

## APPENDIX

July 5, 1994

Mr. Chairman,

I will try to address three questions:

First, why did the dollar's decline against the mark and the yen accelerate in June?

Second, what factors led to the decision to intervene on June 24th?

And third, what are the likely reactions of the foreign exchange market to possible outcomes of the Committee's meeting?

I will be referring to the three charts distributed at the table.

The proximate cause of the acceleration of the dollar's decline in mid-June was a series of discrete events which triggered a sharp appreciation of the German mark and the Swiss franc. These rate movements occurred at a time when there was beginning to be a shift in the perceived fundamentals, with German economic prospects appearing less bleak, the Japanese economy appearing to recover, and views of the U.S. growth rate becoming somewhat mixed. The combination of the sudden rate movement in mid-June and these changes in perception stimulated the growth of what had been a festering, negative sentiment about the Administration's policies and Federal Reserve policy, all at the very time that prospects for improvements in the U.S.-Japan trade dialogue appeared to fade once again.

Beginning in May, foreign exchange market participants began to reexamine the premise that had supported the expectation of dollar appreciation against the mark. Since the autumn of 1993, and particularly at the start of 1994, the dollar had been expected to rise against the mark as U.S. interest rates rose and German rates declined. This expectation is reflected in the top left panel on the first page of charts, indicating the course of three-month rates implied by futures contracts before the Committee's February 4th meeting. Throughout the winter and spring of this year, the dominant market sentiment favored long dollar positions against the mark based on this expected trend of interest rates.

At the same time, notwithstanding the trade deficit with Japan and trade policy frictions, many viewed the dollar as undervalued against the yen. Even after the dollar's decline following February 11th -- and, perhaps because of this decline -- many who lost money at that time returned to take long-dollar, short-yen positions during the spring.

From February on, the dollar failed to sustain any upward movement following Federal Reserve and Bundesbank actions, as long-dollar positions were quickly sold on the fact of interest rate changes. This can be seen in the middle panel which traces the spot, dollar-mark exchange rate over the first half of the year, punctuated by the dates on which the Bundesbank reduced

official rates and on which the Federal Reserve increased rates.

In particular, in mid-May, the combination of the Bundesbank's reduction in rates and the Federal Reserve's increase in the Discount Rate actually decreased expectations for further interest rate changes in the near term. This can be seen in the bottom panel which traces the differential implied by the September euro-deposit contracts, which began to reflect a differential in favor of the dollar in the days prior to the Bundesbank's May 11th action, but this quickly unwound over subsequent days.

In late May and early June, dollar-mark traded in a range while market participants reassessed the dollar's prospects. While expectations that money market rates would move strongly in the dollar's favor by September had waned, the basic structure of expected interest rates continued to indicate U.S. rates above German ones over the coming year. On the other hand, the June 7th release of West German 1st quarter 1994 GDP, up 0.5 percent quarter-on-quarter and 2.1 percent year-on-year, combined with the upbeat tone of the Bundesbank's monthly report, gave some the basis for optimism about the German economy.

On the second page of charts, you can see that from mid-May to early June the dollar traded between 104 and 105 against the yen. This relative stability in dollar-yen reflected the

market's optimism that the Administration would work with the Japanese government on trade issues with less rancor, as indicated by the reopening of the "framework" talks on May 24th. It also reflected the prospect, perceived by some in the exchange market, that the Bank of Japan would follow up on its accommodative stance in May with a reduction in the Official Discount Rate. The middle panel on the second page graphs the deviation of Japanese bank reserves from required levels, as reported by the Bank of Japan.

In the foreign exchange market, there is a widespread perception that comments by Mr. Kantor and Secretary Brown on June 7th and 8th, respectively, each indicating an unchanged U.S. "toughness" in the trade talks, served to undercut the fragile, optimistic sentiment and triggered a decline in dollar-yen and a rise in U.S. bond yields.

I would note, however, that the return to a neutral stance by the Bank of Japan, and the corresponding rise in Japanese bond yields, were sufficiently obvious by June 7th to undercut any hopes for a reduction in the discount rate. There were also increasingly positive statements about the economy coming from Bank of Japan officials, which seemed to be subsequently confirmed by the release of 1 percent growth in Japanese GDP, quarter-on-quarter, for the 1st calendar quarter of 1994. However, there is a healthy debate in the exchange market

as to whether a recovering Japanese economy will help or hurt the dollar, with the dominant view being that it will help the dollar, given the prospects for increased imports to Japan as demand picks up.

Another factor in the dollar's decline against the yen, from early June, was the increasing recognition that the Hata Government was likely to fall once the budget was enacted. Thus, in the run-up to the submission of a no-confidence motion on June 23rd, the foreign exchange market became increasingly skeptical as to whether the Japanese government would be able to deliver its side of promised progress on trade issues before the G-7 summit.

With this background, and many market participants still holding substantial long-dollar positions, on Monday, June 13th, the Swiss franc and the mark began to appreciate sharply against both the yen and the dollar, as can be seen in the chart on the third page.

Over the prior weekend, tensions with North Korea increased, causing both anxiety about Japan's proximity to the Korean peninsula in the possible event of hostilities,

On Sunday the 12th, in Germany, Chancellor Kohl's party did surprisingly well in the elections for the European

Parliament, which appeared to promise greater stability in German politics in the upcoming national elections in the fall. Then on Monday morning, an official of the Swiss National Bank was quoted as saying that further declines in Swiss interest rates should not be expected.

While the initial movements in the franc and the mark appeared to be in quick reaction to these events, the dollar's decline came to be seen as vindicating the perceived shift in fundamentals in Germany, the perception of a lack of confidence in the Clinton Administration, and the view that Federal Reserve policy is too accommodative. As the dollar broke through technical levels, long positions were steadily unwound, leading to further downward pressure and an escalation of the negative rhetoric about U.S. policy.

To a great extent, I regard the dollar's rapid decline in late June as a case of technical and negative sentiment feeding on one another -- against the background of preliminary changes in the perception of Japanese and German economic fundamentals and something of a lull in the release of economic facts about the U.S. economy.

On Friday, June 17th, in very thin markets, the dollar was marked down from 1.6370 to 1.6065 against the mark. Most of this movement occurred in just 30 minutes at mid-day, in reaction to a

headline reporting a Conference Board economist's long-term forecast of a 10 percent depreciation of the dollar against the mark. This rapid price adjustment, without any corresponding position adjustment, squeezed the holders of long-dollar positions and set up the very negative conditions for the following week.

Why did we intervene on June 24th?

First, Treasury officials felt under pressure to stop the acceleration of negative views of the Administration's policies, increasingly identified with the dollar, and also to follow their words in support of the dollar with some kind of action.

Second, Treasury officials were aware that the Chairman and Vice Chairman of the Committee would be reluctant to operate the closer we came to this meeting.

Third, we shared a desire to avoid having the bottom drop out from under the dollar, particularly against the yen, with the resulting risk of accelerating the whole downward trend of the dollar and market sentiment.

Finally, with the benefit of hindsight, it seems to me that in making the decision to operate we were caught on the horns of dilemma. We did not want to operate unless we thought we "had



to" -- that is, unless we could see rate movements that seemed to justify the need for operating in the form of a risk of a rapid, downward movement. But by choosing the moment, Friday morning, when the pressures did appear to justify that perception, we entered the market at a time when the selling pressures against us were most intense and, thus, at a time when the likelihood of achieving an upward bounce for the dollar was correspondingly low.

The operation, in which we were joined by 16 other central banks, did not generate any appreciation of the dollar but, of course, we will never know with any confidence what would have happened had we not operated. One positive outcome, in my view, is the relative stability with which dollar-yen has been able to trade just below the 100 level. I doubt that this could have occurred without some substantial effort to reduce the perception of U.S. official indifference.

Turning to the Committee's work today, many in the foreign exchange market perceive a necessity for the Committee to effect an increase in rates in order to avoid a further decline in the dollar. In my opinion, however, the risks outweigh the benefits of any increase in rates perceived to be in support of the dollar. While the dollar is likely to decline somewhat in the event that no increase in rates is announced, I think over the weekend and through this morning the exchange market has pretty

much adjusted to the expectation of no action. Moreover, given the series of significant events this week for the market -- this meeting, a Bundesbank council meeting on Thursday, Friday's employment data and the G-7 Summit over the weekend -- I think that we have somewhat greater chances of avoiding big movements in exchange rates, particularly early in the week, because market participants will want to wait and see the outcome of the next events before altering their positions.

Finally, given the dollar's behavior over the first half of the year, I would have a hard time giving you assurances that any rate increases, announced immediately after this meeting, could provide enduring support to the dollar. I am especially concerned that a rate increase perceived as a failed attempt to support the dollar could trigger a very negative market reaction in the form of the perception that even the big policy tool of interest rate changes could not help the falling dollar.

Mr. Chairman, I would also like to inform the Committee that in the last 3 weeks we have begun a weekly conference call with the foreign exchange functions of the Bank of Mexico and the Bank of Canada.

We have for some time had daily multilateral calls with the European central banks and a weekly senior call with the same group.

The purpose of this "North American" call, which is an outgrowth of the North American Financial Group announced by Secretary Bensten in April is to facilitate an exchange of views on market conditions and an exchange of information on operations.

While markets had been relatively calm in Mexico, I would note that last week pressure on the peso increased and

This morning the peso is trading at 3.3994, 50 pips from the current band of 3.4044. This 50 pip buffer is viewed as the outer edge that the Bank of Mexico will let it trade.

Mr. Chairman, I will need a motion to approve the operations during the period in which we sold 475 million dollars worth of Deutsche marks and 305 million dollars worth of Japanese yen for the System's account on June 24th.

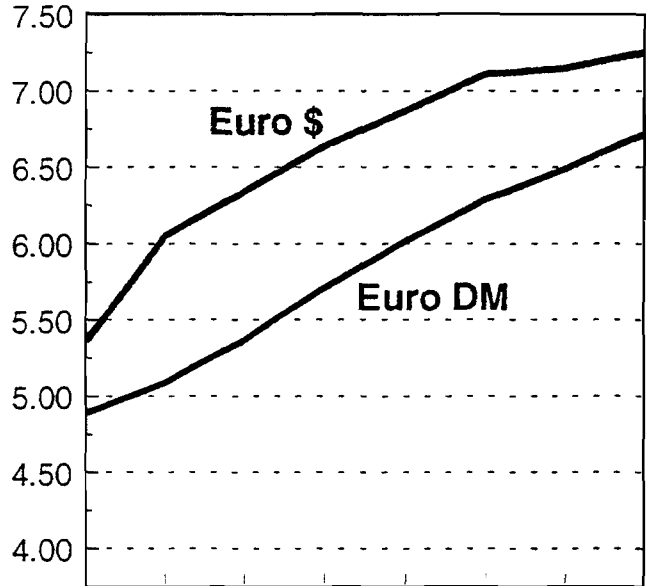
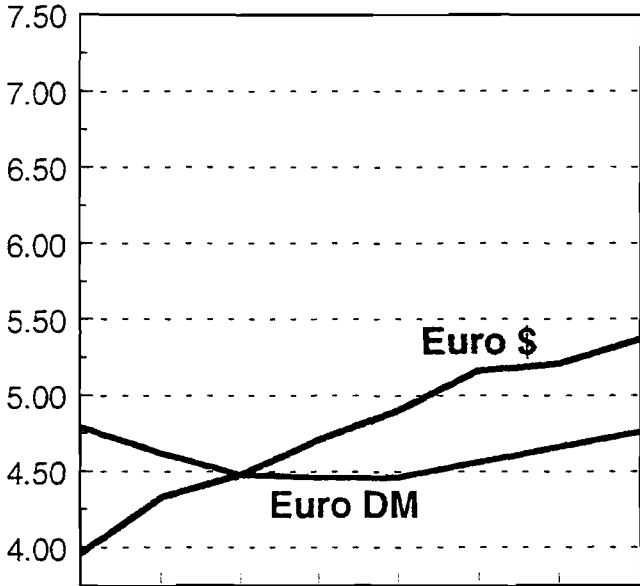
I would be happy to answer any questions.

CHART 1

**Interest Rates Implied by Prices of Series of 3-month Eurodeposit Futures Contracts**

January 31, 1994

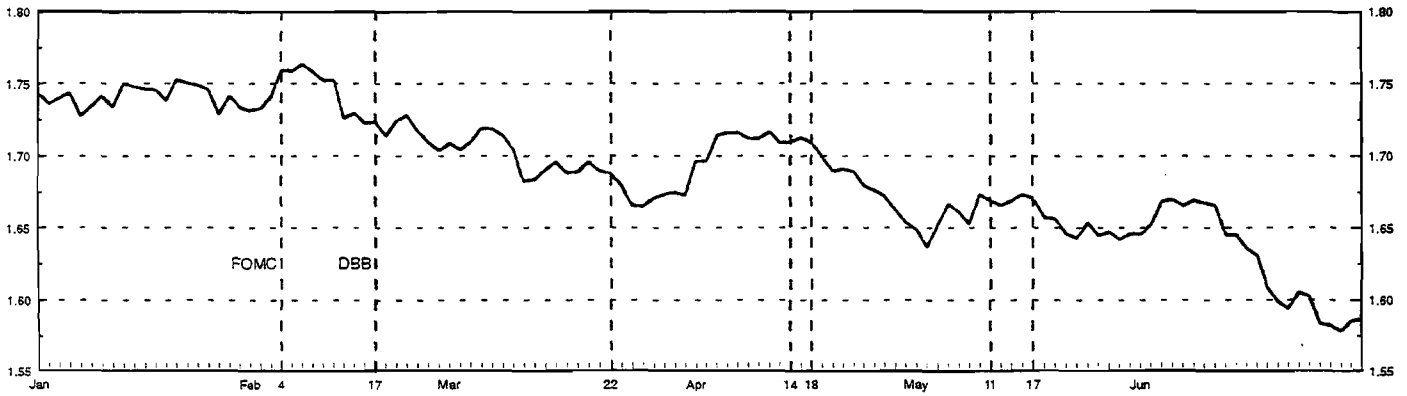
June 30, 1994



Sep94 Dec94 Mar95 Jun95 Sep95 Dec95 Mar96 Jun96

Sep94 Dec94 Mar95 Jun95 Sep95 Dec95 Mar96 Jun96

**Dollar/Mark**



**Interest Rate Differential Implied by Prices of September 1994 3-month Euro \$ and Euro DM Futures Contracts**

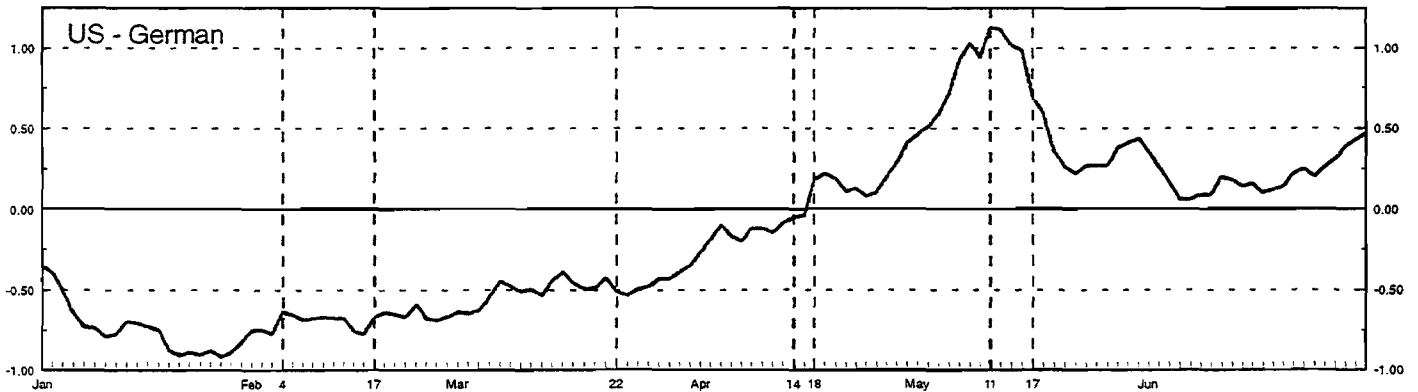
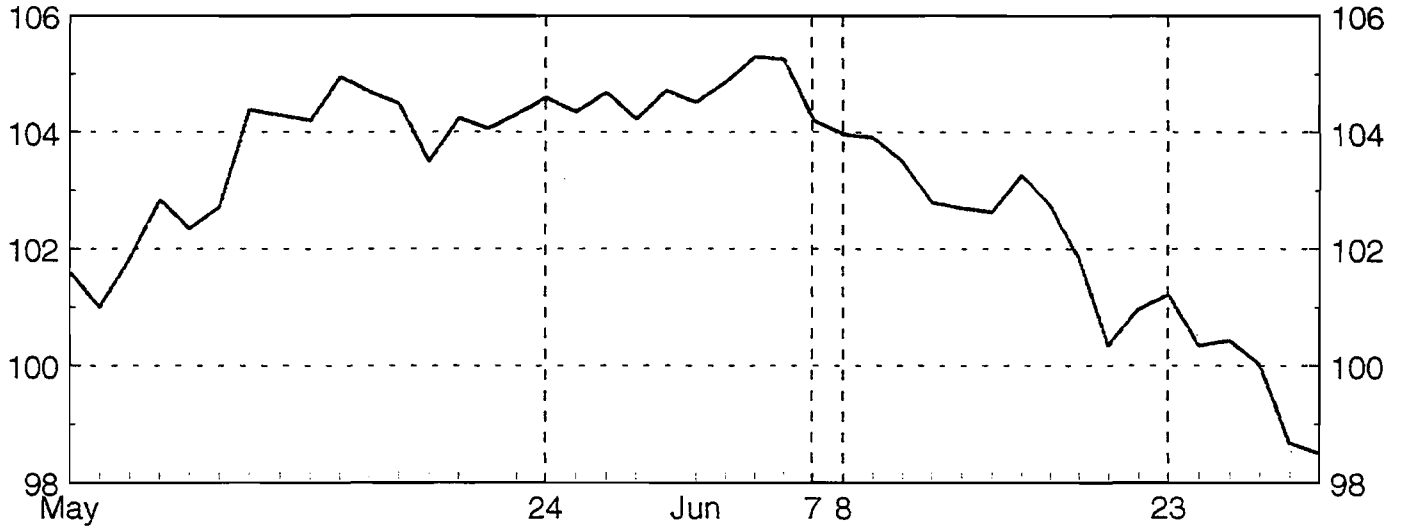
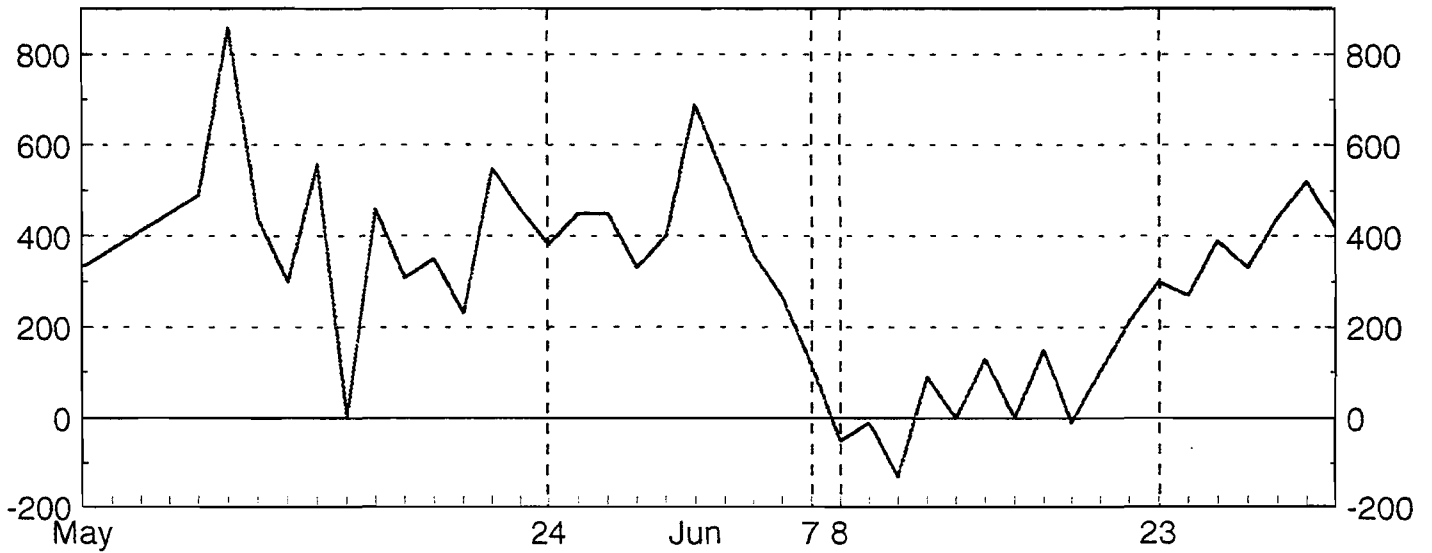


CHART 2  
Dollar/Yen



Deviation of Japanese Bank Reserves from Required Levels



Government Bond Yields

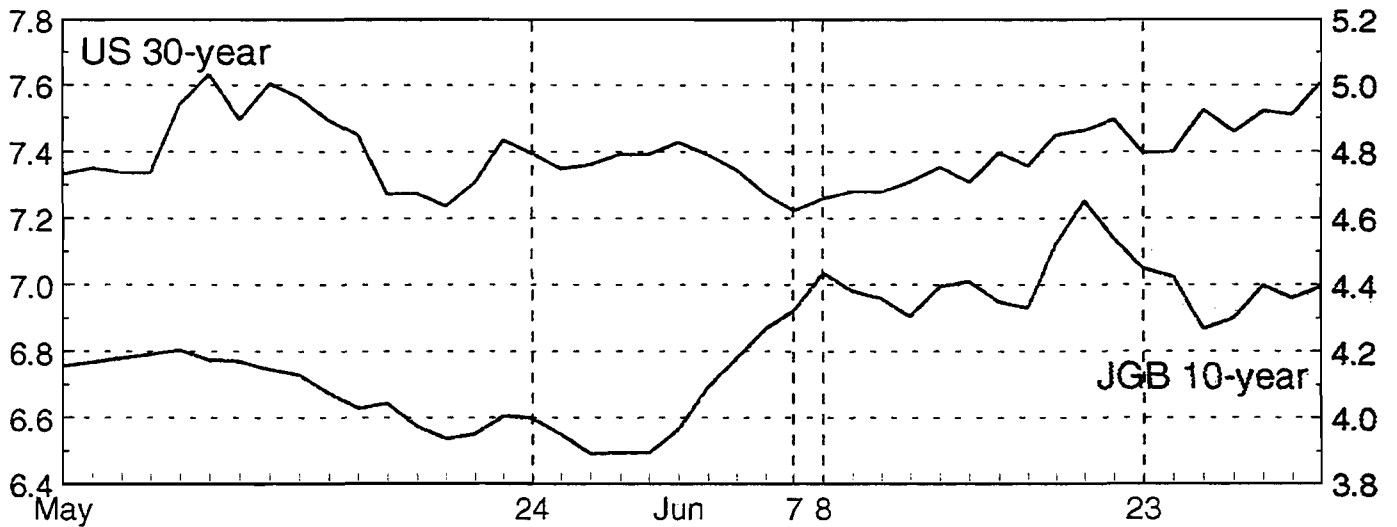
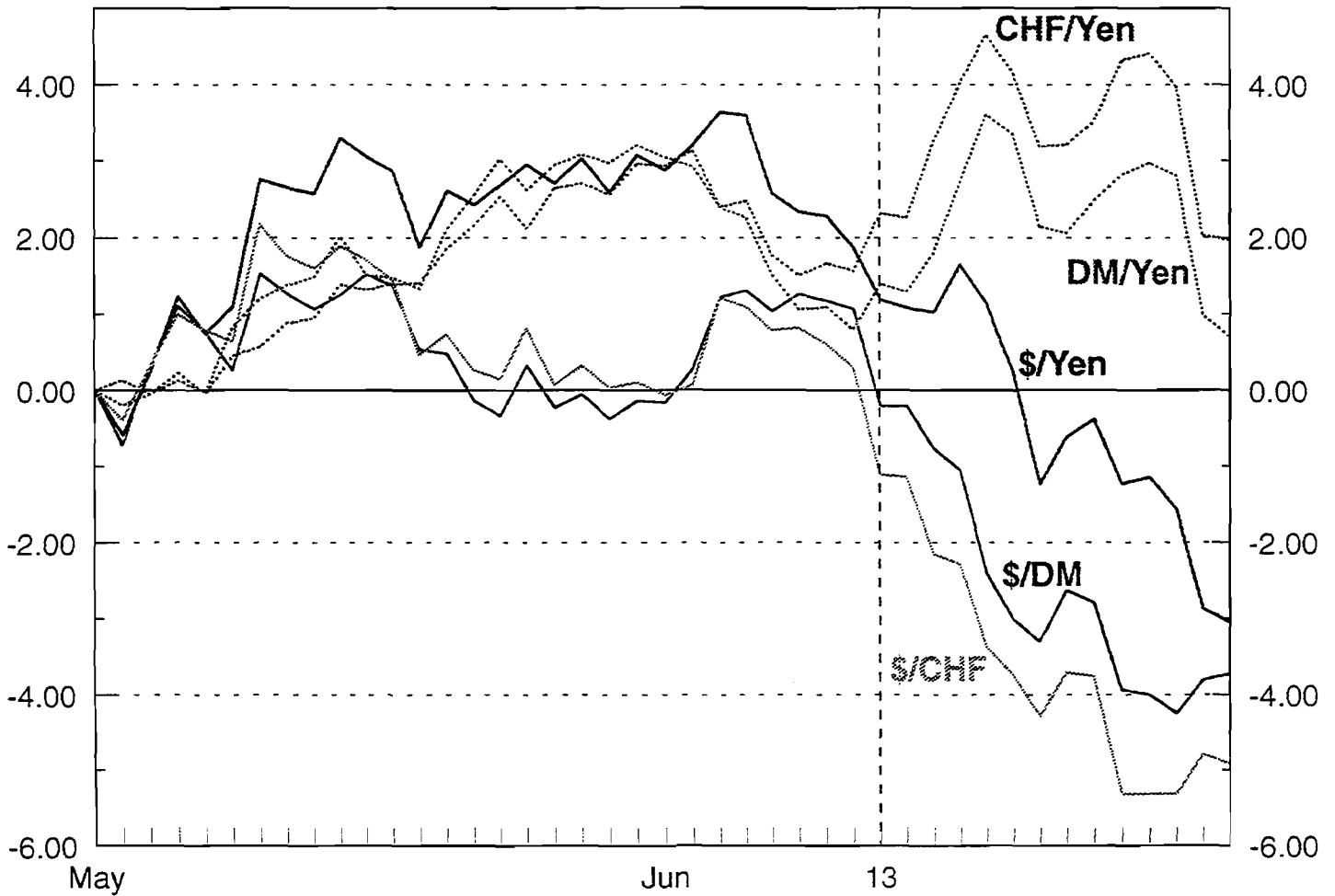


CHART 3

# % Change in Selected Currencies

Period: May 2, 1994 to June 30, 1994



Notes for FOMC Meeting

July 5-6, 1994

Joan E. Lovett

Reserve management was relatively uneventful over the intermeeting period, notwithstanding some huge flows in reserves. We sought to maintain the firmer degree of reserve pressure adopted on May 17, with Federal funds expected to trade around 4-1/4 percent. The borrowing allowance was lifted by a total of \$150 million over the interval in three steps to reflect rising seasonal borrowing, ending at \$325 million. Total borrowing averaged \$274 million for the period and was generally close to or modestly above the allowance.

Sizable reserve shortages stemmed primarily from seasonal growth in currency leading up to the July 4th holiday and from higher Treasury balances in the second half of June following the June 15 tax date. Treasury balances were subject to the usual uncertainties surrounding the tax and quarter-end dates when flows through its account were enormous. By way of illustration, balances peaked at the Fed at \$9 billion on the quarter-end, followed by the Treasury's call of an unprecedented \$31 billion for July 1 to meet social security and an assortment of other payments estimated at about \$35 billion that day. On balance over the interval, revisions to market factors, including our foreign exchange intervention in the period that ends today, tended to deepen reserve shortages.

Both outright and temporary operations were used to meet reserve needs. We purchased \$3-3/4 billion of Treasury bills in the market on June 1 and bought another \$1-3/4 billion of securities directly from foreign accounts. At the year's half-way mark, the System's portfolio stands at \$360 billion, an increase of nearly \$16 billion over the year, while the average maturity of the Treasury portfolio is nearly unchanged at just over 38 months.

During much of June, the funds rate often traded with a slightly soft cast even when reserve shortages were seen. Somewhat uncharacteristically, this pattern prevailed in the days leading up to the quarter-end as well. We are not sure we have a full explanation but we have been hearing of high levels of cash available in the market for one-day Eurodollar deposits and RPs, and it may be that the desire to stay short and liquid pending a clearer rate view is what has put those rates at or below the funds rate periodically through the period. On the quarter-end itself, funds firmed up substantially amid the aforementioned reserve flows but returned the next day to more or less normal levels. For the period as a whole, the effective rate averaged 4.21 percent.

In the securities markets, conditions were again turbulent, and yields sharply reversed course several times. Yields fell 25 to 30 basis points at most maturities in the days immediately after the policy changes were announced on May 17, extending declines from recent yield highs that had come just ahead of the meeting. Yields have worked their way back up in an irregular fashion since that time, and they now stand close to the levels prevailing on the eve of the last meeting, leaving net changes for the period relatively small--up a net of 5 to 15 basis points. Within this overall range, daily swings were sometimes large and sometimes occurred on limited volume, a hallmark of a nervous market.

The policy actions adopted in May were greeted enthusiastically, even though they may not have come as a great surprise. Most participants felt that with the May 17 move the funds rate had reached a level roughly consistent with neutrality, and the view took hold that policymakers might pause for a while, possibly through the summer months. Since that time, however, the underlying mood has soured.

The sinking dollar has been disturbing to the market over the past few weeks. A variety of explanations are offered for the currency's slide, as Peter has already reported. The weakening



currency has prompted investors to pare some of their dollar exposures and kindled speculation that the Fed might direct policy towards propping up the currency. Perceptions that economic activity was recovering faster than expected in Europe also sparked some turmoil in financial markets there, with the Germans cancelling two of their security auctions in late May. Thus on occasion during the period, we were hearing reports that international investors were re-allocating their portfolios more heavily towards U.S. assets, partly in search of more liquid markets. But mostly we were hearing concerns over the value of the dollar, and on many days activity in domestic markets was directly linked to its performance.

Economic statistics have offered a mixed picture, which has contributed to some of the recent volatility. Most aggregate price reports were encouraging to the market by continuing to suggest that inflation is contained, but severe swings in leading commodity price measures have been disconcerting. Most analysts interpret short-term commodity price movements with considerable skepticism, but some worry about the upward drift in virtually all of the key commodities indices. Increases in the prices paid component of some surveys of manufacturers, thought to be more forward-looking, were also a bit troubling. Data on economic activity have been no less divided. Consumer spending has shown signs of moderating but other sectors, such as housing, continue to register strong gains. A number of analysts have remarked upon the divergence between some production side reports, such as the hours worked series in the payroll data, and spending information.

Supply was not a major hurdle for the market this past intermeeting period. The Treasury raised \$22 billion in coupons while continuing to pay down modest amounts of bills. Aside from our own purchases, we bought sizable amounts of bills for our foreign central bank customers, adding to the strong technical condition in this sector. Apart from official supply, however, periodic announcements of losses--including some at a handful of mutual funds--serve as a

background chiller. On some days rumors that some firm was liquidating a chunk of its portfolio, usually mortgage-backed holdings, was enough to send the market down steeply. Corporate and municipal issuance was generally restrained.

The immediate prospects for policy have become clouded by both international and domestic developments, and investors lack real confidence about the near-term direction for rates. Domestic participants for the most part doubt that the Fed would let foreign exchange considerations be an overriding factor in setting policy, especially to the extent that they perceive the weakness as reflecting stronger-than-expected economic activity abroad and a variety of domestic and foreign political uncertainties rather than an indication of inflation worries. Furthermore, the measures needed to achieve the desired result are unclear, and any misstep could be counter-productive. Nonetheless, the implications of a major slide in the currency cannot be ignored, as the Chairman noted.

As for the domestic economy, a good number of participants--perhaps the majority--see no compelling reason for a further adjustment in rates just now, although others--also in good number--argue that a move is warranted. Evidence can be marshaled either for the view that the economy will continue to expand above trend going forward or that growth will soon moderate to more sustainable levels, and both camps have their proponents. However, across the spectrum a fairly broad consensus exists that price pressures are likely to build gradually over the coming year.

The prevailing sense is that the Fed would like to stand pat for now, awaiting clearer signs on how the economy is responding to past policy actions. But the perception remains that the trend towards higher rates is still in place, and the possibility of an immediate slight firming is not being entirely dismissed.

Michael J. Prell  
July 5, 1994

FOMC CHART SHOW PRESENTATION -- INTRODUCTION AND ECONOMIC OUTLOOK

I thought I'd begin the presentation of our forecast with a brief review of where we think economic activity was in the quarter that just ended. As shown in the upper left panel of Chart 1, production worker hours in April and May soared well above the first-quarter average (the last red dot), seemingly indicating another huge gain in real GDP. However, with some uneasiness, we've discounted that reading deeply, giving heavier than usual weight to the distinctly less robust data available to date on the spending side.

Some of these data are exhibited in the other panels of the chart. At the right, the net decline in consumer outlays in April and May implies that it will take a sizable gain in June (or some upward revisions) to yield even the modest quarterly advance we've forecast. And though capital goods shipments, plotted in the middle left panel, are still rising, the weakness in fleet sales of autos (which are not included in these figures) likely will be reflected in a deceleration of overall equipment spending. Friday's construction put-in-place figures, charted at the right, show a pickup from the weather-depressed winter pace, but no more than we anticipated. At the lower left, you can see that the fragmentary information on inventories is pointing toward a step-up in the pace of accumulation in the second quarter; however, the spurt in manufacturing stocks reported after the Greenbook would appear again only to confirm that we were on the right track in our forecast. Finally, at the right you can see that net exports of goods and services in April were not too far below the first-quarter average; we've projected that the pace of decline in net

exports in the second quarter was only half the average since late 1992. In sum, it still is a bit of a stretch to reach our 3-1/2 percent second-quarter GDP number from the expenditure side, but we think this remains a reasonable compromise with the labor market data.

Shifting now to the outlook for the next year and a half, a central issue is just how much scope there is for growth, without putting excessive pressure on productive capacity. This is a complex issue, and chart 2 highlights only a few of the relevant points pertaining to the evaluation of current resource utilization. First, I would emphasize that, because of the revamping of the Current Population Survey, we are flying uncomfortably close to blind with respect to the level of the unemployment rate. The uncertainty about the numbers is suggested by the upper left panel. The so-called "parallel" survey indicated that the new CPS would raise the unemployment rate relative to the old survey. But the "follow-on" survey since January, using the old CPS instrument, actually has shown higher unemployment than the new CPS. We've talked with BLS researchers, and they have only a few clues as to what is going on. Based on their work and our own, we are now guessing that the new survey is adding less to the unemployment rate than we'd assumed earlier, perhaps about a third of a point. Obviously, though, you should stay tuned for updates on this, perhaps even as early as this Friday.

There are also serious questions about the seasonal adjustment of the new unemployment figures. BLS says that revised seasonal factors might eventually raise the May unemployment rate from 6.0 to 6.2 percent. Subtracting 1/3 of a point, that would put the May rate on the old basis at 5.9 percent--the central tendency of our NAIRU estimates derived from the old series.

There are, however, a number of arguments to the effect that there is currently more disinflationary slack than suggested by the aggregate jobless rate. One argument is that there are an unusually large number of underemployed workers, who presumably would be willing to work more hours or in higher-level jobs without an elevation of the wage structure. For example, the upper right panel shows that--as of late 1993, before the time series was broken by the new CPS--the proportion of workers reporting that they were part-time for economic reasons, rather than by choice, was a bit higher than it was in early 1987, when the unemployment rate was last at the same level.

Another argument, propounded recently by James Medoff, is that job vacancies, as measured by help-wanted ads, are low relative to unemployment, so that we are not close to a condition of excess demand for labor. The numbers plotted in the middle left panel differ from Medoff's, because we've made a crude stab at adjusting the help-wanted data for the increasing use of personnel supply agencies as an alternative to direct hiring. There is an interesting divergence in the two lines, starting in 1985; but the key observation in this context is that--if you scan carefully across the chart--the two series are currently at similar positions relative to their levels in the late Eighties, when inflation flared up.

One more story is depicted at the right, which shows the responses to the Conference Board survey question regarding consumer perceptions of job availability--or "unavailability," the way it's calculated here. The chart suggests that the net percentage of individuals reporting that jobs are hard to find, rather than plentiful, is high compared with the unemployment rate. Many explanations might be offered for this pattern, but the data are consistent with the view that pressures for higher wages are being

muted somewhat by concerns about employment opportunities and job security. Still, one must square this, and the other stories I've noted, with the scant statistical evidence that wages were still decelerating even before unemployment fell to its recent level, and with anecdotal reports of emerging labor market pressures.

Signs have also emerged of pressure on industrial plant capacity. As the lower left panel shows, utilization rates remain below the highs of the late 1980s, but the fact is that they have reached levels prevailing when price acceleration began in the past. The right-hand panel shows vendor performance plotted against manufacturing utilization, the point simply being that this alternative measure of pressure on capacity is sending essentially the same signal as our utilization index.

If we stipulate at least for the sake of argument that little, if any, anti-inflationary slack is left in the economy, the next question is how fast activity can grow from here without exceeding capacity. Chart 3 summarizes some key points in this regard. First, in the top panel, we have depicted the behavior of labor productivity, which we believe has been consistent with our assumption of an underlying growth trend of 1.4 percent. Over the forecast period, we expect actual output per hour to move a little closer to the trend line, resulting in the 1994 and '95 increases of around one percent shown in the box at the right.

In the middle panel, we've plotted the labor force participation rate, which has been a frequent source of error in our unemployment forecasts over the past several years. We're anticipating that the rate will rise over coming months--an upturn that seems overdue. If it fails to occur, it not only might lead in the short run to an unexpected decline in unemployment, but it would

call into question our assumption regarding the trend of labor force growth. For now, however, we are assuming that the trend is a little more than one percent per annum--and, combining this with the productivity trend and other factors, we see potential GDP growth at just under 2-1/2 percent.

The bottom panel of the chart indicates that a simple Okun's law regression, relating changes in unemployment to GDP growth, yields the same conclusion: The 2.4 percent GDP growth intercept implies this is the rate of potential output increase.

Thus, we think that GDP growth probably must slow considerably in the short run if inflation is to be contained, especially in the face of prospective near-term upswings in food, energy, and import prices. Our next task was to gauge what monetary policy adjustments, if any, would be needed to produce the corresponding deceleration of aggregate demand. As the top panel of the next chart indicates, by our reckoning, there has been a substantial run-up in real interest rates--especially long-term real rates--since last fall. Indeed, an examination of the history shown here--not to mention of econometric model simulations--would suggest that the increase could well be ample to produce the predicted slowing in GDP growth from the 4-1/4 percent pace of the past four quarters to 2-1/4 percent in 1995.

But, until recently, there were few, if any, hints of a softening of demand--and there are only hints at this point. Moreover, we appear to be in the midst of a movement toward more aggressive bank lending, rather than the kind of constriction of credit availability that accompanied many previous episodes of monetary policy tightening. Thus, it is our judgment that longer-term rates will have to remain at the present seemingly high levels at

least for a while longer to bring about the deceleration of demand we've outlined. And we think that a further rise in short rates will be needed--not only to make short-term credit more costly, but also to hold long rates near current levels. As we noted in the Greenbook, we interpret the brief bond rally in May as supportive of our assessment that there is a sizable risk premium in the term structure, which is likely to narrow once traders recover from their shell shock and begin to feel they have a handle on the market's direction.

A brief further word about the term structure. As you know, the slope of the yield curve is often used as either an indicator of financial restraint or of future GDP growth. In the middle panel, the black line is the spread between the 10-year and 3-month Treasury yields, and the red line is real GDP growth, and you can see some lead-lag relationship. For what it's worth, the flattening of the yield curve that has occurred since 1992, and that is predicted to continue, seems consistent, at least in broad terms, with the expected deceleration in activity.

Finally, the bottom panel shows debt growth and GDP growth. There is no clear-cut lead-lag relationship here, and the main point is simply that debt and income growth have moved into rough alignment recently and are expected to remain there.

One of the factors affecting our judgment about the degree of domestic financial restraint needed to slow growth has been recent and prospective developments in the external sector, and Ted will now discuss those.

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E.M.Truman  
July 5, 1994

FOMC Presentation -- International Developments and Prospects

As Mike stated, external developments and prospects are important to the staff's overall outlook for the U.S. economy. This is because of the stage in cycle and because of a shift in our assessment of the external sector from its being a drag, or safety valve, on output to its being a source of pressure on prices and aggregate demand. This pressure comes from two sources: the lower dollar, which is projected to be sustained around current levels, and the pickup in industrial country economic activity, which is expected to accelerate somewhat.

The first international chart reviews recent exchange rate and interest rate developments. As can be seen in the top panel, the dollar has declined markedly from its peak in February. One might take some comfort from the fact that the dollar's most recent depreciation appears to have been correlated with a decline in the differential between real long-term interest rates on dollar assets and on assets denominated in other G-10 currencies. A puzzle from this perspective is the dollar's rise during 1993, despite the narrowing of that differential through most of the year, and the dollar's general failure to rise since late last year, despite the relative increase in U.S. long-term interest rates on balance.

Leaving that puzzle aside, to provide some perspective on the possible implications of the lower dollar, we turned to our econometric models. They imply, *ceteris paribus*, that the

decline of the dollar from its peak in early February, if sustained, adds almost one percent to the level of real GDP by the fourth quarter of 1995 -- the greater part of that boost comes next year -- and also adds almost one percent to the consumer price level -- in roughly equal amounts in each year, since the direct effects of depreciation on prices are felt earlier than the effects on real economic activity. Moreover, if instead of depreciating the dollar had appreciated in response to changes in interest rates, here and abroad, so far this year, the way our econometric models say it should have behaved, the actual effects of the lower dollar relative to that higher counterfactual level would be somewhat magnified.

As detailed in the middle left panel, the dollar's decline has not been uniform against all currencies; the dollar's depreciation has been largest against the yen and the Swiss franc, and it has appreciated against its Canadian cousin. Movements in short-term interest rates have also been divergent -- the middle-right panel. However, on average, the short-term differential has narrowed substantially, as is shown in the lower left. In contrast, long-term rates have risen everywhere, although the lower-right panel illustrates that the cumulative rise in dollar rates since a year ago has been larger than that in foreign rates on average.

In our outlook, we have assumed that short-term rates in the other industrial countries will ease slightly further on average through early next year before rising a bit late in the forecast period as the foreign expansion solidifies. Judging

from EuroDM and Euroyen futures markets, the staff's assumption about the rise in foreign short-term interest rates falls short of the market's expectation by about as much as it does in the case of dollar interest rates (roughly 100 basis points). Long-term rates abroad are assumed in our forecast to back off somewhat from their recent spike -- by about as much as U.S. long rates on average.

Turning to the second shift in the staff's thinking about the outlook, the pickup in economic activity in foreign industrial countries, Chart 6 presents data on recent trends in industrial production and consumer price inflation in the major countries. In general, production has either continued to rise as in the top panels for Canada and the United Kingdom, has just turned the corner as in the bottom panels for western Germany and Japan, or is in between as in the middle panels for France and Italy. Inflation is either low and declining (Canada, France and Japan), finally on a downtrend (Germany), or stable (United Kingdom and Italy). Thus, recessions appear to be over and recovery is beginning or expansion continues in the major foreign industrial countries, while inflation appears to be generally under control.

This pattern of recent developments is projected to be extended as is illustrated in the next chart. The upper left panel shows that foreign growth on average is now projected to exceed growth in the United States this year by a small margin (in contrast with the picture at the time of the January Chart Show) and by a considerably larger margin next year. As shown at

the right, faster growth in the G-6 countries helps to push up growth in other industrial countries and to sustain growth in the developing world. The box on the left in the middle panel presents details for selected countries or groupings of countries. As you can see, the pickup in growth is concentrated in the three major continental European countries and Mexico.

Since policy settings in the major foreign industrial countries are if anything a bit less stimulative than those we have been assuming, and policies work with a lag in any case, we are led to conclude that the effects, over the past two years, of the considerable reductions in interest rates, combined in a few cases with more stimulative fiscal policies, and more generally with the economic and financial healing process have had greater effect than we had earlier anticipated. The overall foreign outlook illustrates one of the upside risks to our forecast -- a risk principally to aggregate demand and inflation in the United States.

As is shown in the right panel, the output gap in the major industrial countries collectively (and also individually) is expected to remain very large while inflation remains low. However, as reported in the paper on international influences on U.S. inflation that was circulated to the Committee last week, in these countries individually and as a group inflation appears to be more sensitive to changes in the output gap than to the level of the gap. Consequently, as is shown in the lower panels, inflation on average in these countries is projected to remain

fairly stable at just below 2 percent while U.S. inflation temporarily moves above 3 percent.

Chart 8 presents our forecast for exports. The top-left panel shows that, over the past year, our exports to Canada, the United Kingdom, Japan, Mexico, other Latin American and certain countries in Asia have expanded quite substantially. The categories that have shown the largest increases have been computers and capital goods other than computers -- consistent with our principal comparative advantage. Agricultural exports have declined following our production shortfalls.

As is illustrated in the middle-left panel, real goods exports are projected to increase more rapidly in line with the faster rate of foreign growth and under the influence of the lower dollar, following a surge in the fourth quarter of last year and a dip in the first quarter of this year. The overall picture for real exports of goods and services, the blue line in the bottom panel, demonstrates that exports grew faster than U.S. real GDP (the black line) during the recession and through mid-1992, have roughly kept pace over the past two years, and once again will be a source of stimulus over the balance of the forecast period.

Imports are the subject of the next chart. As is shown in the top panel (upper left), the origins of our imports over the past year have been widely dispersed with many areas enjoying double-digit growth rates. The categories (upper right) experiencing the fastest growth again have been computers and other capital goods -- consistent with the strong pace of domestic

equipment expenditures. However, imports of industrial supplies have also increased markedly in real terms -- a pattern characteristic of the mature phase of U.S. expansions.

The middle panels present our projection of imports. Imports of both goods and services are generally expected to slow.

The pattern shown for oil imports in the box at the right is distorted by the unusual increase in imports in the fourth quarter of last year that was followed by an unusual drop-off in the first quarter of this year. The basic forces underlying the outlook for oil imports remain rising domestic consumption against the background of declining domestic production.

While imports of computers are projected to increase at a somewhat slower, but still-very-rapid, pace, the rate of increase of imports of other non-oil products should decline markedly as the increase in U.S. demand slows (see panel chart at lower left) and the effects of the lower dollar are felt.

The data in the lower-right panel show the disparate recent movements of prices of imports of manufactured goods from different industrial countries. They have risen markedly in the case of goods coming from Japan, as the yen has appreciated, and declined for goods from the European Union and Canada, under the combined influence of low inflation and declining or stable exchange rates against the dollar. As is shown by the red line, the recent very moderate pace of increases in import prices is projected to be interrupted by a rise in the second half of this

year because of the recent more generalized decline in the dollar.

Your next chart presents data on selected categories of international prices. The top panel illustrates that spot commodity prices, in U.S. dollars or in G-10 currencies on average, have recently been rising at around 10 percent on a 12-month basis, the largest sustained increase since early 1989. However, the recent acceleration has been more pronounced in dollar terms.

Meanwhile, oil prices (middle left), which are not included in the overall index of commodity prices, have rebounded under the influence of faster expected economic growth, supply disruptions in the North Sea and Yemen, and relatively stable OPEC production. We are assuming that spot prices will average around \$18.50 per barrel for the balance of the forecast period as supply disruptions ease. This outlook, which is about a dollar a barrel higher than in recent Greenbooks, is predicated on the assumption that Iraq will not be permitted to resume exporting in 1995 and Saudi Arabia will boost its production about one million barrels per day. As is shown in the lower left panel, this outlook leaves a rather slim margin of excess production capacity outside of Iraq, suggesting a possible upside risk to our price assumption.

The two panels on the right illustrate two dimensions of other international influences on domestic prices manufactures. In the upper panel, the gross impacts on domestic prices of manufactures (the black line) of wide swings in the dollar's

external value (the blue line) are evident in connection with the dollar's substantial rise in the first half of the 1980s and its subsequent decline. What is not quite as evident is the influence of low inflation abroad, but note that the red line for import prices has trended in recent years below the line for domestic prices without any discernible trend in the dollar. While the influence on domestic prices of low foreign inflation will continue during the forecast period, the influence of the lower dollar will be in the other direction.

The bottom panel presents data on the share of domestic demand for manufactured goods that is supplied externally through net imports of such goods -- the gap between the two lines showing domestic demand and supply respectively. The proportion of domestic demand for manufactured goods that is supplied from abroad also tends to be influenced by movements in the dollar as well as by supply and demand conditions at home and abroad. This proportion has increased again recently, helping to divert rising pressure of domestic demand on domestic capacity. Over the period ahead, as demand eases relative to capacity, we expect the proportion that is supplied from abroad to level off.

The last international chart summarizes our outlook for the external sector. Four points are illustrated in the top panels:

First, the balance on real net exports of goods and services (black line) is projected to continue to decline.



Second, the rate of decline will slow markedly because of faster growth abroad, slower U.S. growth, and the lower dollar.

Third, the current account deficit (red line) widens more rapidly; this illustrates the deterioration in our terms of trade associated with the decline of the dollar and the rise in oil prices as well as the decline in net investment income as our deficits increase and interest rates rise.

However, fourth, as noted in the box at the right, this deficit in 1995 would be "only" 2.3 percent of nominal GDP, compared with 3.7 percent in 1987.

Nevertheless, at a projected near-record annual rate of \$170 billion by the end of 1995, the deficit would be large, and it is reasonable to consider the capital account counterpart. Although it can be very misleading to infer motivation about ex ante demands for assets in the aggregate from ex post data or even the ex ante "guesstimates" presented in the lower panel for 1994, I would make three comments about these data:

First, while total net private capital inflows recorded last year were negligible, line 1, inflows from private foreigners were substantial -- \$105 billion in securities purchases (line 3), \$21 billion in direct investment (line 6), and a large share of the \$51 billion in other net inflows reported by banking offices (line 8), many of which involved U.S. offices of foreign banks. Thus, private foreigners did not shun U.S. assets. However, in 1993, U.S. private outflows were also very large; hence, the small net inflow.

Second, as illustrated by the data in the column of estimates for 1994, small changes in these large flows could well produce a substantial change in the pattern of net flows for the year; indeed, the net private inflow in the first quarter exceeded the total for all of 1993.

Third, as I noted in response to President Melzer's earlier questions, while net official inflows in 1993 (line 10) were substantial, more than half came from non-G-10 countries. Since these countries, even if their currencies are pegged to the dollar, can and do invest in non-dollar assets, it would be reasonable to presume that their behavior more closely conforms to private investors than to monetary authorities in the G-10 countries.

Notwithstanding these reassuring points, large current account deficits inevitably lead to questions about the capital account counterpart and the future course of the dollar, and they may affect investors' attitudes as well as market psychology.

Mike Prell will now present the outlook for the remaining sectors of the economy.

Michael J. Prell  
July 5, 1994

FOMC CHART SHOW PRESENTATION -- CONCLUSION

Chart 12 summarizes our projection for household spending. As you can see in the top panel, we are expecting, after a period in which the pace of consumption growth--the black line--has exceeded that of income, there will be a modest reversal. The resultant small rise in the personal saving rate is shown at the right. A number of considerations are involved here, including the expected effects of the erosion of financial net worth related to the declines in stock and bond prices, as well as the expected flattening of demand for household durables as housing activity slackens somewhat in coming months. In our forecast, household debt growth exceeds income growth and, as shown in the middle left panel, debt-service burdens rise a little. But indebtedness does not look to be a constraint on demand, at least at this juncture: delinquency rates are down, bank willingness to lend is up, and--as shown at the right--household willingness to borrow is relatively high, according to the Michigan survey.

Housing starts in recent months have retraced much of their weather-influenced first-quarter decline, but with an important contribution from multifamily building. All indications are that higher mortgage rates are putting a damper on the single-family market, and we're expecting a further erosion of demand in that sector until rates turn down, as we've forecast, during 1995. As you can see at the right, however, even with the 2 percentage point rise in fixed-rate mortgage rates since October, monthly carrying costs are still low relative to income; consequently, we're predicting that the level

of single-family construction will remain quite healthy by historical standards, or in relation to demographic trends.

The recent spurt in multifamily building has taken us by surprise. It may be that we focused too much on national rental vacancy rates, and did not pay sufficient heed to the reports of improved financing availability and of tightening in some local housing markets. We are looking for some back-off in multifamily starts after the recent sharp surge, but we've raised the level of the forecast path appreciably. One thing to keep in mind, though, is that construction cost per unit is much lower for multitis than for singles, and it takes huge movements in the series to have substantial GDP effects.

Turning to the business sector, the top panels of chart 13 portray our forecast for fixed investment. As you can see at the left, both equipment and structures outlays are expected to remain on solid upward trends, but there is a deceleration on the equipment side that is mirrored in the aggregate BFI growth rates tabulated at the right. Some slackening in the pace of investment is to be expected when economic activity decelerates, though the rates of increase we're projecting are scarcely weak.

Despite the rise in interest rates and the decline in stock prices, the cost of capital is still low--especially for computers, for which prices continue to fall. As depicted in the middle-left panel, the user-cost of equipment is expected to continue looking cheap relative to labor, even before taking account of employer concerns that healthcare or other mandates might add further to worker costs. And, acquisition of new high-tech equipment remains an integral part of many efforts to enhance productivity and competitiveness. On the negative side, though, as shown at the right,

firms probably will find, increasingly, that their internal cash flows do not cover their capital outlays.

On the inventory side, we anticipate that firms will wish to maintain the leaner inventory positions indicated by the lower-left panel. Slower deliveries and lengthening order lead times might argue for some rise in desired ratios, but many firms are still working toward the goal of just-in-time operation. Moreover, the projected further rise in real short-term interest rates suggests some disincentive to extra stocking. Our forecast for inventory investment, graphed at the right, shows a modest fall-off over the second half of this year, but a pretty steady and moderate level of accumulation thereafter. As a result, inventories are not a major element in the dynamics of the projection.

Chart 14 covers the final sector of domestic demand, government. In the upper panels, you can see that federal purchases are projected to continue trending lower--paced by the decline in the defense sector, but with nondefense also constrained. In the middle panels, state and local purchases appear to be decelerating this year, after a surge in construction activity in 1993. With budgetary strains in some areas, and political pressure for tax cuts, we are projecting that purchases will pick up only moderately in 1995. The bottom panel is intended to highlight one point regarding the current state and local budgetary situation. Unlike the 1960s, when relatively large deficits on operating and capital account could be attributed to exceptionally high construction spending, a similar attribution is not warranted currently. Rather, the biggest story in recent years has been the soaring cost of Medicaid.

Chart 15 pulls all of what we've been saying together, with a summary of the staff forecast. Real GDP growth, as noted earlier, is

projected to slow to 2-1/4 percent next year, the major factor being the damping of private domestic final purchases fostered by monetary restraint. The unemployment rate, the black line in the middle panel, is expected to rebound some in the near term from its seemingly low May level and to run a shade over 6-1/4 percent through 1995. Because the goods-producing sector will bear the brunt of the GDP slowing, capacity utilization is expected to moderate a bit. Finally, core inflation is projected to move up from May's year-on-year change of 2.8 percent, to 3.1 percent, as the absence of significant slack in the economy permits the expected near-term impulses from the agricultural and petroleum sectors and from the dollar's depreciation to show through. Reflecting as well the acceleration of its food and energy components, overall CPI inflation picks up more from its recent pace, registering at about 3 percent in both 1994 and 1995.

To conclude the presentation, I would refer you to the last chart, which lays out in the usual manner the 1994 and 1995 forecasts you submitted. Most of you are projecting GDP growth of 3 to 3-1/4 percent this year and 2-1/2 to 2-3/4 percent in 1995, with unemployment ending each year in the 6 to 6-1/4 percent area. CPI inflation is mainly projected at 2-1/2 to 3 percent this year, and 2-3/4 to 3-1/2 percent in 1995. There is no significant disparity between your forecasts and the Administration's last official numbers or between your forecasts and those of the staff.

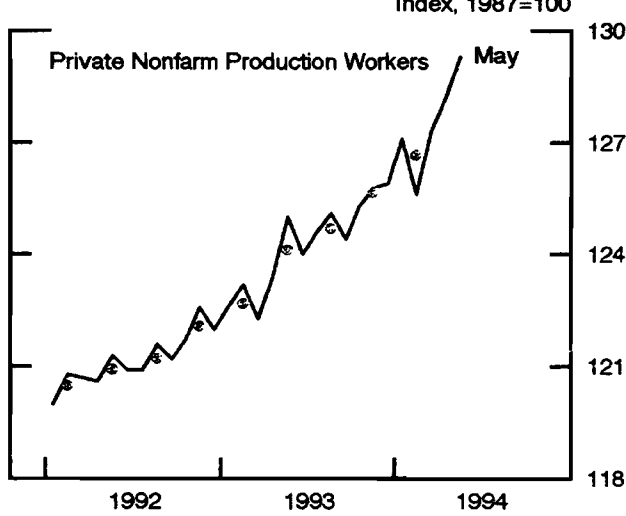
STRICTLY CONFIDENTIAL (FR) CLASS I-FOMC

*Material for*  
*Staff Presentation to the*  
*Federal Open Market Committee*

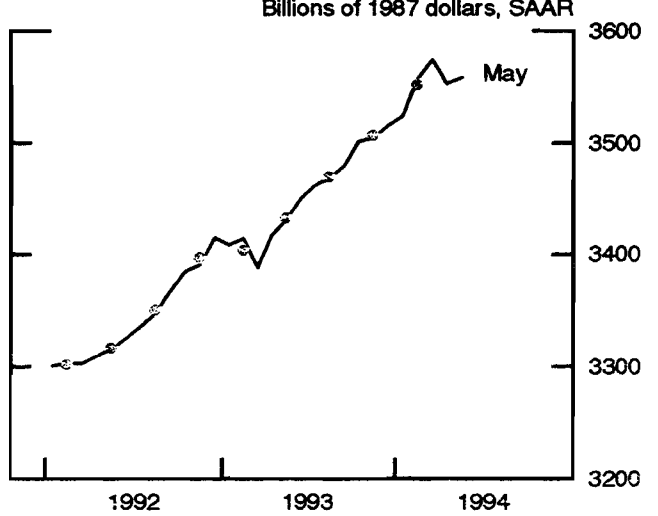
*July 5, 1994*

Chart 1  
Recent Indicators

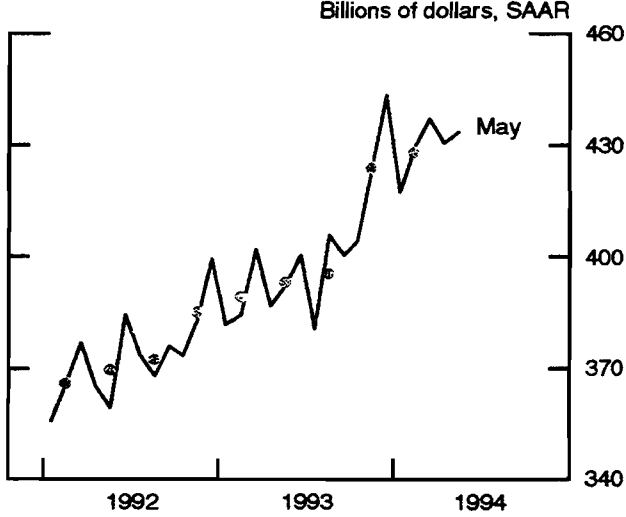
AGGREGATE HOURS



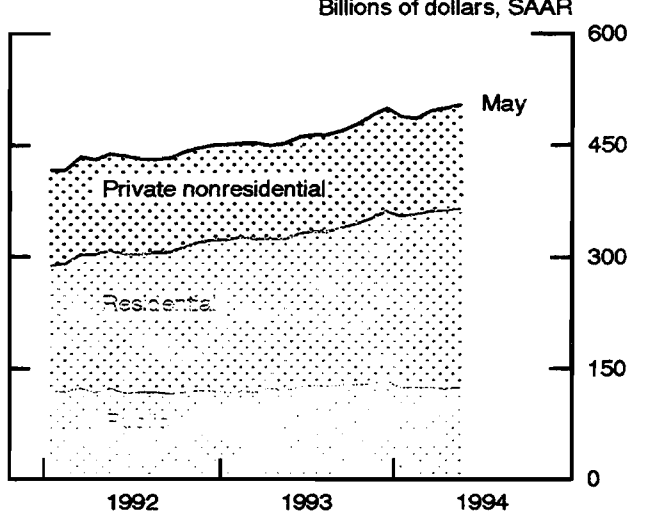
REAL CONSUMER SPENDING



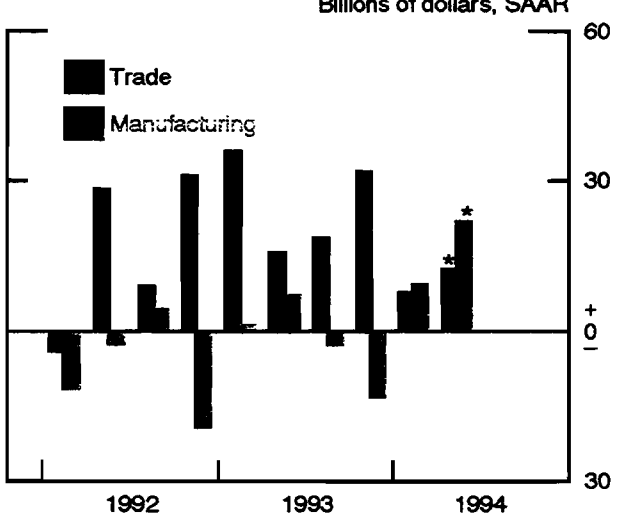
SHIPMENTS OF NONDEFENSE CAPITAL GOODS



CONSTRUCTION PUT IN PLACE



INVENTORY INVESTMENT



NET EXPORTS\*



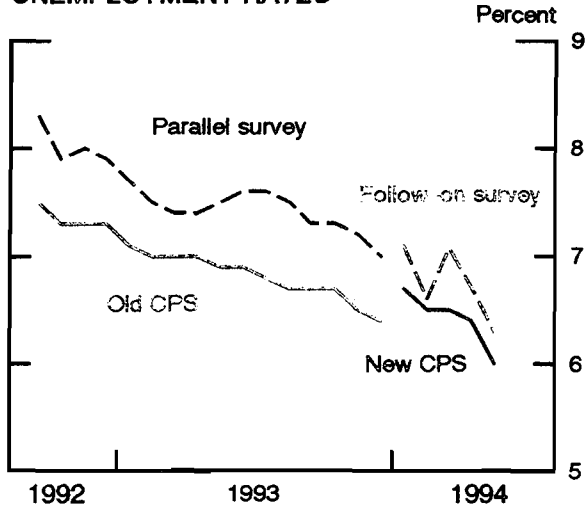
\* Q2 bars: Trade - April; Manufacturing - April-May average.

\* Excluding nonmonetary gold, BOP basis.

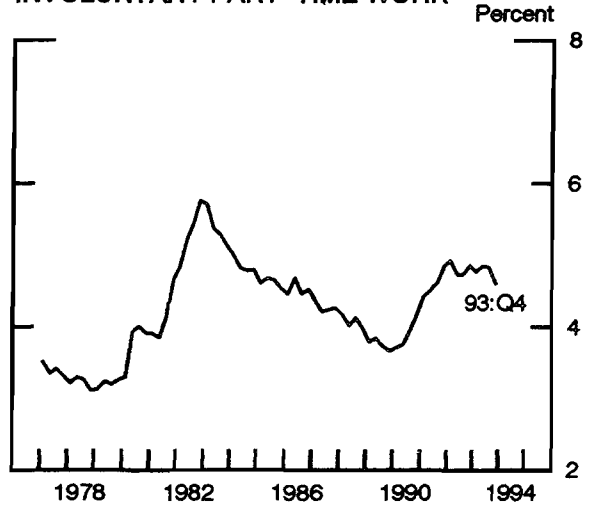


Resource Utilization

UNEMPLOYMENT RATES

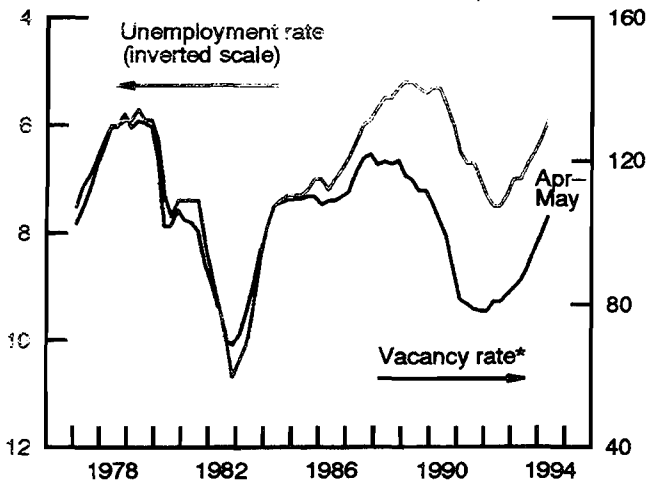


INVOLUNTARY PART-TIME WORK\*



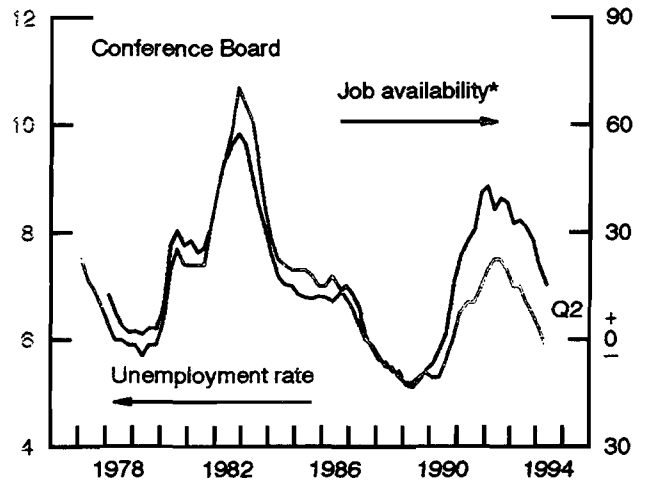
\* Persons working part-time for economic reasons as a percent of the civilian labor force.

VACANCY RATE



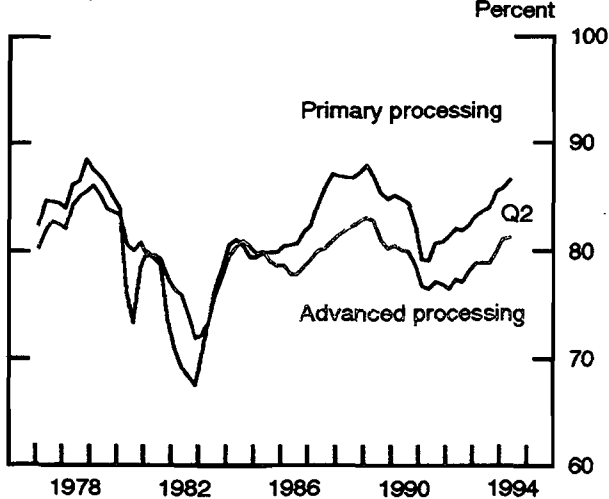
\* Weighted average of the adjusted Help Wanted index and the share of employment at personnel supply agencies. 1994 unemployment rates, old CPS basis.

PERCEIVED JOB AVAILABILITY

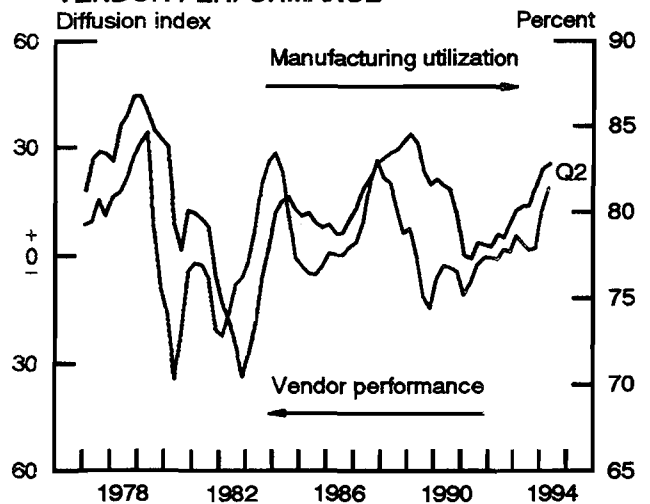


\* Jobs hard to get minus jobs plentiful. 1994 unemployment rates, old CPS basis.

CAPACITY UTILIZATION RATES



MANUFACTURING UTILIZATION AND VENDOR PERFORMANCE\*

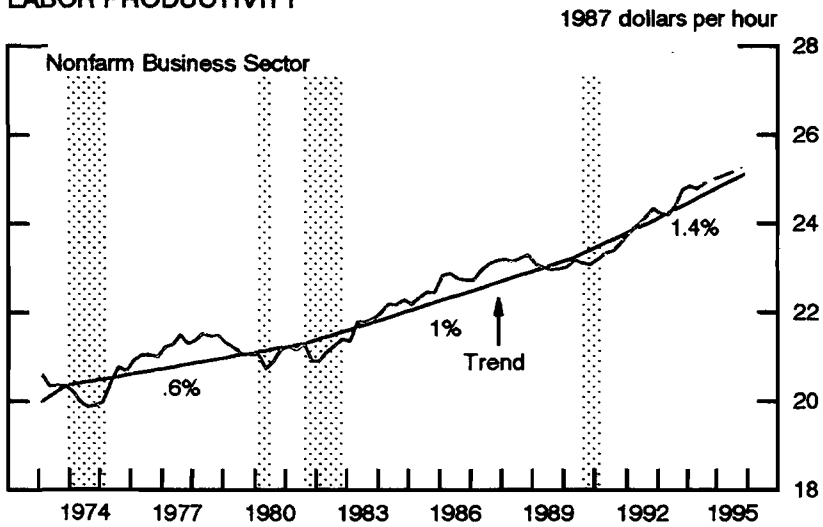


\* NAPM survey

Chart 3

### Growth Of Potential Output

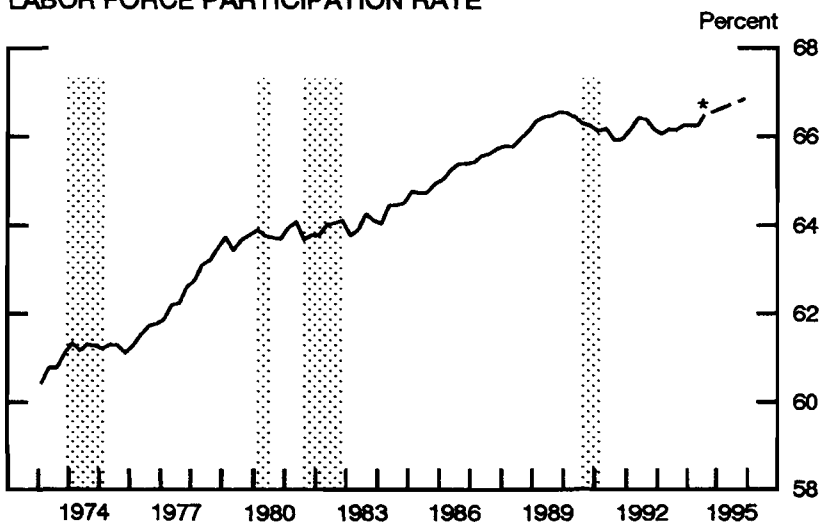
#### LABOR PRODUCTIVITY



#### PRODUCTIVITY GROWTH

Percent change, Q4 to Q4	
1990	.4
1991	2.2
1992	3.3
1993	1.7
1994	.9
1995	1.1

#### LABOR FORCE PARTICIPATION RATE



#### LABOR FORCE GROWTH

Percent change, Q4 to Q4	
1990	.4
1991	.5
1992	1.3
1993	1.2
1994	1.3 *
1995	1.3

\* 1994-1995 data adjusted to be consistent with old CPS.

\* Adjusted for Jan. 1994 break in series.

#### OKUN'S LAW - 1980-1993

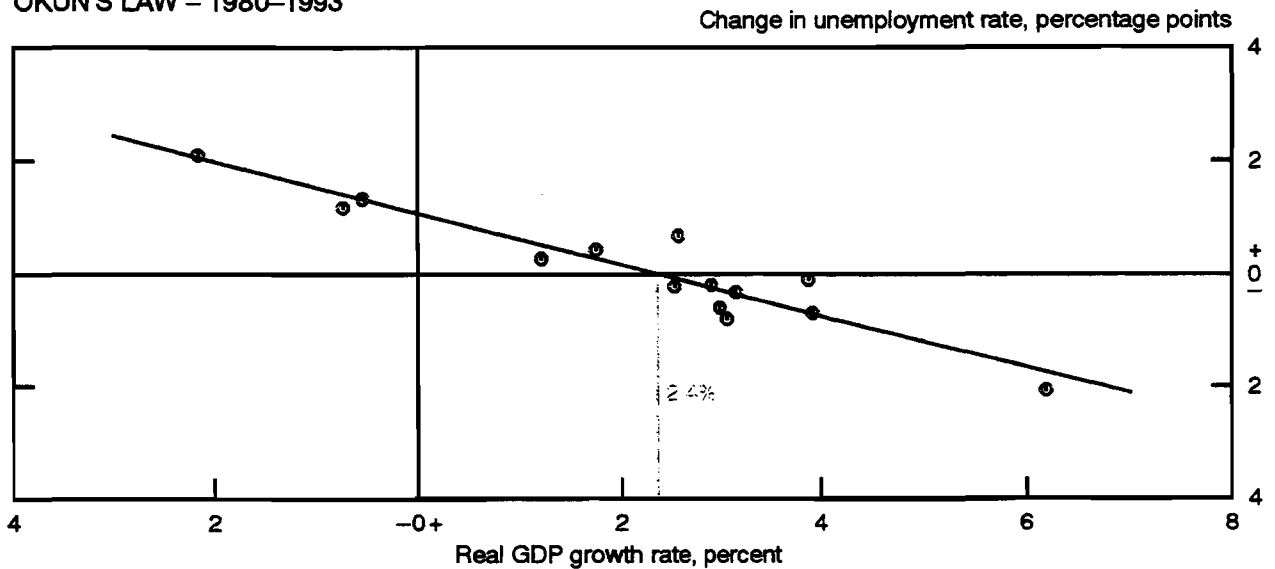
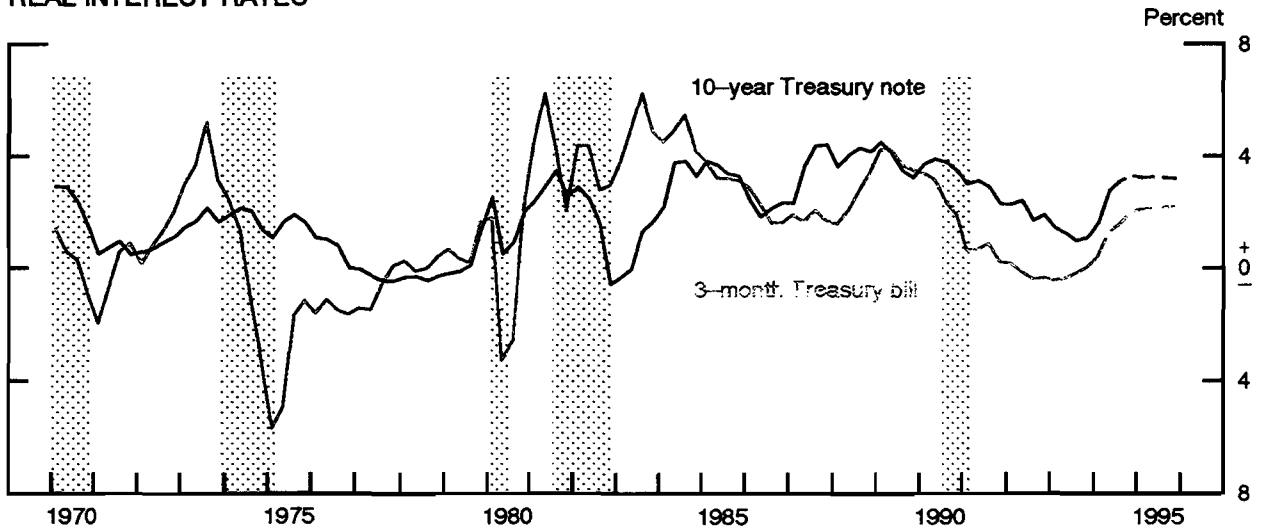


Chart 4

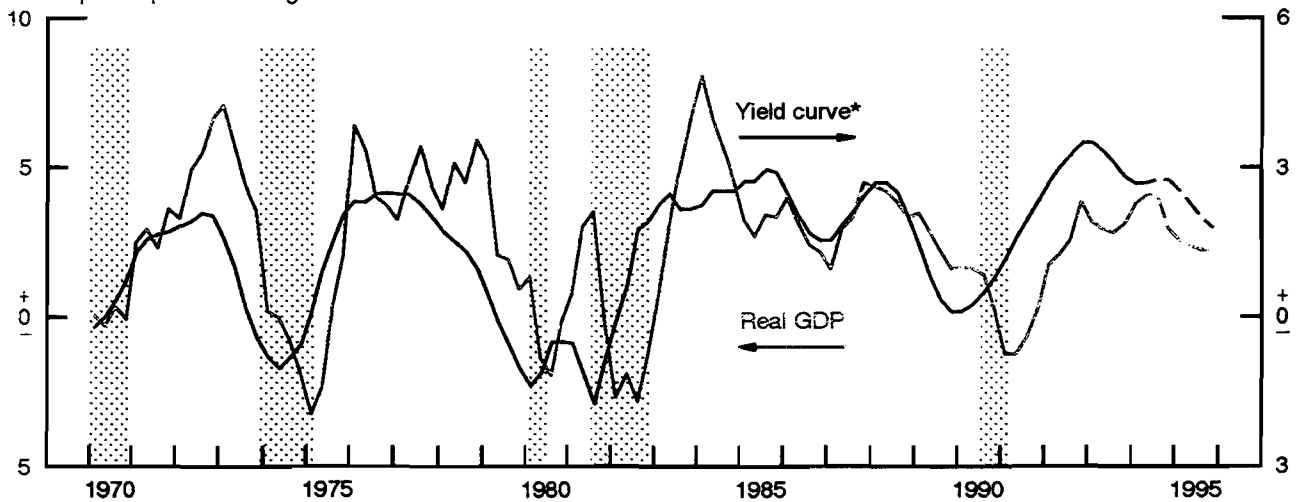
### Financial Indicators

#### REAL INTEREST RATES\*



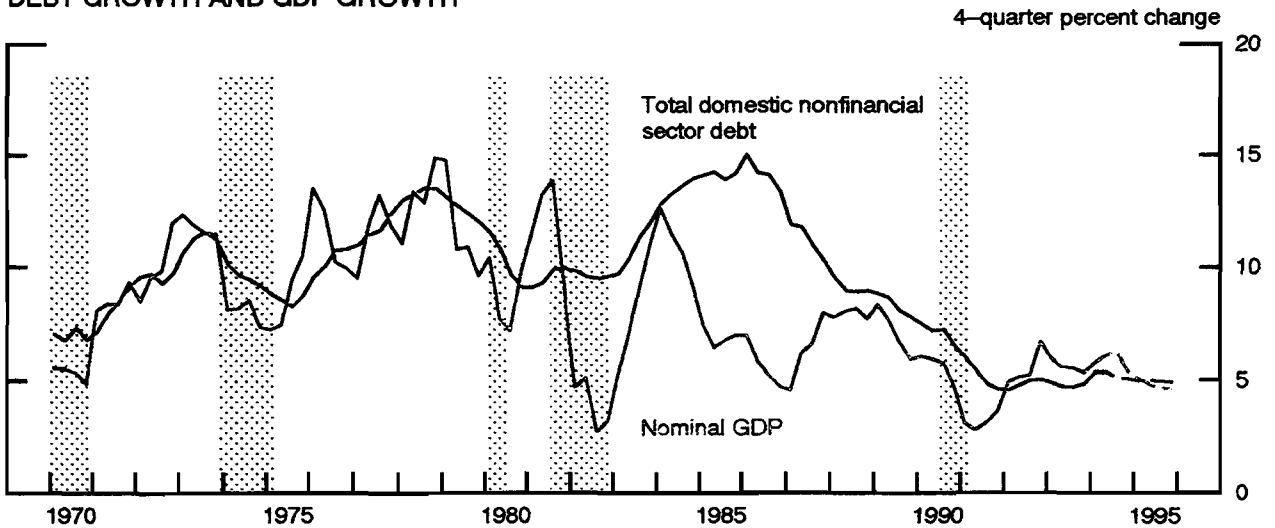
\* Inflation expectation based on prior 1-year and 5-year core CPI changes for 3-month and 10-year Treasury rates, respectively.

#### YIELD CURVE AND REAL GDP GROWTH

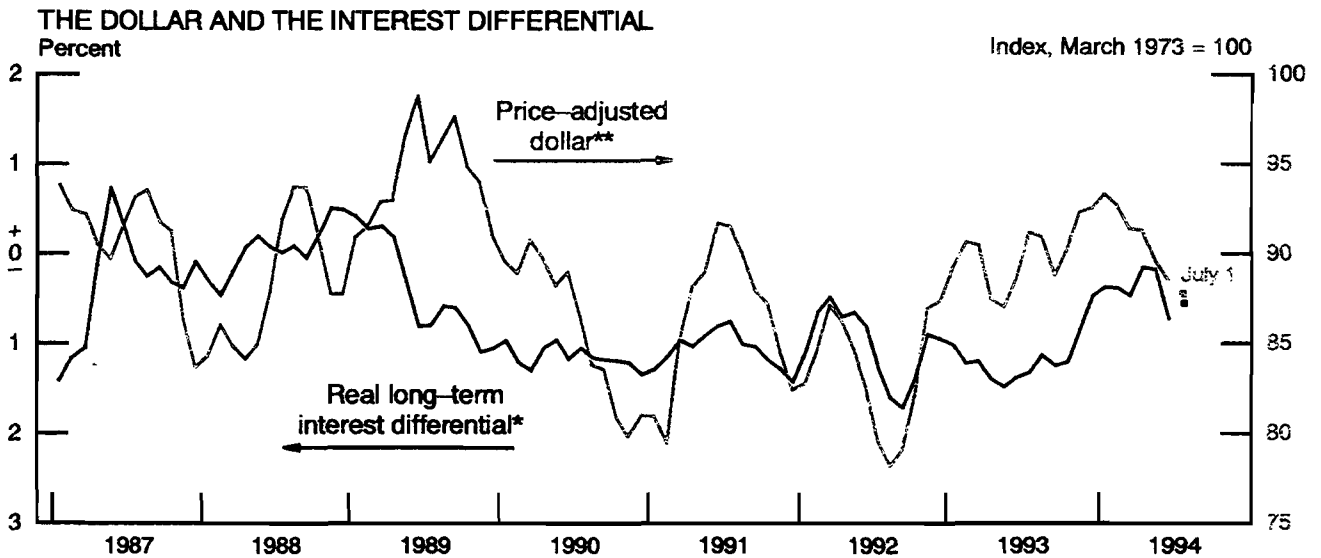


\* Ten-year note less 3-month bill, four-quarter moving average.

#### DEBT GROWTH AND GDP GROWTH



### Exchange Rates and Interest Rates



\* Difference between rates on long-term U.S. 10-year government bond and a weighted average of foreign G-10 benchmark government bonds, adjusted for expected inflation.

\*\* Weighted average against foreign-G10 countries, adjusted by relative expected inflation.

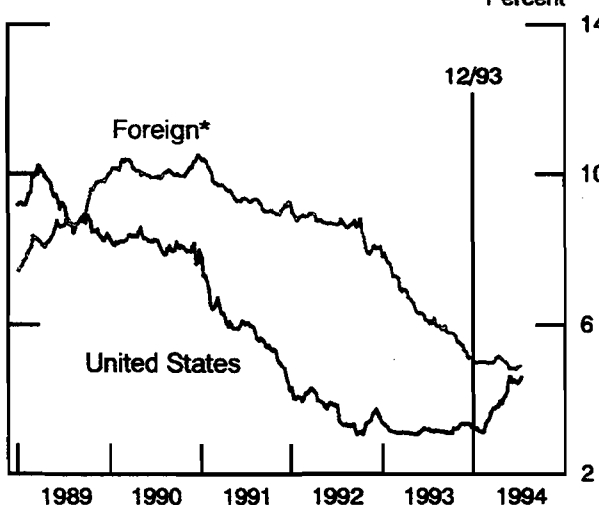
**DOLLAR EXCHANGE RATES**

	Percent change 12/93 to 7/1/94
Yen	-10
Swiss franc	-9
Deutschemark	-7
Pound sterling	-3
Canadian dollar	4
<b>G-10 Average</b>	<b>-6</b>

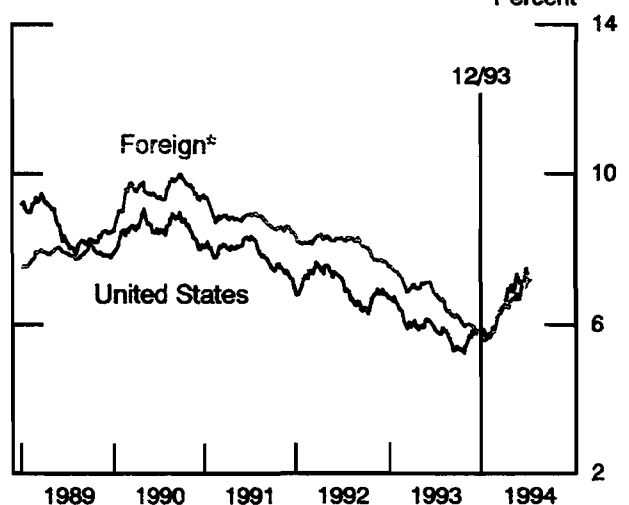
**INTEREST RATES**

	Level 7/1/94	Change 12/93 to 7/1/94
<b>Three-month</b>		
Germany	4.90	-1.09
Japan	2.12	0.06
United States	4.80	1.54
Foreign G-10	4.93	-0.18
<b>Ten-year</b>		
Germany	6.98	1.25
Japan	4.24	0.97
United States	7.34	1.57
Foreign G-10	7.33	1.61

**THREE-MONTH INTEREST RATES**



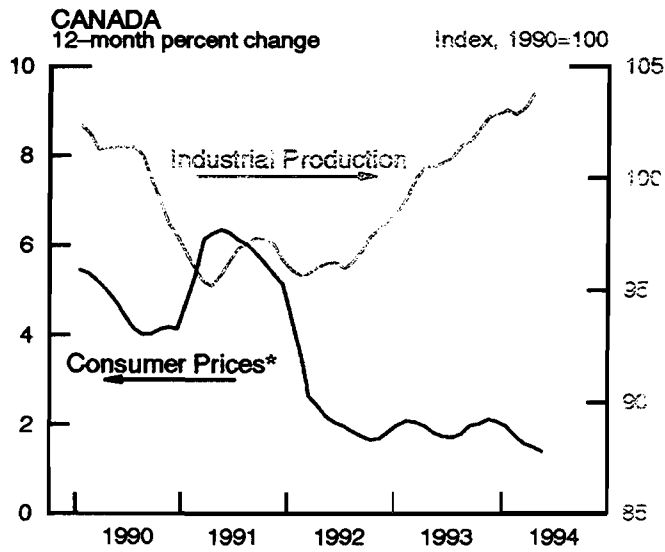
**10-YEAR INTEREST RATES**



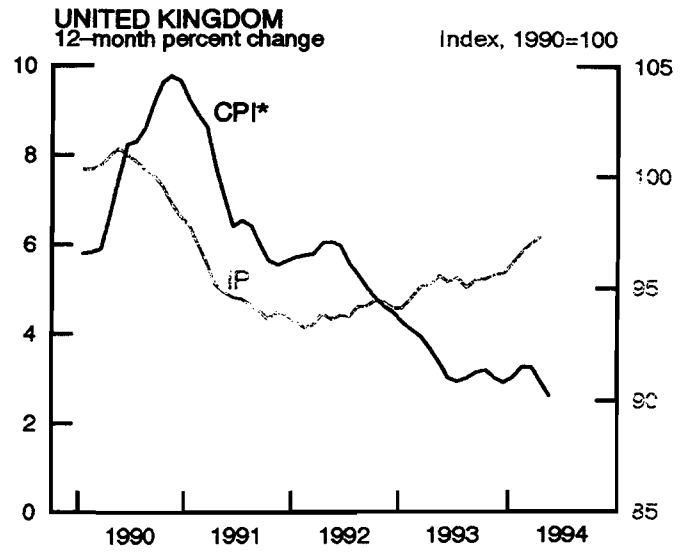
\* Multilateral trade-weighted average for foreign G-10 countries.

Chart 6

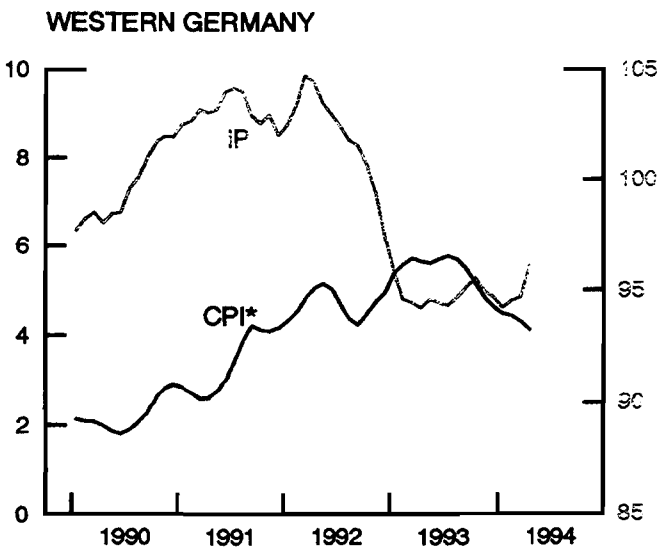
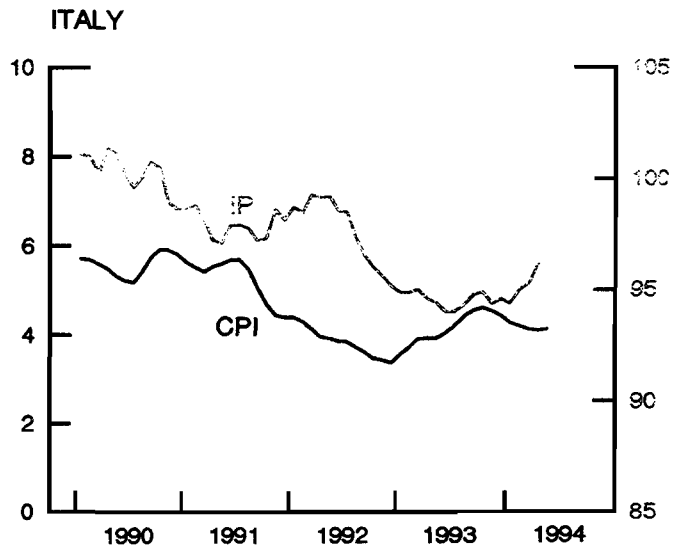
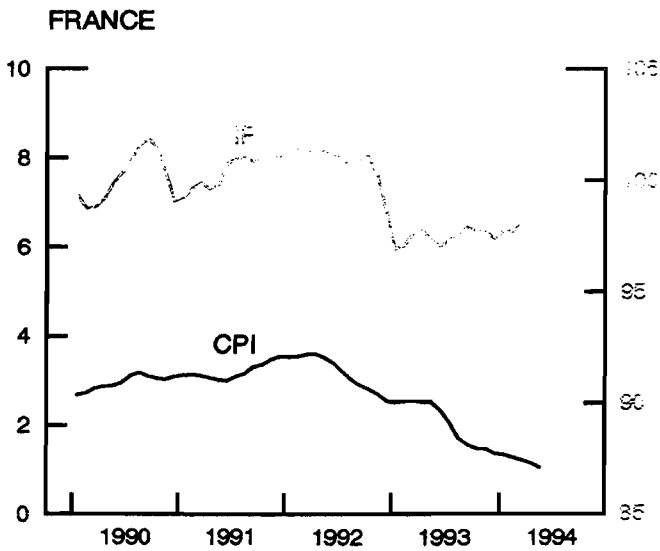
### Foreign Industrial Production and Consumer Prices Excluding food and energy prices, 3-month moving averages



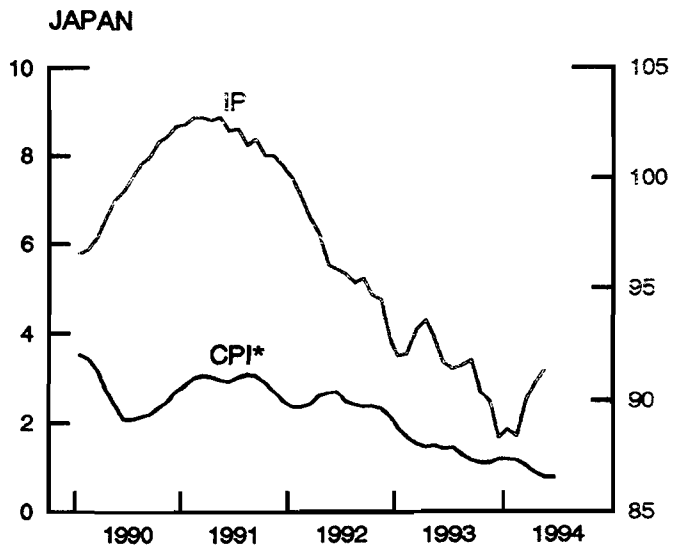
\*CPI excluding excise tax changes in 1994.



\*CPI also excludes mortgage interest payments.



\*CPI includes gasoline.

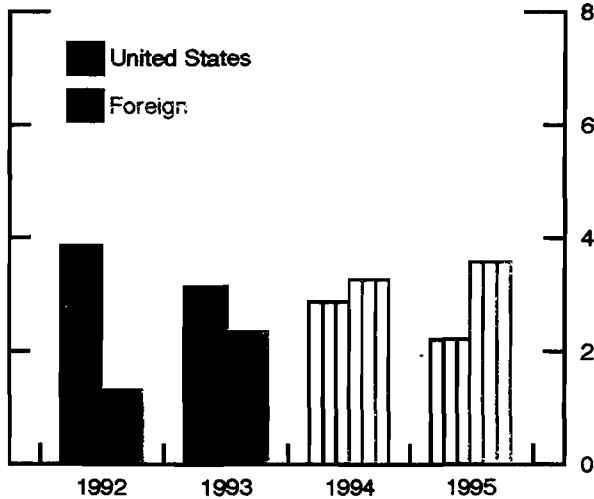


\*CPI includes energy.

## Foreign Outlook

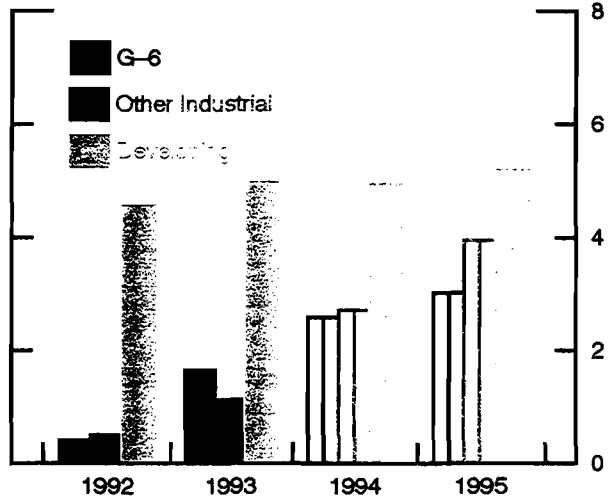
**REAL GDP: U.S. AND FOREIGN\***

Percent change, Q4 to Q4



**FOREIGN REAL GDP\***

Percent change, Q4 to Q4



\*G-6 countries, 16 other industrial and 9 developing countries, U.S. nonagricultural export weights.

**FOREIGN GROWTH**

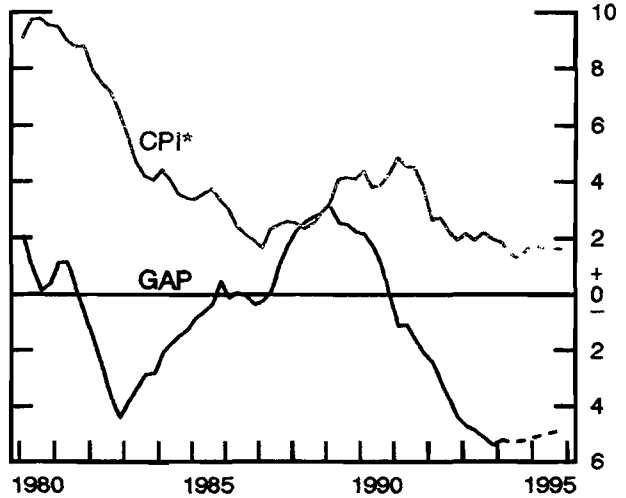
Percent change, Q4 to Q4

	1993	1994	1995
Canada + U.K.	3.0	3.6	3.5
Germany	-0.2	2.3	2.5
France + Italy	-0.2	1.8	2.5
Japan	-0.1	2.1	2.8
Mexico	-0.1	1.9	2.8
NIEs*	6.8	6.5	6.4
China	12.3	9.9	10.1

\*Hong Kong, Singapore, South Korea, and Taiwan.

**G-6 OUTPUT GAP AND INFLATION**

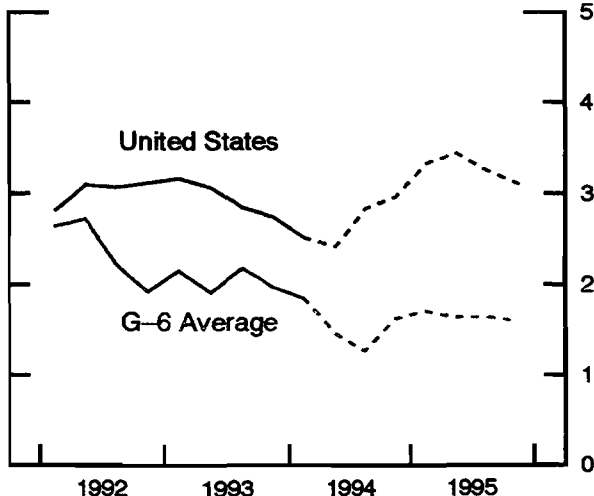
Percent



\*12-month percent change.

**CONSUMER PRICES\***

4-quarter percent change



Percent change, Q4 to Q4

	1993	1994	1995
Canada	1.8	1.4	1.8
Japan	1.2	1.0	0.8
Western Germany	3.7	2.8	2.1
France	2.1	1.7	1.5
Italy	4.1	3.4	3.0
U.K.	2.7	3.0	3.2
<b>G-6 Average</b>	<b>2.0</b>	<b>1.6</b>	<b>1.6</b>

\*U.S. non-oil import weights. Canada excludes excise tax changes in 1994; U.K. excludes mortgage interest payments.

Chart 8  
Exports

BY DESTINATION

	Percent, current dollars	
	1993 Share	1994* Growth
1. Total	100	5
2. Canada	22	8
3. United Kingdom	6	7
4. Japan	10	11
5. Other Industrial	21	-5
6. Mexico	9	13
7. Other Latin America	8	8
8. Asia	21	7
9. All Other	3	-1

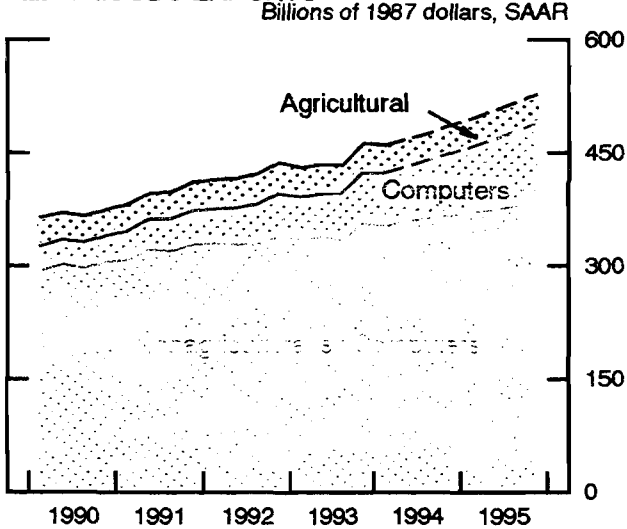
\* Jan-Apr 1993 to Jan-Apr 1994, ex gold.

BY CATEGORY

	Percent, 1987 dollars	
	1993 Share	1994* Growth
1. Total	100	7
2. Agricultural	9	-8
3. Nonagricultural	91	8
4. Computers	14	24
5. Cap. Goods ex Comp.	30	11
6. Consumer Goods	11	5
7. Automotive Products	10	5
8. Industrial Supplies	20	1
9. Other	6	1

\* Jan-Apr 1993 to Jan-Apr 1994, ex gold.

REAL GOODS EXPORTS



GROWTH IN REAL EXPORTS

Percent change, Q4 to Q4

	1993	1994	1995
1. <b>Goods</b>	6	5	8
2. Agriculture	-5	-4	2
3. Computers	20	22	29
4. Other	5	3	4
5. <b>Services</b>	2	7	4

REAL EXPORTS AND U.S. GDP

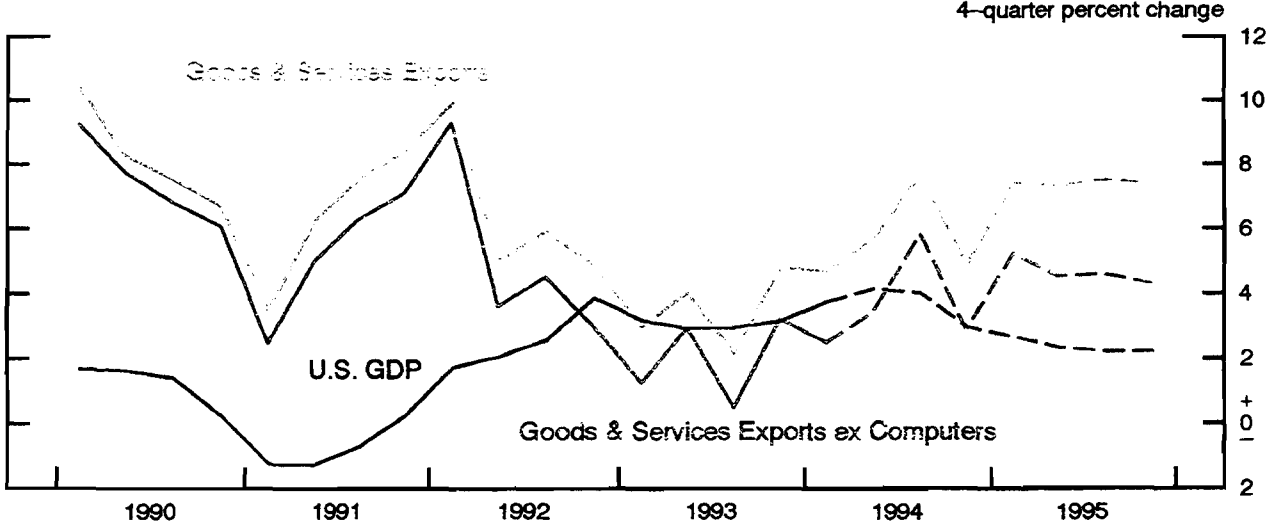


Chart 9  
Imports

BY ORIGIN

Percent, current dollars		
	1993 Share	1994* Growth
1. Total	100	9
2. Canada	19	8
3. United Kingdom	4	10
4. Japan	18	9
5. Other Industrial	18	11
6. Mexico	7	20
7. Other Latin America	6	5
8. Asia	25	9
9. All Other	3	-7

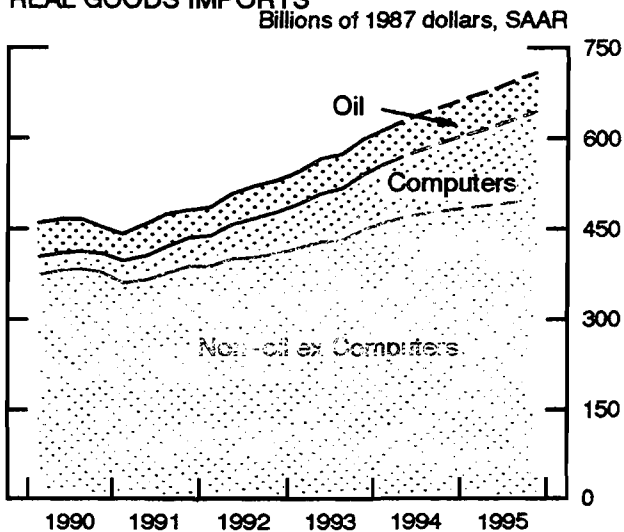
\* Jan-Apr 1993 to Jan-Apr 1994, ex gold.

BY CATEGORY

Percent, 1987 dollars		
	1993 Share	1994* Growth
1. Total	100	12
2. Oil	10	5
3. Non-oil	90	13
4. Computers	14	32
5. Cap. Goods ex Comp.	17	16
6. Consumer Goods	20	6
7. Automotive Products	15	4
8. Industrial Supplies	14	14
9. Food & Other	10	7

\* Jan-Apr 1993 to Jan-Apr 1994, ex gold.

REAL GOODS IMPORTS

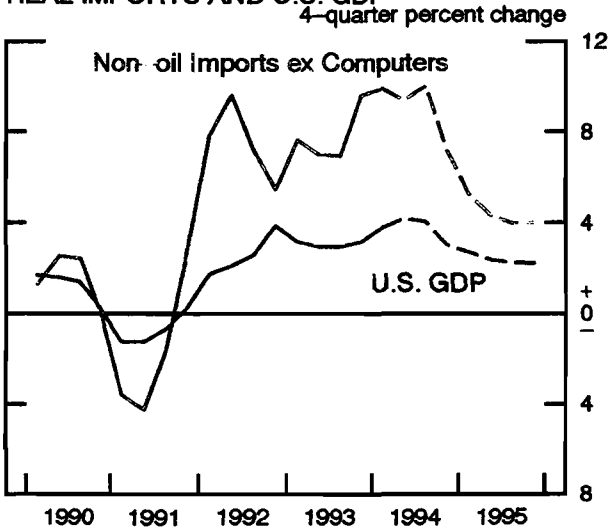


GROWTH IN REAL IMPORTS

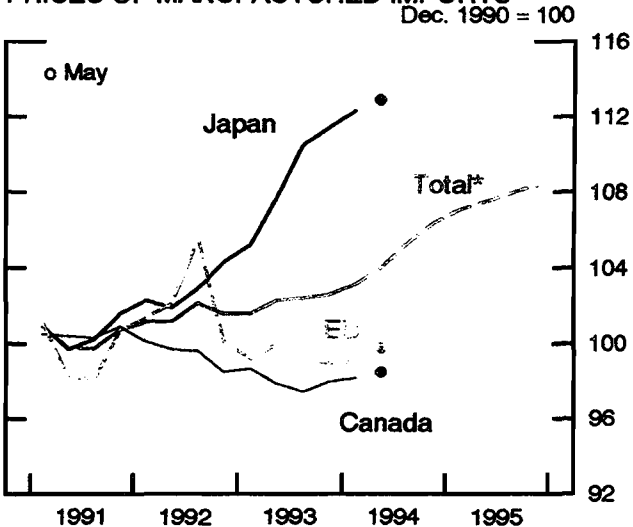
Percent change, Q4 to Q4

	1993	1994	1995
1. <b>Goods</b>	13	9	8
2. Oil	10	1	8
3. Computers	35	25	25
4. Other	10	7	4
5. <b>Services</b>	6	2	2

REAL IMPORTS AND U.S. GDP



PRICES OF MANUFACTURED IMPORTS

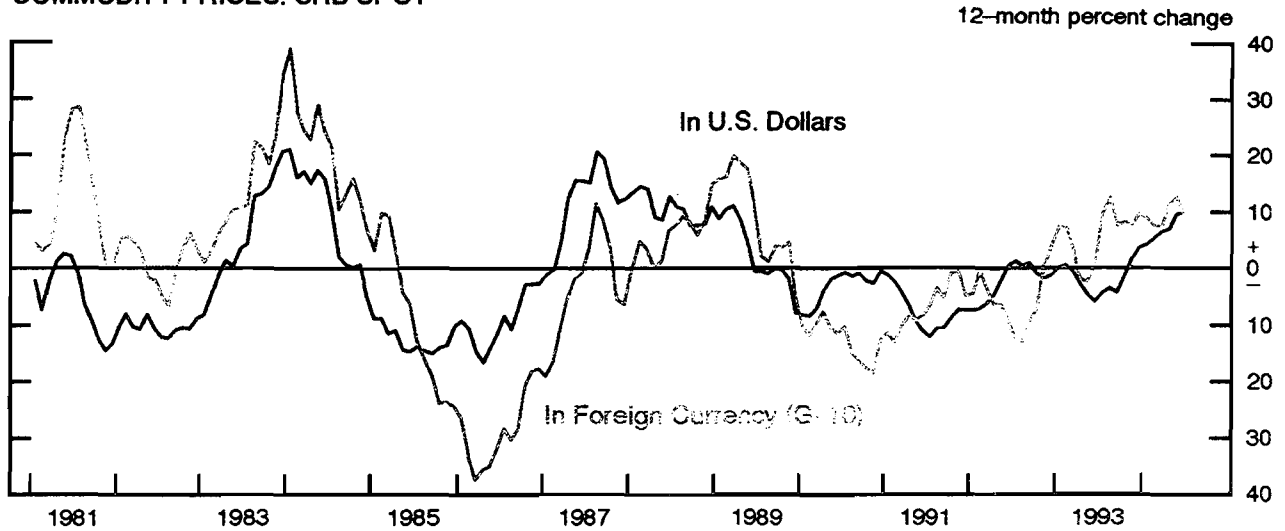


\* Projection based on non-oil ex computer fixed-weight price index.

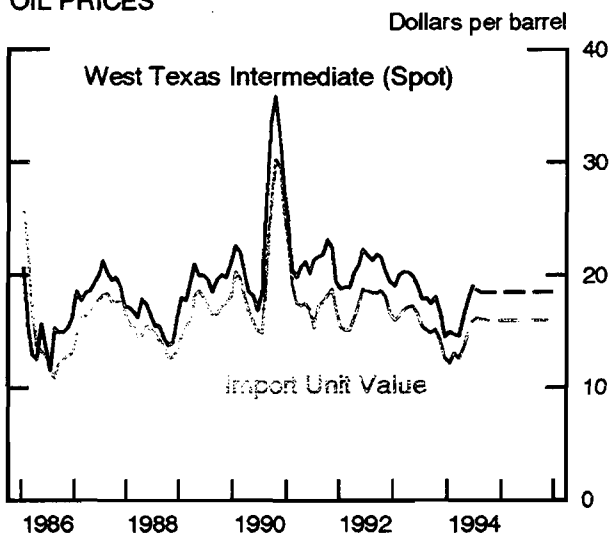


International Prices

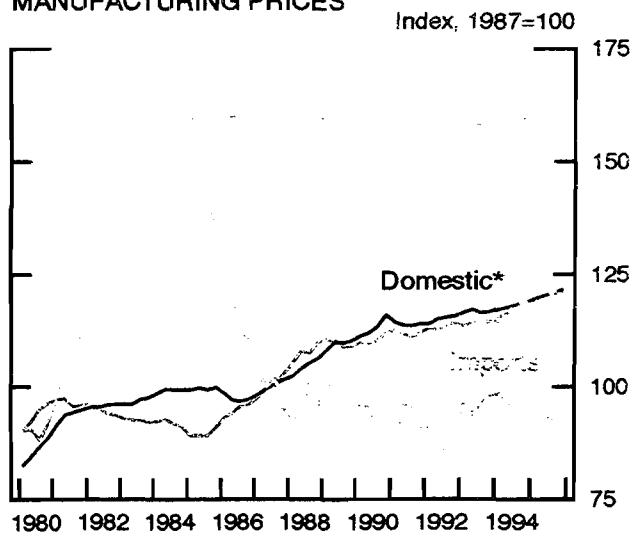
COMMODITY PRICES: CRB SPOT



OIL PRICES

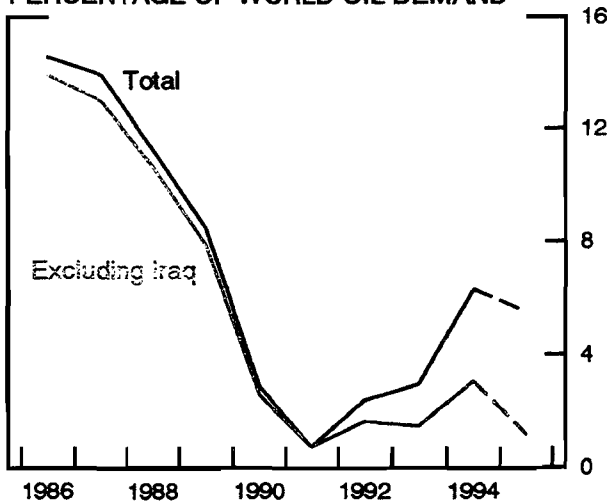


MANUFACTURING PRICES

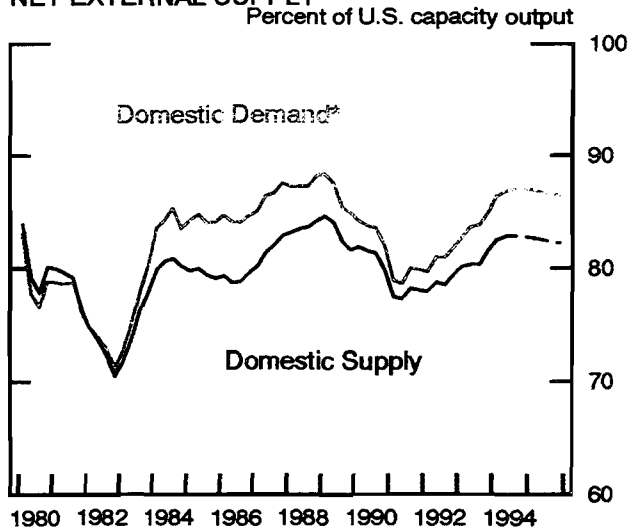


\* Producer Price Index

EXCESS PRODUCTION CAPACITY AS A PERCENTAGE OF WORLD OIL DEMAND

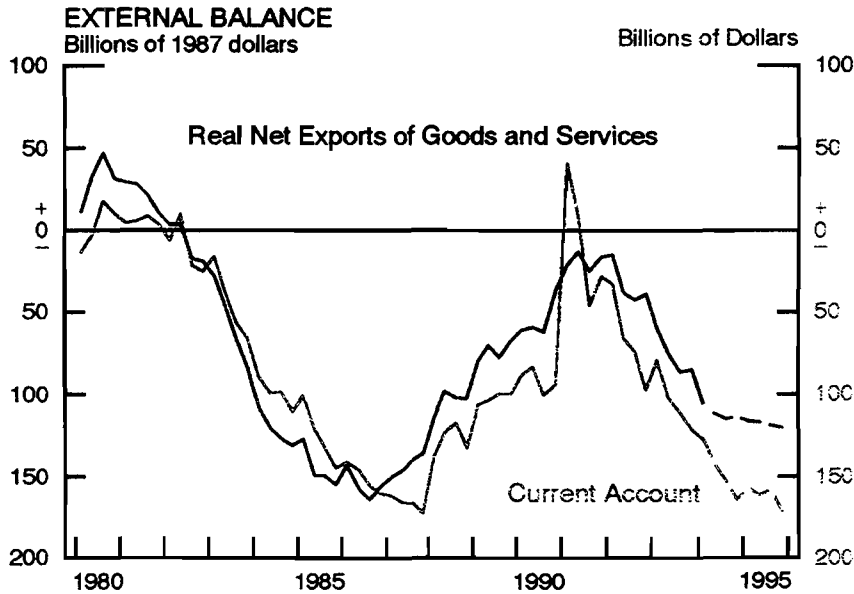


NET EXTERNAL SUPPLY



\* Output (supply) plus imports minus exports.

Summary



**CURRENT ACCOUNT**

Percent of GDP	
1985	-3.1
1986	-3.5
1987	-3.7
1992	-1.1
1993	-1.6
1994	-2.2
1995	-2.3

**U.S. CAPITAL ACCOUNT**

Billions of Dollars, Net Inflows = +

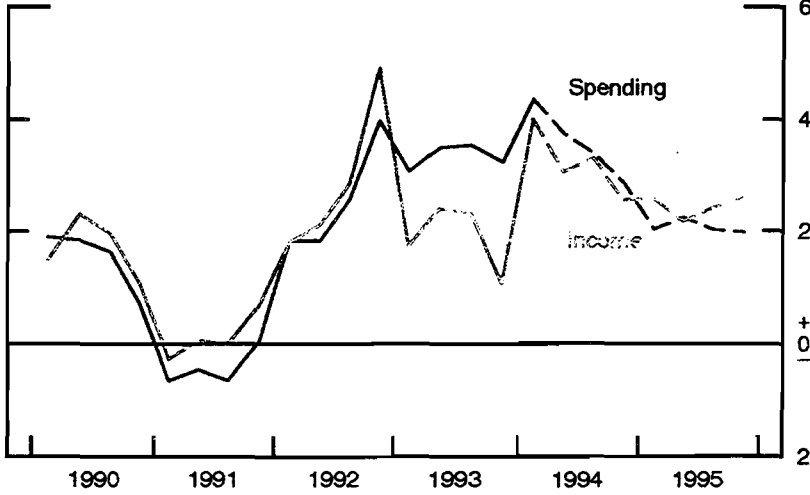
	<u>1992</u>	<u>1993</u>	<u>1994</u>
<b>1. Private Capital, Net</b>	<b>42</b>	<b>13</b>	<b>105</b>
2. Securities Transactions	18	-15	38
<b>3. Purchases of U.S. Securities 1/</b>	<b>63</b>	<b>105</b>	<b>103</b>
<b>4. Purchases of Foreign Securities</b>	<b>-45</b>	<b>-120</b>	<b>-75</b>
5. Direct Investment	-28	-37	-17
<b>6. Foreign Direct Investment</b>	<b>10</b>	<b>21</b>	<b>36</b>
<b>7. U.S. Direct Investment 1/</b>	<b>-38</b>	<b>-58</b>	<b>-53</b>
8. Reported by U.S. Banking Offices	38	51	70
9. Other U.S. Non-bank Flows	14	14	14
<b>10. Official Capital, Net</b>	<b>43</b>	<b>70</b>	<b>31</b>
11. of which non-G-10	33	40	3
Memo:			
12. Statistical Discrepancy	-17	21	21
13. Current Account	-68	-104	-147

1/ Transactions with finance affiliates in the Netherlands Antilles have been excluded from direct investment and added to foreign purchases of U.S. securities in 1992.

Chart 12

Household Sector

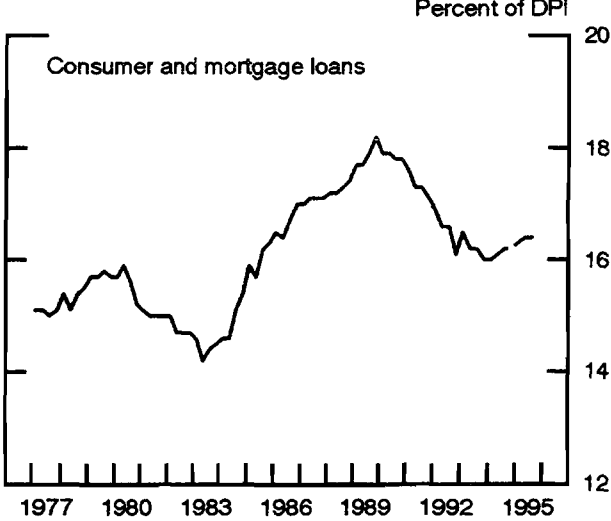
REAL DISPOSABLE INCOME AND CONSUMER SPENDING



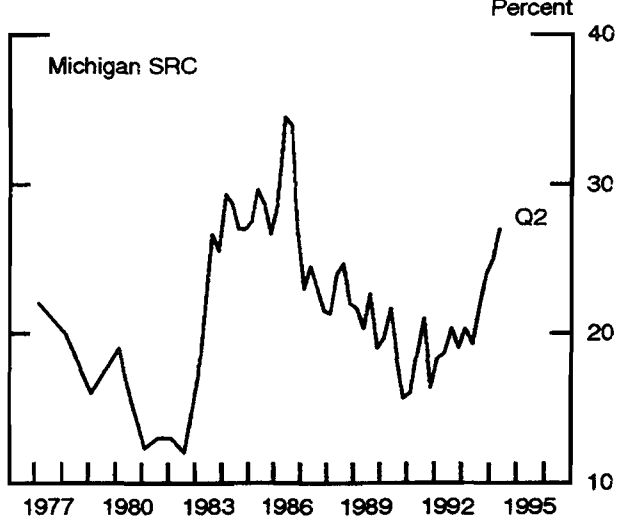
PERSONAL SAVING RATE

Year	Annual average
1990	4.2
1991	4.8
1992	5.3
1993	4.0
1994	3.6
1995	4.0

DEBT-SERVICE BURDEN

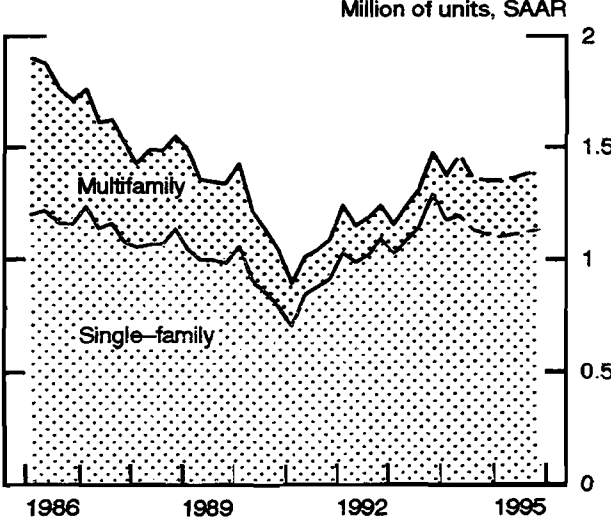


WILLINGNESS TO BORROW\*

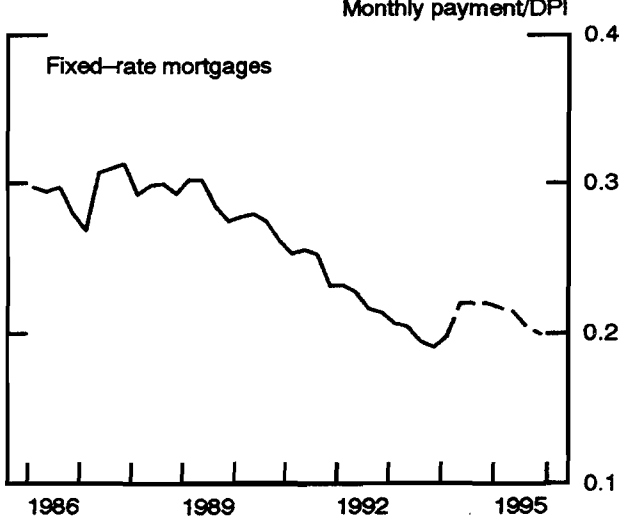


\* Respondents willing to use credit for major purchases.

HOUSING STARTS



HOUSING AFFORDABILITY\*

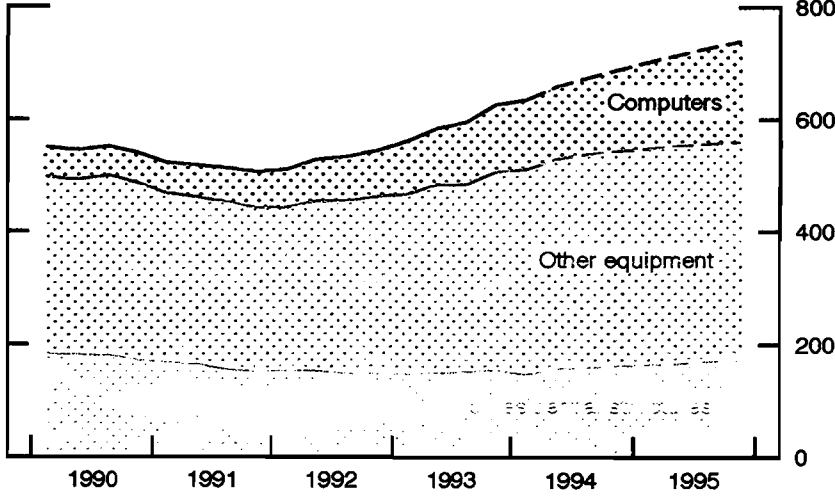


\* Financing cost of a constant-quality new home as a percent of average household income.

# Business Spending

## REAL BUSINESS FIXED INVESTMENT

Billions of 1987 dollars, SAAR



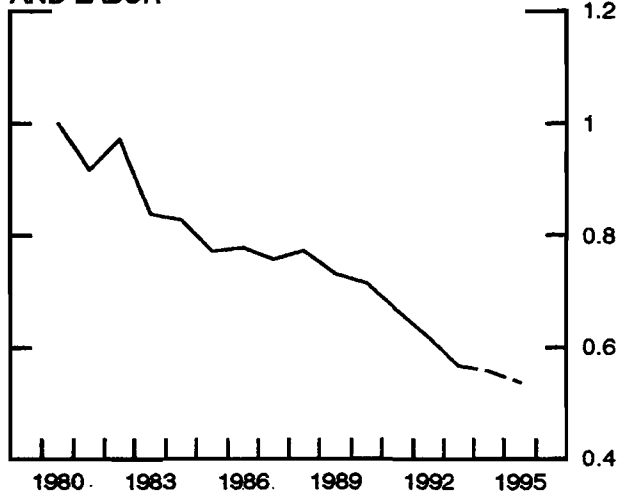
## BFI GROWTH

Percent change, SAAR

1992	7.4
1993	15.1
1994 Q1	7.3
Q2	15.3
H2	9.7
1995 H1	7.8
H2	6.8

## RELATIVE COST OF EQUIPMENT AND LABOR\*

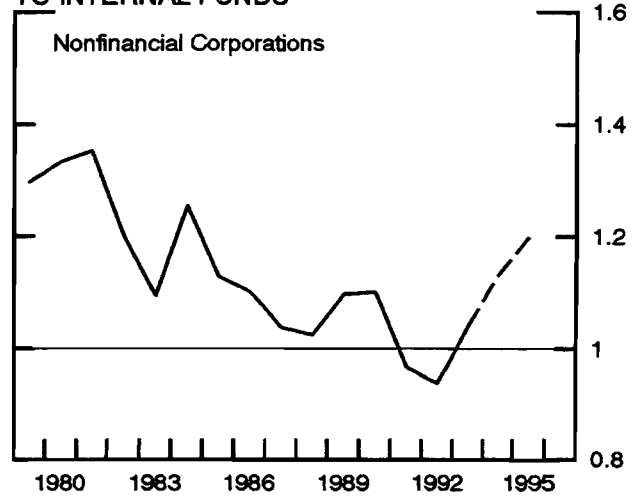
Index, 1980=1



\* User cost of equipment relative to compensation.

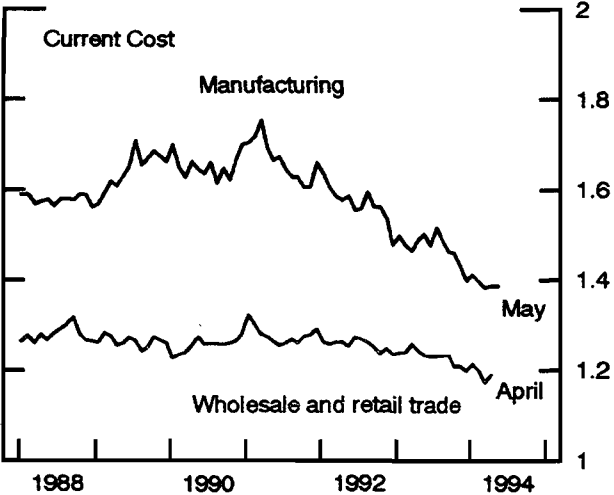
## RATIO OF CAPITAL SPENDING TO INTERNAL FUNDS

Nonfinancial Corporations



## INVENTORY-SALES RATIOS

Months



## NONFARM INVENTORY INVESTMENT

Billions of 1987 dollars, SAAR

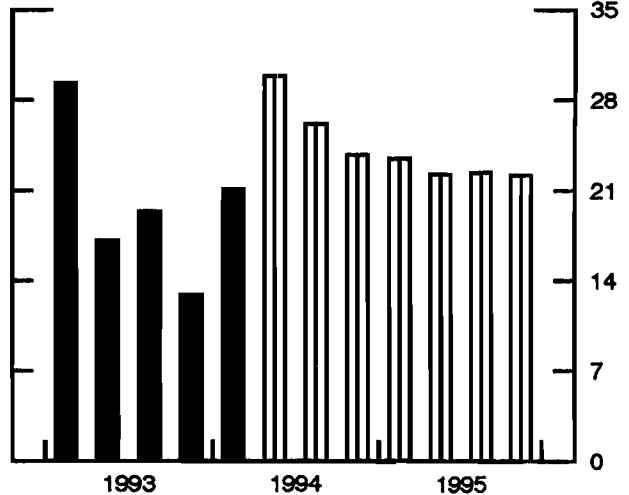
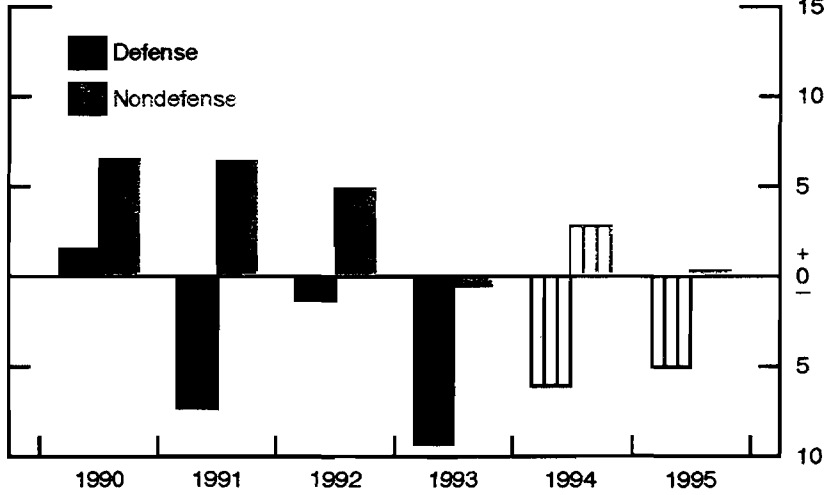


Chart 14

Government Sector

REAL FEDERAL PURCHASES

Percent change, Q4 to Q4



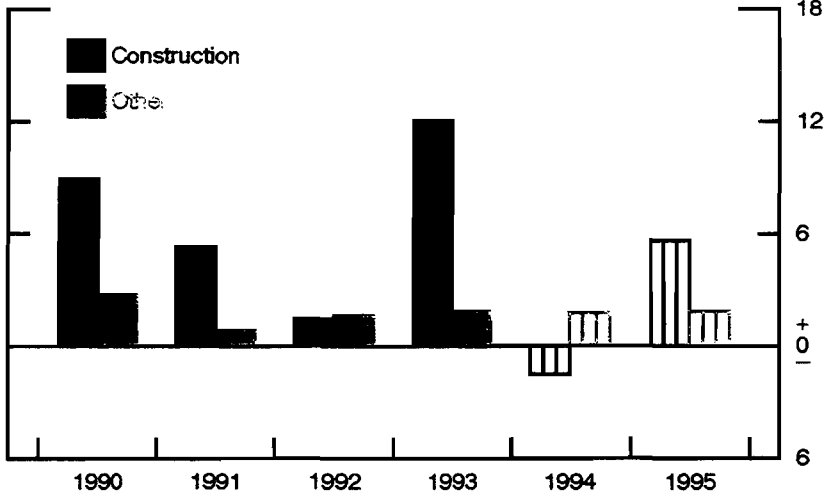
TOTAL FEDERAL PURCHASES

Percent change, Q4 to Q4

1990	2.8
1991	-3.7
1992	.5
1993	-6.6
1994	-3.4
1995	-3.2

REAL STATE AND LOCAL PURCHASES

Percent change, Q4 to Q4



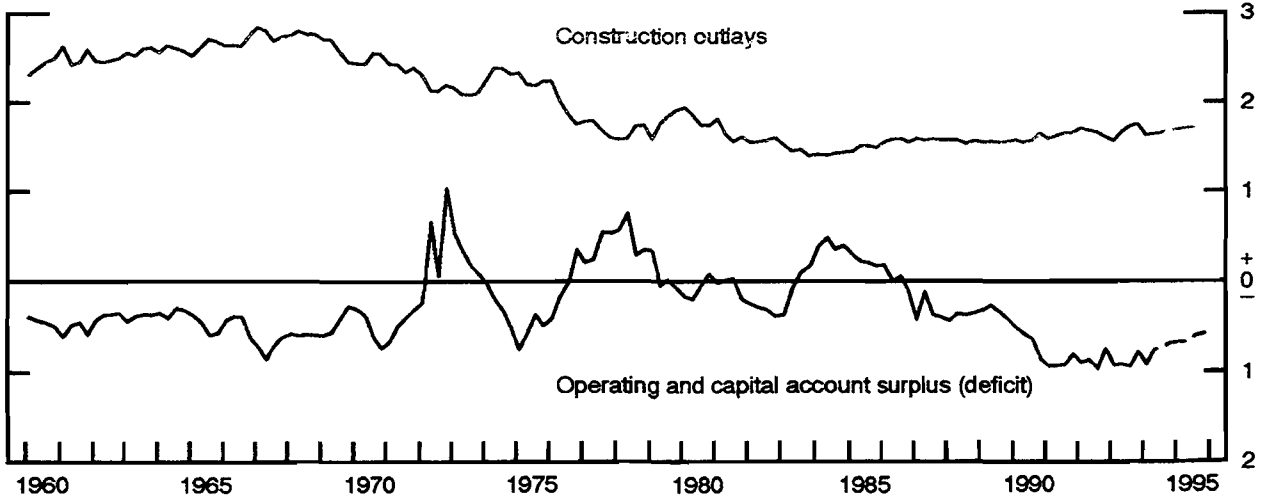
TOTAL STATE AND LOCAL PURCHASES

Percent change, Q4 to Q4

1990	3.6
1991	1.5
1992	1.6
1993	3.4
1994	1.3
1995	2.4

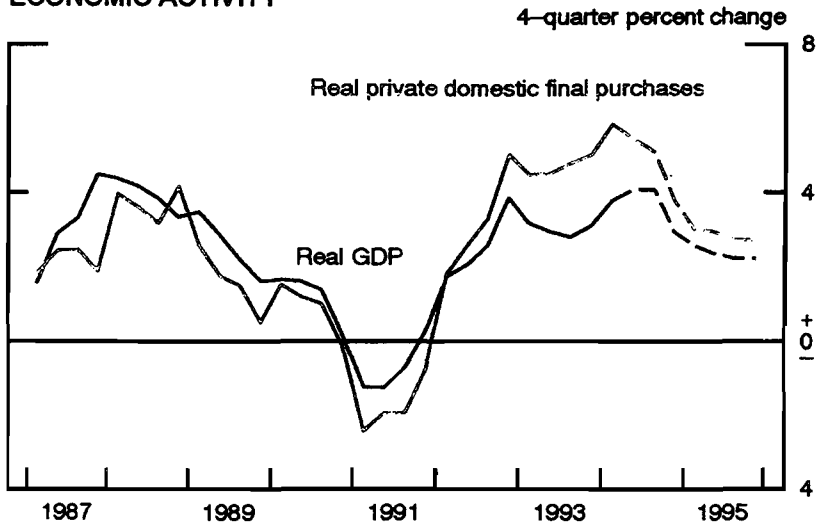
STATE AND LOCAL BUDGET BALANCE

Percent of nominal GDP



## Forecast Summary

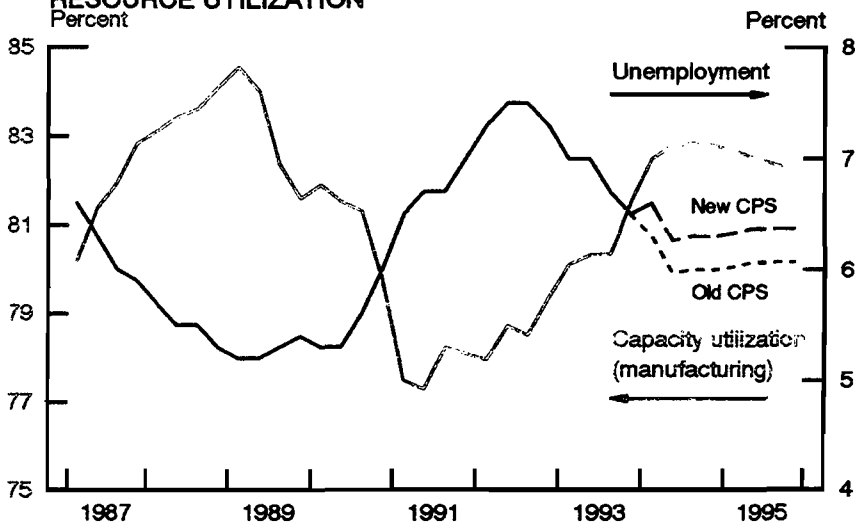
### ECONOMIC ACTIVITY



### OUTPUT AND SPENDING

Percent change, Q4 to Q4		
	GDP	PDFP
1990	.2	-.1
1991	.3	-.7
1992	3.9	5.0
1993	3.1	5.0
1994	3.0	4.0
1995	2.2	2.7

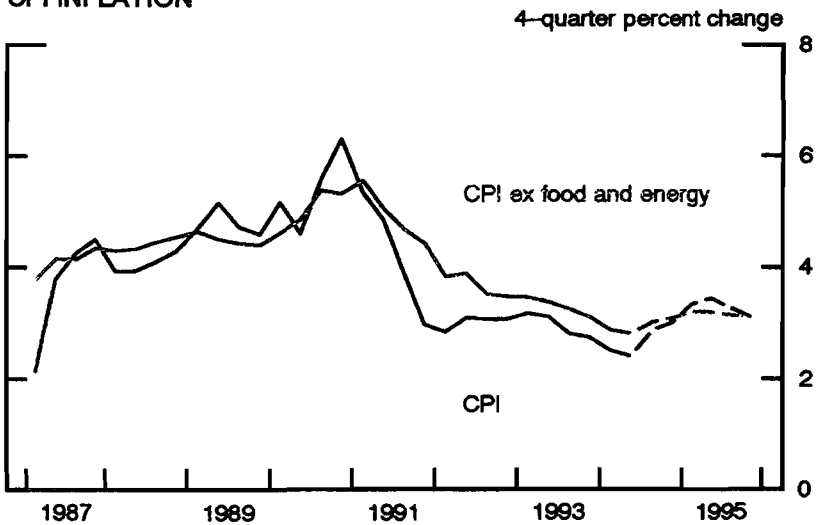
### RESOURCE UTILIZATION



### UTILIZATION

Q4 average		
	Unemp	CU
1990	6.0	79.8
1991	7.0	78.1
1992	7.3	79.4
1993	6.5	81.5
1994	6.3	82.8
1995	6.4	82.2

### CPI INFLATION



### INFLATION

Percent change, Q4 to Q4		
	CPI	Ex food & energy
1990	6.3	5.3
1991	3.0	4.4
1992	3.1	3.5
1993	2.7	3.1
1994	3.0	3.1
1995	3.1	3.1

**ECONOMIC PROJECTIONS FOR 1994**

	FOMC		
	Range	Central Tendency	Staff
	—————Percent change, Q4 to Q4—————		
Nominal GDP	5 to 6 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub> to 6	5.5
previous estimate	4 <sup>3</sup> / <sub>4</sub> to 7 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub> to 6	5.4
Real GDP	2 <sup>3</sup> / <sub>4</sub> to 3 <sup>1</sup> / <sub>2</sub>	3 to 3 <sup>1</sup> / <sub>4</sub>	3.0
previous estimate	2 <sup>1</sup> / <sub>2</sub> to 3 <sup>3</sup> / <sub>4</sub>	3 to 3 <sup>1</sup> / <sub>4</sub>	3.0
CPI	2 <sup>1</sup> / <sub>2</sub> to 3 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub> to 3	3.0
previous estimate	2 <sup>1</sup> / <sub>4</sub> to 4	About 3	3.3
	—————Average level, Q4, percent—————		
Unemployment rate	6 to 6 <sup>1</sup> / <sub>4</sub>	6 to 6 <sup>1</sup> / <sub>4</sub>	6.3
previous estimate	6 <sup>1</sup> / <sub>2</sub> to 6 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub> to 6 <sup>3</sup> / <sub>4</sub>	6.8

**ECONOMIC PROJECTIONS FOR 1995**

	FOMC		
	Range	Central Tendency	Staff
	—————Percent change, Q4 to Q4—————		
Nominal GDP	4 <sup>1</sup> / <sub>2</sub> to 6 <sup>1</sup> / <sub>4</sub>	5 to 5 <sup>1</sup> / <sub>2</sub>	4.6
Real GDP	2 <sup>1</sup> / <sub>4</sub> to 3	2 <sup>1</sup> / <sub>2</sub> to 2 <sup>3</sup> / <sub>4</sub>	2.2
CPI	2 to 4 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub> to 3 <sup>1</sup> / <sub>2</sub>	3.1
	—————Average level, Q4, percent—————		
Unemployment rate	5 <sup>3</sup> / <sub>4</sub> to 6 <sup>1</sup> / <sub>2</sub>	6 to 6 <sup>1</sup> / <sub>4</sub>	6.4

NOTE: Central tendencies constructed by dropping top and bottom three from distribution, and rounding to nearest quarter percent.

July 6, 1994

Long-run Ranges  
Donald L. Kohn

As background for consideration of longer-term policy issues, including the choice of money ranges, the bluebook provided some 5-year paths for the economy under a variety of assumptions about monetary policy actions and about the characteristics of the economy. I'd like to highlight a few aspects of these results related importantly to one question addressed by Mike--that is, where the economy is relative to its potential.

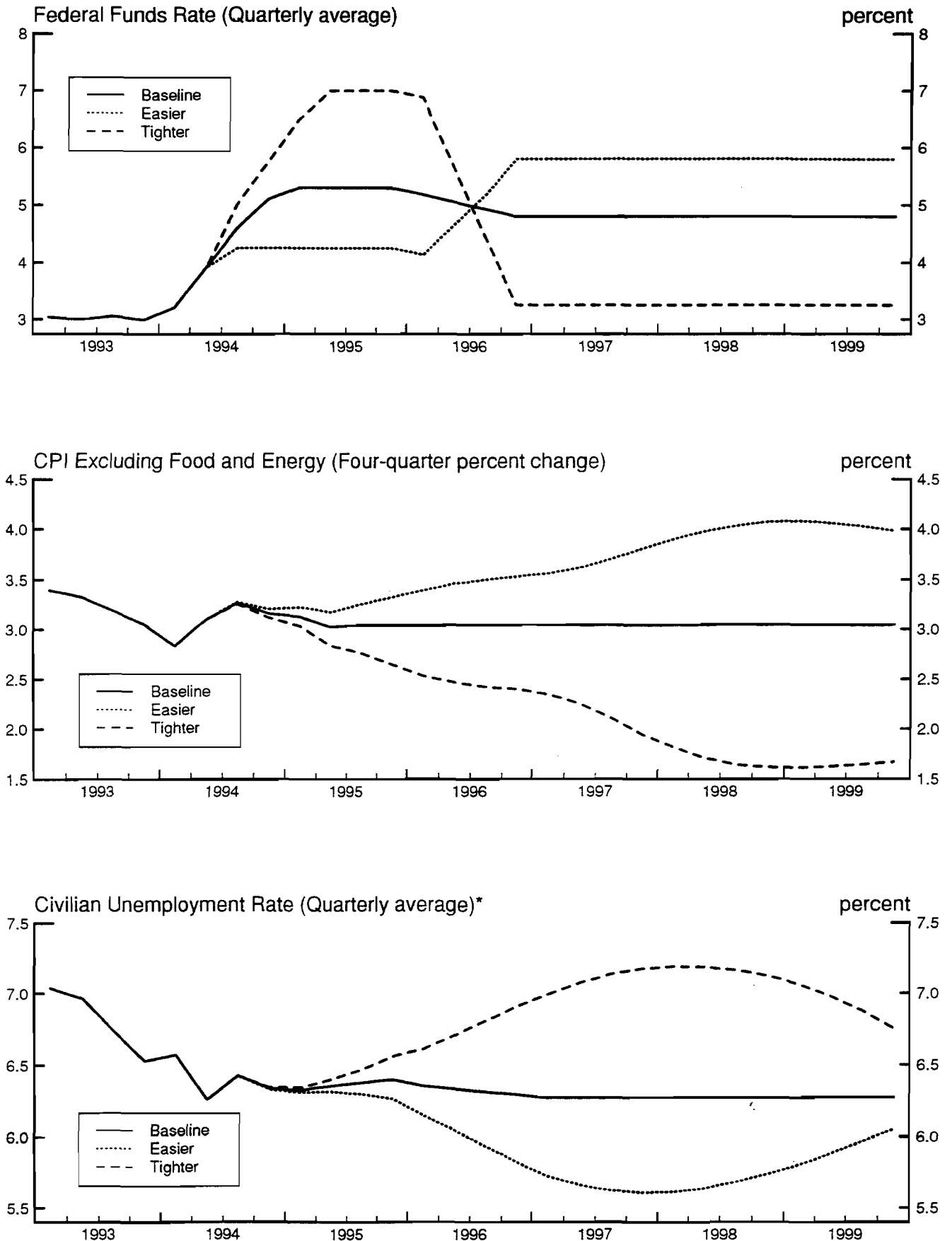
In contrast to bluebooks over recent years, the alternative policy scenarios included only a tighter alternative to a baseline embodying the greenbook forecast and a judgmental extension. These are shown in the chart distributed this morning. The greenbook/baseline just holds the line on inflation, and we assumed a high level of intolerance by the FOMC to allowing inflation to strengthen appreciably from its recent pace. If the staff is right in its assessment of the Committee's objectives and the economy's potential, there is no acceptable easier scenario, since any decline in unemployment would bring about accelerating prices.

After yesterday's discussion, I did rescue an easier scenario from the electronic trash bin to look at the effects of holding the funds rates unchanged through 1995. The results are also plotted in the chart. Owing to the sluggish adjustment of long-term to short-term interest rates and of spending to long-term rates, differences in output and inflation are only beginning to be perceptible at the end of 1995. But an inflationary process is underway. The effects of low real interest rates on demand are felt even more strongly in 1996, pushing the unemployment rate further below its natural rate, causing



Chart 1

## ALTERNATIVE STRATEGIES FOR MONETARY POLICY



\*Baseline reflects interest rate Greenbook as of 6/27/94. Data points are plotted in the midpoint of each period  
 The unemployment rate is shown on the 1994-survey basis. Observations in 1993 were level-adjusted up 0.3 percentage points.

prices to accelerate more noticeably in 1996 and thereafter. In the simulation, we tightened policy in 1996 to bring the unemployment rate back toward the natural rate and truncate the rise in inflation.

A second set of simulations, given on chart 3 following page 11 of the Bluebook, looks at the implications of different views of the economy's potential--specifically that the NAIRU is a half-point higher or lower than the staff estimate. Uncertainties about the supply side of the economy can pose difficulties for the implementation of monetary policy.

For one, the evidence on NAIRUs is mostly indirect, inferred primarily from the behavior of compensation and prices, and because of lags and rigidities, deviations of these measures from expectations based on an incorrect estimate of the NAIRU develop only slowly. In our simulations, we postulated that the FOMC would recognize and begin responding to differences between the true NAIRU and the staff estimate once four-quarter CPI growth deviated by .3 from the baseline, but this did not occur until the later part of 1995. This lag has costs in terms either of foregone output if the NAIRU is lower or of more inflation for some time if it is higher.

Moreover, required adjustments in short-term nominal rates to different underlying NAIRUs can be substantial--and considerably greater than simply taking account of the effects of varying inflation premiums. Real interest rates themselves must be altered to bring output into line with a different level of potential; for example, a lower NAIRU means higher potential output, which requires lower real rates to attain. The problems caused by recognition lags suggest the value of close attention to trends in price and cost data for clues about the supply side of the economy, and perhaps also the

desirability of being ready to adjust policy instruments flexibly, taking risks from time to time, but being willing to reverse course.

The different scenarios do not map readily into money growth paths, but the choice of intermediate-term ranges can convey some information about monetary policy intentions. For 1994, the staff is projecting expansion at the lower bound of the current M2 and M3 ranges, as can be seen on page 13. Unlike the last few years, the sluggish expansion of M2 and rise in its velocity in 1994 are primarily a consequence of the increase in opportunity costs associated with tighter monetary policy, and less so of a further shift in money demand. Diversion of savings from M2 into longer-term mutual funds appears to have slowed substantially; indeed, reflows from bond funds into money market funds temporarily boosted M2 this Spring. Looking ahead, we are projecting continued flows into long-term mutual funds, but at a much reduced pace from 1992 and 1993. Households are assumed to have a greater appreciation of the risks involved in these investments, and incentives to shift funds will diminish as deposit rates rise while long-term rates are stable or move lower in the staff forecast. This leaves the traditional short-run opportunity cost and income variables as the primary influences on money growth. The actual and projected further rise in short-term interest rates and opportunity costs assumed in the staff forecast subtracts 3 to 4 percentage points from projected M2 growth in 1994. The higher opportunity costs of 1994 also damp M2 relative to spending next year, but by less. Hence, we see M2 growth picking up a little--to 2 percent--over 1995.

In the staff forecast, debt is projected to grow about in line with nominal income over the next 18 months--at about a 5 percent pace. The depository share of lending is picking up in the wake of

the increase in bond rates and with the recovery of what remains of the thrift industry. Nonetheless, M3 remains quite damped, showing no increase this year and only a small rise next. The rise in interest rates plays only a small role in the forecast of M3; rather, we see depositories as continuing to rely on non-M3 sources of funds, including additions to their capital base, and meeting increased loan demand in part by limiting acquisitions of securities, which have been unusually large through the years of weak loan growth.

Against this background, the staff has suggested two alternative sets of ranges for this year and next--the current ranges and ranges that are one percentage point lower, as shown for 1994 on page 17. In contrast to recent years, the choice between these ranges would seem to be more than simply a technical matter to take account of unexpected downward shifts in money demand, but rather could have some potential implications about the message the Committee might want to communicate about its policy objectives and plans. The lower ranges of alternative II might be chosen if the Committee wanted to emphasize its determination to contain inflation and felt that doing so might well require higher interest rates over the balance of the year, as in the staff forecast. Although the staff has projected the Ms along the lower bound of their current ranges, reduced ranges for this year might provide a better guide to expectations about the money growth likely to be consistent with such a policy. The lower ranges might be considered even more appropriate if the Committee were determined to continue making progress toward price stability.

If the Committee sees further rate increases as less likely, the odds on undershooting the existing money ranges are somewhat smaller. We estimate that the further rise in rates this year subtracts maybe one-half percentage point from M2 growth, given Greenbook

GDP. Alternatively, in an era of uncertainty about the behavior of money demand over the short and intermediate runs, the Committee might view the current ranges as less a guide to current policy than a long-run benchmark for money growth consistent with price stability and normal velocity behavior. This was not the intent of the Humphrey-Hawkins Act, but the Committee may feel that questions about the stability of money demand mean that providing such a benchmark is the best guidance it can give the public. If velocity went back to varying around a constant long-run level, M2 growth in its 1 to 5 percent range would support nominal GDP of around 3 percent over time--in line with price stability and trend growth in potential. An undershoot of the current ranges perhaps could be explained by residual shifts in money demand, and in any case, the lower M2 growth is expected to be consistent with growth in nominal GDP this year close to 5-1/2 percent, implying another large increase in velocity.

Whatever its decision on money ranges, the Committee might wish to give serious consideration to reducing the debt range. The current debt range seems high if debt growth remains roughly in line with nominal GDP. Containing inflation, much less making progress toward price stability, would require nominal GDP running below 6 percent--the midpoint of the current range. Debt is now in the lower half of the range, and the Committee could reduce this range to underline its concern about the implications for inflation and for financial stability if borrowing were to accelerate appreciably.

As for 1995, the bluebook suggested that, given uncertainties about the interest rates consistent with desired nominal spending and about money demand for given interest rates and spending, the Committee might wish to simply carry over whatever ranges it settled on for 1994 into 1995. The Committee might consider two variations on this

theme. If it reduces the 1994 ranges, it might want to stick with the higher money ranges for 1995 on the basis of the benchmark argument. Second, even if the Committee chose to leave all the ranges unchanged for 1994, it might consider lowering just the debt range for 1995 for the reasons just given.

Finally, as you were informed last Friday, Chairman Riegle has requested that economic projections of the Committee for 1996 be included in the Humphrey-Hawkins material. The FOMC ruled out providing the Congress with 1995 projections last February. At that time, some FOMC members noted that the projections for 1995 did not seem to match the Committee's stated objectives, especially with regard to reducing inflation. Presumably, the Banking Committee is interested in what emphasis you are putting on that objective; they also seem to be trying to get your sense of the level and growth of economic potential, which they see as important influences on policy decisions. The central tendencies of the projections you turned in this time for 1996 closely resemble your outlook for 1995--real growth around trend and unemployment at recent levels, with CPI inflation at or just over 3 percent.

The information provided could be useful to Congress and the public in gauging the objectives and strategy of the FOMC. The risk is that it would be misunderstood--that the FOMC would be seen as having targets for variables not under its control over the longer run, such as the sustainable level of economic growth and unemployment. And, Congress could be tempted to hold the FOMC more accountable for misses in these variables than in inflation projections. The situation would be especially difficult in the case of an adverse supply shock or should the NAIRU turn out on the high side of current projections, particularly if the FOMC took timely action so that

misses in inflation seemed smaller or were slower to develop than deviations from forecasts of output or unemployment.

The Committee would seem to have several options. One would be not to provide projections and explain the concerns that led the FOMC to reject the request. A second would be not to provide specific projections but to have the Chairman in his testimony discuss some of the important factors bearing on trends in growth, prices and unemployment, stressing uncertainties and the role of monetary policy. This alternative could include some broad quantitative notion of longer-term trends; CEA and CBO for example, do give longer-run projections as requested, though these agencies tend not to be held quite so accountable for outcomes. A third would be to provide specific projections, but explain carefully associated uncertainties and the circumstances in which the projections would not and should not be met.

July 6, 1994

Short-run Policy  
Donald L. Kohn

Judging from the May press release, and from the logic of the Committee's strategy, policy implementation would seem to be entering a new phase. In earlier months this year the Committee knew that short-term real rates needed to be adjusted appreciably higher--at least to something more in line with historical experience for noninflationary growth. Policy might now be seen as back in its more usual mode in which the federal funds rate is not so obviously greatly out of kilter, and actions are more dependent on assessing incoming financial and economic data for clues about future developments in aggregate demand and prices.

The issue at present is whether aggregate demand will slow sufficiently to keep inflation in line with Committee intentions without additional restraint in the reserves market. Some further tightening over coming months is widely anticipated. In that regard, the Greenbook forecast has already been extensively discussed. In the financial markets, yield curves are still steeply upward sloped; they appear to incorporate a substantial further increase in short-term rates over the next six months, roughly approximating the firming assumed in the staff forecast. Moreover, in contrast to the staff forecast, futures and forward rates suggest expectations of appreciable additional tightening over 1995 as well. Private forecasters, as captured by the Blue Chip averages or yesterday's Wall Street Journal, foresee a much gentler upward trajectory for short-term rates, but in those projections such an increase is not sufficient to damp inflation, which accelerates in 1995.



In light of the ambiguity in the second-quarter economic data and questions about the effects of earlier rate increases, however, the Committee today may want to choose Alternative B to await a better sense of how the economy and prices are developing. The recent behavior of financial flows also could be seen as supporting a "wait and see" policy. Broad money aggregates fell over May and June, and growth in M1 was modest. Bank credit has slowed substantially over the past two months, and total and nonfederal debt are estimated to be remaining on their moderate growth paths. Debt is a contemporaneous indicator of spending, and money weakness can be explained by the Committee's previous actions. Still, these data do not seem to suggest an unanticipated surge in borrowing and spending. If domestic demand is indeed decelerating rapidly, and the economy has not already overshot its potential, the decline in the dollar over recent weeks should not be a serious inflationary threat, and any uptick in inflation expectations should be self-correcting.

Nonetheless, if the Committee saw the economy quite likely near potential, and inflation expectations in financial markets very tender, it may wish to consider an asymmetrical directive under alternative B. Such a directive would imply a prompt reaction should incoming data indicate growth persisting well in excess of the growth of potential or indicate developing inflation pressures. There are a number of key indicators coming soon, including the employment report this Friday and the usual monthly reports on prices and spending in the ensuing weeks. Data showing the economy not slowing to a more sustainable pace, or the unemployment rate dropping further, might indicate that the federal funds rate is not yet high enough to bring the economy in at potential. To be sure, the effects of previous increases in short- and long-term rates have not yet worked through to

aggregate demand, but additional firming might still be called for if the Committee wanted to err on the side of avoiding situations in which inflation could accelerate. Strong data without System action could risk a deterioration in bond and foreign exchange markets, especially if, against the background of May's press release, participants interpreted the lack of response as indicating that the Federal Reserve would be sluggish in reacting to evidence of the need for further tightening.

If, however, the risks were already seen to be unacceptably high that inflation would begin to accelerate, the Committee could choose to tighten at this meeting, perhaps by the 25 basis points of Alternative C. Arguments in favor of immediate action might include the recent behavior of financial and commodity markets, which could be seen as suggesting that inflation expectations had already begun to erode; especially with output close to potential, higher inflation expectations could have persistent effects on actual inflation. A tightening would be a bit of a surprise to markets, and could have a salutary effect on inflation expectations. Its effects on longer-term real rates are more difficult to pinpoint; there is a risk that markets would simply elevate the expected trajectory of tightening. But further firming is already built into the structure of rates, and the experience of 1988 might suggest that a string of timely firming moves need not ratchet long-term rates higher. Presumably any such action would be taken in a broader context of domestic inflation and growth, with the dollar only one consideration bearing on that broader outlook. As Peter noted yesterday, market participants have expressed concerns that a 25 basis point increase could be counterproductive for the dollar if it were seen as aimed only at propping up the currency. Such a firming might be insufficient to turn around sour market

psychology, but would represent one piece of ammunition already expended and unavailable for later use. Clearly, the market context of any action would have to be weighed carefully. But if the Committee felt action was needed, it would have to consider whether it wanted to allow the dollar to deter such action, especially in light of the difficulty of predicting market dynamics.

Finally, if the FOMC were to decide to leave the federal funds rate unchanged at this meeting, it would have to consider what, if anything, to announce. One possibility would be to announce explicitly that the Committee had decided to leave reserve conditions unchanged. The difficulty with this option is that it might be read as implying no change for a considerable period, and possible actions in the weeks immediately after the meeting might be constrained by concerns about having misled markets. An alternative would be to simply announce that the meeting was over, perhaps supplemented by the fact that there would be no policy announcement. The difference is subtle, but may keep some options open, especially at those times the Committee is strongly asymmetrical in its leanings.