic Releases and Other Events

			Estimate		
Date	Time	Indicator	GS	Consensus	Last Report
Tue Jul 15	8:30	Retail Sales (Jun)	0.0%	+0.3%	-0.1%
		Excluding Autos	+0.6%	+0.5%	-0.1%
Wed Jul 16	8:30	Consumer Price Index (Jun)	+0.2%	+0.2%	+0.1%
		Excluding Food & Energy	+0.2%	+0.2%	+0.2%
	8:30	Business Inventories (May)	+0.4%	+0.3%	+0.3%
	9:15	Industrial Production (Jun)	+0.5%	+0.3%	+0.4%
	9:15	Capacity Utilization (Jun)	83.8%	83.7%	83.7%
Thu Jul 17	8:30	Housing Starts (Jun)	+6.5%	+3.5%	-4.8%
	10:00	Philadelphia Fed Survey (Jul)	15.0%	n.a.	25.2%
Fri Jul 18	8:30	Trade Balance (May)	-$9.7 Bil	-$9.0 Bil	-$8.4 Bil

- Atlanta Fed Survey (Mon, Jul 14 - 10:00)
- Homebuilders' Survey (Tue, Jul 15)
- Consumer Sentiment—Prel. (Fri, Jul 18 - 10:00)
- Import & Export Prices (Fri, Jul 18 - 10:00)

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	6.0%	6.3%	6.8%
Forward	5.8	5.9	6.1
2 Yr T-Note	6.4	6.6	7.1
Forward	6.0	6.1	6.2
10 Yr T-Note	6.8	7.0	7.2
Forward	6.3	6.3	6.4

Key Numbers in the Business Outlook

	1997				
	Q1	Q2E	Q3E	1997E	1998E
Real GDP	5.9%	2.1%	3.7%	3.8%	2.8%
Ind. Prod., Mfg.	5.7	4.5	5.7	5.0	4.4
CPI	2.4	1.0	2.2	2.4	3.0
After-Tax Profits*	9.0	7.7	3.8	5.1	2.6
Unemployment	5.3	4.9A	4.7	4.9	4.6

* Excluding inventory profits; adjusted for depreciationdistortions.

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U.S. Economics Analyst

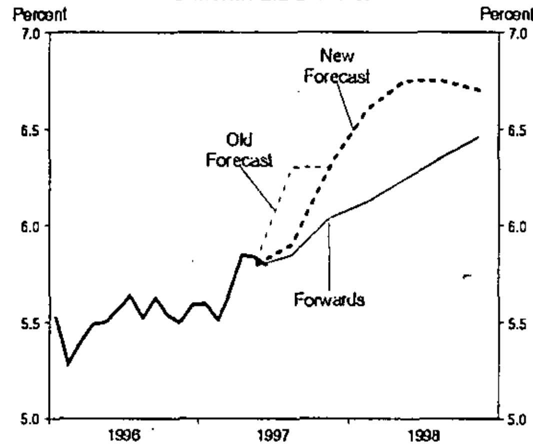
Our Views Have Changed

Fed Tightening Still Likely, But Later

This issue of the U.S. Economics Analyst is in a holiday-abridged, four-page format. The center section and the tables of historical and forecast data have been omitted. Our regular format will resume with our next issue, dated July 11, 1997.

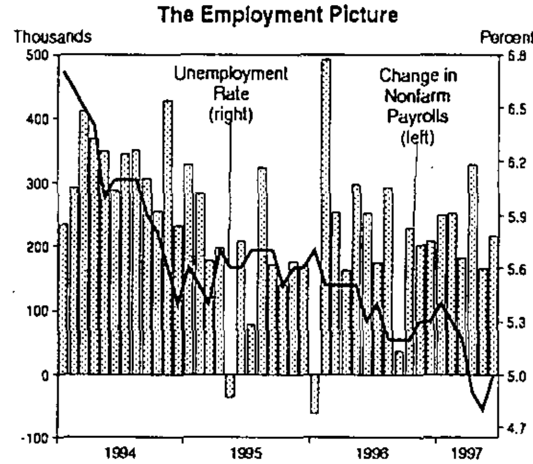
- A rise in the unemployment rate to 5.0% and a modest gain in average hourly earnings (+0.3%) have presumably reassured Fed officials (and investors) that the FOMC's decision to keep monetary policy unchanged over the last few months has been appropriate.
- At this juncture, it now appears unlikely that Fed officials will tighten monetary policy again this summer. As a result, we are pushing back the timing of the next Fed tightening until later in the year. However, we still expect the federal funds rate to reach 6% by yearend and 6.5% by midyear 1998.
- The trajectory of demand will determine whether such moves turn out to be necessary. If consumer spending snaps back, as we expect, then the economy will reaccelerate, creating renewed pressure for a tighter monetary policy.
- Much of the other news released this week does not suggest that a sustained slowdown is likely. New home sales rose sharply in May, pushing down the inventory-to-sales rate to a near-record low, real consumer spending rose by 0.4% in May, and the modest drop in the June NAPM index to 55.7% is still consistent with an economy that is growing at an above-trend pace. The only true areas of weakness were in motor vehicle sales and non-durable goods orders.

3-Month LIBOR Rate



Source: Federal Reserve Board, Wall Street Journal.

The Employment Picture



Source: Department of Labor.

Trade Recommendations

- We would close out all our existing positions (if they are not stopped out on today's close).
- We would look to go long the December '97/December '98 Euro calendar spread at 40 basis points or less, with a target of 70 basis points and a stop on a close below 30 basis points.

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Issue No: 97/27
July 3, 1997

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Goldman Sachs

I. Weekly Wrapup

Economic and Market Overview

A rise in the unemployment rate to 5.0% from 4.8% in May and a moderate rise in average hourly earnings (+0.3%) has reassured investors that the FOMC's decision to keep monetary policy on hold is appropriate and is likely to persist in the future. However, outside of these two areas, evidence that the economy has slowed to a sustainable growth pace is still quite scant. In particular, non-farm payroll employment continues to grow quickly, rising by 217,000 in June. Over the past three months, the average monthly increase has been 237,000, slightly above the average pace of the past year, and well above the pace consistent with ongoing stability in the unemployment rate. Similarly, the index of aggregate hours worked rose by 0.4% in the latest month. This means this index climbed by 1.9% in the second quarter (annualized), consistent with GDP growth above 2%. Even factory output growth has held up better than the aggregate figures suggest. The 0.7% dip in factory orders during May occurred almost entirely in two areas: defense hardware, where bookings are extremely volatile, and motor vehicles, which have been hampered by strikes. Purchasing managers, meanwhile, report another substantial advance in activity during June, as the NAPM composite index stood at 55.7%.

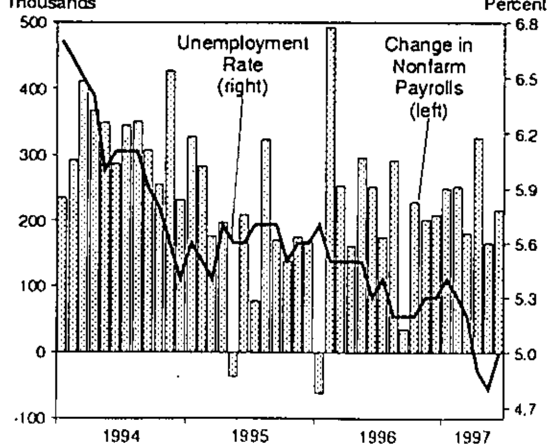
Whereas retail outlays have been very sluggish in the past few months, this greatly exaggerates the pullback in consumption, because demand in the services sector has gained speed. Total personal spending climbed 0.4% in real terms during May, led by a 0.5% rise for services. During April and May combined, real consumption of services—which represents more than 38% of total GDP—has surged at a 5% annual rate compared to the first quarter, the fastest rise in over five years. These patterns contrast markedly with the consumer slowdown last summer, when personal spending growth slumped across all major categories.

Construction outlays declined 1.8% in May, primarily due to a sharp falloff in the volatile public sector component (-5.9%). Private residential building expenditures remain on a moderate positive trend, rising at roughly a 5% annual rate so far this quarter. Homebuilding should remain firm over coming months, given the persistently high sales rate for new single-family houses (up 7.1% in May) and the unusually low inventories of unsold dwellings. The absolute volume of new houses available for sale has plunged 22.7% in the past year, and home builders' stocks of unsold dwellings are the leanest relative to sales in 26 years.

Federal Reserve Policy

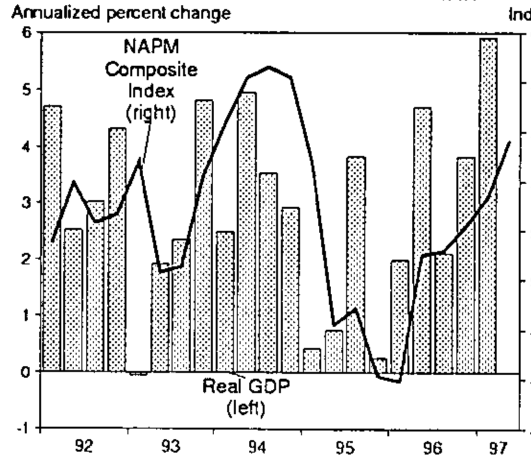
Another FOMC meeting has passed with no policy change. Fed officials no doubt have been impressed with the slow pace of broad price measures lately, and they are sticking with a forecast that economic growth will slow to a trend pace in coming months, forestalling a potentially inflationary further rise in resource utilization. Even if real GDP gains remain in a 3.0%-4.0% annual range during the second half of 1997, as we expect, it will take time for this to become clear to Chairman Greenspan and his colleagues. Hence, it is now likely that further

The Employment Picture



Source: Department of Labor.

NAPM Index and Real GDP Growth



Source: Department of Commerce. NAPM.

monetary policy tightening moves will not occur until this fall. As a result, we have pushed back our timetable for a 6% federal funds rate from the end of the third quarter to yearend.

Fiscal and Political Developments

President Clinton's proposed alternative to the House and Senate tax plans is unlikely to have much influence in shaping the package that emerges from a congressional conference later this month. The White House blueprint would provide a much smaller capital gains tax reduction than the House structure, and far less estate tax relief than was favored by the Senate, so that education tax credits could be expanded beyond what Congress has thus far been willing to accommodate. To win approval in a Republican-dominated conference, however, any tax compromise will probably follow the Senate's model for capital gains (a 50% across-the-board exclusion from taxes, with no indexation of principal for inflation). Some portion of the allowances for education can be expected to take the form of enhanced tax-free saving accounts for tuition payments, keeping estimated revenue losses from direct credits to a minimum. The President thus far has been very careful not to threaten a veto of either the House or Senate tax bill, which is a sign that he feels significant pressure not to reject a conference report that substantially conforms with the May budget agreement outline.

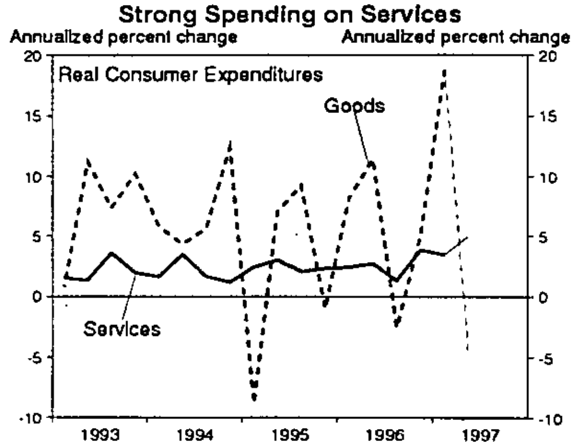
Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

We would close out all our positions (assuming they are not stopped out on today's close) and look to express our bearish views by getting long the December '97/December '98Eurodollar spread (currently 38.5 basis points) at 40 basis points or less. Our target would be 70 basis points, and we would stop out our position on a close below 30 basis points.

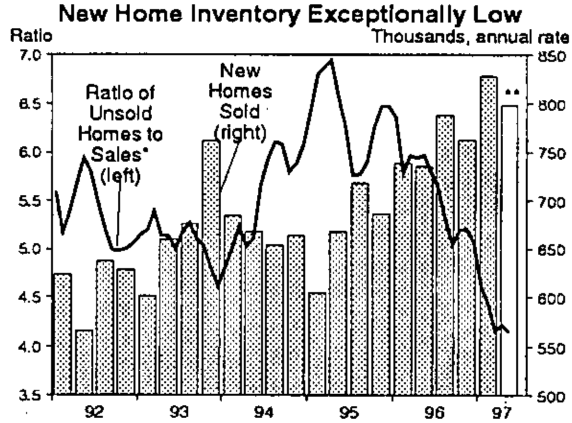
Market participants have become much too optimistic about the ability of Fed officials to keep monetary policy on hold indefinitely. The economy still appears to be growing above trend, and there are few signs that monetary policy is sufficiently tight to restrain the pace of economic activity. Thus, while Fed tightening remains some time away, it is still not a question of whether, but rather only a question of when.

Strong Spending on Services



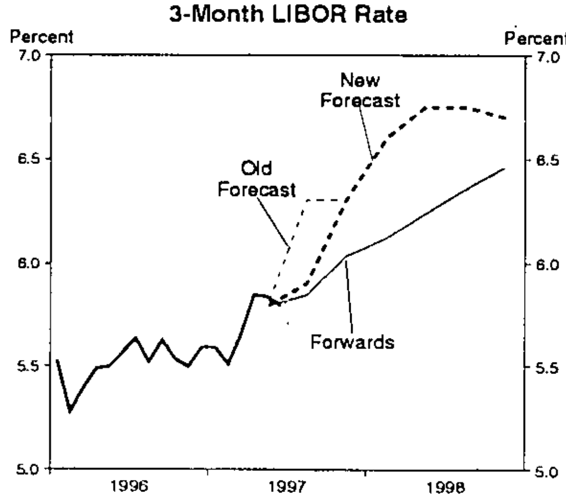
Note: Q297 based on Apr/May average.
Source: Department of Commerce.

New Home Inventory Exceptionally Low



*Homes sold expressed as 3-month moving average.
**Apr/May average.
Source: Department of Commerce.

3-Month LIBOR Rate



Sources: Federal Reserve Board. Wall Street Journal.

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U.S. Calendar

Focus for the Week Ahead

- Consumer installment credit growth should continue to moderate, reflecting the slowdown in consumer spending at a time that income growth remains solid (July 8).
- Producer prices are likely to advance moderately for the first time this year, with higher food prices the main culprit (July 11).

Economic Releases and Other Events

Date	Time	Indicator	Estimate GS	Estimate Consensus	Last Report
Tue Jul 8	3:00	Consumer Credit (May)	+$5.0 Bil	+$5.0 Bil	+$7.6 Bil
Fri Jul 11	8:30	Producer Price Index (Jun)	+0.3%	+0.1%	-0.3%
		Excluding Food & Energy	+0.2%	0.0%	-0.3%

- Richmond Fed Survey (Tue, Jul 8 - 10:00)
- Wholesale Trade (Wed, Jul 9 - 10:00)
- Chain-Store Sales Results (Thu, Jul 10)
- Treasury Announces 1-Year Bill (Fri, Jul 11 - 2:30)

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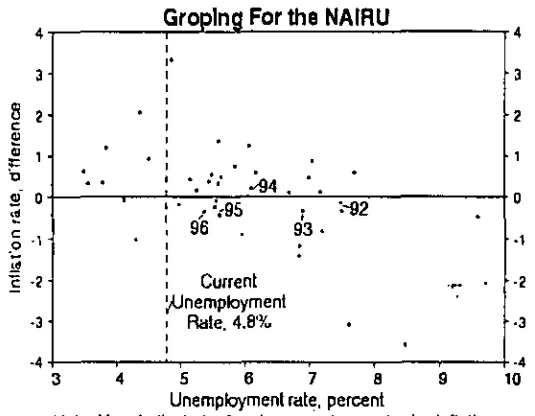
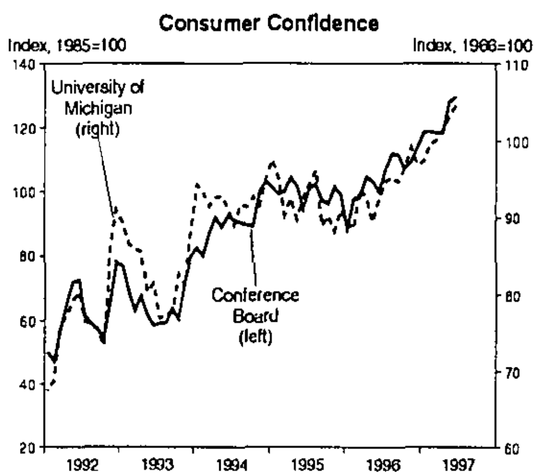
U.S. Economics Analyst

Declining Unemployment Signals Rising Risk of Inflation

- After five years of declining unemployment and roughly stable inflation, participants in financial markets have understandably lost patience with conventional estimates of potential growth and the NAIRU—the inflation-triggering level of the unemployment rate. As a result, financial assets are now priced to an assumption that the nirvana will persist more or less indefinitely.
- This complacency ignores two unambiguous messages from the fall in unemployment. First, the economy is exceeding its potential growth speed limit, whatever that limit may be. Second, a continuation of the drop in unemployment will move the economy beyond its NAIRU, wherever that may be, if it has not done so already.
- The competitive pressures underlying the Brave New Business Cycle probably make inflation rise more gradually, but they are unlikely to forestall it altogether. Thus, there is a rising risk that inflation moves up in the next year or two.
- Federal Reserve officials are unlikely to run this risk for very long. Their inaction in May, and the likelihood that they stand pat again in July, reflects a view that slower growth will stabilize the unemployment rate. Once the data challenge this view, as we expect they will shortly, then additional tightening moves are likely.
- The latest data on U.S. activity remain mixed. On the strong side, consumer spirits continued to soar in June and claims for jobless benefits have ticked back down lately. However, orders for durable goods were weaker than expected, held down in part by strike-related interruptions to auto production.



Note: Year indicated refers to unemployment rate. Inflation measured by percent ch. in chain weight deflator, one year later.
Source: Department of Labor. Department of Commerce. Our calculations.



Source: University of Michigan. Conference Board.

Trade Recommendations

- Stay short December 1997 Eurodollar futures, with a stop on a close above 94.00 and a target of 93.40.
- Stay long the September '97/September '98 Eurodollar calendar spread, raising stop on a close to below 45 basis points from 40 basis points, and maintaining a target of 80 basis points.
- Short the September T-bond future at or above 111.20, with a stop on a close of 113.00 and 108.16 target.

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June 27, 1997

Goldman Sachs

I. Weekly Wrapup

Economic and Market Overview

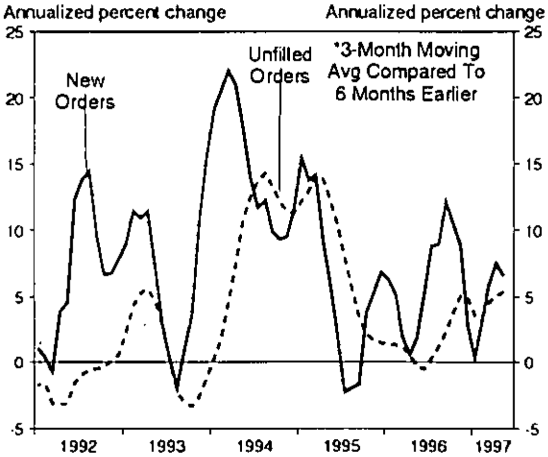
Prices of long-duration U.S. bonds have edged lower over the past several days, causing the Treasury yield curve to steepen as investors continue to assign low weight to the risk of a substantial monetary policy tightening over the next year. The latest economic news did not seem to have much influence on financial asset markets, as sights are trained on the more significant data set due next week. New orders for durable goods at U.S. factories dipped 0.6% during May, but the decline was only 0.2% when the volatile aircraft and defense areas are excluded. On a three-month average basis, orders in that core subset have risen at a 6.6% annual rate in the past half year, and this is causing unfilled order backlogs to swell rapidly across the bulk of hard goods industries. Additionally, shipments of nondefense capital equipment have exploded this quarter, with the April/May average up nearly 25% annualized versus the first period. This surge in sales of capital items suggests that spending by domestic and foreign firms on U.S.-made equipment will lend considerable support to second-quarter real GDP growth.

Turnover of existing homes rebounded in May, rising 4.4% to a 4.24 million annual rate, the highest in a year. This report conforms with other evidence of continuing strong demand for dwellings, such as firmness in the volume of mortgage applications for home purchases and relatively upbeat assessments by builders of near-run sales prospects. Consumers remain in a highly positive frame of mind about economic conditions, particularly with respect to job availability. The Conference Board's consumer confidence index for June climbed to another 28-year peak, at 129.6 (1985=100), with the differential between the percent of respondents viewing jobs as plentiful versus hard to get growing to +19.4%, compared to +1.0% a year ago. The University of Michigan's poll of consumer sentiment also continues to climb, a pattern that historically has been inconsistent with a prolonged or deep pullback in household spending.

Federal Reserve Policy

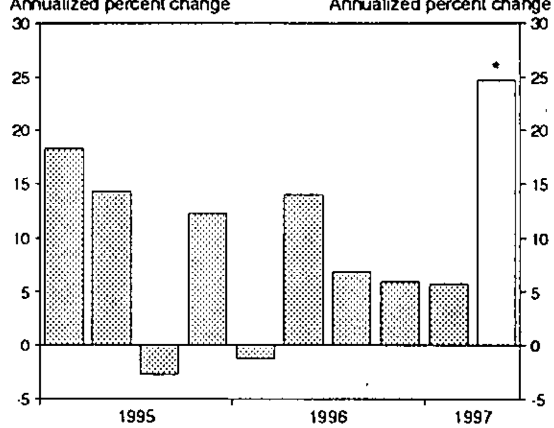
The probability of a Fed policy change at the July 1-2 FOMC meeting remains very low, but central bankers likely will stay on guard for a possible unwanted reacceleration in consumer spending or an upturn in labor costs. With the overall monthly inflation indexes extraordinarily well behaved and three consecutive months of lower retail sales results, Chairman Greenspan and his associates perceive that they possess flexibility to be patient and see whether their long-standing forecast of ebbing real GDP momentum finally can be realized. That expectation, however, relies to a great extent on a continuation of restrained household purchases through the summer months, which probably would lead to a softer trend in goods output. In the event that retail outlays swiftly regain speed, the potential for a further appreciable advance in GDP and consequent tightening in resource supplies would grow, pressuring Fed officials to consider taking out some more anti-inflation insurance in the form of higher rates.

Nondefense Durable Goods Orders excl. Aircraft



Source: Department of Commerce.

Nondefense Capital Goods Shipments



*Q297 based on April/May average.
Source: Department of Commerce.

Fiscal and Political Developments

The House and Senate have made excellent progress in enacting the May budget pact, with both chambers nearing completion of tax and mandatory spending bills. Differences between these measures will be ironed out in bicameral conference committees next month, so that compromise versions can be approved by the full legislature and sent to President Clinton. At this point, it looks as though the objective of getting these two crucial elements of the budget accord finalized by early August is achievable. That would give lawmakers more time prior to the start of fiscal 1998 on October 1st to complete annual appropriations bills.

Enactment by Congress of legislation supporting the settlement between U.S. tobacco companies and the state attorneys general would tend to push up the level of the consumer price index in coming years. Substantial price increases are likely to fund large annual payments to the states. In combination with an increase in the federal cigarette tax, which appears possible as part of the pending tax bill, we estimate that the tobacco accord could lift the overall CPI next year by 0.2%.

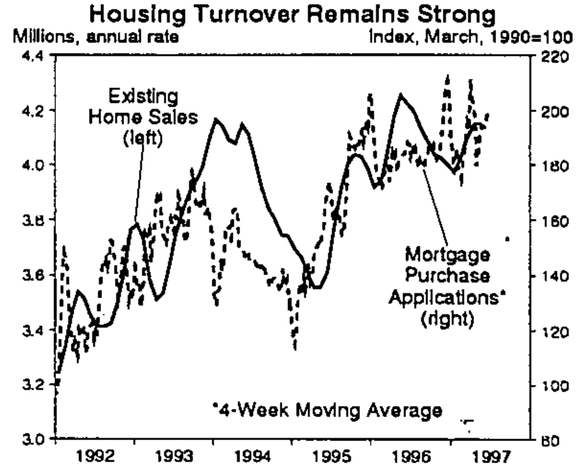
Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

Although Fed officials will almost certainly keep monetary policy unchanged at the July FOMC meeting, sentiment for a tightening of monetary policy could resurface rapidly should consumer spending rebound over the next month or two, as appears likely. Given that hardly any monetary policy tightening is built into Eurodollar futures prices through yearend, we would continue to favor the short side. In particular, we would remain short the December Eurodollar futures contract, with a stop on a close above 94.00, and long the September 1997/September 1998 Eurodollar calendar spread, raising our stop to a close below 45 basis points from 40 basis points earlier.

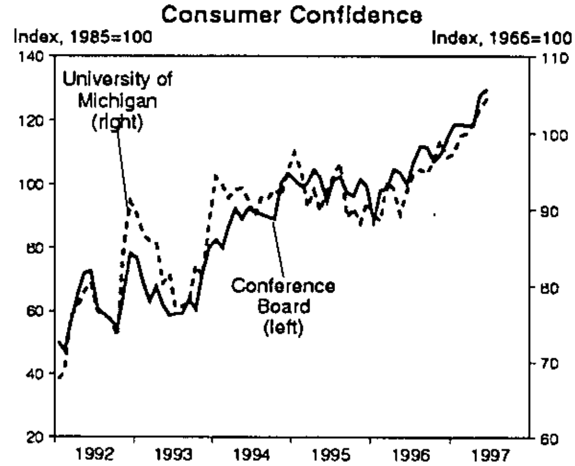
We also would begin to look for opportunities to get short the long end of the market as well. As we see it, the rally has driven the short-sellers to the sidelines just as the bond market has been saturated with supply and the economic news is likely to turn more bearish. We would get short the September T-bond future at 111.20 or above (currently 111.09), with a stop on a close above 113.00 and a target of 108.16.

Housing Turnover Remains Strong



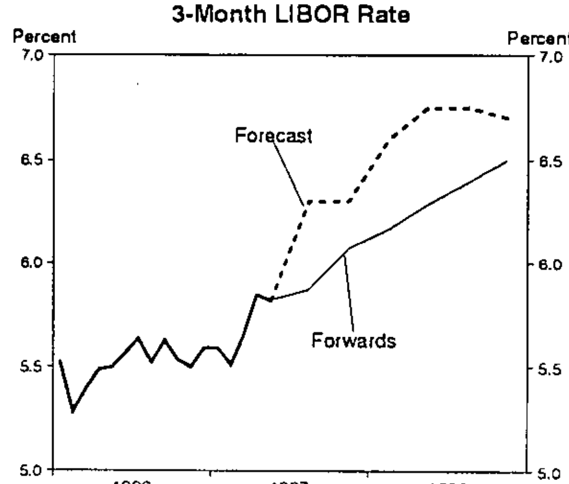
Source: Mortgage Bankers Assoc. National Assoc. of Realtors.

Consumer Confidence



Source: University of Michigan. Conference Board.

3-Month LIBOR Rate



Sources: Federal Reserve Board. Wall Street Journal.

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II. Declining Unemployment Signals Rising Risk of Inflation

The U.S. economy has entered its seventh year of expansion with nary a sign of rising inflation, despite the fact that the unemployment rate has dropped to its lowest level in nearly a quarter century. As a result, financial assets are now priced to the assumption that this nirvana-like state of affairs will persist more or less indefinitely.

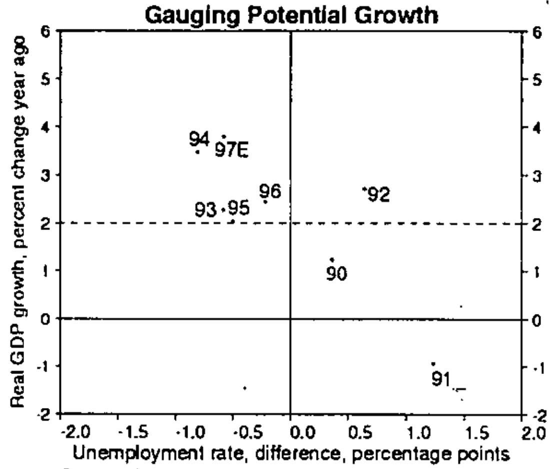
In essence, most participants in the financial markets seem to have reached at least one of two conclusions: (1) Potential growth is a lot higher than the 2%-2½% range generally cited by economists and indicated in the official data. (2) The nation's NAIRU—the Non-Accelerating Inflation Rate of Unemployment below which inflation tends to pick up—is a lot lower than the 5½%-6% range that bracketed most estimates barely a year ago. Some have gone so far as to argue that neither concept has much validity in the globally competitive world of the Brave New Business Cycle.

Clearly, the rules governing inflation are different now than they were even a decade ago. How much different will be unclear for some time—until well after inflation has actually risen. However, investors would be ill-advised to ignore the warning flag waved by a declining unemployment rate. At a time when official data on growth, productivity, and inflation are subject to growing distrust, the unambiguous message in this decline is that the economy is exceeding its long-term speed limit, whatever that limit may be. It is also clear that the U.S. economy will sooner or later pass its NAIRU, wherever it may be, if it has not done so already. In short, the fact that unemployment has been dropping signals a rising risk that inflation will turn up in the next year or two. Federal Reserve officials are unlikely to run this risk for very long if they can be persuaded, as we already are, that unemployment will drop further in response to strength in consumer spending, fiscal stimulus, and the resumption of growth in Europe and Japan.

Growth Above Potential (Whatever It Is)

The economy's potential growth rate is defined as the rate at which aggregate output can increase without causing inflation to rise. Given the lag between growth and inflation, potential growth is normally measured as the fastest rate at which output can rise without absorbing additional labor resources, on the view that depletion of labor supply will eventually lead to inflation. Potential growth is, therefore, equal to the sum of growth rates for the labor force (with

Gauging Potential Growth



Source: Department of Labor. Department of Commerce. Our calculations.

adjustments for changes in the average work week, in principle) and productivity (output per hour worked).

Within this framework, most economists nowadays would put potential growth in the 2%-2½% range, pegging the trend growth rates for the labor force and productivity at 1% and 1%-1½%, respectively. This conclusion conforms well to the recent behavior of real GDP growth and changes in the unemployment rate—the main gauge of stress on labor resources. As shown in the chart above, in the 1990s the jobless rate has typically fallen in years when real GDP grew 2% or more and risen in years when growth was lower; 1992 was the only exception to this rule. Upcoming benchmark revisions are apt to reveal that real GDP has risen somewhat faster in recent years than is now reported. If so, this method of gauging potential growth would yield a figure somewhat higher than the 2% dividing line shown in the chart, but probably not one higher than 2½%.

However, there is a widespread perception in the business and financial communities that the economy can grow much faster than this and that the official data are simply missing large gains in productivity. These criticisms of productivity measurement have considerable merit, as discussed in a preceding issue of the *U.S. Economics Analyst*.[1] However, it does not follow that economic growth in recent years has been less than its potential. Why? Because the same data

[1] See "Thinking Out Loud About the U.S. Productivity Problem," *U.S. Economics Analyst*, June 6, 1997, pp. 4-6.

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that understate gains in productivity also understate growth in output. Revisions to both would, therefore, boost the growth rates of output and productivity by the same amount, leaving the difference between actual and potential growth in output the same.

Our conclusion on how current growth stacks up vis-à-vis its potential is thus straightforward: Despite serious shortcomings in the measurement of national output and productivity, the decline in unemployment reveals that the growth of real GDP in recent years—2.6% per year since 1992 based on the current data—cannot be sustained indefinitely. Otherwise, the unemployment rate would eventually reach zero. And long before that, inflation would presumably have begun to increase.

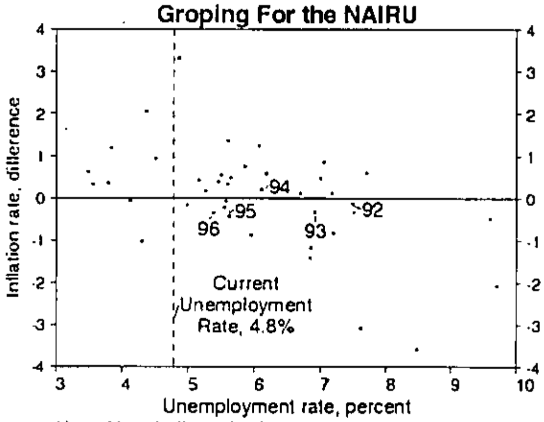
Moving Beyond the NAIRU (Wherever It Is)

This leads directly to the question that has plagued economists increasingly in the last year or so: Where is the NAIRU?

Barely a year ago, most economists thought that the NAIRU was somewhere between 5½% and 6%; our own estimate at that time was 5.9%. And in fact, the modest acceleration in wages and salaries in recent years is consistent with the notion that the NAIRU is in this range, if not a bit higher. Prices, on the other hand, have failed to follow suit.

The chart below offers some perspective on this issue. For each year since 1955, it shows the unemployment rate (on the horizontal axis) against the following year's change in inflation, based on movements in the chain-weight GDP price index (vertical axis). The linkage has been anything but tight. Nevertheless,

Groping For the NAIRU



Note: Year indicated refers to unemployment rate. Inflation measured by percent ch. in chain weight deflator, one year later.
Source: Department of Labor. Department of Commerce. Our calculations.

the correlation between the two is clearly negative, signifying the tendency for declining unemployment to produce upward pressure on the inflation rate in the following year. The NAIRU is the point at which the economy moves consistently into the upper half of the chart. The scarcity of observations in the upper right and lower areas indicates that the NAIRU has ranged between 5% and 7% since the mid-1950s.

The data for the last five years, identified in the chart, also illustrate why estimates of the NAIRU have been falling and doubts about its existence have been rising. Inflation has shown no tendency to rise over this period, despite four consecutive years of reduced unemployment; in fact, inflation has edged down.

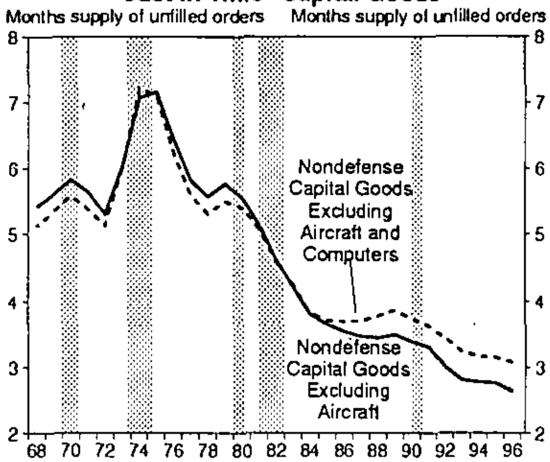
However, the chart also points up the risk of assuming that this benign state of affairs will persist indefinitely. In the eight years in which the jobless rate was lower than it is currently, inflation in the following year was higher six times (1955/56 and 1965/66 through 1969/70), flat once (1956/57), and down once (1957/58). Thus, if unemployment continues to drop, as we expect that it will, then past experience implies a 75% probability that inflation will turn up at some point in the next year or two.

Does a NAIRU Even Exist in the Brave New Business Cycle?

With evidence accumulating that the NAIRU has moved down to some degree, past experience will obviously provide only a loose guide to the future. In the extreme, some would argue that the past has lost all relevance, claiming that the competitive pressures that have given rise to the Brave New Business Cycle have denied companies their pricing flexibility and therefore made inflation impossible. If so, then the whole concept of a NAIRU becomes nonsensical.

Tendencies toward inflation are certainly likely to be more constrained in the Brave New Business Cycle. For example, U.S. companies are now more exposed to global competition and therefore cannot pass costs on to consumers as easily as they did in the relatively isolated domestic markets of the 1970s and before. Much has been made of this constraint recently, in view of the sluggish conditions that have prevailed in Europe and Japan. However, two points are worth making in this regard. First, the output gaps among the rest of the G-7 countries are shrinking. Thus, global competition may become less of a positive influence over the next few years as excess capacity abroad diminishes. Second, and more importantly, much of the U.S. economy is not subject to global

"Just In Time" Capital Goods



Source: Department of Commerce.

competition. Services and structures represent about 60% of U.S. GDP. Most of that portion of the economy is not subject to foreign competition.

Inflation pressures are also likely to be more subdued because U.S. companies are now able to bring productive resources on line more quickly as demand picks up. This "just in time" behavior is illustrated by the growing role of temporary workers as well as by the shortening in delivery times for capital equipment that has occurred over the past 20 years, illustrated in the chart above. In this new, more flexible situation, companies can more readily respond to the rise in demand by increasing output and therefore avoid having to ration a more limited supply of that output via price increases.

However, it is quite unlikely that these new features of the economic landscape will succeed in eradicating inflation altogether, as many seem to believe. While increased competition does reduce the control that an individual company can exercise over the price of its output, it does not guarantee that the resources in the economy as a whole will be available in sufficient supply to meet demand. Nor does access to resources elsewhere in the world necessarily alleviate shortages at home. For one thing, that access is imperfect. For another, there will be times when resources in the world economy are also limited relative to demand.

For these reasons, it is also unlikely that Fed officials will run the risk of an upturn in inflation implied by a declining unemployment rate for very long. Their decision to boost interest rates in late-March already hints that they are nervous about this risk. However, the Fed has also long harbored expectations that U.S. economic growth will slow to a pace consistent with stable unemployment. In the three months since the March tightening, the data have been soft enough, on balance, to reinforce this view. Consequently, Fed officials were content to leave policy on hold in May, and they will almost certainly do so again at the July 1-2 FOMC meeting. But when the data strengthen, as we expect will occur shortly, further tightening steps are not likely to lag far behind.

Ed McKelvey

Goldman Sachs

Key U.S. Economic Data

	'97 Jun	Latest Monthly Data '97 May	'97 Apr	'97 Mar	6 Mo Trend	12 Mo Trend	Next Release
Nonfarm Payrolls (ch. Thousands)	--	138	323	182	226	212	July 3
Unemployment Rate (%)	--	4.8	4.9	5.2	5.1	5.2	
Index of Hours Worked (% ch)	--	0.3	-0.4	0.1	3.1	3.2	
Average Hourly Earnings (% ch)	--	0.3	0.1	0.3	3.5	3.8	
Producer price finished goods index (% ch)	--	-0.3	-0.6	-0.1	-2.2	0.3	July 11
Excluding food and energy	--	-0.3	-0.1	0.4	-0.3	0.1	
Consumer price index (% ch)	--	0.1	0.1	0.1	1.6	2.3	July 16
Excluding food and energy (% ch)	--	0.2	0.3	0.2	2.5	2.5	
Retail sales (% ch)	--	-0.1	-0.9	-0.3	4.4	3.2	July 15
Excluding motor vehicles (% ch)	--	-0.1	-0.5	0.0	4.3	3.2	
Industrial Production (% ch)	--	0.4	0.3	0.4	4.3	4.3	July 16
Manufacturing	--	0.5	0.2	0.4	5.0	5.0	
Capacity utilization (%)	--	83.7	83.6	83.6	83.5	83.4	July 16
Manufacturing	--	82.7	82.6	82.7	82.6	82.4	
Housing Starts (annual rate, thousands)	--	1397	1468	1479	1438	1457	July 17
Single-family	--	1088	1116	1142	1122	1143	
Trade balance (billions, monthly)	--	--	-8.4	-7.8	-9.3	-9.5	July 18
Merchandise	--	--	-15.1	-14.9	-16.3	-16.4	
Factory Orders (% ch)	--	--	1.2	-1.3	1.2	5.5	July 2
Durable Goods	--	--	1.3	-2.2	0.7	7.4	July 25
Personal Income (% ch)	--	--	0.1	0.6	6.5	6.0	June 30
Wages and Salaries	--	--	-0.1	0.7	7.9	6.9	
Purchasing Managers' Index (%)	--	57.1	54.2	55.0	54.2	52.9	July 1
Consumer Sentiment U Mich (Feb 66=100)	104.5	103.2	101.4	100.0	101.0	98.6	July 18
Conference Board (1985=100)	129.6	127.9	118.5	118.5	122.0	116.2	July 29

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

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U.S. Calendar

Focus for the Week Ahead

- The Federal Open Market Committee meets for two days but is unlikely to change its federal funds rate target (July 1-2). We expect the minutes of the May 20 meeting to show that the FOMC reestablished a bias toward tightening (July 3).
- Job data for June should show a pickup in net hiring by nonfarm businesses, a significant (+0.4% or +0.5%) increase in average hourly earnings, and a slight uptick in the unemployment rate. Excellent summer job opportunities tilt risks in this report to the strong side (July 3).
- Purchasing managers' surveys will probably give back some of the strength in recent reports, while continuing to indicate solid gains in the manufacturing sector. Indexes of vendor performance bear close watching to see if signs of slower deliveries (a higher index) have intensified (June 30 and July 1).

Economic Releases and Other Events

			Estimate		
Date	Time	Indicator	GS	Consensus	Last Report
Mon Jun 30	8:30	Personal Income (May)	+0.4%	+0.4%	+0.1%
	8:30	Personal Consumption (May)	+0.5%	+0.3%	+0.1%
	10:00	New Home Sales (May)	+5.0%	+3.9%	-7.7%
	10:00	Chicago Purchasing Managers Index (Jun)	56.0%	n.a.	56.8%
Tue Jul 1	10:00	Purchasing Managers Index (Jun)	55.0%	56.0%	57.1%
	10:00	Construction Spending (May)	+1.5%	+0.7%	-1.0%
	10:00	Leading Indicators (May)	+0.2%	+0.2%	-0.1%
		Domestic Motor Vehicle Sales (Jun)	13.0M	n.a.	12.9M
Wed Jul 2	10:00	Factory Orders (May)	+0.0%	+0.5%	+1.2%
Thu Jul 3	8:30	Civilian Unemployment Rate (Jun)	4.9%	4.9%	4.8%
	8:30	Nonfarm Payroll Employment (Jun)	+250,000	+230,000	+138,000

- FOMC Meeting (Tue-Wed, Jul 1-2)
- Hong Kong Reverts to China (Tue, Jul 1)
- Treasury Announces Inflation-Indexed Security (Wed, Jul 2 - 2:30)
- May FOMC Minutes (Thu, Jul 3 - 2:00)

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	6.0%	6.3%	6.8%
Forward	5.9	6.1	6.3
2 Yr T-Note	6.4	6.6	7.1
Forward	6.2	6.3	6.4
10 Yr T-Note	6.8	7.0	7.2
Forward	6.5	6.5	6.6

Key Numbers in the Business Outlook

	1997				
	Q1	Q2E	Q3E	1997E	1998E
Real GDP	5.9%	2.1%	3.7%	3.8%	2.8%
Ind. Prod., Mfg.	5.7	3.0	5.7	4.8	4.4
CPI	2.4	1.4	2.2	2.5	3.1
After-Tax Profits*	7.8	8.6	3.8	6.0	2.7
Unemployment	5.3	4.8	4.7	4.8	4.6

* Excluding inventory profits; adjusted for depreciationdistortions.

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U.S. Economics Analyst

Fiscal Policy Shifting Toward Stimulus

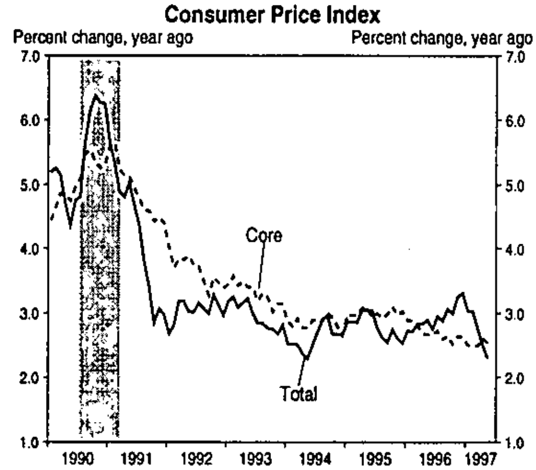
- As the legislation implementing the last month's budget accord comes into sharper focus, it points to fiscal stimulus in 1998 on the order of 0.4% of GDP. This will mark the end of a five-year period during which fiscal policy consistently exerted a restraining influence on U.S. economic growth.
- The turn toward fiscal stimulus comes on both sides of the ledger. Lawmakers plan to loosen limits on discretionary outlays through 1999, and they would permit entitlement spending to rise more quickly as well. Meanwhile, higher realizations of accumulated capital gains, to take advantage of lower tax rates, will offer a partial shield for sizable reductions in other levies.
- Although the prospect of a fiscal boost enhances the probability of more monetary restraint down the road, mixed indications on current economic activity strongly suggest that Federal Reserve officials will stay on the sidelines at their next policy meeting on July 1-2.
- Retail prices remained well-behaved in May, while housing starts fell and claims for jobless benefits ticked up. However, firm export growth appears to have helped keep factory output on a solid upward track.
- Recent comments by half a dozen members of the Federal Open Market Committee reinforce the conclusion that the central bank will stand pat in July. However, most of these officials have also voiced concern that the slowdown now underway could prove fleeting.

Senate Finance Committee New Tax Cut Proposals*
(Net revenue change, fiscal years, $ billions)

	1998	1999	1998-2002
Family Tax Relief	-$10.3	-$18.2	-$81.5
Capital Gains Tax Relief	7.2	0.1	-2.3
Education Incentives	-2.6	-6.8	-32.2
Expanded Retirement Accounts	-0.4	-0.5	-3.3
Estate and Gift Tax Relief	0.0	-1.0	-6.5
Miscellaneous Tax Cuts	-1.0	-1.2	-5.9
Total	-$7.2	-$27.6	-$131.8
Total, Excluding Capital Gains	-$14.4	-$27.6	-$129.5

* Figures exclude extensions of existing tax benefits.
Source: Senate Finance Committee. Our calculations.

Consumer Price Index



Source: Department of Labor.

Trade Recommendations

- Stay short December 1997 Eurodollar futures, with a stop on a close above 94.00 and a target of 93.40.
- Stay long the September '97/September '98 Eurodollar calendar spread, with a stop on a close below 40 basis points and a target of 80 basis points.

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Issue No: 97/25
June 20, 1997

I. Weekly Wrapup

Economic and Market Overview

With little in the latest economic reports or official commentary to revive expectations of an imminent tightening in monetary policy, prices of fixed income securities have drifted higher over the past week. Equity prices, meanwhile, consolidated the spectacular gains of the preceding week.

Retail prices extended their benign performance into May, as the consumer price index for all items edged up 0.1% and the core index rose 0.2%. At 2.3%, the year-to-year gain in the overall index has returned to the cyclical low reached in May 1994, albeit with some help from computational changes, while the inflation trend in the core index remains steady at about 2½%. News of a 4.8% drop in housing starts in May and a further increase in initial claims for jobless benefits in mid-June also helped solidify sentiment that Fed policy would stand pat in the near term.

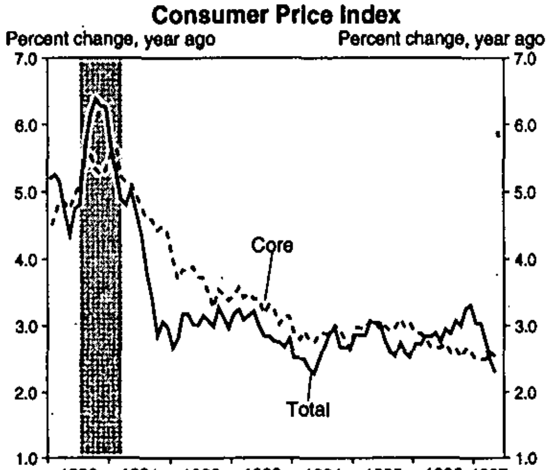
On the stronger side of the ledger, production appears to have maintained considerable momentum in the second quarter despite a setback in retail sales. In May, the index of industrial production rose 0.4% despite a nearly 2% drop in utility usage, as factories increased their output by 0.5%. As a result, capacity utilization rates moved up further, to their highest levels since the third quarter of 1995. Meanwhile, an upbeat report from businesses in the Philadelphia Federal Reserve District strongly suggested that the momentum in production stretched into June, as the survey's index of general conditions jumped to +25.2% from +1.6%.

The divergence between recent trends in industrial production and retail sales has prompted speculation that inventories might be accumulating at an excessive pace. Although the Federal Reserve's "beige book" summary of regional economic conditions contained several references to excessive stockpiles, on closer examination these comments revealed that the accumulations had occurred precisely in those areas, such as summer apparel, where sales would have suffered the most from unseasonably cool weather. Moreover, the latest trade figures suggest that foreign demand for U.S. goods may have taken up some of the slack between divergent recent growth rates in domestic demand and output. Largely due to export strength, the U.S. trade deficit averaged only $8.1 billion in March and April.

Federal Reserve Policy

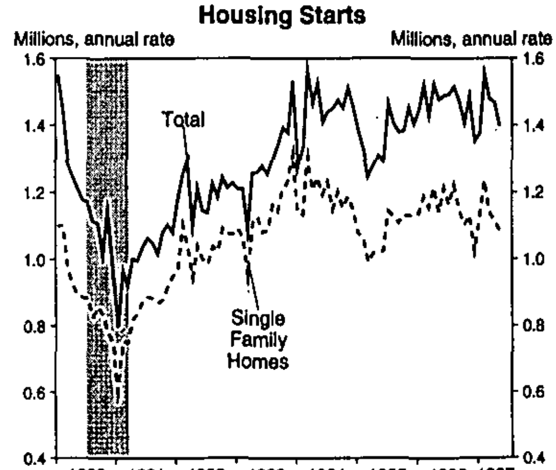
No fewer than half a dozen Federal Reserve Governors (Rivlin and Phillips) and Bank presidents (Broaddus of Richmond, Moskow of Chicago, Hoenig of Kansas City, and Parry of San Francisco) have spoken out in recent days on the current state of the U.S. economy. All but Hoenig are voting members of the FOMC. Their remarks have sounded strikingly similar themes: The economy is slowing, but for how long? And officials are struck by the lack of significant wage and price pressures in a situation where labor markets are unquestionably tight. The tenor of these comments reinforces both the notion that policy will remain on hold at the July 1-2 FOMC meeting and our judgment that not much of a resurgence in growth would be needed thereafter to prompt additional precautionary tightening moves.

Consumer Price Index



Source: Department of Labor.

Housing Starts



Source: Department of Commerce.

Fiscal and Political Developments

As we noted last week, and discuss more fully in this week's center section article (pp. 4-6), the legislative proposals advanced in recent days to implement the budget agreement imply that the economy will receive a dose of fiscal stimulus on the order of 0.4% of GDP in 1998. This follows five consecutive years of fiscal restraint. However, the proposal to index capital gains beginning in fiscal 2001, included in the bill that has just cleared the House Ways and Means Committee, now appears doomed. President Clinton has already indicated that he would veto a bill including this provision, on the grounds that it violates the cost constraints agreed to for the second five-year period of the budget planning period (fiscal years 2003-2007). The fate of the indexing proposal was probably sealed when Senate Finance Committee Chairman William Roth (R-Delaware) omitted it from his proposed tax legislation.

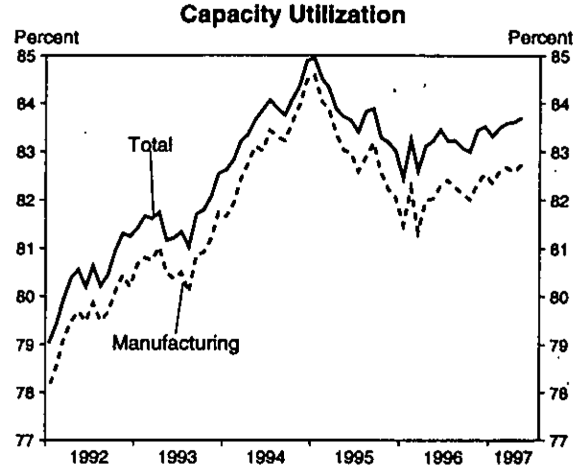
Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

The latest statistical releases have not changed our view that forward yields in the U.S. money market appreciably underweight the risk that economic growth will stay strong in the next year, sustaining pressure on Fed policy makers to move toward a more restrictive monetary posture. In particular, the December 1997 Eurodollar futures contract price appears to discount less than a 50% probability that any additional tightening will take place between now and early next year. This seems far too sanguine, given that fundamental income and liquidity underpinnings for domestic demand remain highly favorable, fiscal stimulus is on the way, and resource margins are already stretched very thin. Thus, we retain our bearish trading recommendations in this sector: Short the December Euro, with a stop on a close above 94.00, and long the September 1997/September 1998 Eurodollar calendar spread, with a stop on a close below 40 basis points.

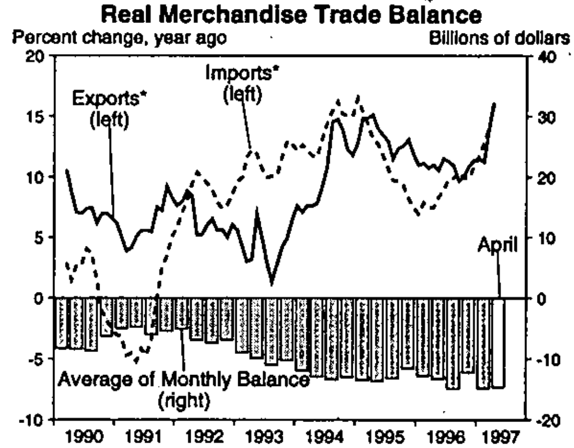
As we had suspected might happen, the Treasury bond futures price has been slowly grinding higher, offsetting some of the earlier out-performance among shorter-duration issues. With no major economic indicators due in the next week, this pattern could continue for awhile longer. Hence, we would remain on the sidelines in bonds, in anticipation of getting short again if consumer spending should display the re-acceleration we are forecasting.

Capacity Utilization



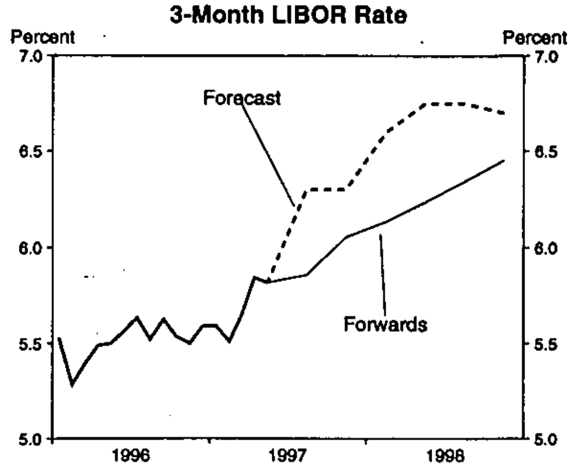
Source: Federal Reserve Board.

Real Merchandise Trade Balance



*3-Month Moving Average.
Source: Department of Commerce.

3-Month LIBOR Rate



Sources: Federal Reserve Board. Wall Street Journal.

II. Fiscal Policy Shifting Toward Stimulus

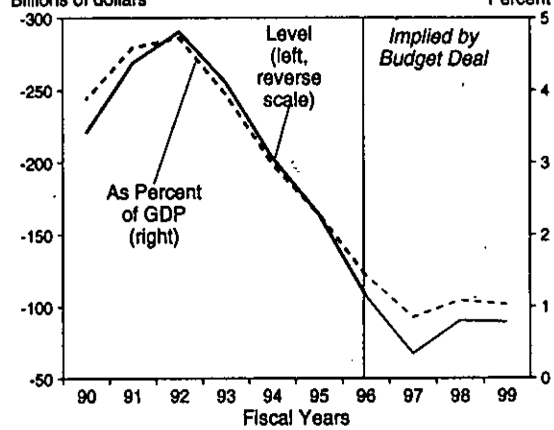
As the details of the bipartisan budget agreement slowly come into focus, it is increasingly evident that the fiscal policy impulse on U.S. economic activity is poised to shift from persistent restraint toward modest stimulus over the next one to two years. Projections in the congressional budget resolution envisage an increase in the federal budget deficit between now and fiscal years 1998 and 1999, despite an expectation that a capital gains tax rate reduction will lead to an acceleration of asset sales and tax remittances. Discretionary expenditure categories will be permitted to grow a bit faster between now and 1999 than they have over the past few years, and entitlement outlay growth is due to pick up speed as well, because intended structural reforms will take effect only gradually. At the same time, net personal and corporate tax cuts of appreciable magnitude are planned for the first time in more than a decade, and these will take effect swiftly, enhancing the spending power of households and businesses.

Even a mildly positive fiscal influence on U.S. economic growth would represent a significant shift from recent patterns, and it would add a new element of support to an expansion that already has been proceeding at a well-above-average pace, with steadily shrinking margins of key resources. This may add to anxieties at the Federal Reserve, where policy makers continue to seek a substantial moderation in the growth trend but no longer can count on budgetary tightening as an aid toward that end.

Political Pressures For Budget Restraint Rapidly Dissipating

For many years, federal lawmakers have labored under virtually constant pressure from public opinion and statutory requirements to make progress toward deficit reduction. This effort can be dated back at least to mid-1990, when a collision between hefty structural budget shortfalls augmented by the costly savings and loan industry bailout and sharply declining legal deficit targets under the Gramm-Rudman-Hollings law forced a complete re-writing of budgeting rules. The result was the adoption of tight annual caps on discretionary spending and a sizable personal income tax increase. In early 1993, with the deficit-to-GDP ratio stuck above 4% and projected to move higher over time, the Clinton Administration pushed through a hefty further tax hike and extended the strict discretionary spending limits through 1999.

Federal Budget Deficit



Source: Department of Treasury. Department of Commerce. House Budget Committee.

Efforts to suppress spending restraint intensified when Republicans captured congressional majorities in November 1994, on a platform that stressed bringing the deficit down to zero by 2002.

Collectively, these actions proved very successful in shrinking the U.S. budget gap to historically modest proportions. Over the past seven years, the deficit has plunged to an estimated 0.8% of GDP in fiscal 1997, the slimmest in nearly two decades, from 3.8%. In addition, this past spring congressional budget estimators slashed their official deficit forecasts for the next several years after seasonal tax revenues far surpassed their expectations. These developments gave negotiators for President Clinton and the congressional leadership a big boost toward closing their deal in May on a program that credibly points toward a balanced budget by 2002.

Just as the politicians are declaring victory over budget deficits, following a battle that consumed the better part of a decade, the debate in public policy circles has shifted toward how best to divide the spoils among various constituent groups rather than how to generate annual surpluses and public debt repayments. This can be seen in the structure of the bipartisan pact reached last month, which, though it promises more aggressive restraint on mandatory expenditure programs in the next decade, expressly permits a widening of the deficit in the next two fiscal years, to around $90 billion from the $67 billion estimated for fiscal 1997. In fact, this understates the contemplated degree of fiscal loosening over the 1997-1999 period, because it is expected that a lower capital gains tax rate will stimulate the realization of gains, and this will temporarily inflate federal revenues in the near run. Excluding this influence, the indicated deficit in fiscal 1998 would rise by nearly $30 billion, or about 0.4% of GDP.

A Diminished Taste for Spending Restraint

Although officials in Washington have not by any means halted their efforts toward finding federal spending savings, it certainly does seem that the strictures on outlay expansion are being loosened in the short term. Over fiscal years 1994-1996, total discretionary spending actually declined by 0.4% per year on average. The vast majority of this belt-tightening occurred in 1996, when the Republican congressional leadership placed great emphasis on squeezing out savings in nondefense categories, to the point of repeatedly shutting down large portions of the government. During the same interval, mandatory spending apart from deposit insurance was held to a 4.4% annual advance, down sharply from 9.7% per year in the 1989-1993 period.

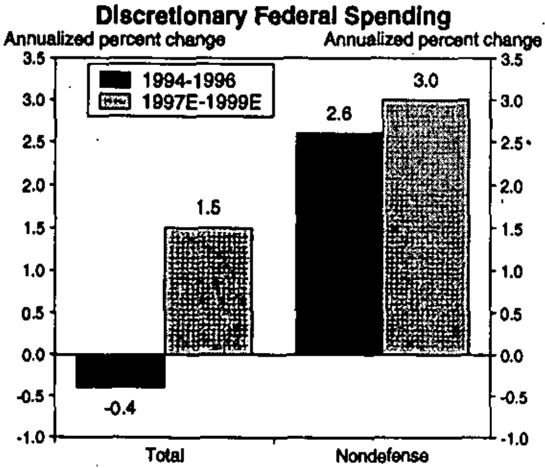
This year's budget agreement will relax the constraints on expenditures somewhat. Discretionary outlays are targeted to climb 1.5% annually over fiscal year 1997-1999, while entitlement spending (excluding deposit insurance) is projected to pick up to almost a 6% growth pace. Of course, in order to achieve a zero deficit projection for 2002 the budgeteers are promising a reversion to flat nominal discretionary spending appropriations after 1999. They can make this pledge secure in the knowledge that implementation of a return to stringency in these areas will not take place for two more years, during which time it is always possible that fresh positive revenue surprises could vitiate the need for another round of down-sizing.

Congress Endeavoring To Maximize Up-Front Tax Relief

In addition to a pickup in total federal spending growth over the next two years, the budget accord incorporates the first sizable tax-cutting program since the early 1980's. Legislation to implement this abatement will take some time to complete; already there are competing plans on the table from the House and Senate, which possess somewhat different emphases. Judging from these preliminary blueprints, though, it seems clear that the final tax bill will be designed to have a noticeable positive impact on after-tax personal earnings prior to the next round of congressional elections in the fall of 1998.

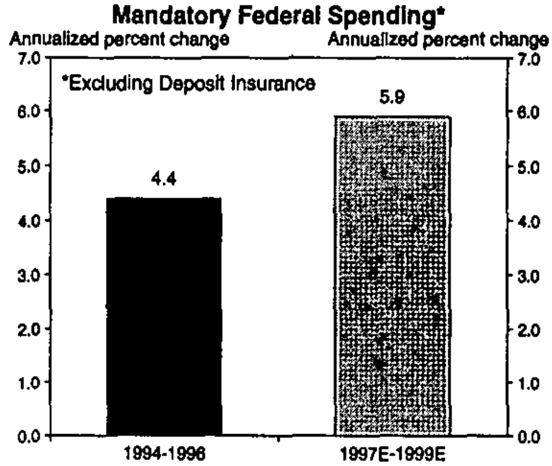
The House Ways and Means committee plan endeavors to maximize up-front tax relief within the limits placed on the tax cut under the budget deal ($85 billion net revenue loss over five years, $250 billion over ten years) by structuring the capital gains portion to have slightly favorable effects on receipts in the 1998-2002 interval. That bill not only offers a lower tax rate on such gains (20% for high-income filers, versus 28% currently), but also would permit indexation of investment principal amounts for purposes of calculating taxable gains beginning in 2001. The latter provision, however, would only be applicable to assets acquired starting in January 2001, or those for which taxes on cumulative gains through 2000 have been paid. By setting up two events that can be expected to trigger the recognition of gains and payment of taxes, the House committee is able to

Discretionary Federal Spending



Source: House and Senate Budget Committees. Our calculations.

Mandatory Federal Spending*



Source: House and Senate Budget Committees. Our calculations.

estimate that its proposal would boost capital gains receipts by a net $1 billion over five years compared to current law, and that creates room for a more generous trimming of levies in other areas.

By contrast, the Senate Finance Committee's preliminary tax plan (released on June 17) is centered around an early timetable for new personal credits for children. While both the House and Senate measures would create a $500-per-child annual credit against taxes owed for households below a certain gross income ceiling, the Senate credit would take effect very quickly, at $250 in 1997 and the full amount in 1998. This would enable filers to claim savings by the April 1998 filing deadline, presumably lifting the volume of tax refunds that would be paid out next winter and spring. The Senate plan would add at least $20 billion to the personal tax cut in fiscal years 1998 and 1999 combined versus what the House bill provides. Given the high propensity of middle-income households to spend marginal after-tax dollars, these extra funds would likely give a boost to personal consumption over the medium term.

Both chambers of Congress, therefore, have revealed biases toward using the tax portion of this budget to boost after-tax incomes as soon as possible, and the Clinton Administration has expressed a higher regard for the Senate bill's more generous treatment of the child tax credit. This is not surprising, given the natural desires of elected officials to highlight and accelerate those budgetary changes that can be expected to generate positive economic sentiments among the electorate. Nonetheless, it marks a significant change from the patterns seen earlier in the 1990's, when the politicians and their senior aides routinely rebuffed proposals for tax relief on the grounds that top priority must be assigned to deficit reduction.

Senate Finance Committee New Tax Cut Proposals*

(Net revenue change, fiscal years, $ billions)

	1998	1999	1998-2002
Family Tax Relief	-$10.3	-$18.2	-$81.5
Capital Gains Tax Relief	+7.2	+0.1	-2.3
Education Incentives	-2.6	-6.8	-32.2
Expanded Retirement Accounts	-0.4	-0.5	-3.3
Estate and Gift Tax Relief	0.0	-1.0	-6.5
Miscellaneous Tax Cuts	-1.0	-1.2	-5.9
Total	-$7.2	-$27.6	-$131.8
Total, Excluding Capital Gains	-$14.4	-$27.6	-$129.5

* Figures exclude extensions of existing tax benefits.

Source: Senate Finance Committee. Our calculations.

Fiscal Boost to Growth Would Complicate the Fed's Task

Even a slight easing of the federal fiscal stance would probably be viewed with concern among senior Federal Reserve policy makers, who are seeking a slowdown in the economy's growth rate so as to forestall a potentially inflationary squeeze on labor and other key resource supplies. To this point, the risk of an unwanted late-business-cycle boom in U.S. spending and output has been tempered by the continuous presence of budgetary restraint, as well as sluggish growth in a number of key trading partner nations. This has given the Fed more latitude to be patient with monetary policy when growth has been fairly exuberant, as in the first half of 1996 and in the two quarters ending this past March. No doubt, the presence of fiscal drag has been a factor encouraging Chairman Greenspan and others to adopt a view that the economy's momentum will have a natural tendency to fade even in the absence of credit tightening steps.

Looking ahead, however, the swing in budget strategy from long-running consolidation toward slight easing seems likely to increase pressure on the central bank to apply the brakes to economic growth, particularly if business conditions strengthen abroad. The domestic political winds no longer seem to be blowing in the direction of fiscal asceticism, but have shifted toward a greater willingness to enjoy the economic benefits deriving from high levels of employment, output, and incomes. Moreover, in an environment where the budget target is essentially fixed at a zero deficit, and both major political parties vividly recall electoral losses resulting from past austerity programs, the potential for easier fiscal policies will grow to the extent that the economy outperforms consensus forecasts. Just as has occurred in the past year, an upside surprise on national incomes will tend to swell revenues beyond projected levels, thereby making it easier to reach budgetary balance by the 2002 target date. Such an outcome could increase the temptation to loosen the federal pursestrings or further trim the tax burden.

John Youngdahl

Key U.S. Economic Data

	Latest Monthly Data '97 May	'97 Apr	'97 Mar	'97 Feb	6 Mo Trend	12 Mo Trend	Next Release
Nonfarm Payrolls (ch. Thousands)	138	323	182	253	226	212	July 3
Unemployment Rate (%)	4.8	4.9	5.2	5.3	5.1	5.2	
Index of Hours Worked (% ch)	0.3	-0.4	0.1	1.3	3.1	3.2	
Average Hourly Earnings (% ch)	0.3	0.1	0.3	0.4	3.5	3.8	
Producer price finished goods index (% ch)	-0.3	-0.6	-0.1	-0.4	-2.2	0.3	July 11
Excluding food and energy	-0.3	-0.1	0.4	-0.2	-0.3	0.1	
Consumer price index (% ch)	0.1	0.1	0.1	0.3	1.6	2.3	July 16
Excluding food and energy (% ch)	0.2	0.3	0.2	0.2	2.5	2.5	
Retail sales (% ch)	-0.1	-0.9	-0.3	1.3	4.4	3.2	July 15
Excluding motor vehicles (% ch)	-0.1	-0.5	0.0	0.8	4.3	3.2	
Industrial Production (% ch)	0.4	0.3	0.4	0.5	4.3	4.3	July 16
Manufacturing	0.5	0.2	0.4	0.6	5.0	5.0	
Capacity utilization (%)	83.7	83.6	83.6	83.5	83.5	83.4	July 16
Manufacturing	82.7	82.6	82.7	82.6	82.6	82.4	
Housing Starts (annual rate, thousands)	1397	1468	1479	1554	1438	1457	July 17
Single-family	1088	1116	1142	1237	1122	1143	
Trade balance (billions, monthly)	--	-8.4	-7.8	-9.9	-9.3	-9.5	July 18
Merchandise	--	-15.1	-14.9	-16.8	-16.3	-16.4	
Factory Orders (% ch)	--	1.2	-1.3	0.4	1.2	5.5	July 2
Durable Goods	--	1.3	-2.2	1.0	0.7	7.4	June 25
Personal Income (% ch)	--	0.1	0.6	0.8	6.5	6.0	June 30
Wages and Salaries	--	-0.1	0.7	1.3	7.9	6.9	
Purchasing Managers' Index (%)	57.1	54.2	55.0	53.1	54.2	52.9	July 1
Consumer Sentiment U Mich (Feb 66=100)	103.2	101.4	100.0	99.7	99.8	97.6	June 27
Conference Board (1985=100)	127.1	118.5	118.5	118.9	119.3	113.6	June 24

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

U.S. Calendar

Focus for the Week Ahead

- The strength in new orders reported in various recent surveys of industrial activity suggests that bookings for durable goods probably rose further in May. Such a rise will be especially meaningful if it includes an increase in orders for nondefense capital goods, a key harbinger of business equipment outlays (June 25).
- Various upbeat soundings on consumer sentiment in recent weeks indicate that the Conference Board's confidence index for June probably held onto most of the sharp gain recorded in May (June 24).
- No significant initiatives regarding G7 economic policies are likely to emerge from the summit meeting in Denver this weekend (June 20-22).

Economic Releases and Other Events

Date		Time	Indicator	Estimate GS	Estimate Consensus	Last Report
Tue	Jun 24	10:00	Consumer Confidence (Jun)	124.0	125.3	127.1
Wed	Jun 25	8:30	Durable Goods Orders (May)	+1.5%	+0.6%	+1.3%
		10:00	Existing Home Sales (May)	+3.0%	-0.2%	-2.4%
Fri	Jun 27	8:30	Real GDP (Q1 '97—Revised)	+5.8%	+5.8%	+5.8%
		8:30	Chain-Weight Price Index (Q1 '97—Revised)	+2.8%	+2.8%	+2.8%

- G7 Economic Summit Meeting—Denver CO (Fri, Jun 20 - Sun, Jun 22)
- APICS Survey (Thu, Jun 26 - 2:00)
- Help-Wanted Index (Thu, Jun 26 - 10:00)
- U. of Mich. Consumer Sentiment—Final (Fri, Jun 27 - 10:00)

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	6.0%	6.3%	6.8%
Forward	5.9	6.1	6.2
2 Yr T-Note	6.4	6.6	7.1
Forward	6.2	6.2	6.4
10 Yr T-Note	6.8	7.0	7.2
Forward	6.4	6.5	6.5

Key Numbers in the Business Outlook

	1997 Q1	1997 Q2E	1997 Q3E	1997E	1998E
Real GDP	5.8%	2.1%	3.7%	3.8%	2.8%
Ind. Prod., Mfg.	5.7	3.0	5.7	4.8	4.4
CPI	2.4	1.4	2.2	2.5	3.1
After-Tax Profits*	10.1	8.6	3.8	6.0	2.7
Unemployment	5.3	4.8	4.7	4.8	4.6

* Excluding inventory profits; adjusted for depreciation distortions.

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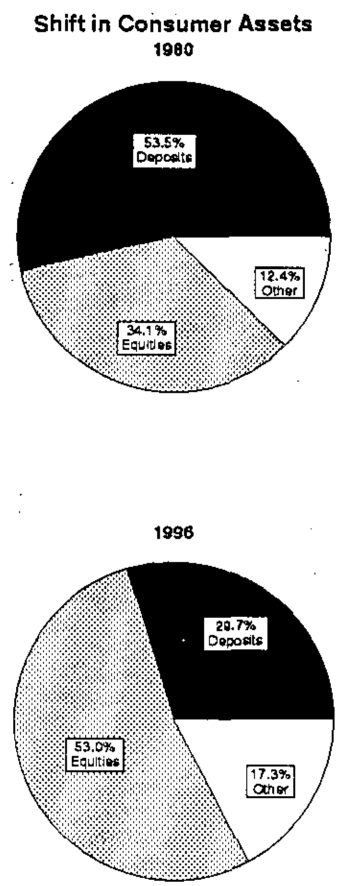
U.S. Economics Analyst

Household Finances and the Brave New Business Cycle

- Households are more exposed to fluctuations in financial asset values than they have been in the past. This reflects the substitution of equities for deposits, greater balance sheet leverage, and the substitution of defined contribution pension plans for defined benefit plans.
- The greater exposure of the household sector to financial asset price fluctuations suggests that consumer spending could become more cyclical. On the upside, this means that the surge in household net worth generated by the rising equity market could begin to leak more into spending. On the downside, if financial asset prices tumbled, this could cause households to retrench, making an economic downturn worse.
- The potential for increased cyclicality of consumer spending stands in contrast to other factors, such as just-in-time inventory management, a more open economy, and more flexible labor markets, that have tended to dampen the volatility of business activity and have led to the Brave New Business Cycle.
- The weakness of retail sales over the March to May period and the softness of producer prices make it very unlikely that Fed officials will tighten monetary policy at the next FOMC meeting in July. However, the notion that Fed officials are done tightening is, at best, spectacularly premature. The weakness in spending is likely to prove transitory as the fundamental supports for consumption — employment, income, confidence, and wealth— remain in excellent shape.



Source: Federal Reserve Board.

Trade Recommendations

- Stay short December 1997 Eurodollar futures, with a stop on a close above 94.00 and a target of 93.40.
- Get long the September '97/September '98 Eurodollar calendar spread, with a stop on a close below 40 basis points and a target of 80 basis points.
- Close short December T-bond futures position.

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I. Weekly Wrapup

Economic and Market Overview

A surprisingly poor retail sales report and a sharp fall in producer prices caused investors to conclude that Fed officials would keep monetary policy on hold for the time being. As a result, both bond and equity prices moved sharply higher. In fact, judging from current forward interest rates, market participants now assign a very low probability to further monetary policy tightening this year. Perceptions of a sharp slowdown in economic growth this quarter were reinforced by a 0.1% decline in total retail sales, which was coupled with a 0.8% downward revision to the previous two months' sales results. This marked the third straight month of slipping retail purchases, and it points to a modest decline in real consumer spending on goods in the period. Consequently, we have lowered our second-quarter real GDP growth estimate to 2.1% from 2.7% (annual rates). Wide variances in weather conditions this year have caused retail sales to deviate materially from their prior solid trend, first up and now down. Given that consumer income gains remain solid, and confidence is high and rising (the weekly ABC/Money Magazine poll is at the firmest levels in over a decade), we expect an early resumption of sturdy consumption patterns.

On the inflation front, the news remains excellent. Producer prices fell by 0.3% in May, both overall and excluding food and energy. Although a plunge in computer (-4.6%) and auto prices (-1.6%) were responsible for much of the weakness in core prices, the fact that core producer prices have been virtually unchanged over the past year (+0.1%) indicates an absence of goods inflation pressures.

Federal Reserve Policy

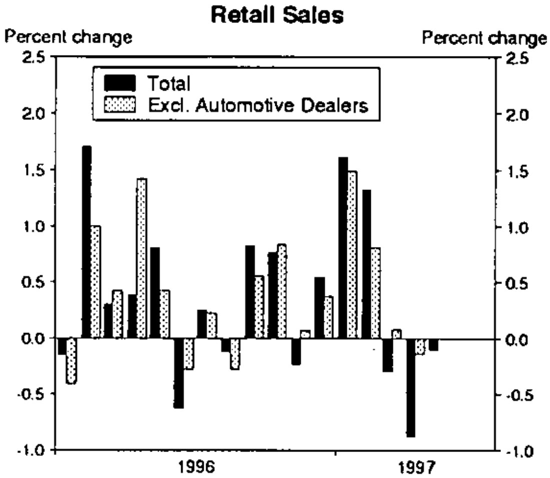
Senior Fed officials have already demonstrated a clear preference for patience in responding to the economy's recent strength, and weakness in second-quarter spending figures will likely bolster their belief that growth can slow to a trend pace without swift further tightening. With key information on second-quarter employment costs and GDP not due until the last week of July, and Chairman Greenspan required to deliver congressional testimony on monetary policy in the meantime, it now appears very unlikely that the Federal Reserve officials will tighten monetary policy at the July 1-2 FOMC meeting.

Our view remains, however, that the recent slower pace of spending is a predictable correction for the exceptionally robust demand levels of the winter, when favorable weather pulled seasonally-adjusted outlays far above their previous solid upward trend. With the inventory base very lean, producers have room to accommodate this slowdown, so long as it does not go too deep or last too long (i.e., into the summer months). Should spending reaccelerate soon, in fact, the positive gap between sales and output could put pressure on firms to step up their expansion at a time when the unemployment rate is already extremely low. If that were to happen, then the Fed's persistent hopes for a stabilization in resource use measures would not be realized, and an abrupt change of approach might ensue.

Fiscal and Political Developments

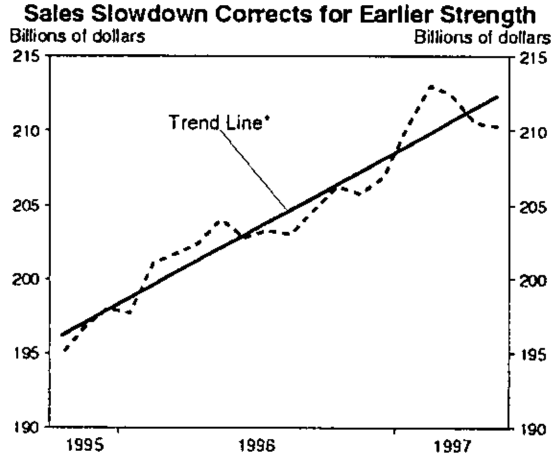
The initial blueprint for this year's tax cut package,

Retail Sales



Source: Department of Commerce.

Sales Slowdown Corrects for Earlier Strength



*Based on growth from Oct 95 to May 97 (.42% per month)
Source: Department of Commerce.

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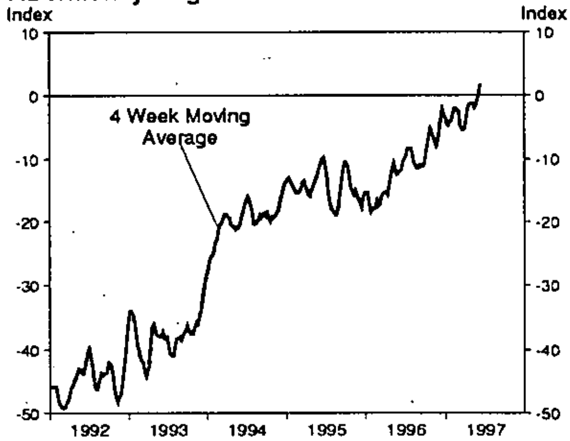
released by the House Ways and Means Committee this week, was slanted in a relatively stimulative direction. Recommended reductions to capital gains levies were predictably substantial, and were structured in a fashion that could be scored to provide a small net revenue gain over the 1997-2002 interval. This permitted the panel to expand somewhat the amount of tax relief offered in other areas, particularly regarding tax credits for children and estates. Ways and Means Chairman Archer also restated his intention to make the effective date for capital gains tax changes retroactive to May 7, which could make investors more comfortable in realizing gains on appreciated assets. This proposal marks only the beginning of the legislative process regarding taxes, and significant modifications can be expected along the way, with the Clinton Administration already voicing major objections. That said, it is noteworthy that at the start of the tax-writing process a bias toward sizable reductions has already been revealed, because usually the political pressure for generosity will grow as the bill moves through legislative channels.

Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

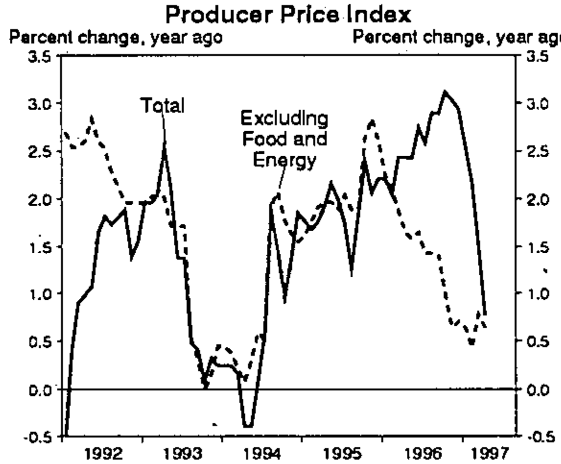
Despite the sharp rally in the fixed income markets, we would remain short the short-end of the curve. In the longer end, we would cover our short in the December T-bond future because bond prices have lagged behind the rally in the short end. As noted above, we believe short positions are still warranted as virtually no monetary policy tightening is priced in. If the weakness in spending proves transitory as we expect, sentiment could shift back quite quickly toward an expectation of more monetary policy tightening during the second half of the year. Because the timing of the next Fed move has become more uncertain, we would go long the September '97/September '98 Eurodollar calendar spread (currently 47 basis points). Such a position is much less exposed to the passage of time than outright short positions as calendar spreads have a tendency to widen slightly as the front contract gets closer to maturity (convergence helps rather than hurts as is the case for outright short positions). Our target is 80 basis points, and we would stop out the position on a close below 40 basis points. We would retain our short position in the December Eurodollar futures as virtually no tightening is now priced in, recognizing that there is a good chance we will trigger our stop on a close above 94.00.

ABC/Money Magazine Consumer Comfort Index



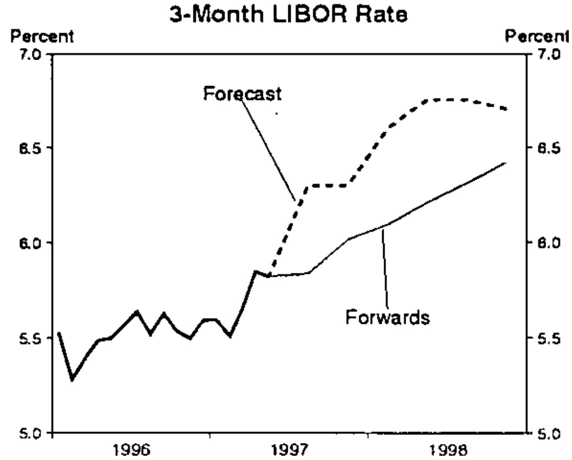
Source: Money Magazine. ABC News.

Producer Price Index



Source: Department of Labor.

3-Month LIBOR Rate



Sources: Federal Reserve Board. Wall Street Journal.

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II. Household Finances and the Brave New Business Cycle

Households are much more exposed to fluctuations in financial asset values (especially equities) than they have been in the past: A higher proportion of assets fluctuate in value, balance sheets have become more leveraged, and households are more dependent on their own resources to provide sufficient income for retirement.

These shifts have potentially important implications for the nature of the business cycle. In particular, the increased exposure of households to financial asset price risk may make consumer spending more cyclical than it has been in the past. When asset prices are rising, this will tend to bolster net worth and help encourage greater spending. In contrast, when the economic environment deteriorates and financial asset values erode, the exposure of the consumer balance sheet to declines in financial asset prices could lead to weakness in spending.

The increased risk exposure of the household sector stands in marked contrast to other developments that have tended to dampen the business cycle: Just-in-time inventory management, a more open economy, financial market deregulation, and a more flexible labor market.[1]

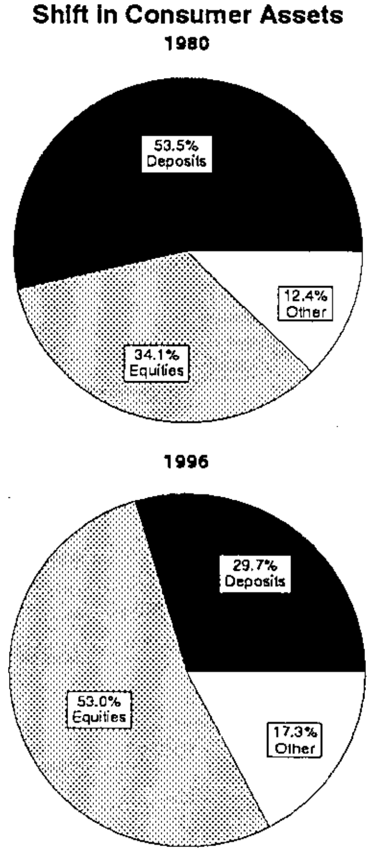
Increased Household Balance Sheet Risk

The exposure of households to financial asset price risk has increased for two major reasons. First, deposits have become a much less important component of the household balance sheet and equities have grown in importance. As shown in the accompanying pie charts, the deposit share has fallen to about 30% at yearend 1996 from nearly 54% at yearend 1980. In contrast, the equity share (including equity mutual funds shares) has climbed to 53% from 34% over the corresponding period.

This shift has occurred not just because a number of high-income households have increased their equity exposure. The proportion of households that hold equities and equity mutual fund shares has also increased sharply. For example, according to the Federal Reserve's Survey of Consumer Finances, in 1995 about 41% of all households held some equities, compared to only 32% six years earlier. The proportion of households holding equities has probably increased another few percentage points over the past two years.

The shift from deposits to equities reflects two developments. First, depository institutions became less aggressive about bidding for financial assets following the demise of much of the thrift industry over the past decade. Second, household investors had a very favorable experience with equities during most of the 1980s and 1990s (the 1987 crash excepted). Although the appreciation of the equity market itself is undoubtedly responsible for much of the shift in share, the fact that households have not rebalanced their portfolios back towards deposits means that the greater exposure to shifts in valuation remains. The shift from deposits to equities increases the exposure to price fluctuations because deposits are insured up to $100,000 per depositor, per bank, by the U.S. government. Also, there is little interest rate risk even for longer-term deposits, because depositors are usually able to make early withdrawals

Shift in Consumer Assets



Source: Federal Reserve Board.

[1] See *The Brave New Business Cycle: No Recession in Sight*, January 1997.

with only a small penalty (3 or 6 months of interest). In contrast, stock prices can rise and fall significantly. The most obvious example of the downside is the three-day stock market crash in October 1987, which brought the S&P 500 index down by about 26% in less than one week.

The second important change in the household balance sheet is greater leverage. As shown in the chart below, household debt has grown significantly faster than income over the past two decades. This does not mean that households need to throttle back spending. After all, asset growth has also been much higher than income growth. What it does mean, however, is that household net worth is more exposed to fluctuations in financial asset prices than if the balance sheet were less leveraged.

The increase in the size of both sides of the balance sheet relative to income reflects several factors. First, technological change has made the financial markets more efficient, reducing intermediation costs and thereby pushing down the cost of holding both debt and financial assets. The tax code has also played a role. In the past, households might have used extra income to pay down mortgage debt. Now those funds may instead be channeled into a 401(K) plan. The result is the best of both worlds: A tax deduction for mortgage interest and a deduction from income for the 401(K) plan contribution.

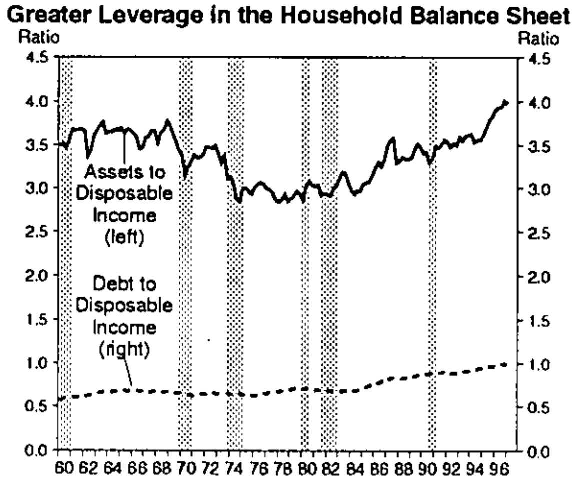
Greater Responsibility for Retirement

The second big change has been the growth of defined contribution plans at the expense of defined benefit plans. As shown in the table below, participation in defined contribution plans increased to 44 million participants in 1993 (latest available data) from 12 million in 1975. In contrast, the number of participants in defined benefit pension plans has grown much more slowly, rising to 40 million participants in 1993 from 33 million participants in 1975. The shift in the share of asset holdings in these two types of plans is also striking. Defined benefit plan assets in 1993 were about $1248 billion, compared to defined contribution plan assets of about $1068 billion. This compares to $186 billion and $74 billion, respectively, in 1975.

This shift is very important because households bear all the risk of fluctuations in defined contribution plan assets. In contrast, for defined benefit plan assets, the business sponsoring the plan bears the risk. If the assets in the plan are insufficient relative to the plan's liabilities, the business will have to increase its contributions into the plan. Declining financial asset values generally have no effect on the retirement benefits vested to workers under the plan. Moreover, the Federal Pension Guaranty Board guarantees that the plan's obligations will be honored in the event of a business failure and inadequate pension fund assets. In contrast, under defined contribution plans, any shortfall comes out of the worker's pocket in terms of either a delayed retirement or a lower retirement income.

Moreover, the composition of financial assets held in defined contribution plans has become more risky. The share of assets held in the form of cash (e.g., money market funds and deposits) has shrunken rapidly in recent years relative to equities and other riskier assets. While this development is appropriate as the shift has led to a significant increase in both realized and prospective returns, it has also increased

Greater Leverage in the Household Balance Sheet



Source: Federal Reserve Board. Department of Commerce.

Private Pension Plans

Participants	1975 (mn)	1975 (% of Total)	1993 (mn)	1993 (% of Total)
Defined Benefit	33	74%	40	48%
Defined Contribution	12	26%	44	52%
Total	45	100%	84	100%

Assets	1975 ($ bn)	1975 (% of Total)	1993 ($ bn)	1993 (% of Total)
Defined Benefit	$186	72%	$1,248	54%
Defined Contribution	$74	28%	$1,068	46%
Total	$260	100%	$2,316	100%

Source: Employee Benefit Research Institute.

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the exposure of the household sector to fluctuations in financial asset values.

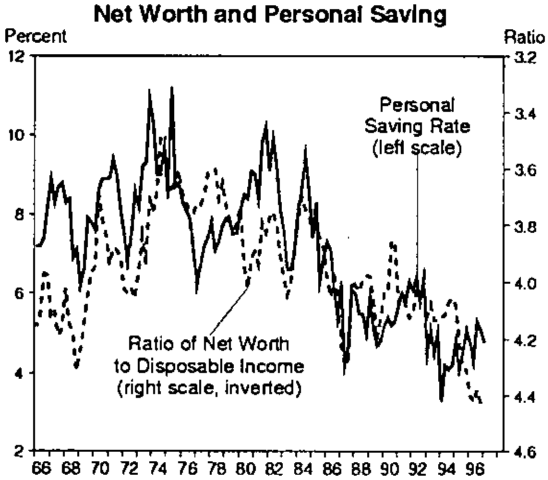
Implications for Household Behavior

The first consequence of the household sector's increased exposure to financial asset price risk has been a shift upwards in the savings rate. This can be seen most visibly by plotting the saving rate versus the ratio of net worth to disposable income. As can be seen, in recent years this relationship has broken down. The saving rate is higher than one would expect given the large increase in net worth relative to income. Although this may reflect other factors, including the aging of the population and anxieties about the long-term soundness of the social security system, the changes in the riskiness of financial asset holdings and in terms of ensuring a satisfactory retirement income have also likely been important.

Whether the saving rate will continue to stay elevated despite the continued climb in net worth is an open question. It depends on the extent to which household risk to financial asset price fluctuations continues to increase and how households respond to that risk in terms of their saving and spending behavior.

The second major implication of the change in household finances should be greater cyclicality of household spending for a given degree of change in financial asset valuation. The household balance sheet—broadly defined to include both direct financial asset holdings and vested retirement benefits—is much more exposed to fluctuations in financial asset values now compared to the past. For example, a 20% decline in equity prices from yearend 1996 values would cut household net worth by 5.2%.

Net Worth and Personal Saving



Sources: Deparment of Commerce, Federal Reserve Board, GS.

In 1980, a similar decline would have reduced household net worth by only 2.4%.

If this is true, then why hasn't consumer spending and saving been more cyclical in this current business cycle? Most likely, the lack of cyclicality in spending reflects two factors. First, equity prices have not been volatile, especially on the downside. The last time that the S&P 500 index had a cumulative decline of more than 10% occurred during 1990. Second, the increase in the exposure of the household balance sheet to risk has temporarily dampened the volatility of spending and saving volatility by raising the saving rate. The decline in the saving rate that would have normally been generated by the surging stock market has been roughly offset by the rise in the saving rate generated by the increased risk. If stock prices had been falling rather than rising, then these two forces would have been working in the same rather than in opposite directions. In that case, the saving rate would have risen more sharply and spending would have been weaker.

Over the near-term, the major risk is that the increase in financial asset prices finally begins to show through in the form of a lower saving rate. After all, there is no reason why the downward pressure on the saving rate generated by the effect of the surging stock market on household wealth must necessarily be offset by the increase in saving generated by increased household balance sheet risk. With the S&P 500 index now up more than 80% since the beginning of 1995, it would not be surprising if the so-called "wealth effect" began to dominate.[2]

Over the longer run, the increased balance sheet exposure of the household sector increases the vulnerability of the economy to a significant decline in equity prices. Although such a decline would not be the trigger for an economic downturn (instead the causality is likely to run the other way from the economy to financial asset prices), one can easily imagine circumstances in which a fall in equity prices could make a mild downturn worse and a recovery more difficult.

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[2] For an examination of the "wealth effect" see "The Wealth Effect: The Jury is Still Out," *U.S. Economics Analyst*, April 4, 1997.

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Key U.S. Economic Data

	Latest Monthly Data '97 May	'97 Apr	'97 Mar	'97 Feb	6 Mo Trend	12 Mo Trend	Next Release
Nonfarm Payrolls (ch. Thousands)	138	323	182	253	226	212	July 3
Unemployment Rate (%)	4.8	4.9	5.2	5.3	5.1	5.2	
Index of Hours Worked (% ch)	0.3	-0.4	0.1	1.3	3.1	3.2	
Average Hourly Earnings (% ch)	0.3	0.1	0.3	0.4	3.5	3.8	
Producer price finished goods index (% ch)	-0.3	-0.6	-0.1	-0.4	-2.2	0.3	July 11
Excluding food and energy	-0.3	-0.1	0.4	-0.2	-0.3	0.1	
Consumer price index (% ch)	--	0.1	0.1	0.3	2.2	2.5	June 17
Excluding food and energy (% ch)	--	0.3	0.2	0.2	2.7	2.6	
Retail sales (% ch)	-0.1	-0.9	-0.3	1.3	4.4	3.2	July 15
Excluding motor vehicles (% ch)	-0.1	-0.5	0.0	0.8	4.3	3.2	
Industrial Production (% ch)	--	0.0	0.6	0.5	4.8	4.1	June 17
Manufacturing	--	-0.2	0.5	0.7	5.1	4.6	
Capacity utilization (%)	--	83.4	83.7	83.5	83.5	83.3	June 17
Manufacturing	--	82.4	82.8	82.7	82.5	82.4	
Housing Starts (annual rate, thousands)	--	1473	1435	1554	1446	1460	June 17
Single-family	--	1118	1115	1237	1125	1145	
Trade balance (billions, monthly)	--	--	-8.5	-10.5	-9.7	-10.1	June 19
Merchandise	--	--	-15.1	-17.0	-16.0	-16.2	
Factory Orders (% ch)	--	1.2	-1.3	0.4	1.2	5.5	July 2
Durable Goods	--	1.3	-2.2	1.0	0.7	7.4	June 25
Personal Income (% ch)	--	0.1	0.6	0.8	6.5	6.0	June 30
Wages and Salaries	--	-0.1	0.7	1.3	7.9	6.9	
Purchasing Managers' Index (%)	57.1	54.2	55.0	53.1	54.2	52.9	July 1
Consumer Sentiment U Mich (Feb 66=100)	103.2	101.4	100.0	99.7	99.8	97.6	June 27
Conference Board (1985=100)	127.1	118.5	118.5	118.9	119.3	113.6	June 24

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

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U.S. Calendar

Focus for the Week Ahead

- The weakness of food and auto prices in the producer price report suggests that consumer prices will also be well-behaved in May. The major risk on the upside is that the owners' equivalence rent component starts to reflect some of the updrift already evident in home prices (June 17).
- Industrial production is likely to post a modest gain, as manufacturing and mining gains offset weakness in utility output (June 17).
- The trade deficit is likely to widen as aircraft and gold exports unwind some of their strength and imports remain firm despite weaker oil prices (June 19).

Economic Releases and Other Events

Date	Time	Indicator	Estimate GS	Estimate Consensus	Last Report
Tue Jun 17	8:30	Consumer Price Index (May)	+0.1%	+0.2%	+0.1%
		Excluding Food & Energy	+0.2%	+0.2%	+0.3%
	8:30	Housing Starts (May)	+1.0%	-1.6%	+2.6%
	9:15	Industrial Production (May)	+0.1%	+0.3%	0.0%
	9:15	Capacity Utilization (May)	83.2%	83.4%	83.4%
Wed Jun 18	10:00	Non-Farm Productivity (Q1 '97—Revised)	+2.0%	n.a.	+2.0%
Thu Jun 19	8:30	Trade Balance (Apr)	-$10.0 Bil	-$10.3 Bil	-$8.5 Bil
	10:00	Current Account Balance (Q1 '97)	-$43.5 Bil	n.a.	-$41.4 Bil
	10:00	Philadelphia Fed Survey (Jun)	+12.0%	+5.0%	+1.6%
Fri Jun 20	2:00	Federal Budget Balance (May)	-$50.5 Bil	-$47.0 Bil	-$53.1 Bil

- Homebuilders' Survey (Mon, Jun 16)
- Fed Beige Book (Wed, Jun 18 - 2:00)
- Treasury Announces 2- and 5-Year Notes (Wed, Jun 18 - 2:30)
- Import & Export Prices (Thu, Jun 19 - 10:00)
- G7 Economic Summit Meeting—Denver, CO (Fri, Jun 20 - Sun, Jun 22)

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	6.0%	6.3%	6.8%
Forward	5.9	6.1	6.3
2 Yr T-Note	6.4	6.6	7.1
Forward	6.2	6.3	6.4
10 Yr T-Note	6.8	7.0	7.2
Forward	6.5	6.6	6.6

Key Numbers in the Business Outlook

	1997 Q1	1997 Q2E	1997 Q3E	1997E	1998E
Real GDP	5.8%	2.1%	3.7%	3.8%	2.8%
Ind. Prod., Mfg.	5.7	3.0	5.7	4.8	4.4
CPI	2.4	1.4	2.2	2.5	3.1
After-Tax Profits*	10.1	8.6	3.8	6.0	2.7
Unemployment	5.3	4.8	4.7	4.8	4.6

* Excluding inventory profits; adjusted for depreciationdistortions.

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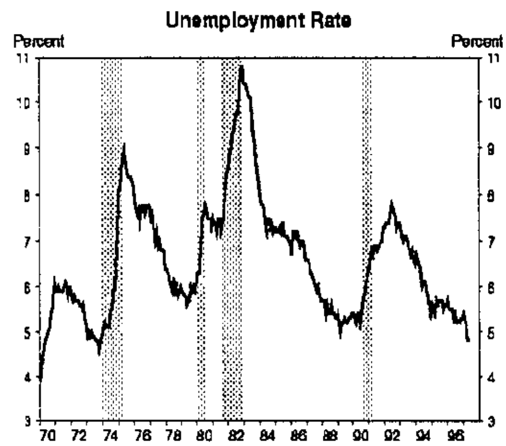
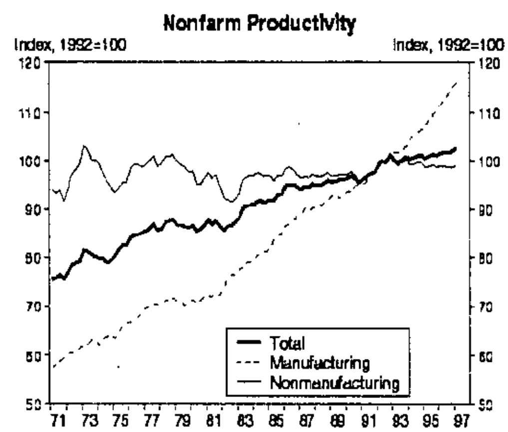
U.S. Economics Analyst

Thinking Out Loud About the U.S. Productivity Problem

- The U.S. labor market tightened further in May, as the unemployment rate dropped to 4.8% of the labor force. Although nonfarm payrolls rose only 138,000, sharp upward revisions to figures for March and April put the 3-month average at 214,000—about equal to the year-to-year trend.
- Purchasing managers reported sustained growth in industrial activity in May, and their index of vendor performance hinted that the strength in this sector could be putting strains on capacity. Meanwhile, lackluster retail sales reports suggest that consumer spending remained subdued despite a modest increase in motor vehicle sales.
- The drop in unemployment increases pressure on Fed officials to tighten policy; however, it is not clear that they will choose to do so at the next FOMC meeting. Upcoming news on consumer spending and prices will be critical in determining the timing of the next Fed move.
- It has become axiomatic in financial circles that U.S. labor productivity is rising faster than the 1% per year indicated in official data. This view is supported by the evidence that inflation is overstated and by the contrast between strength in service-sector investment and stagnation in service-sector productivity. Severe problems in measuring aggregate output, especially in the service sector, preclude precise estimates of productivity growth.
- From the perspective of financial markets, the size of the productivity error is much less important than whether it is changing. So far, we see little reliable evidence of this.



Source: Department of Labor.



Source: Department of Labor. Department of Commerce. Our calculations.

Trade Recommendations

- Stay short the December 1997 Eurodollar futures, with a stop on a close above 94.00 and a target of 93.40.
- Get short the September 1997 T-Bond future (currently 110.28), with a stop on a close above 113.00 and a target of 106.00.

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I. Weekly Wrapup

Economic and Market Overview

Despite indications of continuing strength in U.S. production and employment, both the bond and stock markets traded in relatively narrow ranges. The interpretation of the May employment report was hampered by benchmark revisions to payrolls, hours worked, and wages. However, the report gave no sign of a letup in the gradual tightening of the U.S. labor market. The clearest evidence of this was the drop in the unemployment rate, to 4.8%. This figure was not affected by the revisions, and it resulted from a large increase in employment as measured by the survey of households. Although payrolls rose only 138,000 in May, figures for March and April were revised up sharply. In the past three months, payrolls have increased an average of 214,00 per month, almost identical to the 12-month average of 212,000.

The production side of the economy appears to have sustained its momentum. In May, the National Association of Purchasing Management's index rose to 57.1%, from 54.2% in April, while factory orders rose 1.2% in April. The strength in orders and output has apparently increased the strain on manufacturing capacity. The NAPM vendor performance index, with a higher reading indicating a slower pace of supplier deliveries, climbed to 55.2% in May, its highest level since April 1995.

Consumer spending in May appears to have remained subdued, however, judging from the latest reports on domestic motor vehicle sales and chain store sales. Although vehicle sales climbed to a 12.9 million annual rate in May from 12.4 million in April, they still remain below the first-quarter average of 13.5 million. Meanwhile, the Goldman Sachs Retail Composite Index registered year-over-year gains of 1.7% in May, down from 3.0% in April. Both the Johnson Redbook and Mitsubishi chain store indices have also indicated continued softness in consumer spending. Given the strength in hiring, however, this lull in spending should eventually give way to renewed vigor.

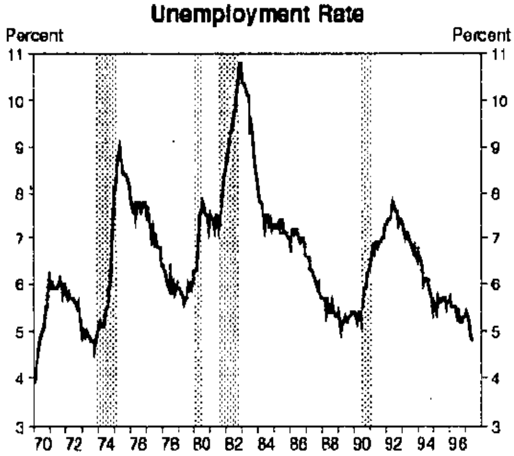
Federal Reserve Policy

The drop in the unemployment rate to 4.8% in May must be eroding the willingness of Fed officials to stand pat for much longer. After all, few Fed officials are likely to believe that the non-accelerating inflation rate of unemployment (NAIRU) is below 5%. At this point, it probably would only take signs of a rebound in consumer spending and/or a bad consumer price inflation report to push Fed officials into tightening at the July Federal Open Market Committee meeting. Comments by two Fed Presidents—Robert Parry (San Francisco) and Alfred Broaddus (Richmond)—to the effect that the economy appears to be slowing underscore the fact that continued patience depends upon further moderation in the growth pace and a continuation of a benign inflation environment.

Fiscal and Political Developments

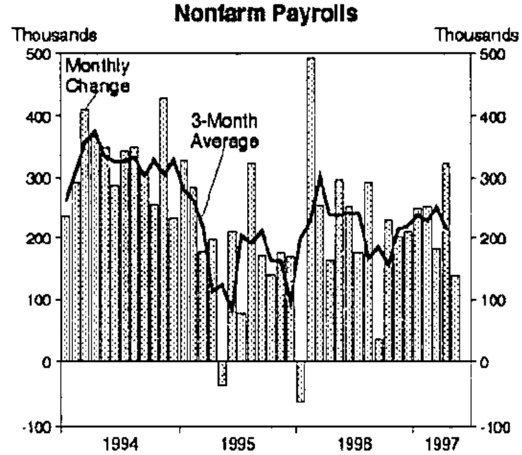
In the next week, Bill Archer, chairman of the House Ways and Means Committee, is likely to release details of his tax legislation plans. This blueprint would spell out how the tax cuts specified in the

Unemployment Rate



Source: Department of Labor.

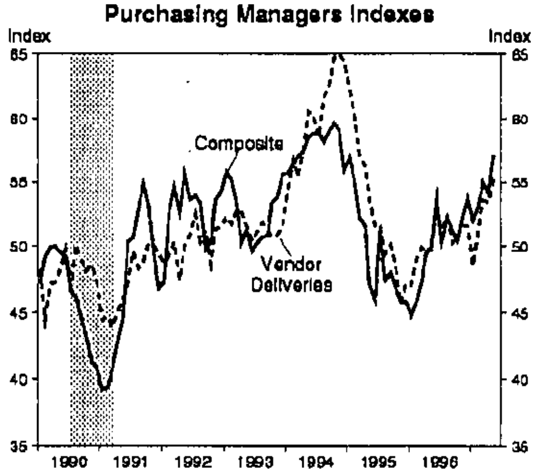
Nonfarm Payrolls



Source: Department of Labor.

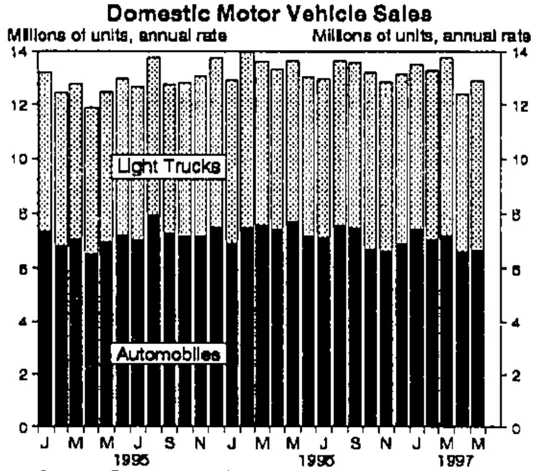
balanced budget agreement would be parceled out among capital gains tax reduction, child tax credits, tuition tax credits, and estate tax reduction. The plan would also indicate what changes would be made to the tax code to raise additional revenue needed to be able to increase the size of the gross tax cut package (the budget agreement allows $85 billion of net tax cuts and $135 billion of gross tax cuts cumulatively over the 1998-2002 period). In addition to focusing on the particulars of the tax legislation proposals, market participants should also be sensitive to the timing and magnitude of the tax changes. Currently, under the terms of the balanced budget accord, the deficit is projected to increase to $90.2 billion in fiscal 1998 from $67.2 billion in fiscal 1997 (Senate Budget Committee projections). This represents a swing towards fiscal stimulus after many years of restraint. Of particular interest will be the Chairman's assumptions concerning the timing and magnitude of capital gains realizations generated by capital gains tax reduction. If the deficit were to be $90 billion even with a surge in capital gains tax receipts, this would imply an even greater degree of fiscal stimulus in fiscal 1998. That is because capital gains receipts generated by a cut in the capital gains rate do not represent fiscal restraint. After all, the receipt of those revenues is just a timing issue of when the already-incurred tax liabilities are voluntarily realized.

Purchasing Managers Indexes



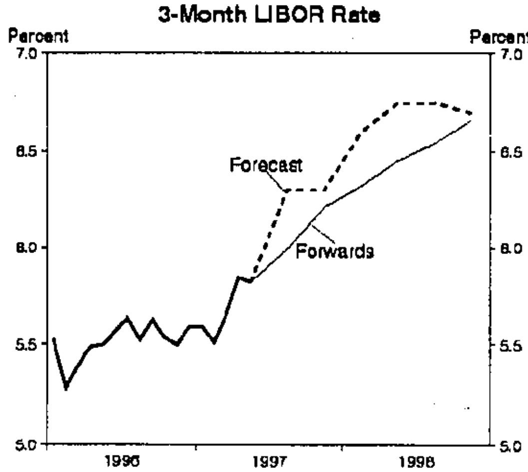
Source: National Association of Purchasing Managers.

Domestic Motor Vehicle Sales



Source: Department of Commerce.

3-Month LIBOR Rate



Source: Federal Reserve Board, Wall Street Journal.

Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

We would continue to be short the December '97 Eurodollar futures contract, with a target of 93.40 and a stop on a close above 94.00. As we see it, the pressures on Fed officials to tighten monetary policy continue to build and it would not take much (a bad CPI report and/or evidence that consumer spending is rebounding in June) to push Fed officials into tightening at the July FOMC meeting. In contrast, after adjusting for the normal shape of the yield curve and year-end pressure, no more than 25 basis points of tightening is built into the current December Eurodollar price.

On the long end, we would get short the September Treasury bond future (currently 110.28), with a target of 106.00 and a stop on a close above 113.00. Bond yields are likely to move higher once it becomes clear that more Fed tightening is needed to slow down the pace of economic activity.

II. Thinking Out Loud About the U.S. Productivity Problem

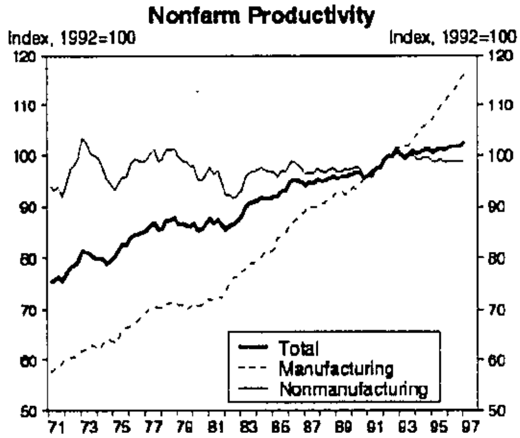
It has become axiomatic in financial markets that the government's statistics on U.S. productivity, which show it growing at about a 1% annual rate, seriously understate its true rate of growth. Anecdotal reports have provided resounding support for this belief, as executives from many industries have offered up countless examples of massive productivity gains in recent years.

In this setting, many investors have jumped to a very optimistic set of conclusions. First, they presume that an increase in inflation is not nearly as close as most economists think, on the assumption that the economy's speed limit is higher than implied by the official data. Second, they therefore believe that the Federal Reserve will not tighten monetary policy further and that this will set the stage for a more benign interest rate environment. Finally, against this favorable backdrop, some expect further increases in the profit share of income to drive equity prices up further.

Although these expectations may prove to be correct, the hard fact is that no one knows very much about the magnitude of the productivity error and how it has been changing over time. Otherwise, it would surely have been corrected by now. The problem is rooted in the difficulty of measuring output and tracking its change in an economy increasingly dominated by the service sector, where metrics for output are often hard to come by. Economists are not absolved, however, from an obligation to sort out the issues and to nail down at least a rough estimate of the productivity error. This article marks the beginning of a renewed effort in that direction by reviewing the evidence that points to a probable understatement of productivity growth, especially in the service sector.

Although quantitative conclusions are not yet in hand, one point seems crystal clear: For financial markets, whose primary interest in productivity growth is to gauge the future course of inflation and interest rates, the central issue is the extent to which the error in measuring productivity growth is changing. An error in the measurement of trend productivity growth, even if it is sizable, is not of much consequence in this context if it is not rising materially from one year to the next.

Nonfarm Productivity



Source: Department of Labor. Department of Commerce. Our calculations.

The Root of the Problem: Measuring Output

At its core, the productivity problem is essentially a reflection of the difficulty in constructing a measure of aggregate output. After all, productivity is defined as the volume of output generated by an hour of labor input; measures of productivity are, therefore, no better than measures of output. The dollar value of transactions that make up the nation's gross domestic product—the nominal value of output—is fairly easy to gauge.[1] It is division of this nominal value into its physical quantity and price components that poses the main difficulty.

Even in the manufacturing sector, where output is tangible, problems arise in constructing a measure of aggregate production and tracking its movement over time. At the most basic level, how are disparate items to be combined into a single measure? For example, how many washing machines is each car worth? At any given time, prices of goods provide the most natural means of answering these questions. But as prices change from one period to the next, this aggregate will move differently depending on which period's prices are used, which essentially means that there is no unique measure of aggregate output and its growth rate. Beyond this routine complication, changes in product quality—the durability of a motor

[1] Even here there are issues of inadequate measurement. Some transactions in the underground economy escape detection. GDP also excludes many items (such as child care provided by a parent) for which no money changes hands.

vehicle or major household appliance, for example—are often difficult to detect and to value.

The problems escalate sharply in the service sector, where output is not tangible. Some services, such as haircuts, can be regarded as units of output that are identifiable and even fairly static. Although quality differences clearly exist from one barber to the next, the scope for ongoing productivity gains in such cases is largely limited to providing the service more efficiently (*i.e.*, cutting the hair faster without sacrificing quality). But other types of services, such as the provision of health care, defy any attempt to quantify them. For example, how can the outputs generated by magnetic resonance imaging (MRI) and the less advanced X-ray technology be compared to one another when the real service being rendered is as amorphous as maintaining or restoring a patient's health? (Bring on the actuaries, please!) And without a reasonable metric, how can the increased cost of MRI vis-à-vis X-ray possibly be separated into increases in quantity and in price?

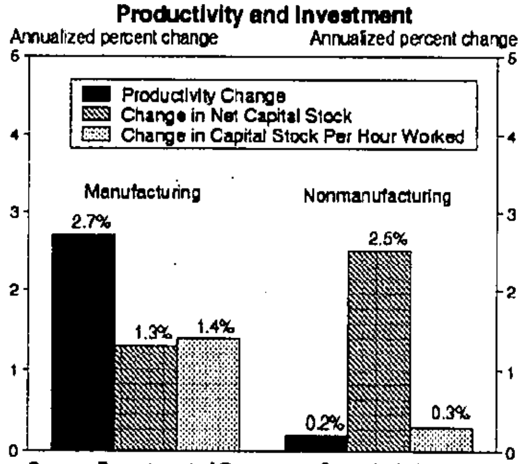
A Bias Toward Understatement, Especially in the Service Sector

The difficulty of measuring output and its growth rate does not, by itself, prove that productivity growth has been systematically understated. In theory, the error could just as well run in the direction of overstating growth.

Other considerations suggest strongly, however, that the bias is toward understatement. One is simply the admission on the part of officials at the Bureau of Labor Statistics, where the productivity calculations are made, that adjustments for product quality are only made if the improvement is substantial.

In this regard, a second consideration in favor of the conclusion that productivity growth is understated is the extraordinarily large gap that has existed since the early 1970s between the growth rates for output per hour in the manufacturing sector and in the rest of the U.S. economy. According to the data, productivity gains in the manufacturing sector—averaging 2.6% per year—account for almost all of the 1.2%-per-year growth in output per hour for the private, nonfarm economy over the past 25 years. Elsewhere, output per hour has crawled up at only a 0.2% annual rate.[2]

Productivity and Investment



Source: Department of Commerce. Our calculations.

Although it certainly is possible that this divergence has persisted for so long, the more likely explanation is that the inability to account adequately for product quality improvement has biased productivity growth figures down disproportionately in the service sector.

The strength of investment in the service sector offers some corroborating support. Over the past ten years, the real net capital stock for this sector has risen 2.5% per year, about double the 1.3% rate of increase in manufacturing capital stock, as shown in the chart nearby. It seems unlikely that investment would have occurred on such a scale if the productivity benefits were as meager as they are reported to be.

Skeptics might argue that this investment has merely been required to keep the average worker supplied with the same amount of capital. Indeed, the capital stock per hour worked outside manufacturing has risen only 0.3% per year, in line with anemic productivity performance. However, comparable figures for the manufacturing sector show a gap of 1.3 percentage points in favor of stronger productivity growth, indicating that some of the productivity gains reported for that sector were embodied in the capital stock itself rather than the result simply of supplying workers with more capital to work with. To the extent this is also true of investment in the service sector, its productivity growth would be understated.

[2] The nonmanufacturing figures have been derived from data on output and hours worked in the private, nonfarm economy and in the manufacturing sector. The residual therefore includes construction and mining. However, these sectors are small enough that the results probably track service-sector productivity fairly closely. In the remainder of this paper, we use the terms service sector and nonmanufacturing sector interchangeably.

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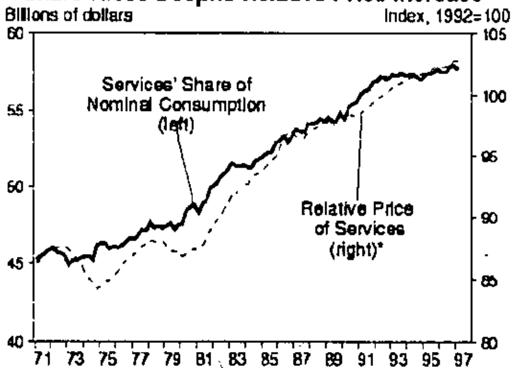
Consumer Spending on Service: Share Rises Despite Relative Price Increase



*Chain type price index of service consumption divided by total consumption.
Source: Department of Commerce.

Perhaps the most persuasive evidence is the Boskin Commission's finding that increases in the consumer price index (CPI) have been overstated for many years, to the tune of about 1% per year.[3] To the extent that flawed components of the CPI have been used to deflate corresponding items in real GDP, then the growth rates currently posted for output and productivity are too low.

This helps explain another anomaly in the data—namely, that consumers appear to have allocated an increasing share of their total expenditures to services despite a sharp increase in the relative price of those services. Over the past quarter century, the share of consumer outlays spent on services has risen nearly 12 percentage points in nominal terms and more than 3 percentage points in real terms despite a purported 18% increase in relative prices. These figures could simply indicate that the propensities to spend more on services as income rises and the population ages have overwhelmed the deterrence from rising relative prices. However, given that the CPI measurement problems are more severe for services than for goods, the Boskin Commission's results imply that at least some of the increase in relative prices never occurred.

It's the Change in the Error that Matters

At this point, it is premature to draw a conclusion about the size of the productivity error. If the Boskin Commission's results are taken at face value, and if it is truly safe to assume that nominal GDP is being measured accurately, then the error is less than 1% per year and quite possibly a lot less. But these are two very big "ifs."

Pinning down an estimate of the size of the error is important for gauging how quickly U.S. standards of living are improving and how U.S. competitiveness may be changing vis-à-vis other countries (although in this case the error in service-sector productivity growth is of less importance and the figures for other countries should also be scrutinized). However, the main concern of financial market participants is whether productivity is rising fast enough to forestall higher inflation and interest rates. In this regard, the size of the error is much less important than whether it is changing. If the error is roughly the same as in the past, then the benchmarks for growth in output, productivity, inflation, and real interest rates are all off by the same amount as the most recent data for these variables. Inferences about where the economy now stands relative to those benchmarks should therefore not be affected. Put differently, a flawed measure of productivity growth can still detect whether this growth is picking up or slowing down so long as the flaw stays the same.

One possible sign that the error is increasing is the drumbeat of anecdotal claims of productivity miracles, which has certainly gotten much louder in recent years. In addition, claims on the revenue generated by U.S. output (personal income, corporate profits, etc.) have risen much faster over the past year than the official measure of GDP, which is based on evidence of who buys the output. If this problem persists, it would raise the question of whether our ability to measure growth in nominal GDP has worsened.

On the other side of this coin, the evidence reviewed above in support of the view that productivity growth has been understated does not imply that the error has increased materially. To the contrary, the Boskin Commission explicitly stated that the CPI error was substantial for at least the past 20 years. In addition, the divergence in productivity growth rates between the manufacturing sector and the rest of the economy, while hardly constant from year to year, has not shown any systematic tendency to increase over time. We also do not see evidence of a material acceleration of investment in the service sector. Such an increase would be the logical outgrowth of a material increase in productivity growth.

Ed McKelvey

[3] See *Toward a More Accurate Measure of the Cost of Living*, Final Report to the Senate Finance Committee from the Advisory Commission to Study the Consumer Price Index, December 4, 1996.

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Key U.S. Economic Data

	Latest Monthly Data				6 Mo	12 Mo	Next
	'97 May	'97 Apr	'97 Mar	'97 Feb	Trend	Trend	Release
Nonfarm Payrolls (ch. Thousands)	138	323	182	253	226	212	July 3
Unemployment Rate (%)	4.8	4.9	5.2	5.3	5.1	5.2	
Index of Hours Worked (% ch)	0.3	-0.4	0.1	1.3	3.1	3.2	
Average Hourly Earnings (% ch)	0.3	0.1	0.3	0.4	3.5	3.8	
Producer price finished goods index (% ch)	--	-0.6	-0.1	-0.4	-1.4	0.8	June 13
Excluding food and energy	--	-0.1	0.4	-0.1	0.3	0.6	
Consumer price index (% ch)	--	0.1	0.1	0.3	2.2	2.5	June 17
Excluding food and energy (% ch)	--	0.3	0.2	0.2	2.7	2.6	
Retail sales (% ch)	--	-0.3	0.0	1.3	5.9	4.9	June 12
Excluding motor vehicles (% ch)	--	-0.1	0.1	0.8	5.5	4.2	
Industrial Production (% ch)	--	0.0	0.6	0.5	4.8	4.1	June 17
Manufacturing	--	-0.2	0.5	0.7	5.1	4.6	
Capacity utilization (%)	--	83.4	83.7	83.5	83.6	83.3	June 17
Manufacturing	--	82.4	82.8	82.7	82.5	82.4	
Housing Starts (annual rate, thousands)	--	1473	1435	1554	1446	1460	June 17
Single-family	--	1118	1115	1237	1125	1146	
Trade balance (billions, monthly)	--	--	-8.5	-10.5	-9.7	-10.1	June 19
Merchandise	--	--	-15.1	-17.0	-16.0	-16.3	
Factory Orders (% ch)	--	1.2	-1.3	0.4	1.2	5.5	July 2
Durable Goods	--	1.3	-2.2	1.0	0.7	7.4	June 25
Personal Income (% ch)	--	0.1	0.6	0.8	6.5	6.0	June 30
Wages and Salaries	--	-0.1	0.7	1.3	7.9	6.9	
Purchasing Managers' Index (%)	57.1	54.2	55.0	53.1	54.2	53.0	July 1
Consumer Sentiment U Mich (Feb 66=100)	103.2	101.4	100.0	99.7	99.8	97.6	June 27
Conference Board (1985=100)	127.1	118.5	118.5	118.9	119.3	113.6	June 24

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

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U.S. Calendar

Focus for the Week Ahead

- Retail sales appear to have remained subdued in May, judging from lackluster retail chain store reports. Although unit sales of motor vehicles rebounded modestly, this is unlikely to have a major impact on the government's figures, due to different estimates of seasonal variations (June 12).
- Despite considerable volatility in individual components (energy estimated down 2.4%, food up 0.9%), producer prices appear to have remained flat in May (June 13).

Economic Releases and Other Events

Date	Time	Indicator	Estimate GS	Estimate Consensus	Last Report
Thu Jun 12	8:30	Retail Sales (May)	+0.2%	+0.5%	-0.3%
		Excluding Autos	+0.2%	+0.3%	-0.1%
Fri Jun 13	8:30	Producer Price Index (May)	-0.1%	0.0%	-0.6%
		Excluding Food & Energy	+0.1%	+0.1%	-0.1%
	10:00	Business Inventories (Apr)	+0.5%	+0.2%	+0.3%

- Richmond Fed Survey (Tue, Jun 10 - 10:00)
- Atlanta Fed Survey (Thu, Jun 12 - 10:00)
- Consumer Sentiment—Prel. (Fri, Jun 10 - 10:00)
- Treasury Announces 1-Year Bill (Fri, Jun 13 - 2:30)

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	6.0%	6.3%	6.6%
Forward	6.0	6.2	6.4
2 Yr T-Note	6.4	6.6	7.1
Forward	6.4	6.5	6.6
10 Yr T-Note	6.8	7.0	7.2
Forward	6.7	6.7	6.8

Key Numbers in the Business Outlook

	1997 Q1	1997 Q2E	1997 Q3E	1997E	1998E
Real GDP	5.8%	2.7%	3.5%	3.8%	2.4%
Ind. Prod., Mfg.	6.6	7.5	5.9	5.9	4.6
CPI	2.4	2.0	2.5	2.7	3.3
After-Tax Profits*	10.1	5.2	2.4	4.6	2.7
Unemployment	5.3	5.0	4.8	5.0	4.9

* Excluding inventory profits; adjusted for depreciationdistortions.

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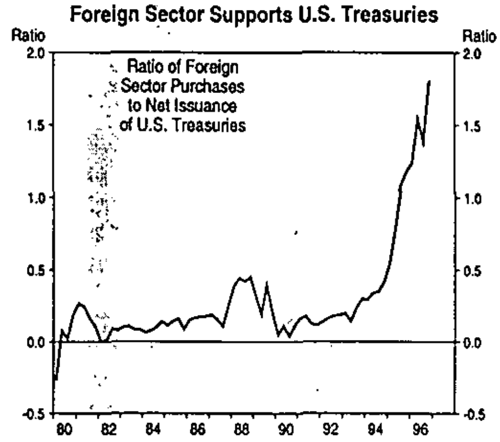
U.S. Economics Analyst

Japan's Recovery and the Impact on U.S. Bond Yields

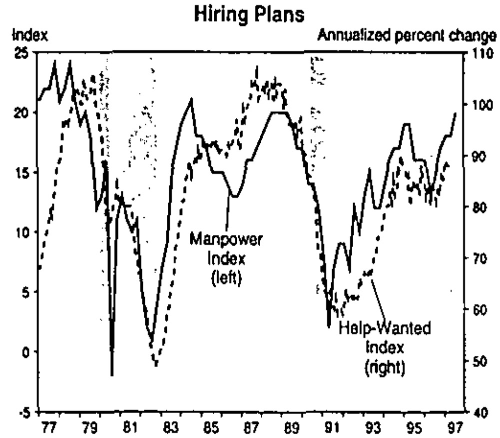
- Although signs of a Japanese recovery are proliferating, this is unlikely to lead to a sharp drop in the appetite of Japanese investors for U.S. Treasuries. That is because: (1) Japan's current account surplus is likely to widen over the next year, necessitating greater capital outflows, and (2) interest rate differentials between the U.S. and Japan should remain wide.
- A Japanese recovery does have some negative implications for the U.S. interest rate outlook, however. Stronger growth abroad coupled with dollar weakness could keep the U.S. trade gap from widening further. The lack of a trade drag, in turn, would put more of a burden on Fed officials to restrain the pace of economic growth. To the extent that a Japanese recovery leads indirectly to a tighter U.S. monetary policy, it will tend to exert upward pressure on interest rates across the yield curve.
- In the United States, the robust expansion appears to be on track. In the industrial sector, orders for durable goods increased in April, and purchasing managers in the Chicago area and other regions reported a continuation of solid growth in May. Meanwhile, consumer confidence rose in May to its highest level in nearly three decades.
- The increase in confidence is one of several indications that the U.S. labor market remains tight and may have tightened further. If so, it is only a matter of time before Fed officials resume tightening monetary policy.

Foreign Sector Supports U.S. Treasuries



Source: Federal Reserve Board.

Hiring Plans



Sources: Manpower, Inc. Conference Board.

Trade Recommendations

- Sell December 1997 Eurodollar futures (currently 93.81), with a stop on a close above 94.00, and a target of 93.40.
- Eurodollar volatility appears inexpensive, given uncertainties about the growth pace and the timing and magnitude of future Fed tightening.

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I. Weekly Wrapup

Economic and Market Overview

Although several reports on economic activity have surfaced in recent days, none has been of sufficient consequence to change perceptions about its general direction. Thus, prices of U.S. stocks and bonds have traded in narrow ranges pending the release of more significant news in the next couple of weeks.

The latest data suggest that the labor market remains tight and might be tightening further. Two surveys, by Manpower, Inc. and Cahners Publishing Co., reveal that firms intend to step up the pace of new hiring. Meanwhile, consumers turned in their most upbeat assessment of job availability in nearly three decades in the Conference Board's latest survey of consumer confidence; the improved job perceptions propelled the composite index of confidence to a 28-year high in May. While the Board's index of help-wanted advertising was unchanged in April, it was close to its high for the current expansion. Claims for jobless benefits also remained steady at a low level.

Orders for durable goods rose 1.4% in April, led by a rebound in defense bookings. Excluding these items and civilian aircraft, orders were up 0.8%, in line with recent trends. Within this subset of goods, bookings for capital equipment were a bit softer, slipping 0.6% in April after a 0.9% decline in March. These small declines hardly qualify as a meaningful setback given that they follow a 10.5% surge in January and February. And in general, the regional purchasing managers' surveys for May show little abatement in the trend of industrial activity, with the Chicago index at 56.8% vs. 57.2% in April. In the housing sector, inventories of unsold new homes remain low despite April's 7.7% drop in sales. Thus, there is no reason to expect an imminent drop in home building.

Federal Reserve Policy

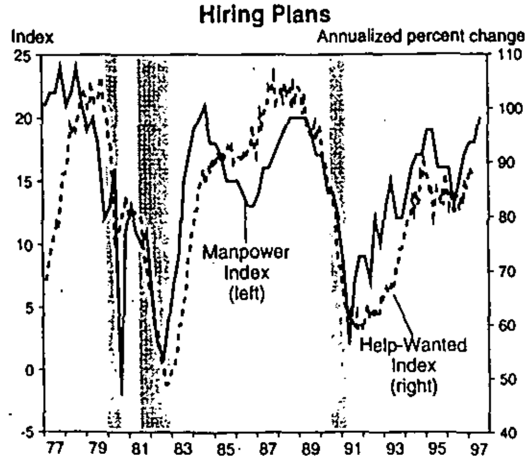
The next two weeks feature several key reports with potentially important ramifications for the Fed's interest-rate decisions at the next meeting in early July. Of these reports, the two most important are those regarding employment conditions and consumer prices in May. Given the labor market soundings noted above, it seems doubtful that the underlying trend in job growth has ebbed much, if at all, from the 221,000-per-month average of the past year. Meanwhile, the last CPI release hinted that the best news on broad retail price restraint may have passed. Specifically, non-energy service costs rose 0.3% for the third straight month—the firmest trend in over two years.

Higher-than-expected results in either report could quickly undermine central bankers' hopes that a pronounced and sustained slowdown in the economic expansion can be achieved without further monetary tightening. In turn, such news would also probably drive bond yields up, on fears that the Fed's current monetary strategy is too cautious.

Fiscal and Political Developments

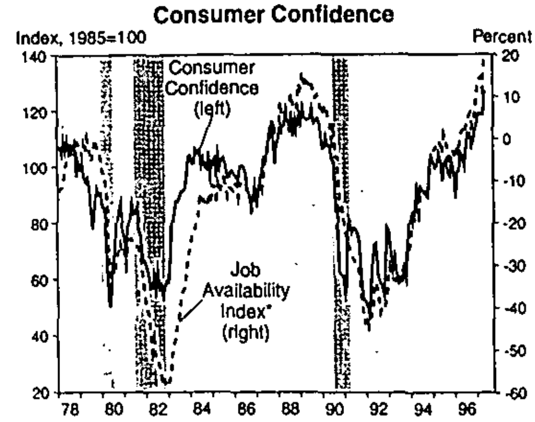
Battle lines are being drawn for a potentially bitter fight over how to generate projected long-range savings from federal mandatory spending programs. House Speaker Newt Gingrich has said publicly that he expects the details regarding entitlement outlay

Hiring Plans



Sources: Manpower, Inc. Conference Board.

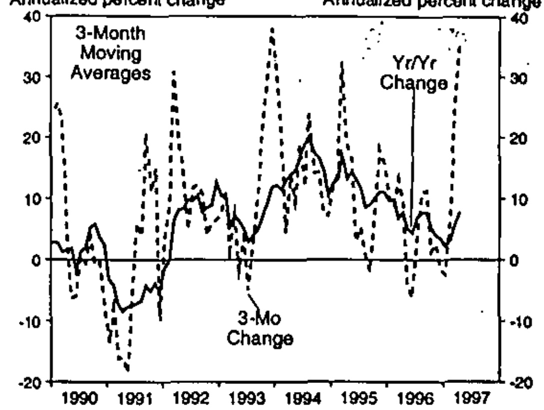
Consumer Confidence



*Percent of respondents who say that jobs are plentiful less those viewing jobs as hard to get.
Source: Conference Board.

restraint in this budget to substantially resemble the Republicans' controversial 1995 plan, because the main legislative authors in this session will be largely the same as they were two years ago. However, a Clinton Administration staffer has also said that one key item in that blueprint—medical savings accounts (MSAs) as an optional alternative to the traditional Medicare program—would generate powerful resistance from the White House. Many GOP conservatives are already uncomfortable with the budget compromise, and they regard MSAs as a crucial tool for injecting market-based incentives for cost reduction into the public sector's healthcare delivery mechanisms. With the congressional leadership trying to reassure conservative members that this budget will incorporate substantial elements of their agenda for restructuring government, this disagreement could become a major impediment to speedy implementation of the fiscal accord.

Orders for Non-Defense Capital Goods ex. Aircraft



Source: Department of Commerce.

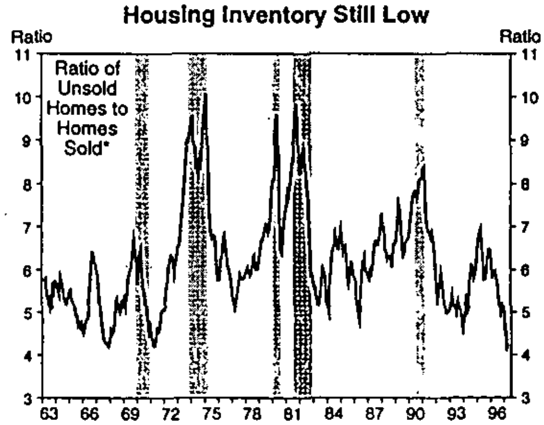
Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

We would sell December 1997 Eurodollar futures (currently 93.81) given that less than 25 points of tightening is priced into this contract (after adjusting for the normal shape of the yield curve and yearend pressures). We would stop out the trade on a close above 94.00 and have a target of 93.40. In terms of the long-end, we would remain neutral for now. The yield curve is actually quite steep relative to the amount of tightening embodied in the short end, especially when one considers that the reduction in Treasury supply caused by the shrinking budget deficit should lead to a lower bond risk premium over time.

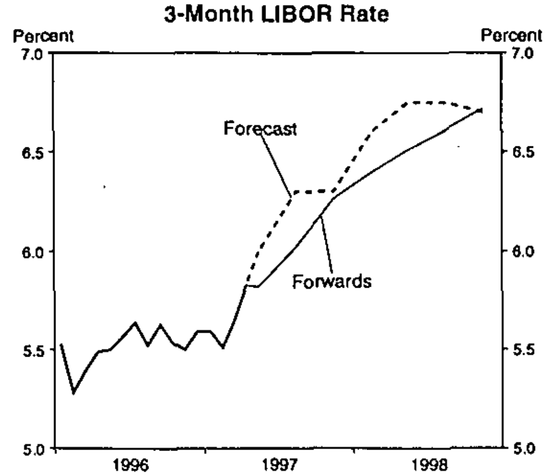
Financial markets appear complacent about the risk of an interest rate surprise. For example, the premiums required to purchase put and call options on short- and medium-duration instruments are historically low, both in an absolute sense and relative to those for long-bond options. Thus, we believe fixed-income investors should consider purchasing Eurodollar volatility (buying both put and call options). For example, on September 1998 Euros (93.25 strike price) with a September 1997 expiration date, one can purchase both a put and call at a combined price of 42 basis points. This seems inexpensive relative to the uncertainties about the path of short-term interest rates.

Housing Inventory Still Low



*Home sales expressed as 3-month moving average.
Source: Department of Commerce.

3-Month LIBOR Rate



Sources: Federal Reserve Board. Wall Street Journal.

II. Japan's Recovery and the Impact on U.S. Bond Yields

Over the past month, signs that the Japanese economy has regained its footing have proliferated, with the most visible manifestations being the upturn in the Japanese equity market and the strengthening of the yen. This has caused some observers to predict dire consequences for the U.S. Treasury bond market. After all, Japan has been a major source of global liquidity in recent years and Japanese investors—both public and private—have had a significant appetite for U.S. Treasury securities. If that demand were to fade—so the argument goes—couldn't that lead to a sharp increase in U.S. Treasury bond yields?

The direct consequences of a Japanese recovery for the U.S. bond market are likely to be relatively modest. That is because the Japanese current account surplus will remain large and interest rate differentials between Japan and the United States should stay wide, at least through 1998. Thus, both the need and incentive for Japanese funds to be circulated back to the United States will remain in place.

The main impact of a Japanese recovery on U.S. interest rates is likely to be felt mainly via a modest impact on the U.S. economic growth and inflation outlook. If Japan's recovery foreshadows faster worldwide growth, this implies a more buoyant U.S. trade sector and higher short-term U.S. interest rates. To the extent that a Japanese recovery were to contribute to dollar weakness, this would tend to push up import prices, slightly worsen the U.S. inflation outlook, and also increase the pressure on Fed officials to push up interest rates.

Foreign Investors Have Been Important

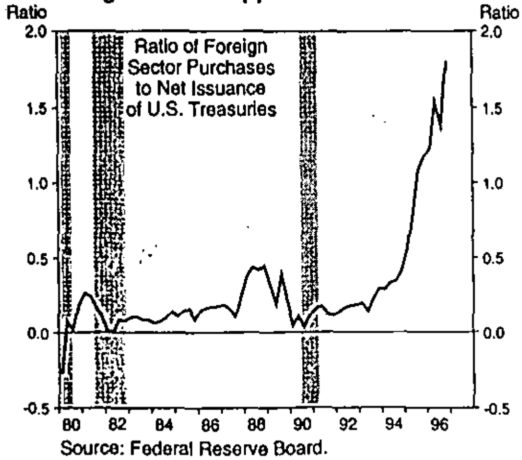
There is little question that foreign investors have played a significant role in the U.S. Treasury market over the past two years. This can be seen most visibly in the chart below, which plots the ratio of the foreign sector's purchases of U.S. Treasuries to net issuance. As shown, since the middle of 1995, foreign investors have purchased more than 100% of the net issuance of U.S. Treasuries.

While such strong demand is unlikely to be sustained, it is important to keep in mind that there are a number of reasons not to expect a sharp reversal either. First, much of the increase in the ratio of purchases to net issuance has occurred because of a sharp decline in net issuance. The increase in the absolute demand for Treasuries by foreign investors is much more modest than suggested by the soaring ratio. For example, net issuance in 1997 is likely to fall to around $50 billion, down from more than $250 billion per year during the early 1990s. Second, the factors that have fueled the appetite of foreign investors for U.S. Treasuries are unlikely to end abruptly. Third, to the extent that much of the demand has occurred in shorter-term maturities, the consequences for interest rates will be muted. The Treasury market is very elastic in terms of short-dated paper. Additional supply or demand in this sector has only a very modest effect (i.e., a few basis points) on yields.

Japan's Role

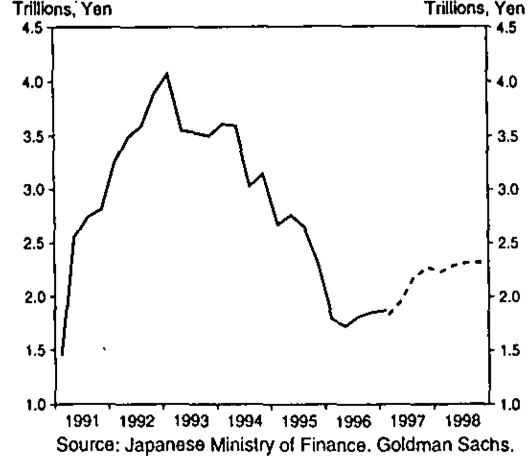
A sustainable Japanese economic recovery is unlikely to cause Japanese investors to shun the U.S. Treasury

Foreign Sector Supports U.S. Treasuries



Source: Federal Reserve Board.

Japanese Current Account Surplus to Widen



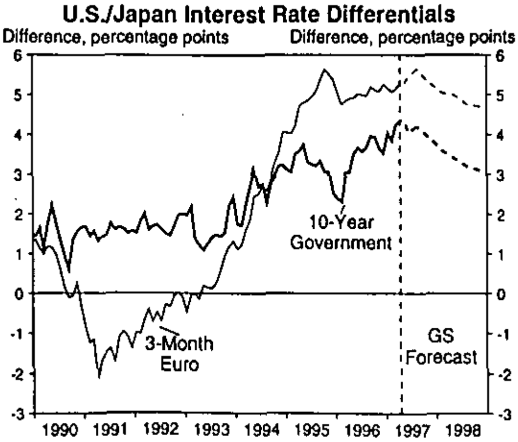
Source: Japanese Ministry of Finance. Goldman Sachs.

bond market for several reasons. First, the Japanese current account surplus is expected to widen in 1998. This reflects the long lags that exist between changes in currency valuation and the impact on trade performance. Since capital outflows equal the current account surplus by definition, this means that the flow of capital out of Japan will not subside anytime soon.

Second, the reasons for Japanese investors to recycle this surplus into the U.S. Treasury bond market should remain strong. Most significantly, recent changes in interest rates and exchange rates have not reduced the attractiveness of holding U.S. Treasuries from the perspective of Japanese investors. To see this, note that the breakeven $/yen exchange rate that would equalize returns between holding U.S. government obligations versus Japanese government obligations has fallen sharply over the past month due to the strengthening of the yen. For example, on May 1, the breakeven forward rate for $/yen five years out was about 99. Currently, the breakeven forward rate for $/yen five years out has declined to about 92.

Third, interest rate differentials, which have attracted Japanese monies into U.S. Treasuries, are anticipated to narrow only modestly over the next eighteen months. As shown in the accompanying chart, the spread between 3-month Eurodollar and Euroyen rates is expected to narrow by less than 50 basis points over the next 18 months and the yield spread between U.S. and Japanese 10-year government securities by about 100 basis points. Even after this anticipated narrowing, spreads would remain unusually wide by historical standards—nearly 500 basis points at the short end and over 300 basis points at the long end of the yield curve.

U.S./Japan Interest Rate Differentials



Source: Goldman Sachs, Federal Reserve Board, Bank of Japan.

Fourth, Japanese investment flows do not appear to have been an important influence on U.S. interest rates. This reflects the fact that much of the Japanese demand for Treasuries appears to have occurred at the short-end of the yield curve where the market is very elastic and, thus, demand shifts have only a modest impact on yields. In terms of longer-term maturities, Japanese investors do not appear to have played a major role. For example, as shown in the accompanying table, over the past two years, Japan has only accounted for about 14% of total foreign investors' purchases of U.S. Treasury notes and bonds, down from an average share of nearly 22% over the proceeding 21 years.

Net Foreign Purchases of Treasury Coupons, By Region*

(% of total)

	1974-1994	Jan. 1995-Dec. 1996
Europe	48.1%	51.7%
Japan	21.6	14.2
Asia (ex. Japan)	18.3	17.5
All Other	12.0	16.6

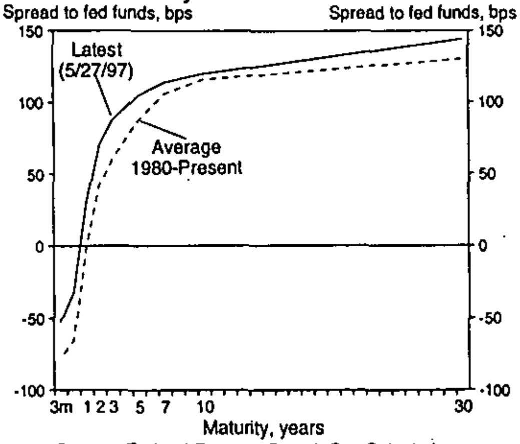
* Excluding Caribbean countries, where flows are dominated by large investment funds.

No Signs of a U.S. Interest Rate Bubble

If foreign purchases of U.S. Treasury securities were artificially depressing U.S. interest rates, then that should be reflected in the shape of the Treasury yield curve. However, as shown in the chart on page 6, there is little evidence to suggest that U.S. long-term bond yields have been suppressed by strong foreign demand. If that were the case, then the yield curve would be unusually flat. Instead, the yield curve is close to its average shape. For example, the spread between 2-year and 30-year yields is currently about 73 basis points, close to the 88 basis points average level since 1980. Similarly, the spread between 30-year Treasury bond yields and the federal funds rate is currently about 150 basis points, about 20 basis points higher than the average spread of 130 basis points since 1980.

The small differences in the current yield curve from its average shape since 1980 probably just reflects the fact that about 25 basis points of monetary policy tightening is expected over the next year or so. This explains the steeper-than-normal curve between 2-year notes and fed funds and the flatter-than-normal curve beyond two years. Because the current yield curve looks appropriately shaped given expectations about future short-term interest rate changes, this

U.S. Treasury Yield Curve Not Distorted



Source: Federal Reserve Board. Our Calculations.

suggests that foreign investor demand for Treasuries has not pushed down long-term Treasury yields in any major way.[1]

Implications for U.S. Interest Rates

The main channel by which a Japanese recovery is likely to affect U.S. interest rates is via its impact on U.S. economic activity and inflation. It is changes in the growth and inflation outlook that will affect the magnitude of monetary policy tightening implemented by the U.S. monetary authorities. If the Japanese recovery were to foreshadow faster worldwide economic growth and a weaker dollar, then the trade sector would be unlikely to exert a further drag on the U.S. economy.[2] Under such circumstances, Federal Reserve officials might have to tighten monetary policy more aggressively to restrain the economic growth pace. Moreover, to the extent that a Japanese recovery were accompanied by a weaker dollar, import prices would tend to increase, worsening the inflation outlook and also increasing the pressure on Fed officials to push up short-term rates.

Such tightening would almost certainly result in higher bond yields. That is because the path of short-term interest rates is the primary determinant of bond yields. Bond yields will rise because investors everywhere will demand higher bond yields given the alternative of higher short-term rates, not because Japanese investors are shunning the U.S. Treasury market.

Bill Dudley

[1] If anything, one would expect that the yield curve might be flatter-than-normal after adjusting for short-term rate expectations (i.e., a lower bond risk premium). This presumably would reflect the diminished supply of Treasuries, the reduced volatility of bond prices, and the heightened credibility of the Fed compared to the norm since 1980. The fact that it is not reinforces the conclusion that foreign investors have not distorted the shape of the yield curve in any obvious way. For a discussion of the bond risk premium, see "The Bond Risk Premium and the Brave New Business Cycle", *U.S. Economics Analyst*, February 7, 1997.

[2] The direct impact of stronger domestic demand growth in Japan on U.S. economic activity is likely to be very modest. To see this, consider that Japan accounts for only about 11% of U.S. exports and U.S. exports account for only about 12% of U.S. GDP. This means that if faster domestic demand growth in Japan increased U.S. exports to Japan by 5%, the impact on U.S. GDP would be only about 0.07% (0.05 X 0.11 X 0.12 = 0.00066).

Key U.S. Economic Data

	Latest Monthly Data '97 May	'97 Apr	'97 Mar	'97 Feb	6 Mo Trend	12 Mo Trend	Next Release
Nonfarm Payrolls (ch. Thousands)	--	142	139	314	211	221	June 6
Unemployment Rate (%)	--	4.9	5.2	5.3	5.2	5.3	
Index of Hours Worked (% ch)	--	-0.8	0.0	2.6	3.7	3.3	
Average Hourly Earnings (% ch)	--	-0.1	0.4	0.4	4.1	3.6	
Producer price finished goods index (% ch)	--	-0.6	-0.1	-0.4	-1.4	0.8	June 13
Excluding food and energy	--	-0.1	0.4	-0.1	0.3	0.6	
Consumer price index (% ch)	--	0.1	0.1	0.3	2.2	2.5	June 17
Excluding food and energy (% ch)	--	0.3	0.2	0.2	2.7	2.6	
Retail sales (% ch)	--	-0.3	0.0	1.3	5.9	4.9	June 12
Excluding motor vehicles (% ch)	--	-0.1	0.1	0.8	5.5	4.2	
Industrial Production (% ch)	--	0.0	0.6	0.5	4.8	4.1	June 17
Manufacturing	--	-0.2	0.5	0.7	5.1	4.6	
Capacity utilization (%)	--	83.4	83.7	83.5	83.5	83.3	June 17
Manufacturing	--	82.4	82.8	82.7	82.5	82.4	
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Trade balance (billions, monthly)	--	--	-8.5	-10.5	-9.7	-10.1	June 19
Merchandise	--	--	-15.1	-17.0	-16.0	-16.2	
Factory Orders (% ch)	--	--	-1.6	0.4	0.4	4.6	June 4
Durable Goods	--	1.4	-2.2	1.0	0.8	7.4	June 25
Personal Income (% ch)	--	--	0.6	0.8	6.5	6.5	June 2
Wages and Salaries	--	--	0.7	1.3	7.7	7.5	
Purchasing Managers' Index (%)	--	54.2	55.0	53.1	53.4	52.3	June 2
Consumer Sentiment U Mich (Feb 66=100)	103.2	101.4	100.0	99.7	99.8	97.6	June 27
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Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

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U.S. Calendar

Focus for the Week Ahead

- Personal income and consumption in April should both be weak, reflecting the flip side of strong gains during the winter months, which were generated, in part, by mild winter weather (June 2).
- The National Purchasing Managers index is likely to tick up slightly, reflecting the strong underlying tone of economic activity (June 2).
- The May payroll employment report is likely to be firm given that weather helped to restrain the April figures and that other labor market indicators show that employment conditions remain buoyant. The sharp drop in the unemployment rate to 4.9% in April is likely to be partially reversed (June 6).

Economic Releases and Other Events

			Estimate		
Date	Time	Indicator	GS	Consensus	Last Report
Mon Jun 2	8:30	Personal Income (Apr)	+0.2%	+0.1%	+0.6%
	8:30	Personal Consumption (Apr)	+0.1%	-0.1%	+0.5%
	10:00	Purchasing Managers Index (May)	55.0%	54.3%	54.2%
	10:00	Construction Spending (Apr)	-1.0%	+0.2%	-0.2%
		Domestic Motor Vehicle Sales (May)	13.3M	13.1M	12.4M
Wed Jun 4	8:30	Leading Indicators (Apr)	-0.1%	0.0%	+0.1%
	10:00	Factory Orders (Apr)	+0.7%	+0.8%	-1.6%
Fri Jun 6	8:30	Civilian Unemployment Rate (May)	5.0%	5.0%	4.9%
		Nonfarm Payroll Employment (May)	+250,000	+223,000	+142,000
	3:00	Consumer Credit (Apr)	+$6.0 Bil	+$3.6 Bil	+$2.0 Bil

- French Parliamentary Elections—2nd Round (Sun, June 1)
- Canadian Parliamentary Elections (Mon, June 2)
- Chain-Store Results (Thu, June 5)
- Wholesale Trade (Fri, June 6 - 10:00)

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	6.0%	6.3%	6.8%
Forward	6.0	6.3	6.5
2 Yr T-Note	6.4	6.6	7.1
Forward	6.5	6.6	6.8
10 Yr T-Note	6.8	7.0	7.2
Forward	6.8	6.9	6.9

Key Numbers in the Business Outlook

	1997				
	Q1	Q2E	Q3E	1997E	1998E
Real GDP	5.8%	2.7%	3.5%	3.8%	2.4%
Ind. Prod., Mfg.	6.6	7.5	5.9	5.9	4.6
CPI	2.4	2.0	2.5	2.7	3.3
After-Tax Profits*	10.1	5.2	2.4	4.6	2.7
Unemployment	5.3	5.0	4.8	5.0	4.9

* Excluding inventory profits; adjusted for depreciationdistortions.

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Goldman Sachs

U.S. Economics Analyst

Steady Fed Keeps Focus on Economic Indicators

This issue of the U.S. Economics Analyst is in a holiday-abridged, four-page format. The center section and the tables of historical and forecast data have been omitted. Our regular format will resume with our next issue, dated May 30, 1997.

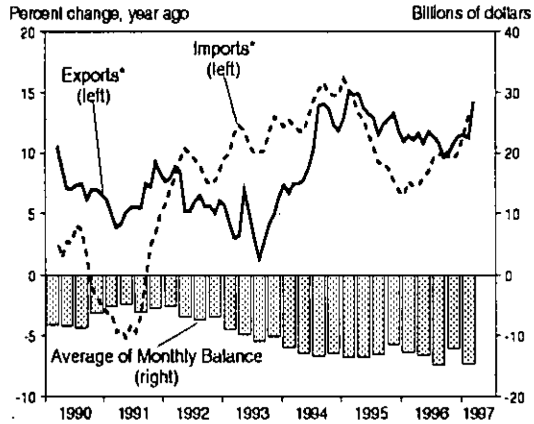
- Federal Reserve officials chose to leave short-term interest rates unchanged this week, relying once again on a forecast for economic growth to return to a normal pace over the next several quarters. This, no doubt, will sustain or intensify the focus in financial markets on key indicators of domestic business developments.

- We continue to expect U.S. real GDP growth to comfortably exceed historical norms, and thereby sustain upward pressure on measures of resource utilization. This should lead the central bank to begin moving rates up again next quarter, with the federal funds rate reaching 6% by the end of September.

- The latest data shed little new light on the growth outlook. A big drop in the trade deficit during March was mostly attributable to a plunge in oil prices and a one-off surge in gold exports. Solid fundamental support for domestic expenditures, however, is implied by low unemployment insurance claims and soaring household sentiments.

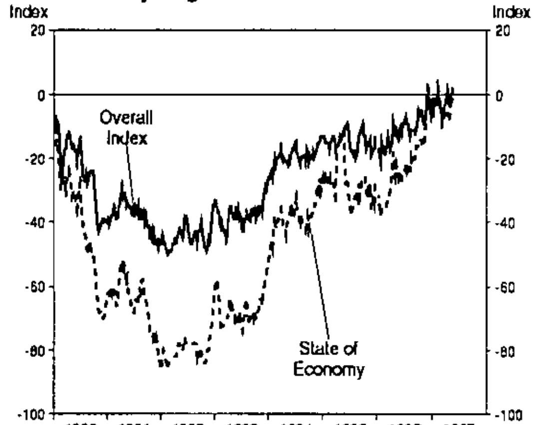
- Implementation of the bipartisan federal budget accord remains on track, but will likely hit some rough spots during the next few months. The strong economy, meanwhile, continues to cause rapid shrinkage in the fiscal deficit.

Real Merchandise Trade Balance



*3-Month Moving Average.
Source: Department of Commerce.

ABC/Money Magazine Consumer Comfort Index



Source: Money Magazine. ABC News.

Trade Recommendations

- Buy the September 1997/September 1998 Eurodollar calendar spread at 45 basis points or less, with a stop on a close below 38 basis points and a target of 75 basis points.

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Issue No: 97/21
May 23, 1997

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Goldman Sachs

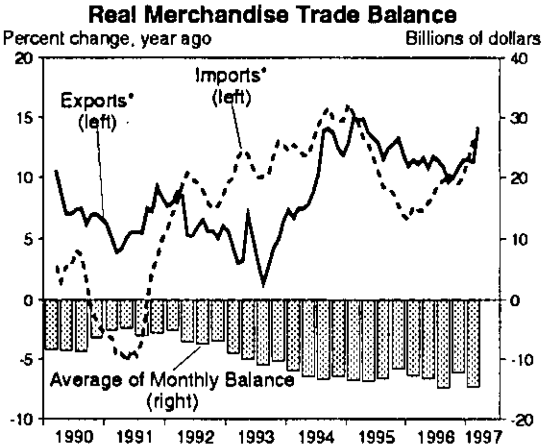
I. Weekly Wrapup

Economic and Market Overview

Despite the Federal Reserve's decision to hold interest rates steady last Tuesday, most U.S. bond yields have risen slightly, especially among long-duration issues. Prices of equity securities, by contrast, edged higher after the FOMC meeting, as concerns about a significant policy-induced economic slowdown abated. The dollar exchange rate remains volatile against both the Japanese yen and the German deutschemark, following a steep decline that began after Chairman Greenspan signaled his preference for policy patience two weeks ago.

Other than the Fed meeting results, there has been relatively little fresh information bearing on the outlook for business or pricing conditions. A substantial decline in the monthly nominal trade deficit for March (to $8.5 billion from a revised $10.5 billion in February) does not alter the sense that the foreign sector remains a soft spot on the economic landscape. All of that deficit drop came from areas that either are volatile in the short term (aircraft exports, petroleum import prices) or possess no significance in assessing the business climate (exports of nonmonetary gold). The core trend in real exports is modestly positive, despite sluggish demand in many other nations and what, until recently, was a sturdy dollar exchange rate. This is a sign that U.S. firms have maintained global competitiveness. At the same time, growth in non-oil imports has picked up since early 1996, aided by brisk domestic spending and a reduced reluctance on the part of firms to build stockpiles. Net exports, therefore, should remain a modest restraining influence on GDP gains.

Real Merchandise Trade Balance



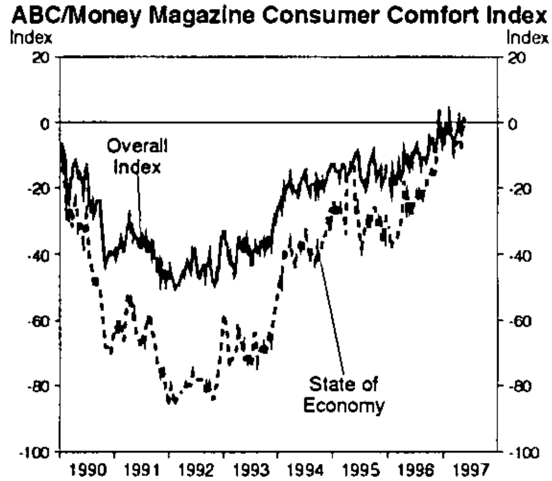
*3-Month Moving Average.
Source: Department of Commerce.

Initial unemployment claims in the past two weeks have reverted to the very low volumes (below 325,000 per week) that preceded flooding and strikes during April. This low layoff volume implies a persistence of solid net hiring. The ABC News/Money Magazine poll of consumers, meanwhile, continues to register exceptionally firm results, fueled by highly optimistic attitudes about the economy's present status. Manufacturing activity in the Midwest region has improved since the start of the year, as the Kansas City Federal Reserve Bank's quarterly index for factory conditions climbed to +18% for April from +8% in January.

Federal Reserve Policy

In taking what had seemed the more likely course and leaving short-term interest rates unchanged this week, Federal Reserve officials once again have relied on a forecast that economic growth will slow substantially from the recent pace, so that inflationary risks from a potentially rapid further compression of resource supplies can be dampened. This latest non-action by central bankers will sustain—or perhaps intensify—the focus of financial market participants on the tone of business indicators. In particular, coming reports on employment conditions, factory output, and consumer purchases during May will help clarify whether the April data weakness was largely a function of strikes, bad weather, and a consolidation of prior extraordinary strength, or rather the start of a true and lasting growth pullback. Ultimately, we continue to believe that the Fed's patience will not be rewarded, and that monetary restraint will have to be intensified to minimize the inflationary consequences

ABC/Money Magazine Consumer Comfort Index



Source: Money Magazine, ABC News.

of strong increases in domestic demands and output in an environment of high and rising utilization rates.

Fiscal and Political Developments

The bipartisan budget accord has been endorsed by both the House and Senate, with only minor differences between the two bills needing to be ironed out in an early-June conference. Support for the pact negotiated with the White House was broad in both chambers, yet there are signs that there will be some big legislative bumps on the road to its implementation, which likely will take well into summer to complete. In both the House and Senate, the leadership narrowly fought off amendments to the budget resolution that would have fundamentally altered its terms, thereby threatening to unravel the pact. As neither side of the political spectrum is comfortable with aspects of the deal, it can be expected that similar efforts at material modification will be made in the weeks ahead.

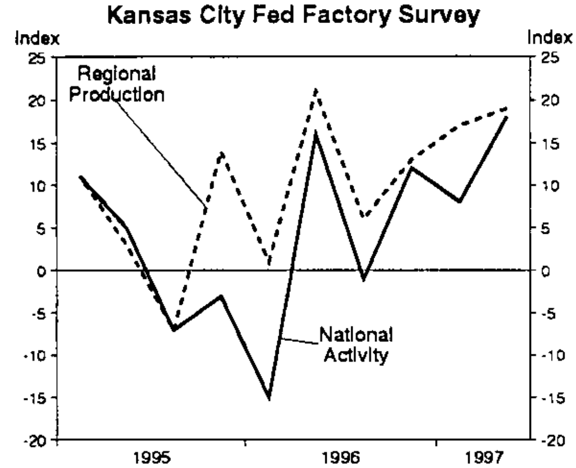
A huge increase in tax remittances from individuals last month drove the federal budget surplus up to almost $94 billion, versus $72.4 billion in the same month of 1996. This pushed the trailing 12-month fiscal deficit below $60 billion, or just 0.7% of GDP.

Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

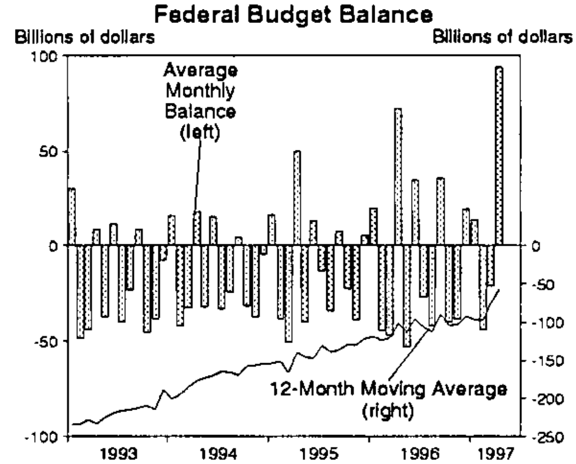
The reaction in U.S. fixed-income markets to a steady Fed rate decision has been unenthusiastic, except among very short-duration issues. For example, the spread between September 1997 and September 1998 Eurodollar futures widened materially without coming close to the 45-basis-point target we set last week for getting long. Investors apparently are skeptical about the outlook for a protracted economic slowdown and, therefore, seem inclined toward caution in advance of economic releases from May, most of which are not due until after next week. We generally share these views, and remain biased toward establishing bearish trading recommendations at some point. For now, though, we prefer to stay neutral on both T-bond contracts and Eurodollar futures from an outright perspective until a better sense of economic patterns can be gained. Should the aforementioned Eurodollar calendar spread move back in to 45 basis points (from 56 at present), we would still favor establishing a long position, with a stop on a close of 38 basis points or less.

Kansas City Fed Factory Survey



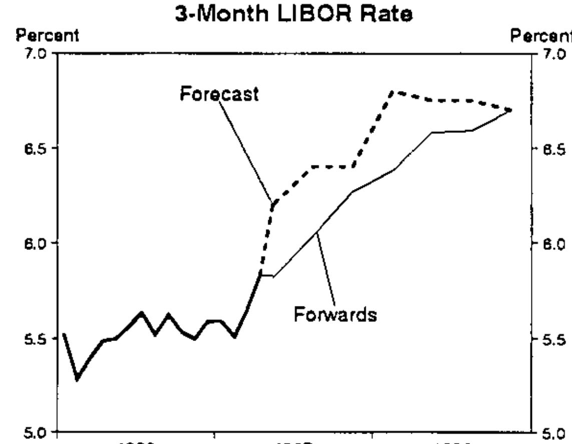
Source: Federal Reserve Bank of Kansas City.

Federal Budget Balance



Source: Department of Treasury.

3-Month LIBOR Rate



Sources: Federal Reserve Board, Wall Street Journal.

U.S. Calendar

Focus for the Week Ahead

- The Conference Board's consumer confidence index probably climbed further in May, given that measure's historical sensitivity to perceptions of national economic and employment conditions (May 27).
- An April rebound in factory durable-goods orders is anticipated, as aircraft and defense equipment bookings come off relatively low levels at the end of the first quarter (May 28). The overall volume of these orders, however, will likely be suppressed by strike interruptions at motor vehicle plants.
- An upward revision to first-quarter nonfarm inventory growth should roughly offset modest negative adjustments to consumer and business outlays in the period, leaving total real GDP growth about the same as the advance estimate of 5.6% annualized (May 30).
- Purchasing managers in the Chicago region likely will report a continuation of sturdy manufacturing sector conditions this month (May 30).

Economic Releases and Other Events

			Estimate		
Date	Time	Indicator	GS	Consensus	Last Report
Tue May 27	10:00	Consumer Confidence (May)	118.0	117.3	116.8
	10:00	Existing Home Sales (Apr)	-2.5%	-0.5%	-2.8%
Wed May 28	8:30	Durable Goods Orders (Apr)	+3.0%	+1.3%	-2.6%
Fri May 30	8:30	Real GDP (Q1 '97—Prel.)	+5.6%	+5.6%	+5.6%
	8:30	Chain-Weight Price Index (Q1 '97—Prel.)	+2.7%	+2.3%	+2.7%
	10:00	Chicago Purchasing Managers Index (May)	57.0%	56.0%	57.2%
	10:00	New Home Sales (Apr)	-5.0%	-2.8%	-2.5%

- French Parliamentary Elections—1st Round (Sun, May 25)
- APICS Survey (Thu, May 29 - 10:00)
- Help-Wanted Index (Tue, May 29 - 10:00)
- Consumer Sentiment—Final (Fri, May 30 - 10:00)
- French Parliamentary Elections—2nd Round (Sun, Jun 1)

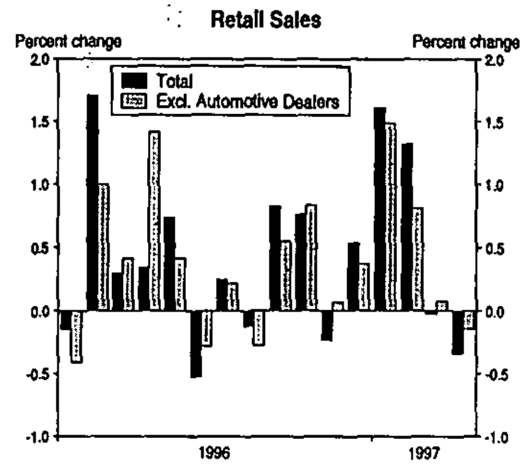
Goldman Sachs

U.S. Economics Analyst

Our Views Have Changed (Slightly)

Close Call, But Fed Likely to Stand Pat In May

- The probability of a rate hike at the May 20 FOMC meeting has dipped below 50% in the wake of signs of a near-term slowing in growth and continued evidence of benign inflation. Our longer-range outlook for higher interest rates remains intact, however.
- Except for housing starts, indicators of economic activity in April have come in near or below the low end of consensus expectations. While this weakness was affected by several one-off factors (an early Easter, unseasonably cool and rainy weather, and motor vehicle strikes), revisions to prior months scaled back last quarter's surges in retail sales and industrial output.
- On the inflation front, the latest data on producer prices do not yet show any sign of current or impending upward pressure on prices of U.S.-produced goods. At retail, the core CPI firmed a bit in April, but the trend (corrected for changes in computational methods) does not appear to have moved much.
- One complication in analyzing current trends is to assess how much of this quarter's softening represents a payback for an unseasonably warm and dry winter in most parts of the nation, which is widely held to have boosted real GDP in the first quarter. In the center section article, we provide our best answers to questions regarding ***Those #@&#% Seasonal Adjustments!***



Source: Department of Commerce.

Seasonal Distortions In Early 1997

	Month-to-Month Change		
	January	February	Total
Housing Starts			
Unadjusted	-11.7%	+12.9%	-0.3%
Seasonal Factor	-13.1	+2.0	-11.4
Adjusted	+1.6	+10.7	+12.5
Retail Sales			
Unadjusted	-24.0	-1.4	-25.0
Seasonal Factor	-25.2	-2.7	-27.2
Adjusted	+1.6	+1.3	+3.0

Note: Items do not add exactly, due to compounding.
Source: Department of Commerce.

Trade Recommendations

- Go long Sept '97/Sept '98 Eurodollar calendar spread at 45 basis points or less, with a stop on a close below 38 basis points and a target of 75 basis points.

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Issue No: 97/20
May 16, 1997

I. Weekly Wrapup

Economic and Market Overview

U.S. bond prices moved sideways while broad stock indexes climbed further over the past week, as most economic and inflation reports for April came in near or below the low end of consensus expectations. Retail sales, for example, fell 0.3% overall and 0.1% in the nonauto component, in part reflecting an early Easter, unusually cool and rainy weather, and motor vehicle shortages caused by strikes. These labor actions also offset a 0.2% rise in nonauto factory output and a 2.0% jump in utility activity to keep total industrial production about flat for the month. The Philadelphia Fed's May index of general business conditions, covering responses in late April and early May, fell further, to +1.6%, although the region's manufacturers still report good growth in new orders, shipments, and employment. Swimming somewhat against the tide, housing starts rose 2.6% in April.

Given the various distortions in April, the latest signs of weakness should probably be discounted. That said, it is noteworthy that retail sales and industrial production were both revised down for the first three months of 1997, implying a less robust growth profile than had earlier been evident. The annualized growth rate for nonauto factory output from December to March was reduced from 6.9% to 5.5%, while the comparable figure for nonauto retail sales was cut from 13.8% to a still sturdy 9.9%.

U.S. inflation trends remain favorable, especially for domestically produced goods. Producer prices for finished items fell 0.6% in April, led by falling food and energy costs. Excluding those two components, the PPI edged down 0.1%, pulling the year-to-year rise for this core index down to 0.6%. Intermediate goods prices have been flat for the past year despite a modest rise in factory utilization and a similarly modest slowing in vendor delivery speeds. Retail prices were a bit firmer last month, however, rising 0.3% in the non-food, non-energy categories. Apart from the mild depressing influences from recent changes to the CPI compilation methodology, it still does not appear that the trend in core retail prices has changed since late 1995.

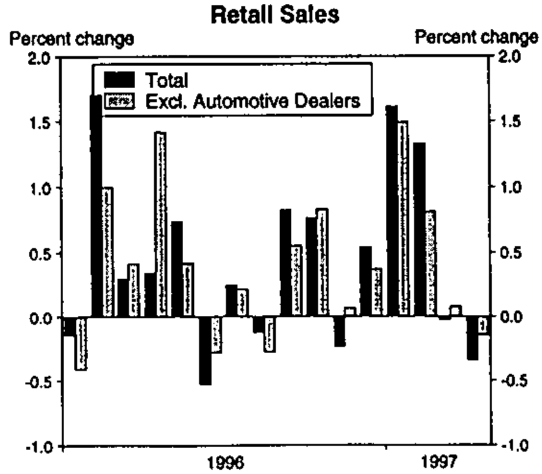
Federal Reserve Policy

Although high resource utilization rates and prospects for continued economic strength easily justify another round of monetary tightening, the probability of a rate hike at the May 20 FOMC meeting has moved below 50% recently. We have therefore reduced our shorter-term interest rate forecasts slightly (see page 8). Our longer-term outlook is unchanged.

The prospects for a tightening have dipped, in part, because Chairman Alan Greenspan has shown a willingness to be patient in the past when the economy looks to be slowing and the inflation news is good, which are the circumstances that now exist. In his speech last week, moreover, the Chairman said explicitly that he has not changed his forecast for real GDP growth to ease promptly toward a more normal pace. Recent statistical reports on final demand have not been in conflict with this notion.

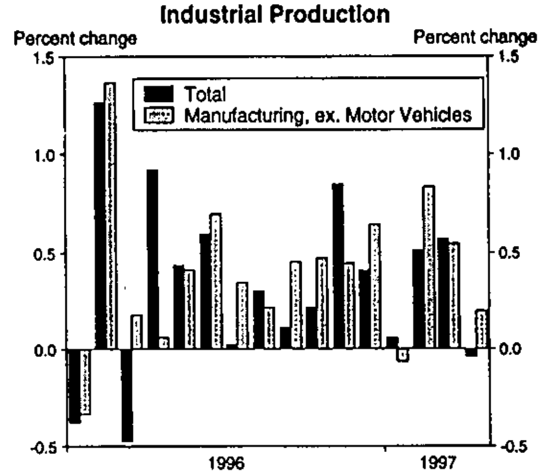
To be sure, a number of senior policy makers and Fed staff are apt to favor a second small rate rise next

Retail Sales



Source: Department of Commerce.

Industrial Production



Source: Federal Reserve Board.

week, to guard further against the risk of overheating. These officials may also be concerned that financial asset markets have moved up, on balance, since the March rate hike, and thus are not providing the central bank any assistance in restraining aggregate demand. In the end, though, these concerns probably will not overcome the inclination to wait for more information before boosting rates another notch.

Fiscal and Political Developments

Preliminary details from the May 2 budget accord reinforce our earlier conclusion that fiscal policy will not restrain economic growth for the next couple of years. According to Senate Budget Committee staff documents, the deficit is still expected to rise a bit over the rest of this decade, from $67 billion this year to $89 billion in fiscal 1999. Of the $140 billion in planned nondefense discretionary spending savings versus the current baseline, only $17.6 billion is slated for the first two years, and most of that would be offset by $12.2 billion in new "Presidential initiatives." Medicare and Medicaid program disbursement restraint is predictably backloaded, with 80% targeted for the last three years of the period. Finally, half of the proceeds expected from spectrum auctions and asset sales over the next five years are pegged for 2002. Without these revenues and the "fiscal dividend" projected from balancing the budget, the net deficit decline from 1997 to 2002 appears to be a puny 0.4% of nominal GDP, a small fraction of the decline already seen since 1993.

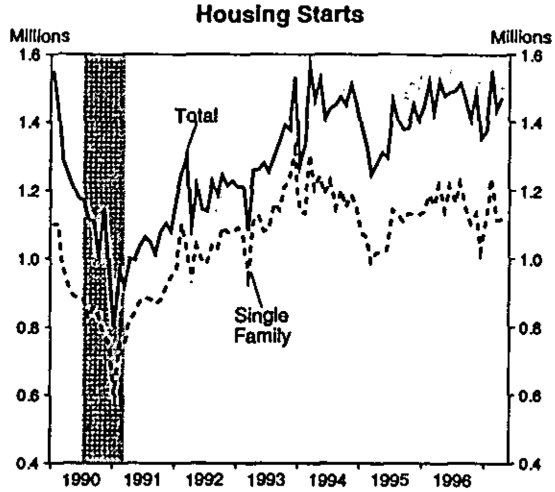
Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

It is a close call on whether the FOMC will tighten or not at next week's meeting. As the committee's decision will be the most important influence on the market's near-term behavior, we would stay on the sidelines for the time being.

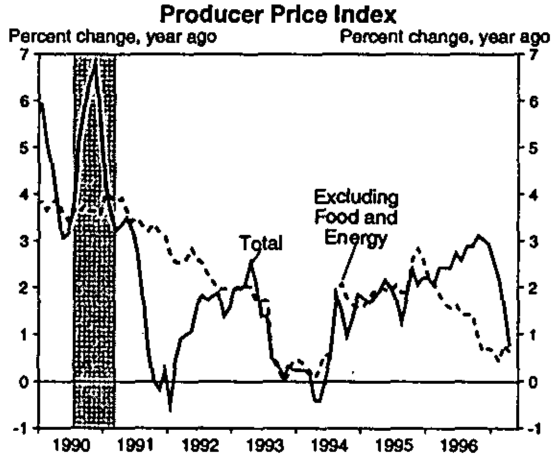
Additional Fed tightening steps are likely over the next year regardless of the outcome of this meeting. For this reason, we would go long the Sept '97/Sept '98 Eurodollar calendar spread (currently 51 basis points) at 45 basis points or less, with a stop on a close below 38 basis points and a target of 75 basis points. On the long end, although we continue to have a bearish bias over the medium term, we would prefer to watch and wait for better levels before expressing such sentiments.

Housing Starts



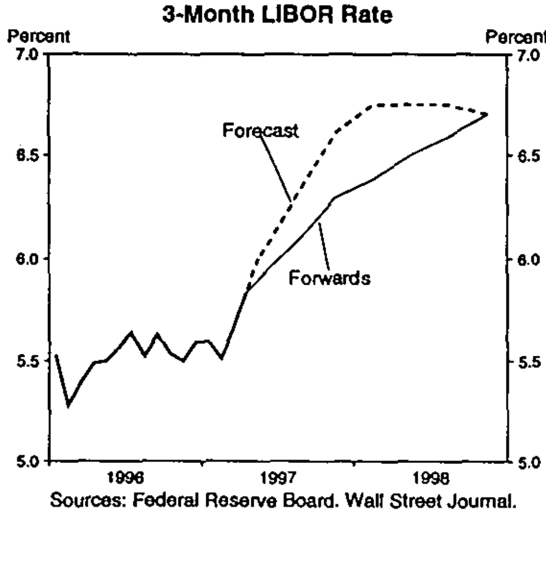
Source: Department of Commerce.

Producer Price Index



Source: Department of Labor.

3-Month LIBOR Rate



Sources: Federal Reserve Board. Wall Street Journal.

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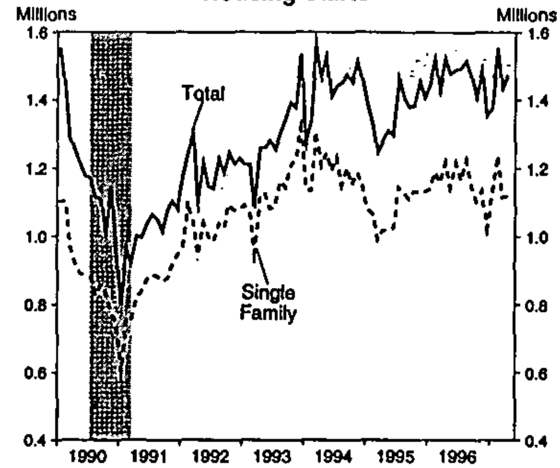
Housing Starts



Source: Department of Commerce.

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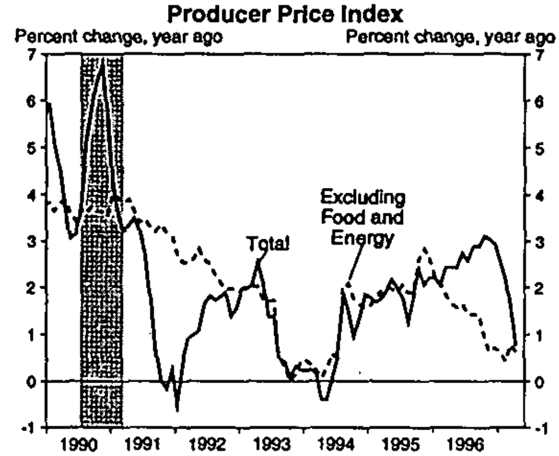
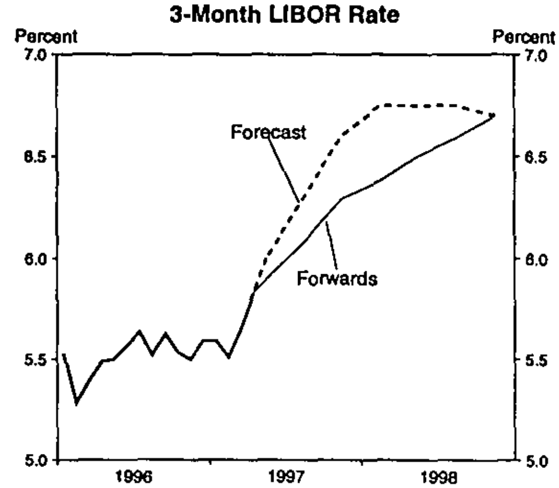


Source: Department of Labor.

3-Month LIBOR Rate



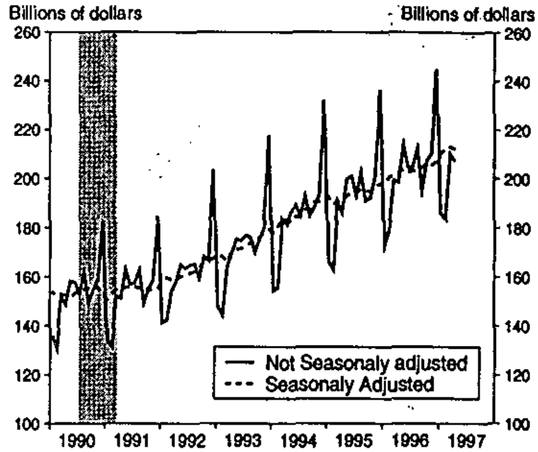
Sources: Federal Reserve Board, Wall Street Journal.

II. Those #@&#% Seasonal Adjustments!

Did the U.S. economy really grow at a 5.6% annual rate last quarter? Many economists think not, arguing that home building and retail sales benefited unduly from a winter featuring unusually warm temperatures and low snowfall in most parts of the country. If so, then part of this quarter's slowing is also suspect.

Assertions such as these, with which we have some sympathy, raise the broader question of the value of seasonal adjustment—a ubiquitous procedure whose failings often seem more obvious than its benefits, at least to market participants other than economists. As card-carrying economists who depend heavily on seasonally adjusted data, but also criticize it in certain situations, we feel impelled to answer the questions that underlie skepticism about seasonal adjustment.

Retail Sales



Source: Department of Commerce.

Q. Why do economists rely so much on seasonal adjustment?

The answer is simply that seasonal influences on economic activity are often sizable and, for the most part, predictable reactions to normal weather patterns, major holidays, etc. Removing these fluctuations, therefore, usually reveals a clearer picture of how the trend is changing in response to the cyclical and secular forces that are of more enduring interest.

The most obvious illustration of holiday effects is in retail sales. They typically rise sharply in the run-up to Christmas and then fall precipitously in January, as shown in the chart nearby. Over the past ten years, for example, retail sales have risen 22%, on average, in November and December, within a relatively tight 18%-26% range. Given this well-established pattern, it would clearly be inappropriate to regard a 10% rise in the (unadjusted) level of sales in these two months as a meaningful gain. To the contrary, this small an increase during the holiday season could signal a weakening in the trend, whereas it would mean just the opposite in January and February. The sales reversal in these two months has ranged between 23% and 30%, averaging 27% (almost entirely in January).

Housing activity provides the best weather-driven example of the need to correct for seasonal patterns. Because of the difficulty of breaking ground on new projects during the winter, starts of new housing units usually fall 25% to 45% from October to January. Both retail sales and housing starts stand as examples of the need for seasonal adjustment and the problems encountered, as discussed more fully below.

Q. How are seasonal factors computed?

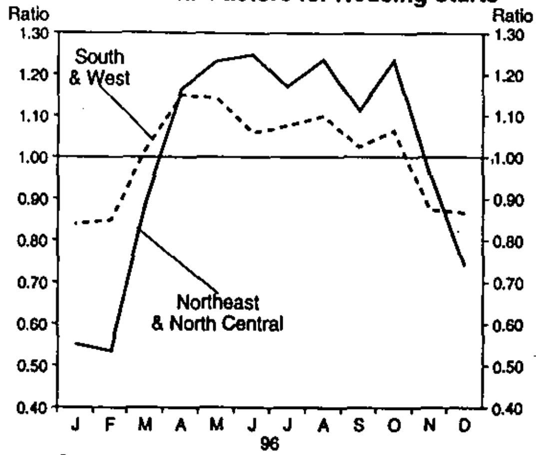
The procedure is complicated, but it boils down to this: For any given month, ratios of its observations to those for the adjacent months are computed for a period of several years—at least three but often five or seven. This process is repeated for each month, and the results are calibrated so that the resulting seasonal factors average to one. Thus, a seasonal factor of 0.90 for a given month means that the raw, unadjusted figure tends to be 10% below average.[1] If data are available for a longer stretch of time, the whole process is rolled forward one year and repeated until the latest period has been covered.

Q. Why are seasonal factors calculated for periods shorter than the entire time for which data are available?

The purpose of this is to allow the seasonal factors to move over time. Such changes can occur for various reasons—demographic change, the shifting impact of major holidays, etc.

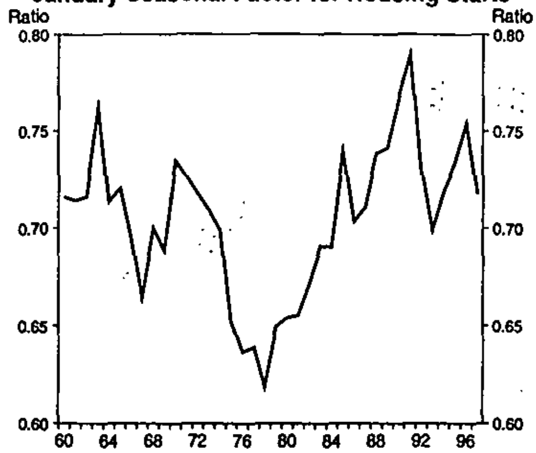
[1] The use of ratios assumes that the forces giving rise to the seasonal variation cause the variable in question (e.g., housing starts) to rise or fall by some percentage of its base level. Seasonal factors computed in this fashion are called multiplicative. The process can also be cast in terms of differences, in which case the seasonal factors are additive and sum to zero, with negative factors indicating a lower-than-normal level of activity.

1996 Seasonal Factors for Housing Starts



Source: Department of Commerce.

January Seasonal Factor for Housing Starts



Source: Department of Commerce.

Housing provides a good example of why seasonal factors might shift over time. Because the climate is milder in the South and West, seasonal patterns are more moderate for starts in those regions, as shown above. Thus, as the population migrates toward these parts of the country, the seasonal pattern in housing starts should moderate. This is one reason why the January seasonal factor has moved up (signifying less weakness) since the late 1970s, although changes in the severity of winter weather have also played a role. As another example, retailers are reporting a higher propensity on the part of value-conscious consumers to put off holiday purchases until the January sales. In time, this could soften the seasonal sales patterns, although there is little evidence of this so far.

Q. How does seasonal adjustment allow for flukes in the data?

Apart from the seasonal, cyclical, and secular forces already noted above, economic activity is sometimes affected by random or nonrecurring events, such as unusual weather, natural disasters, or regulatory changes. Such events muddy the calculation of seasonal factors. This past winter, for example, the weather was unusually mild and snow-free in most parts of the nation. As a result, housing starts fell slightly less than the norm in January and then jumped 12.9% in February. Normally, starts edge up only about 2% in February, so the seasonally adjusted change for that month was reported as a 10.7% increase. The cushion to retail sales was spread more evenly over the two months, resulting in a net decline that was 3.0% smaller than the norm (not annualized).

It is largely on the basis of these events that many economists discount the 5.6% annualized increase in real GDP reported for the first quarter. Obviously, a complete assessment of this distortion would require analysis of all the items in real GDP, some of which (like energy usage and export growth) appear to have been below their norms.

When the time comes to recalculate seasonal factors next year, Commerce Department statisticians will face a dilemma: Recognizing that this year's weather was abnormal, should February's surges in retail sales and housing starts be ignored? Or, is part of the upside surprise due to the factors cited above that imply a softening of seasonal patterns in both cases?

The hard truth is that no one knows for sure. But in the estimation of seasonal factors some decision has to be made. The traditional approach has been to set a limit on how far the result for any month can deviate from its norm. Outcomes that exceed this limit would then be thrown out of the calculation. More recently, seasonal adjustment programs have incorporated sophisticated time-series analysis to

Seasonal Distortions In Early 1997

	Month-to-Month Change		
	January	February	Total
Housing Starts			
Unadjusted	-11.7%	+12.9%	-0.3%
Seasonal Factor	-13.1	+2.0	-11.4
Adjusted	+1.6	+10.7	+12.5
Retail Sales			
Unadjusted	-24.0	-1.4	-25.0
Seasonal Factor	-25.2	-2.7	-27.2
Adjusted	+1.6	+1.3	+3.0

Note: Items do not add exactly, due to compounding.
Source: Department of Commerce.

estimate how much of any given observation is due to random versus other factors.

The impact of such distortions is especially large in periods, like the winter, when activity is typically low for seasonal reasons. This is because the seasonally adjusted figure is derived by dividing the raw figure by the seasonal factor. If the seasonal factor is well below one, this will tend to magnify the distortion.

Q. Why not just rely on year-to-year changes?

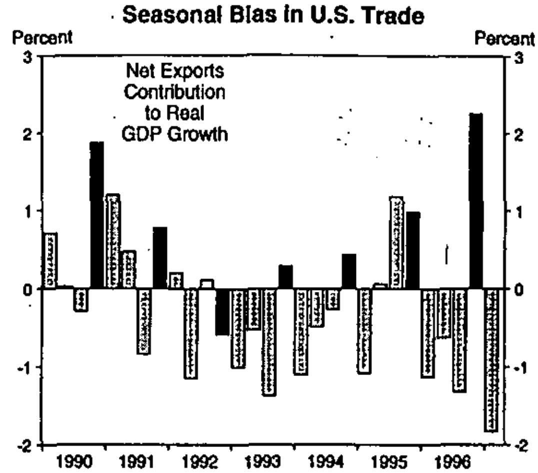
Although financial market participants often scoff at seasonal adjustment because it seems so arbitrary and subject to fault, many of them implicitly recognize its importance by focusing year-to-year changes rather than sequential month-to-month or quarter-to-quarter changes. In the context of the foregoing discussion, the limitations of this approach should be transparent: Whereas conventional seasonal adjustment combines the experience of several years in order to rule out or dampen the effect of extreme outcomes, reliance on year-to-year changes implicitly sets up the preceding year as the only relevant experience. Analysts often recognize this problem by noting that the year-earlier period stands as an "easy" or "difficult" comparison. Such a characterization implies that the year-earlier results should be discounted in some fashion, but goes no further. In contrast, seasonal adjustment programs provide a method for doing so on a systematic and statistically defensible basis.

Moreover, focusing on year-to-year changes obscures the incremental change by lumping new data in with old data. Consider, for example, a rise in the year-to-year change in housing starts from 9% in one month to 10% in the next month. If this occurred because a 1% increase in the latest month replaced a flat year-earlier month-to-month reading, then the incremental news would suggest a pick-up in home building (a 12% annualized monthly change versus a 9% trend). But if a 1% year-earlier decline was replaced by no change in the latest month, then this would actually imply a slowdown from the 9% trend.

Q. If seasonal adjustment is such a great tool, why do economists blame so many problems on it?

Like any procedure, seasonal adjustment is not well suited to handle every problem of a seasonal nature, and it sometimes breaks down on those it is designed to handle. Easter stands out as a clear example of the former. Many families boost spending on apparel and other items as Easter approaches (though this merely returns the level of spending to about its norm after the January/February slump). However, because the timing of Easter varies from one year to the next, its impact on spending in March versus April is hard to pin down.

Seasonal Bias in U.S. Trade



Source: Department of Commerce.

Breakdowns in the seasonal adjustment process also occur from time to time. One such occurrence has emerged in the U.S. international trade accounts. For recent years, the seasonally adjusted figures now on record for export growth show a systematic tendency to surge in the fourth quarter and to weaken in the first. This pattern should not show up with such regularity in data that have been properly adjusted for seasonal variation. The reason for it is not entirely clear, although it may be evidence that seasonal patterns are shifting in a way that is not being fully captured by the seasonal adjustment process.

Q. How are seasonal adjustment problems visible to the naked eye?

The easiest way to spot such a problem is to compare the growth rate or net change in a variable suspected of inadequate adjustment (exports, in the foregoing example) with a centered moving average computed over a period of about one year (*e.g.*, 5 quarters or 13 months).

In summary, seasonal adjustment is an indispensable tool in economic analysis, but one that is far from infallible. In the current context, most of any upside error on first-quarter growth resulting from seasonal adjustment problems would come out of subsequent quarters, most likely the current one. Thus, signs of softness should probably not be taken at face value.

Ed McKelvey

Key U.S. Economic Data

	Latest Monthly Data '97 Apr	'97 Mar	'97 Feb	'97 Jan	6 Mo Trend	12 Mo Trend	Next Release
Nonfarm Payrolls (ch. Thousands)	142	139	314	259	211	221	June 6
Unemployment Rate (%)	4.9	5.2	5.3	5.4	5.2	5.3	
Index of Hours Worked (% ch)	-0.8	0.0	2.6	-1.6	3.7	3.3	
Average Hourly Earnings (% ch)	-0.1	0.4	0.4	0.1	4.1	3.6	
Producer price finished goods index (% ch)	-0.6	-0.1	-0.4	-0.3	-1.4	0.8	June 13
Excluding food and energy	-0.1	0.4	-0.1	0.0	0.3	0.6	
Consumer price index (% ch)	0.1	0.1	0.3	0.1	2.2	2.5	June 17
Excluding food and energy (% ch)	0.3	0.2	0.2	0.1	2.7	2.6	
Retail sales (% ch)	-0.3	0.0	1.3	1.6	5.9	4.9	June 12
Excluding motor vehicles (% ch)	-0.1	0.1	0.8	1.5	5.5	4.2	
Industrial Production (% ch)	0.0	0.6	0.5	0.1	4.8	4.1	June 17
Manufacturing	-0.2	0.5	0.7	0.1	5.1	4.6	
Capacity utilization (%)	83.4	83.7	83.5	83.3	83.5	83.3	June 17
Manufacturing	82.4	82.8	82.7	82.4	82.5	82.4	
Housing Starts (annual rate, thousands)	1473	1435	1554	1375	1446	1460	June 17
Single-family	1118	1115	1237	1125	1125	1145	
Trade balance (billions, monthly)	–	–	-10.4	-12.3	-10.1	-10.0	May 21
Merchandise	–	–	-16.9	-18.6	-16.4	-16.2	
Factory Orders (% ch)	–	-1.6	0.4	2.5	0.4	4.6	June 4
Durable Goods	–	-2.6	1.0	3.8	-1.6	4.2	May 28
Personal Income (% ch)	–	0.6	0.8	0.3	6.5	6.5	June 2
Wages and Salaries	–	0.7	1.3	0.0	7.7	7.5	
Purchasing Managers' Index (%)	54.2	55.0	53.1	52.0	53.4	52.3	June 2
Consumer Sentiment U Mich (Feb 66=100)	101.4	100.0	99.7	97.4	99.1	96.5	May 30
Conference Board (1985=100)	116.8	118.5	118.9	118.7	116.1	111.5	May 27

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

Goldman Sachs

U.S. Calendar

Focus for the Week Ahead

- Although high resource utilization and prospects of continued strong growth afford Fed officials justification for another round of tightening, signs of slowing in growth coupled with recent commentary by Chairman Greenspan suggest that Tuesday's FOMC meeting will end up with no change in interest rates (May 20).
- We expect a narrowing in the trade deficit to $8.8 billion in March. However, about half of this represents a decline in oil prices rather than a fundamental improvement in real trade flows. Moreover, our estimate for imports is subject to upside surprise given the conflict between low customs duties and strong domestic demand. A drop in aircraft exports is apt to offset increases in other categories (May 21).
- Surging tax receipts drove the federal budget surplus during April far above the year-earlier level (May 21). This development led Congressional Budget Office estimators to revise down sharply their projection for the full fiscal year 1997 budget gap, to around $67 billion.

Economic Releases and Other Events

			Estimate		
Date	**Time**	**Indicator**	**GS**	**Consensus**	**Last Report**
Wed May 21	8:30	Trade Balance (Mar)	-$8.8 Bil	-$10.0 Bil	-$10.4 Bil
	2:00	Federal Budget Balance (Apr)	+$95.0 Bil	+$90.0 Bil	+$72.4 Bil

- FOMC Meeting (Tue, May 20)
- Import and Export Prices (Wed, May 21 - 10:00)
- Kansas City Fed Survey (Wed, May 21 - 11:00)
- Treasury Announces 2- and 5-Year Notes (Wed, May 21 - 2:30)
- March FOMC Minutes (Thu, May 22 - 2:00)
- French Parliamentary Elections (Sun, May 25 - 1st Round)

Interest Rates: Forecast vs. Forward Yields

	3 mo	6 mo	12 mo
LIBOR 3 mo	6.0%	6.3%	6.8%
Forward	6.0	6.2	6.5
2 Yr T-Note	6.4	6.6	7.1
Forward	6.4	6.5	6.6
10 Yr T-Note	6.8	7.0	7.2
Forward	6.7	6.8	6.8

Key Numbers in the Business Outlook

	1997				
	Q1	Q2E	Q3E	1997E	1998E
Real GDP	5.6%	2.7%	3.5%	3.8%	2.4%
Ind. Prod., Mfg.	6.6	7.5	5.9	5.9	4.6
CPI	2.4	2.0	2.5	2.7	3.3
After-Tax Profits*	9.9E	5.2	2.4	4.6	2.7
Unemployment	5.3	5.0	4.8	5.0	4.9

* Excluding inventory profits; adjusted for depreciation distortions.

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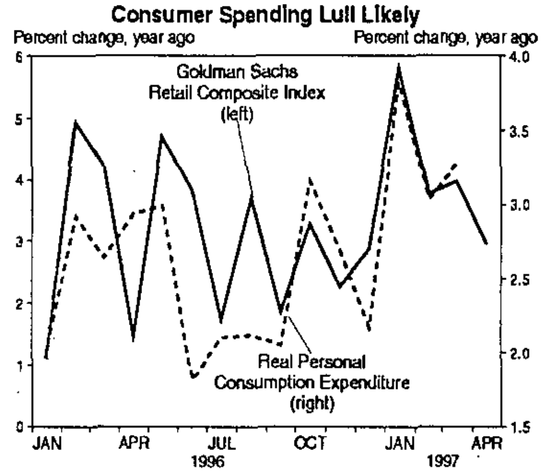
U.S. Economics Analyst

The Budget Accord: No Heavy Lifting Involved

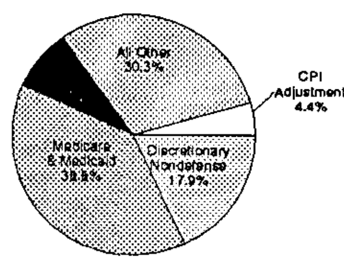
- Chairman Greenspan's speech at New York University makes us much less confident that Fed officials will decide to tighten monetary policy at the May 20 FOMC meeting.
- Greenspan described the March tightening as "insurance," and said he has not changed his forecast that the economy will slow and inflation will remain quiescent, which implies some willingness to be patient and wait for more data.
- The Chairman's remarks, however, in no way rule out future rate increases. If, as we expect, demand growth picks up again after a second-quarter slowdown, then our forecast of a 6% federal funds rate by the end of the third quarter is likely to be realized. In this respect, the weakness of chain-store sales in April is probably not significant as it mainly appears to reflect poor April weather and a lull after the impressive first-quarter surge.
- By restraining the growth of Medicare spending and imposing tight caps on discretionary spending, the budget accord will help to shrink the federal deficit further, barring recession.
- However, this deal falls well short of what could have been achieved in two key respects: (1) its fiscal restraint is backloaded because much of the spending restraint occurs after 1999, while the tax cuts occur more quickly, and (2) it fails to make the types of structural reforms to entitlement programs that are needed to address longer-term budget deficit problems associated with the bulge in retirees after 2010.

Consumer Spending Lull Likely



Sources: Department of Commerce. Goldman Sachs.

Breaking Down Projected Spending Savings (Five-Year Totals)



*Midpoint of projected range.
Source: Senate Budget Comittee.

Trade Recommendations

- Cover short June '97 Eurodollar futures position.
- Cover short June '97 T-bond futures position.

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I. Weekly Wrapup

Economic and Market Overview

In a week with little important economic information, the U.S. bond market fluctuated in a narrow range until the reaction to Chairman Greenspan's speech pushed prices higher on Friday. Meanwhile, the equity market managed to advance, even though the uptrend was punctuated by some sharp declines.

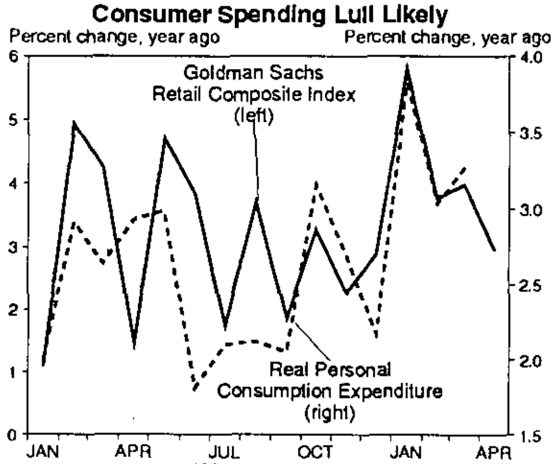
The trajectory of consumer spending continues to be an important market focus. In this regard, both the chain-store sales figures and consumer installment loan data were generally consistent with slower growth in consumer spending in the second quarter. The Goldman Sachs composite chain-store sales index weakened in April to a 3.0% year-over-year pace, from 4.0% in March, and consumer installment loan growth in March was a paltry $2 billion, the lowest monthly change since September 1996. At the same time, these data do not suggest that the weakness is anything more than a temporary lull following the first-quarter surge in spending. Our retail analysts point out that the weakness in retail sales in April was probably due mainly to bad weather and the early timing of Easter. They note that softness was concentrated in areas that are sensitive to the weather, such as apparel, home-improvement goods, and auto parts. Similarly, the fact that consumer spending stayed robust as consumer installment debt growth plunged over the past year underscores how well-supported spending has been by income. The slowdown in loan growth suggests that much of the adjustment for prior financing excesses has already been accomplished.

On the production side of the economy, factory inventories rose only 0.2% in March, keeping the stock-to-sales ratio near the all-time low. Moreover, as most of the increase was concentrated in the materials and supplies and work-in-process components rather than in finished goods, the buildup was probably voluntary. Unit labor costs in the first quarter rose by 2.7% (annualized), more rapidly than expected given the large gain in nonfarm productivity growth in the quarter of 2.0%. The gap between the inflation rate of unit labor costs and core consumer prices has vanished. Thus, even moderate further gains in wage inflation could exert sufficient upward pressure on unit labor costs to begin to fuel inflation.

Federal Reserve Policy

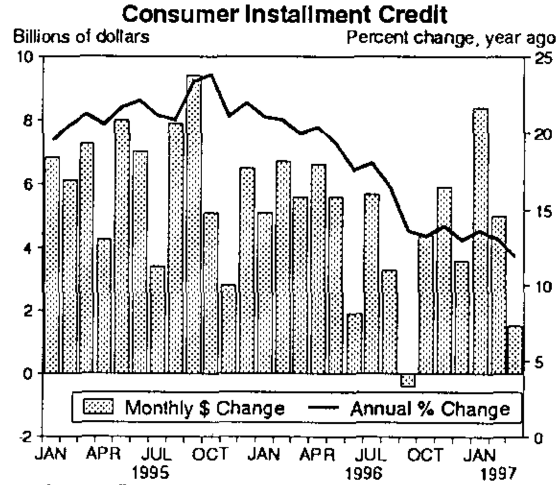
Chairman Greenspan's speech at New York University on Thursday has caused us to become less confident that the Federal Open Market Committee will tighten monetary policy at the May 20 meeting. This reflects three points. First, Greenspan characterized the March 25 tightening as "insurance," which does not suggest a need for swift further action. Second, he noted that the March tightening was not motivated by a change in his forecast that the economy will slow and inflation would remain benign, but instead by a shift in the risks that his forecast might be wrong. Again, this implies a limited monetary policy response at this juncture. Third, by noting that the Fed would tighten if the "expected slowing in the growth of demand [were] to fail to materialize," Greenspan is hinting that he prefers to be patient until he sees evidence of continued strong demand.

Consumer Spending Lull Likely



Sources: Department of Commerce, Goldman Sachs.

Consumer Installment Credit



Source: Federal Reserve Board.

The speech, however, in no way rules out future tightening moves. We continue to expect that the economy will remain more robust than expected—after a temporary lull—and that Fed officials will push the federal funds rate up to 6% by the end of the third quarter and to 6½% by the middle of next year. If Greenspan is silent over the next few days, this would signal that the market's interpretation of his speech was appropriate. In contrast, if he is unhappy with the conclusions drawn, then look for him to clarify his intentions.

The Federal Reserve's latest beige book report contained few new insights into the pace of economic activity or the inflation outlook. In fact, the tone of the document is very close to the previous report (March 12, 1997), indicating moderate growth and tight labor markets, but little wage inflation pressure and no sign of inflation.

Fiscal and Political Developments

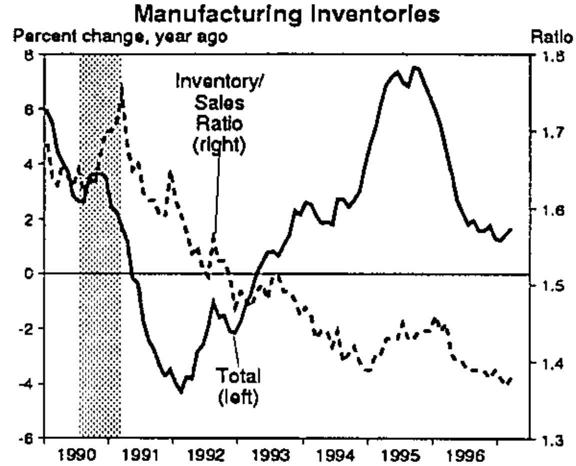
Clinton Administration officials and Republican leaders continue to negotiate the fine print of the balanced budget agreement. Although such squabbling could grow contentious at times, both sides have too much at stake to allow their disagreements to sabotage the deal. William Roth, head of the Senate Finance Committee, and Bill Archer, head of the House Ways and Means Committee, promised market participants that any capital gains tax cut legislation would apply retroactively to gains realized beginning May 7. The details of capital gains tax reduction, however, remain to be worked out. At this point, a sizable reduction in the top marginal tax rate appears likely (perhaps a 50% exclusion from income that would cut the top rate from 28% to 19.8%). Indexing capital gains to inflation, however, is unlikely given its cost in terms of foregone revenue and its complexity.

Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

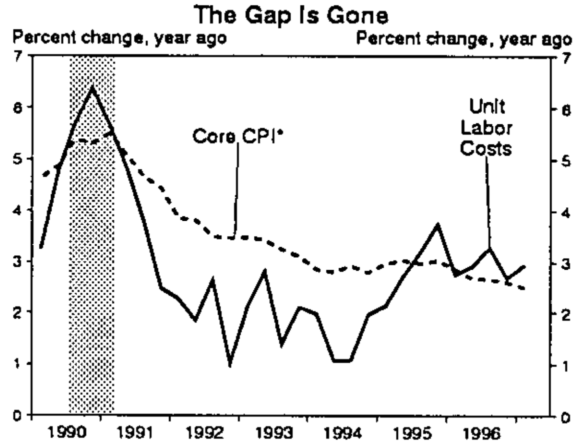
Given our uncertainty about what Fed officials will do at the May 20 FOMC meeting and the good technical condition of the bond market, we would cover our shorts and move to the sidelines for the time being. After all, if the Fed does not tighten, that might convince some investors that tightening risks are minimal, and thus cause both short- and long-term rates to fall a bit further temporarily.

Manufacturing Inventories



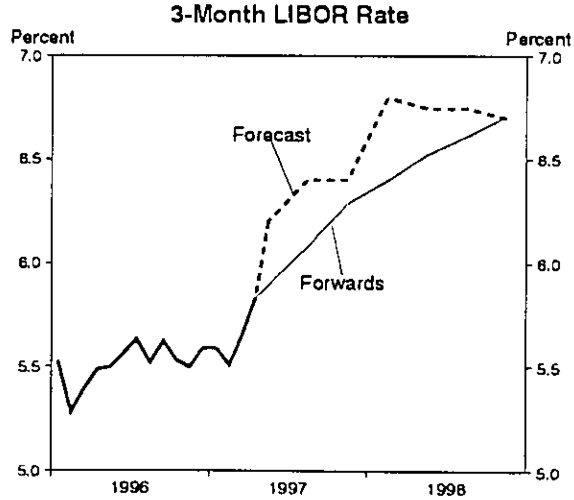
Source: Department of Commerce.

The Gap Is Gone



*Excluding food and energy.
Source: Department of Labor.

3-Month LIBOR Rate



Sources: Federal Reserve Board. Wall Street Journal.

II. The Budget Accord: No Heavy Lifting Involved

The bipartisan budget accord between President Clinton and Congressional leaders will permit both sides to claim major political victories. For Republican lawmakers, the pact includes several items from the "Contract With America," their 1994 election manifesto, while for the President, it guarantees a place in history as the chief executive who crafted a budget strategy that credibly promised an end to three decades of cumulatively mountainous deficits.

This compromise deal, however, should be regarded as a disappointment compared to what could have been achieved at this time. To be sure, it contains a heftier dose of medium-range entitlement program spending restraint than any of its recent predecessors, which should help to keep federal borrowing needs unusually low for years if no recession intervenes. Yet, this accord falls well short of its potential in two key ways. First, it provides no net restraint on aggregate U.S. demands in the next two years, with very small spending reductions and tax cuts that could push up resource utilization rates from levels that the Federal Reserve already deems potentially inflationary. Second, this budget plan does not include structural reforms in fast-growing mandatory outlay areas, which are needed to avert an explosion in budget deficits once the baby boom generation hits retirement age after 2010. Because of these omissions, the budget that is written into law over coming months should have no more than a small damping influence on upward cyclical interest rate pressures, and it will leave the most significant fiscal problems still facing the nation unresolved, probably until after the 2000 presidential election.

No Fresh Fiscal Restraint in This Decade

According to preliminary figures, the budget accord reached late last week will provide an estimated $340 billion in total federal spending savings over five fiscal years (1998-2002). Based on its sources, though, this restraint is very likely to be highly concentrated in the final three years covered by the agreement. For example, the Medicare and Medicaid programs are targeted for $132 billion in gross reductions from prior forecasts, accounting for nearly 40% of the overall cuts in the next five years. Because they represent a reduction in the expected growth rates for medical entitlement expenditures, these savings will by nature tend to develop only gradually. A similar pattern will attend to the

The Budget Accord: Projected Five-Year Figures
(Fiscal Years 1998-2002)

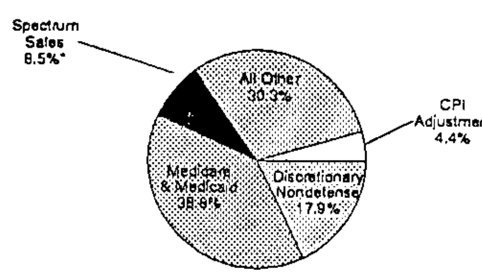
	$ Billions
Spending Reductions:	
Medicare	$115
(Note: Premium Increase = 15)	
Medicaid	17
Spectrum Sales	24-34
Other Mandatory Programs	11-21
Non-Defense Discretionary	61
Fiscal Dividend on Interest Outlays	45
Other	57
Total	$340
Tax Reductions:	
Gross Cuts	$135
Offsetting Revenues	50
(Note: Airline Ticket Tax Extension = 30)	
Total, Net	$85
Net Deficit Reduction	$255

Source: Senate Budget Committee. Congressional Budget Office. Our Estimates.

assumed net interest savings, some of which in fact may never arrive if the negotiators' expectation of a progressive decline in real borrowing rates during an exceptionally extended period of high economic activity proves too optimistic.

The vast bulk of the $61 billion in projected nondefense discretionary spending cuts, meanwhile, clearly will be targeted toward 2000 and beyond. By

Breaking Down Projected Spending Savings
(Five-Year Totals)



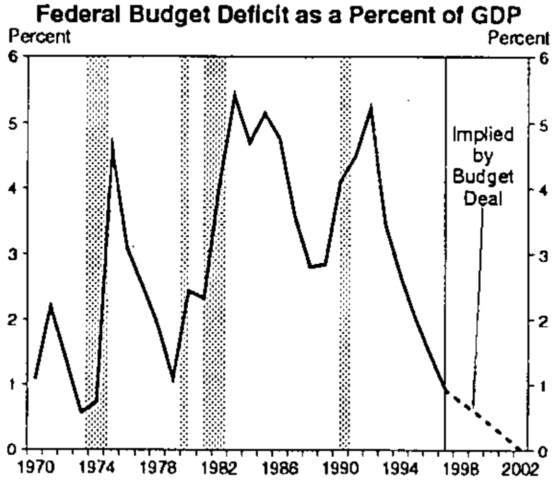
*Midpoint of projected range.
Source: Senate Budget Comittee

extending the statutory caps on such outlays beyond the current 1999 expiration date, lawmakers can claim substantial savings without specifying their precise origin, leaving that difficult task to the next two Congresses. At the same time, the budget agreement calls for additions to certain domestic spending categories for the 1998-1999 interval, which might necessitate an actual increase in current outlay limits governing those two years.

Regarding taxes, the accord calls for gross abatements totaling $135 billion over five years, with $20 billion in offsetting receipts to be derived from tightening up the tax code in some areas and firmer economic growth projections as a consequence of a balanced budget. An additional $30 billion in revenues would be gained from extension of the existing airline ticket tax through 2002, making the net revenue loss only $85 billion. The planned tax reductions no doubt will be made effective soon, in most cases not later than January 1998. Moreover, it is possible that the capital gains tax relief component will be scored as having close to neutral revenue consequences over the period, because it is expected that the lower tax rates will initially trigger more gains realizations and taxable income than would otherwise occur. This means that essentially all of the dollar amount allotted for tax reductions can go toward the other three major intended areas (a credit for children, education credits, and smaller levies on estates), enhancing the potential for these actions to stimulate private sector demands in the near run.

Although not surprising, it is nevertheless unimpressive that the budget deal would yield only about a 1% further improvement in the fiscal balance as a percent of GDP, and would take five years to do so. That implies a considerably slower pace of deficit reduction than has been occurring in the past several years.

Federal Budget Deficit as a Percent of GDP



Source: Department of Treasury. Department of Commerce.

Long-Term Savings Are Substantial, But Structural Reforms Were Ducked

The deficit-reduction achievements of the negotiators appear more meaningful when the ten-year projections are examined. Spending restraint over that timeframe—totaling $850 billion—includes $490 billion from Medicare and Medicaid, which implies that savings in those areas over the second five years will be two-and-a-half times larger than during the 1998-2002 period. This represents by far the most aggressive effort yet to slow the pace of federal medical entitlement program outlay growth.

That said, it must be remembered that these dollar savings figures are so large precisely because medical entitlement expenditures are expected to continue ballooning in size for many years, particularly when the baby boom generation begins to reach retirement age around 2010. For this reason, it is disheartening from a policy perspective that the Medicare savings to be generated by this agreement would largely be gleaned by further squeezing reimbursements to doctors, hospitals, and other healthcare providers, rather than by structurally reforming the program in a manner designed to reduce the rate of growth in demand for its services. In the absence of such changes, the fundamental forces behind the rapid growth in program expenses will tend to persist, and the healthcare industry may respond to the squeeze on earnings from the federal government by boosting billings to the private sector.

In the same way, the last-minute decision to forego legislated changes to cost-of-living adjustments for federal benefit programs and income tax brackets materially eroded the budget accord's impact on the principal remaining long-range federal fiscal problem, which is the danger of enormous deficits when a predictable surge in retirees beginning about fifteen years from now causes Social Security program expenses to explode upward. The preliminary understanding reached by budget negotiators on May 1 reportedly would have cut the annual CPI for the purposes of federal cost-of-living calculations by around 0.4% per year, whereas the final pact left any such modifications up to the discretion of the Bureau of Labor Statistics, and merely assumed that these would eventually total 0.25% annually by 2002. Though the difference between these approaches may seem small, this late deletion added $24 billion to federal spending estimates for the 1998-2002 period. More importantly, the cumulative impact by 2010 and beyond from forcing an early, slower cost-of-living trend would be very large. By declining to take this step, the politicians passed up a rare opportunity to take a big bite out of the demographically-related bulge in future deficit projections.

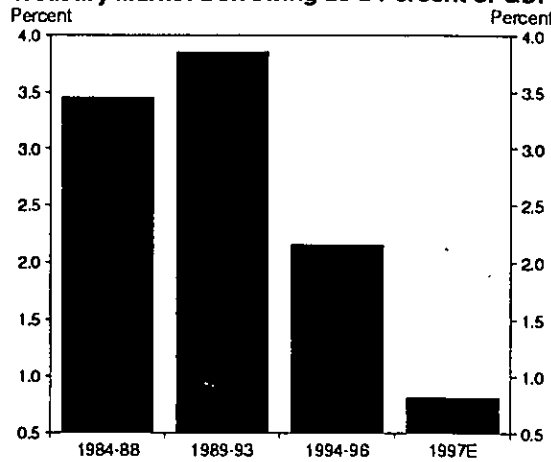
Implications For Financial Markets

In our opinion, there are three main implications for financial asset markets to be drawn from the magnitude and structure of the bipartisan budget accord as they are now understood:

1. **Improved prospects for low and stable Treasury borrowing needs may help shave the risk premium in long-duration U.S. debt yields.** The sizeable entitlement outlay growth reductions and extensions of discretionary spending caps that were agreed upon remove an important element of risk that structural budget deficits could surge again after 1999. It should be reassuring to U.S. bond investors that supplies of new Treasury securities—down to less than 1% of GDP this fiscal year—may remain similarly low for some time.

2. **By itself, the accord should have little impact on the Fed's thinking about the appropriate monetary policy strategy for the next year.** Federal government outlays in the next two years will not be much, if at all, lower than had been previously indicated; indeed, as noted earlier, there could even be a net increase in planned discretionary spending over the next two years. Private sector demands, meanwhile, could gain additional support from tax cuts that will take effect soon. Consequently, pre-existing concerns among central bankers that the expansion might remain so strong as to place inflationary strains on resource margins are unlikely to have been alleviated, suggesting that a bias toward tightening should remain.

Treasury Market Borrowing as a Percent of GDP



Source: Department of Treasury.

3. **Important structural budget reforms remain to be addressed, but this probably will not happen before 2001.** Early in a non-election year, and amid unusually positive economic conditions, Congressional leaders and President Clinton have deliberately passed up a chance to make politically difficult but fiscally very powerful constraining alterations to future federal entitlement outlays. It is hard to imagine that they will develop the will to address such steps in 1998-2000, while two legislative elections and one presidential race are in progress.

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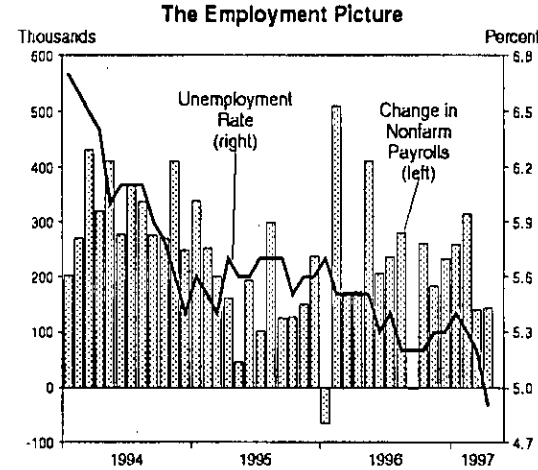
Labor Force Growth Not Due to Welfare Reform

- Although the benign employment cost index report and softer payroll figures remove some of the pressure on Fed officials to tighten monetary policy further, additional moves are still likely, probably with the next step at the May 20 FOMC meeting. Fed officials will be reluctant to give the financial markets the green light to rally further by keeping short-term rates steady at a time the economy has been growing robustly and labor markets are very tight.
- A balanced budget agreement that would achieve balance on paper in 2002 reportedly has been reached. However, the deal appears to fall short in a number of respects. For example, it uses the more favorable economic assumptions of the OMB and the spending restraint is heavily back-loaded.
- Although welfare-to-work initiatives have had some success in reducing AFDC caseloads, welfare reform does not appear primarily responsible for the recent surge in labor force growth. Instead, improving employment prospects have attracted workers from a broad array of demographic categories into the jobs market.
- Welfare reform should have significant labor market implications as roughly 2.0-2.5 million recipients enter the labor force over the next few years. Potential consequences include a temporary dampening of average hourly earnings growth and a rise in the unemployment rate. The consequences for inflation are unclear, however, since the natural rate of unemployment should also rise.

The Employment Picture



Source: Department of Labor.

Estimating the Labor Force Effects of Welfare Reform:

AFDC Recipient Characteristics	
(1) Current AFDC Caseload (thousand families)	4,143
(2) Months of Assistance at a Point in Time	
(a) 1-12 months	4.5%
(b) 12-24 months	4.8%
(c) > 24 months	90.7%
(3) Families Subject to Work Requirements = (1) x (2)(c)	3,758
(4) Labor Force Participation Rate of AFDC Family Heads	44.8%
(5) Share of Family Heads Not in Labor Force	55.2%
(6) Recipients Moving into Labor Force = (3) x (5)	2,074
(7) Estimate of 1996 Labor Force Entry	300
(8) Total Labor Force Impact of Welfare to Work = (6) + (7)	2,374

Source: U.S. House of Representatives, Urban Institute. Our calculations.

Trade Recommendations

- Stay short June '97 Eurodollars with a target of 93.85 and a stop on a close above 94.20.
- Stay short June T-bond futures with a target of 105.00 and a stop on a close above 111.16.

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Goldman Sachs

I. Weekly Wrapup

Economic and Market Overview

Prices of U.S. stocks and bonds rose sharply early in the week on news of smaller-than-expected labor cost increases. Although most reports on U.S. economic activity confirmed its underlying strength, the market gains largely stuck, helped by persistent rumors of an imminent 5-year budget balancing accord.

The latest labor market data have clearly been mixed. On the soft side, nonfarm payrolls rose only 142,000, dragging the 3-month average gain slightly below 200,000. Meanwhile, the employment cost index for total compensation rose only 0.6% in the first quarter, as increases in wages and salaries (0.9%) and benefits (0.1%) were both tamer than expected. In April, average hourly earnings dipped 0.1% and the index of hours worked fell 0.8%; however, both were affected by faulty seasonal adjustment. On the strong side, factory work weeks and overtime tied or hit new highs in April, and the unemployment rate dropped to 4.9%, a 23-year low.

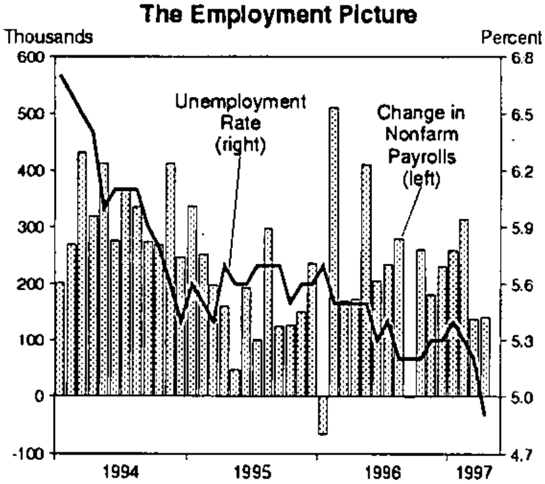
Real GDP rose at a surprisingly strong 5.6% annual rate last quarter. While faster stockpiling accounted for about one-third of this growth, the accumulation (3.8%, annualized) hardly looks excessive against the 6.3% annualized increases in real final sales of goods posted for each of the past two quarters. Stripped of countervailing inventory and trade swings, and also of a dip in real government purchases of goods and services, growth as measured by real final sales to private domestic purchasers surged to a 7.2% rate, the largest quarterly gain in the current expansion.

Fresher data suggest that growth, while undoubtedly slower, is still sturdy. Real consumer spending rose 0.4% in March, while sales of new homes and real construction outlays slipped only modestly from high February levels. In the industrial sector, purchasing managers reported a continuation of solid growth in April, casting doubt on the significance of the 3.0% drop in durable goods orders reported for March. Thus, while some reduction in our second-quarter real GDP estimate seems warranted, we remain convinced that growth in this quarter and the next will average 3% or a bit more.

Federal Reserve Policy

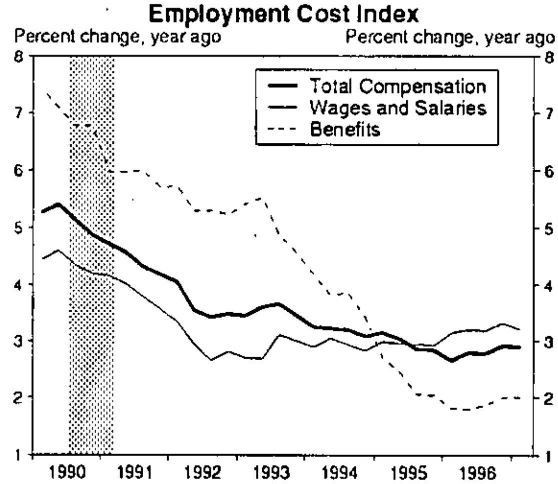
Since raising interest rates slightly in late March, U.S. central bankers have probably been struck by the remarkable strength in business activity. Thus, their projections for factory and labor utilization rates six and twelve months out are probably higher than before. At the same time, the news on wages and prices have been somewhat milder than expected, deepening the quandary for officials who fear the inflationary effects of persistently strong growth over the longer term. Although the probability of a tightening at the May 20 FOMC meeting has clearly fallen, Fed officials still appear likely to push up the federal funds rate another notch. After all, labor markets are very tight. Moreover, Fed officials are unlikely to put much weight on the apparent slowdown in April as some lull is to be expected following the first-quarter upsurge in economic activity.

The Employment Picture



Source: Department of Labor.

Employment Cost Index



Source: Department of Labor.

In this regard, a budget accord should not materially alter monetary policy in the next several months, as it does not imply a move toward fiscal restraint in the next two years.

Fiscal and Political Developments

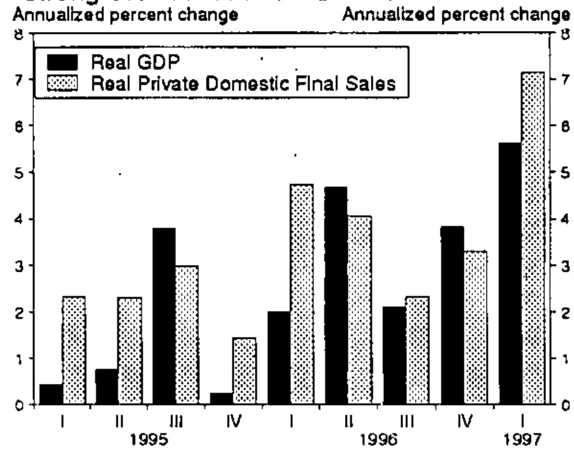
The budget accord that appears to have been hammered out between the White House and Congress would end a more than two year period of political squabbling over fiscal strategy. In that regard, it would reassure financial markets that recent efforts toward discretionary and entitlement program outlay restraint will be sustained for the foreseeable future. Whether or not the budget deficit ever actually disappears, the risk of a rebound in federal borrowing needs over the next few years would be further reduced. However, this deal is not likely to tighten fiscal policy over the next two years because the spending restraint is heavily weighted toward 2000 and beyond, while sizable tax cuts take effect sooner. Moreover, the fact that the projections that underpin the agreement are based on more favorable Budget Office economic assumptions rather those of the Congressional Budget Office undermines the credibility of the effort somewhat.

Market Outlook and Comments on Value

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

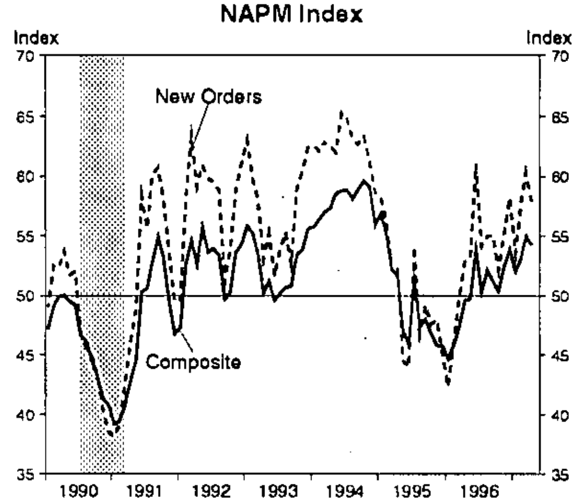
The sharp bounce in the market has enabled us to initiate short positions at much higher levels. Although we are nervous that market participants and Fed officials are likely to take the wrong message from slower activity growth in the second quarter—we would view it as the flip side of the first quarter surge, not the start of a genuine slowdown—we would stick with these shorts for now because the prospects of a Fed tightening at the May 20 FOMC meeting remain substantially higher than what is currently priced into the market. This is based on an expectation that Chairman Greenspan will clarify his thought process over the next week or so. We will reevaluate our views should he remain silent as this would be implicitly blessing the market's newfound bullishness, not to mention a *Business Week* story implying a much friendlier Fed. We would remain short the June '97 Eurodollar contract with a target of 93.85 and a stop on a close above 94.20 and the June T-bond futures contract, with a target of 105.00 and a stop on a close above 111.16.

Strong Growth in Private Domestic Final Sales



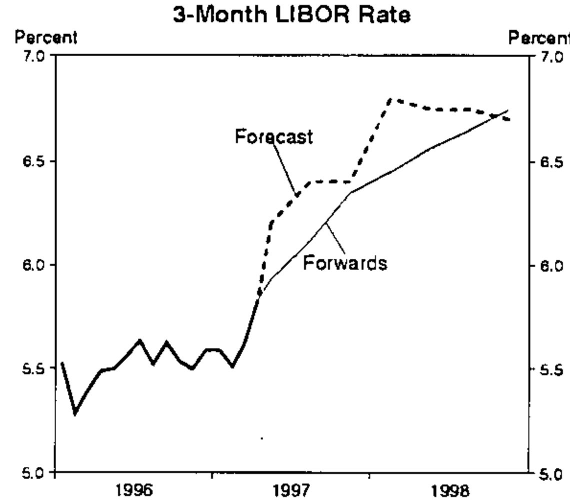
Source: Department of Commerce.

NAPM Index



Source: National Association of Purchasing Management.

3-Month LIBOR Rate



Source: Federal Reserve Board. Wall Street Journal.

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II. Labor Force Growth Not Due to Welfare Reform

In light of the very rapid labor force growth witnessed during 1996 and thus far this year, a look at the pace at which welfare reform initiatives have taken hold seems warranted. Two questions, in particular, arise: 1) Are welfare-to-work programs responsible for last year's surge in labor force growth? and 2) What are the future labor market implications of reform?[1]

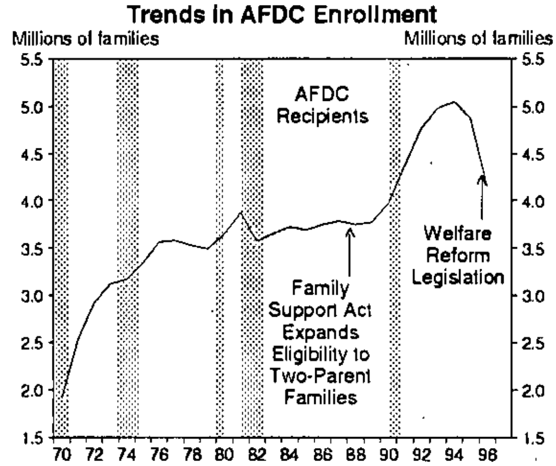
The acceleration in labor force growth in 1996 appears much more closely tied to improving employment prospects that to welfare reform. At the state level, little correlation exists between AFDC caseloads and labor force growth. A demographic breakdown of labor force growth also suggests that other factors besides welfare reform have been the driving forces behind labor market participation.

In the future, however, welfare-to-work initiatives are likely to have several macroeconomic consequences, including an increase in the level of potential GDP. The output gain will be less than the growth in labor inputs, however, since welfare recipients as a group are likely to experience higher-than-average unemployment rates along with lower-than-average earnings. Moreover, the normally disinflationary impulse of strong labor force growth and higher unemployment rates will probably not materialize, since welfare reform should also act to push up the natural rate of unemployment.

Welfare-to-Work: Is It Already Working?

From the start of the current business expansion, through yearend 1995, the labor force in the U.S. grew at an average annual pace of 1.0%, close to population growth in working age categories. During 1996, however, the labor force growth rate nearly doubled, reaching 2.0% by yearend and rapid growth has continued this year. Coincident with this rise in participation was the enactment in August 1996 of welfare reform legislation, requiring most recipients to be involved in work-related activities by 1999, while devolving responsibilities such as allocation of funds, structuring of programs, and scoring of criteria to the states. The overlap of the labor force growth spurt and the gearing up of welfare reform initiatives

Trends in AFDC Enrollment



Source: Office of Financial Management, Administration for Children and Families.

has sparked the question of whether welfare recipients constituted a sizable portion of new laborers in 1996.

We do not find evidence that this is the case. The push to move welfare recipients into the workforce originates at the state level. State experimentation has been a key trend over the last few years, as states have received waivers from the federal government to deviate from established standards by experimenting with participation requirements, benefit formulas, and eligibility. Recently, as welfare reform at the federal level has created even more stringent minimum standards, some states have stepped up their caseload reduction efforts even more. Clearly, overall efforts have met with some success—total AFDC family caseloads, for instance, have dropped by 18%, to 4.1 million, from a 1994 peak of 5.0 million. Yet, as

Relationship Between AFDC Caseload Percentage and Labor Force Growth by State

AFDC Caseload As % of Total Households*	Number of States	Average Labor Force Growth In 1996	Deviation from Overall Average
2.0% - 2.5%	4	1.47	0.41
2.5% - 3.0%	9	0.95	-0.11
3.0% - 3.5%	4	0.96	-0.10
3.5% - 4.0%	4	0.98	-0.08
4.0% - 4.5%	8	1.28	0.22
4.5% - 5.0%	6	3.48	2.42
5.0% - 5.5%	8	1.01	-0.05
5.5% - 6.0%	5	0.66	-0.40
> 6.0%	3	-1.25	-2.31

* AFDC Caseloads reported as number of families. Figures for families per state are not available, thus households are used as a proxy.

[1] For more on the provisions of reform, the potential impact on labor markets, and the likely effect on entitlement spending, see "Welfare Reform: The Impact on Labor Markets" (*U.S. Economics Analyst*, November 15, 1996).

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shown in the accompanying table we find virtually no correlation on a state-by-state basis between AFDC caseloads as a percentage of the population and labor force growth. Thus, while welfare reform may be responsible for some of the increased labor force growth, this effect appears to have been swamped by other factors.

Breaking down 1996 labor force growth by demographic category provides further evidence that last year's surge was not restricted to groups where welfare recipients are concentrated. As shown in the table below, about 76% of AFDC recipients are single women with children. This group did experience rapid labor force growth in 1996 of 4.9%. Yet, a breakdown by age category suggests that such strong growth may have been a general phenomenon among women, rather than concentrated in those groups where welfare recipients are heavily represented. Moreover, even if welfare recipients constituted one of the fastest growing pockets of the labor force, other groups account for a far larger portion of the actual number of participants added. In looking at women who maintain families, for example, the absolute number of entrants was only 384,000 or just 14.8% of the total labor force additions in 1996.

Other Factors At Work

If welfare reform is not responsible for the last year's jump in the labor force, what is? Most likely the growth spurt relates to two factors. First, last year represented, in part, a catch-up for sluggish growth in 1995, when the total labor force grew just 0.4%. Many of the groups contributing to the recent expansion were the same groups experiencing little to no growth in 1995—males aged 25 and older, for instance, showed only 0.2% labor force growth that year.

The second and more powerful explanation for strong labor force growth in 1996 relates to improving employment prospects. A relationship between these two has persisted over the long-term. For example, since 1978 the "jobs plentiful" component of the Conference Board's index of consumer confidence along with growth in average hourly earnings explain just over half of the variation in labor force growth. This makes sense, because the payoff to searching for a job is expected to be higher when jobs are readily available and when wages are relatively high. Last year, the jobs plentiful measure soared to its highest level during this expansion, while average hourly earnings growth accelerated from 3.2% at yearend 1995 to 3.7% at yearend 1996.

1996 Labor Force Growth By Demographic Category [1]

	% of AFDC Recipients[2]	Labor Force Growth in 1996 (percent)	Labor Force Additions in 1996 (# of persons)	Contrib. to Total Labor Force Growth (percent)
By Marital Status				
Married men, spouse present	4.9	1.1	461,000	17.7
Married women, spouse present	15.3	1.8	582,000	22.4
Women who maintain families	75.9	4.9	384,000	14.8
Other	3.9	2.5	1,173,000	45.1
By Age and Gender				
Female Aged:				
16-19	5.5	4.2	155,000	5.9
20-24	19.6	1.1	68,000	2.6
25-54	63.8	2.4	1,067,000	40.7
55-64	2.0	4.0	211,000	8.1
65 or >	0.4	3.9	62,000	2.4
Male Aged:				
16-19	1.2	-0.4	-15,000	-0.6
20-24	0.4	-1.3	-94,000	-3.6
25-54	6.7	1.8	924,000	35.3
55-64	0.5	2.4	154,000	5.9
65 or >	0.1	3.9	87,000	3.3

1. Year-to-date results for 1997 are not included since in January, approximately 300,000 of the labor force entrants related to a change in methodology which improved estimation of immigrant and emigrant populations. The changes were concentrated in the data for Hispanics, but it is unclear how the categories shown here were affected.
2. Our estimate based on Current Population Survey.

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State-by-state comparisons also support the idea that recent labor force growth has been driven by tight labor market conditions. In 1995, for instance, states with stronger labor force growth tended to have lower unemployment rates. Labor force growth and unemployment rates had a correlation of -0.19. It is interesting that the correlation is negative, since strong labor force growth, by definition, actually tends to raise the calculated unemployment rate, all else equal. Thus, it appears that low unemployment rates act to draw people into the job market.

Future Implications of Welfare Reform

Though welfare-to-work initiatives appear responsible for only a small portion of last year's labor force growth, it does seem likely that reform will have significant labor supply consequences in the future. The new regime of federal block grants, for instance, comes with strings attached, requiring beneficiaries to be involved in work-related activities within two years of receiving assistance once block grants are in place (all of which must be introduced by July 1997). At any given point in time approximately 91% of the welfare caseload has been receiving assistance for two years or more. Thus, of the 4.1 million heads of households currently receiving AFDC, at least 3.8 million will be subject to work requirements by 1999, as shown in the accompanying table. Judging from the existing pool of recipients, however, close to 45% of these household heads are already in the labor force. The future net labor force addition should thus equal approximately 2.1 million people. Including those recipients who appear to have already moved into the labor force in 1996 yields a total addition—due to welfare reform—of 2.4 million persons, constituting a 2.0% increment to the workforce.

Estimating the Labor Force Effects of Welfare Reform:

AFDC Recipient Characteristics	
(1) Current AFDC Caseload (thousand families)	4,143
(2) Months of Assistance at a Point in Time	
(a) 1-12 months	4.5%
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Source: U.S. House of Representatives, Urban Institute, Our calculations.

As the supply of labor increases, the level of potential output should also rise. This increase in GDP, however, will be less than the 2.0% jump in labor supply for a number of reasons. First, state experimentation suggests that recipients generally experience unemployment rates of 40%-60%. This implies that perhaps only about one-half of the 2.4 million entrants into the labor force may successfully make the transition into the workforce. Second, federal requirements allow for a variety of "work-related" activities, including subsidized or unsubsidized employment, community service, on-the-job training, vocational training, or job searches. Clearly, the productivity of such activities may vary widely. Finally, historical data show that welfare recipients in the workforce tend to earn wages approximately 30.0% lower than the mean, implying a somewhat lower-than-average contribution to national income. Altogether, these caveats suggest that the increase in potential GDP should be less than 1% compared to the 2.0% labor force rise. Note too, that the *growth rate* of real GDP will only be affected during the transition, e.g., while labor force growth is augmented. Once welfare recipients have joined the workplace, GDP growth should revert to its original pace, albeit from a higher potential output level.

The lower-than-average wages of welfare recipients also imply a dampening of average hourly earnings growth, so long as this group constitutes a growing share of the workforce. As with GDP growth, the effect on earnings may only be visible during the transition. Once welfare participants are absorbed, the path of earnings growth will only be subdued if recipients' wages *grow* more slowly than average.

A final consequence of welfare reform is that while it will tend to push up the actual jobless rate, all else equal, it should also boost the non-accelerating inflation rate of unemployment (NAIRU) due to the likely higher rates of structural unemployment among welfare recipients. In essence, the threshold for determining when labor markets are tight should rise, since the unemployment rate associated with any given set of economic circumstances will be higher. This somewhat atypical mix—rising unemployment rates, slower wage growth, but a higher NAIRU—means that the normally disinflationary consequences of higher unemployment may not accrue. A rise in the unemployment rate generated by welfare reform is unlikely to generate significant new downward pressures on inflation.

Jill Jacobs