

APPENDIX

Notes for FOMC Meeting
held on February 10, 1987

Sam Y. Cross

The dollar declined in a series of abrupt bursts since your last meeting. These sharp downward movements, followed by periods of relative stability, were closely associated with market perceptions of a wavering commitment by the U.S. Administration over the need to take action to stem the dollar's fall. Although U.S. policy intentions were at times unclear, many market participants assumed that the United States was willing to accept or even encourage a decline in dollar exchange rates as the most politically palatable means of resisting protectionist sentiments and putting pressure on other countries to stimulate their economies. On balance the dollar declined more than 10 percent against the German mark and nearly 7 percent against the yen during the intermeeting period. But there were times when the dollar decline was greater, and when market participants were questioning what there was in the picture to stop it.

In early January, signs of a weakening U.S. economy and the announcement of a huge November trade deficit focused market attention on trade issues and called into question whether the October Baker-Miyazawa agreement remained operative. At the same time, the Japanese monetary authorities were overplaying the role of intervention in that accord, and was not surprised to see the Japanese drawn into intervening so heavily in the foreign exchange market that their intervention

was yielding diminishing returns.

disappointed by the lack of expansionary fiscal policy actions in the Japanese budget for the fiscal year beginning in April. As a result the commentary coming out of Tokyo pointing to the adverse effects of a renewed decline of the dollar against the yen had little echo in the commentary coming out of Washington.

Consequently, Japanese investors in dollar denominated securities became all the more concerned that action would not be forthcoming to keep the yen from appreciating. A number of them rushed to cover their currency exposures, thereby adding to the immediate exchange market pressures.

In Europe, as the mark strengthened against the dollar in early January, pressures built up within the European monetary system (EMS) and all of the partner central banks intervened heavily to support the EMS parities. The Bundesbank was also seen purchasing dollars in modest amounts, but most market participants interpreted this intervention as aimed simply at preserving the EMS exchange rate parities until after the German elections. Few in the market expected the Bundesbank to support the dollar once the EMS was realigned. In the event, an EMS realignment occurred over the January 10 weekend. On January 14, with the market sensing that the dollar was more vulnerable after the realignment, news reports stating that the Administration wanted a lower dollar triggered heavy dollar selling. The dollar fell by more than 3 percent in a matter of hours to trade as low

as DM 1.82 against the German mark and yen 151.60 against the Japanese yen.

Dollar exchange rates moved down sharply on three other occasions after mid-January, as market participants interpreted various press statements attributed to Administration officials as indicating a lack of concern about the possible ramifications of a continuing fall in the dollar. On January 19, the yen/dollar rate declined after a U.S. news magazine reported that the U.S. Treasury saw lower dollar exchange rates as appropriate. On January 22, market participants expressed disappointment that a new Baker-Miyazawa consultation on exchange rate matters the pervious day did not lead to any specific announcements of steps to stabilize the dollar. The dollar also succumbed to heavy selling pressures on the morning of January 28, moving down sharply in Asian and early European trading, as the market interpreted the lack of any reference to the dollar in the State of the Union message as tacit approval of a declining dollar.

The Foreign Exchange Trading Desk had been prepared to intervene in yen on a modest scale on the days immediately following the Baker-Miyazawa consultation if the dollar moved close to the Y 150 level. With the dollar moving down decisively towards that level on the morning after the State of the Union message, the Desk purchased \$50 million against the sale of yen in an operation coordinated with the Japanese monetary authorities. The U.S. operation was financed equally from Federal Reserve and Treasury balances.

Subsequently, renewed reports of preparations for a G-5 meeting and market talk of the U.S. intervention helped lift the dollar to recover from its lows. Market participants also interpreted the U.S. intervention as a sign that the Administration could be concerned enough to take further action if the dollar's decline became too rapid. Moreover, dollar exchange rates gained some underlying support from the announcement at the end of January of a reduction in the U.S. trade deficit and a continued flow of relatively good statistics on U.S. business activity during the past two weeks.

The market remains nervous. It is preoccupied with talk of a G-5 meeting and with the question of whether a way will be found to fit together the policy actions of the United States and our major trading partners so as to diminish the global economic imbalances. Market participants note that Secretary Baker's comments on economic policy moves in Germany and Japan now appear to be less confrontational, and he was reported last week to be in agreement with Chairman Volcker on the dangers of a too rapid decline in the dollar. Also, the Administration is reported to be relieved that the trade bills recently presented to Congress seem to be less extreme than those talked of last year. At the same time the Secretary's comments on Monday suggested that not enough progress had been made on the policy issues to warrant a meeting of high level economic policy officials, and that caused another abrupt decline in the dollar.

During the intermeeting period, the FOMC subcommittee on foreign exchange, consisting of the Chairman, Vice Chairman Corrigan and Governor Johnson, conferred to review the daily foreign exchange operations limits. The current limits on foreign exchange operations for a single day, as well as since the previous FOMC meeting, were reviewed and deemed appropriate.

Peter D. Sternlight
Notes for FOMC Meeting
February 10-11, 1987

The period since the last meeting of the Committee has been marked by unusual money market pressures and reserve demands. These pressures were noticeable in early December, reached a sharp crescendo in the days surrounding year-end and then largely subsided though with some milder outbreaks that have extended well into the new year. The major underlying force was a huge demand for credit in the final weeks and days of the year, much of it apparently related to an urgent push to consummate various financial transactions before new tax laws took effect. Deposit growth, especially demand deposits, surged hand-in-hand with bank credit expansion creating insistent demands for reserves. The very pace of newly rising demands entailed a volume of activity and uncertainty that also boosted demands for excess reserves to record levels. After the turn of the year, a big chunk of the demand deposit expansion reversed, although bank credit expansion has been considerably slower to unwind, and even the abatement in deposit growth has left narrow money measures showing very substantial growth. Thus M1 was up at more than a 20 percent annual clip for December and January combined, using the new benchmark and seasonal revisions. The broader monetary aggregates grew at about a 9 to 9-1/2 percent rate in those two months moderately ahead of the Committee's preferred 7 percent pace as M1's surge was tempered by more modest growth in

nontransaction components.

Through this period, the Desk was aiming, as instructed, for approximately unchanged reserve pressures, as were expected to be associated with the \$300 million level of adjustment and seasonal borrowing used in constructing the nonborrowed reserve path. In effect, the normal procedures for holding conditions unchanged--including what by past standards were reasonably flexible approaches to accommodating enlarged demands for required and excess reserves--were overwhelmed by events. In the course of the December 31 reserve period, day-to-day upward revisions to required reserves raised the reserve path by an unprecedented \$1.7 billion, much of it late in the period, while excess reserves bulged to over \$2 billion--far ahead of the already enlarged \$1.4 billion allowance. As it turned out, not all of that \$2 billion excess was really "wanted." By the tail end of that reserve period, we had pretty much discarded the usual guidelines and provided reserves based essentially on "gut feeling," with the result that the final day's provision on December 31 was overdone and Federal funds traded all the way down to zero after touching as high as 38 percent that morning.

By some standards, one could regard the emergence of substantial year-end reserve pressure as a fault to be corrected, although another view would hold that the emergence of significant frictions and pressures in the face of such an upsurge in demand was not entirely inappropriate.

Some moderate reserve pressure, foreshadowing the year-end,

was showing through even in the first half of December, when funds averaged about 6-1/8 percent even though borrowing was fairly light at about \$200 million. In the December 31 period, replete with year-end distortions that saw substantial funds trading in the high teens, 20's or 30's, funds averaged 7-3/4 percent and borrowing bulged to about \$900 million--with excess reserves, as noted, pushing above \$2 billion. Pressure gradually subsided in early January, producing about a 6.80 percent funds rate in the January 14 maintenance period, or more like 6-1/4 if one excludes January 1st, while borrowing fell back to just under \$300 million. The average funds rate fell further to 6.07 percent in the January 28 period but borrowing rebounded to some \$460 million, partly because excess reserve demands again pushed above the amount allowed for. As the current reserve period began in late January, funds were in fairly strong demand again, often in the 6-1/8-1/4 area. This may have reflected the impact of high Treasury balances at the Fed. When those balances fell back in early February, funds returned to around 6 percent and briefly a bit under, but the last couple of days have seen renewed pressure with funds back to about 6-1/4 percent--for reasons that are not yet too clear. Meantime, borrowing in the current period has been light, averaging about \$165 million through yesterday.

There is a real question as to whether funds will tend to return, in time, to the 5-7/8 percent area that seemed to be associated with a \$300 million borrowing level prior to the onset

of year-end pressures. In fact, one has to go back to last October to find a full reserve period average funds rate as low as 5-7/8 percent. My own expectation for funds, with \$300 million of borrowing, would tend to center now on 6 percent rather than something a bit under. One possible reason for a slight shift is the light level of seasonal borrowing--around \$35 million in January and a still moderate \$50-60 million in the current reserve period as compared with \$100 million or so a few months ago. Also, the same factors that produce light seasonal borrowing now may be giving rise to light borrowing needs by smaller banks, leaving a bit more of the "borrowing gap" to be filled by the larger banks that are perhaps husbanding their use of the window more carefully.

As would be expected, given the sometimes turbulent reserve picture, the Desk was quite active during the intermeeting period. The basic contour was one of very large reserve needs through early January and then an over-abundance of reserves as market factors--notably currency and required reserves--reversed course. As had also occurred a year earlier, high Treasury balances in the latter part of January altered the normal timing, tending to delay the typical early-in-the-year excesses until early February. From the start of the period until nearly the middle of January, the System continued to buy bills from foreign accounts, taking a total of nearly \$2 billion. By January 28, the System began selling bills and in a few cases short-term notes to foreign accounts, in amounts that cumulated to about

\$2.2 billion. In addition, the System ran off \$800 million of bills and \$110 million of agency issues, and sold about \$1.5 billion of bills in a market go-around. Outright holdings thus declined a net of about \$2.7 billion on a commitment basis. Substantial use was made of repurchase agreements throughout the period, especially in the days surrounding year-end. Total repurchase agreements, including System and customer related transactions, exceeded \$100 billion for the period. On December 31 alone, the Desk arranged over \$9 billion of two-day repurchase agreements, and given the large amount already on the books from previous multi-day agreements, the total outstanding at year-end was a record \$16 billion.

Notwithstanding the sharp reserve pressures of the intermeeting period, net interest rate changes over the full period were moderate. To be sure, very short-term rates climbed sharply around year-end, particularly as they were affected by high financing charges. Quoted rates on items such as one month commercial paper or CDs shot up in thin markets, by as much as a couple of percentage points, but they dropped back quickly, too. By the end of the period, rates on private short-term instruments were little changed from those at the start of the period.

Treasury bill rates rose moderately over the period, especially in the last few days, climbing about 20-30 basis points for key bills over the full interval. The rise, which occurred despite about \$4 billion of net paydowns by the Treasury, seemed to reflect higher financing costs, as well as

the fact that bill rates in December had been held down to some degree by year-end window dressing demand. Bills showed little of the year-end rate bulge exhibited by other short-term instruments. In yesterday's regular auctions, the Treasury's 3- and 6-month issues were sold at about 5.72 and 5.69 percent. This compared with 5.55 and 5.58 percent just before the last meeting. At mid-day today, the new three and six-month issues were trading around 5.80 percent in some further reaction to firm money rates.

In the Treasury coupon market, there were various crosscurrents that left yields modestly higher on balance--about 5-15 basis points for key issues. Working toward higher yields were the firming of oil prices, the mainly positive numbers on the economy, the weakness in the dollar, which gave rise to doubts about the strength of foreign interest in the Treasury's mid-quarter financing and to questions about inflation prospects, and most recently the renewed firmness in money rates. On the other side, broad price measures remained subdued, and the reported fourth quarter GNP estimate suggested continued sluggishness in the economy. Periodic partial rebounds of the dollar, notably after the preliminary December trade figures were reported, and in response to recurrent speculation about a G-5 meeting, and actual or anticipated actions by foreign authorities to bolster their economies, also helped the market at times. Another favorable factor was the sense that Treasury cash demands have been less than anticipated in recent months. Net Treasury

demand on the coupon market came to about \$28 billion over the period, including \$15 billion in the quarterly financing that settles next Tuesday. Foreign demand, notably from Japanese firms, turned out to be pretty strong in that financing, but much of the issue still apparently remains in dealer hands and is contributing to some heaviness in the market yesterday and today. The new issues are currently quoted at discounts yielding about 5-10 basis points also.

As for the current market view of policy and interest rate prospects, that, too, is marked by crosscurrents. The predominant view of two months ago, looking for more Fed accommodation in the next few months against the background of weak economic expansion, still has adherents but their ranks have dwindled. Increasingly, observers are questioning the need for, or likelihood of, greater accommodation. Some even see rates rising in the months ahead. Specifically on the Fed funds rate, all through the December and post year-end period many market analysts spoke confidently about funds returning to around 5-7/8 percent once technical pressures had passed. Some still cling to this view, having extended their timetable for seasonal pressures. More participants now seem reconciled to a range centered on about 6 percent, and some are wondering if rates a bit above 6 should not be expected routinely.

James L. Kichline
February 10, 1987

FOMC CHART SHOW -- INTRODUCTION

During our presentation this afternoon we will be referring to the package of charts distributed to you. The first chart displays the principal assumptions that underlie the staff's economic and financial projections, which for this meeting of the Committee we have updated and extended through 1988. For monetary policy, M2 is assumed to grow at around the middle of its tentative long-run range for 1987, i.e., about 7 percent, and a little slower in 1988. In the context of our overall projection, it is thought that both short- and long-term interest rates are likely to be little changed from current levels through the summer but drift a bit higher late this year and in 1988.

The fiscal policy assumptions entail further deficit-reducing actions amounting to about \$25 billion. Other assumptions involve the foreign exchange value of the dollar, which depreciates further from current levels, and the price of oil which is assumed to average around \$17 per barrel over the projection period.

The second chart provides additional information on the federal budget. In FY 1987, both the staff and Administration figures point to a sizable reduction in the

deficit compared with the record set in the previous year. The deficit is projected to decline further next year, although the staff estimate is well above the Administration's \$108 billion deficit that was fashioned to meet the Gramm-Rudman-Hollings target--a target that in practice is not a binding constraint.

The Administration's budget contains more deficit-reducing actions than we believe will occur. As the middle panel indicates, the \$25 billion of actions in the staff figures are less than in the Administration's budget, but roughly comparable to the actions taken in FY 1987. These data do not include the effects of tax reform, which it is believed will add about \$12 billion to receipts in the current fiscal year and lose a few billion in fiscal 1988.

Even when one strips out the asset sales, the federal budget this year has been set on a course of restraint and we assume that will continue next year. As shown in the bottom panel, the ratio of the high employment deficit to potential GNP reached its high last year and should decline moderately over the projection period.

The next chart presents some indicators of recent economic activity. Nonfarm payroll employment, the top left panel, expanded at a healthy rate during the second half of last year with manufacturing employment improving in the fourth quarter. The January rise in employment was outsized

and to an extent reflects seasonal adjustment problems; however, a generous allowance for such difficulties still leaves a good start for the quarter. Aggregate hours worked rose appreciably and it appears that industrial production--the right panel--rose about 1/2 percent in January, extending the gains registered last quarter.

In the automobile market--left middle panel--domestic auto sales through November bounced around in response to the on-again off-again sales incentive programs. Sales during December were boosted by tax related purchases and then fell in January to less than 6 million units at an annual rate. The right middle panel displays real consumption excluding autos; such spending slowed during the second half of last year at a time of strong auto sales on average and declines in real disposable income. Information for January is not yet available. Housing market activity, bottom left panel, accelerated late in 1986. Total home sales shot up in December, partly reflecting tax reform factors, and starts rose after declining fairly steadily since the spring. Business equipment spending generally has been lackluster in recent quarters. The bottom right panel shows that new orders for nondefense capital goods have picked up over the past several months, although this has reflected increases in the aircraft sector where lead times are fairly long. On balance, our forecast for the current

quarter indicates real GNP expansion of 2-1/4 percent at an annual rate, although, if we had had the January employment data in time, we would have been inclined to nudge the figure somewhat higher.

The next chart presents the broad aggregates in the staff forecast. Real GNP growth is projected at 2-3/4 percent for this year and next. A considerable portion of that growth is projected to come from the performance of net exports while domestic demands grow less rapidly than in 1986. Prices as measured by the GNP deflator, shown in the middle panel, are projected to rise faster in 1987 and 1988 than last year. The unemployment rate in the forecast moves marginally lower to end at 6-1/2 percent.

Mr. Truman will continue the presentation.

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E.M. Truman
February 10, 1987

FOMC Chart Show -- International Developments

The upper panel in Chart 5 provides a perspective on the U.S. dollar's foreign exchange value over the past 15 years. The red line shows the price-adjusted value of the dollar against the other G-10 currencies--that is adjusted for relative consumer price levels--from 1973 to date. As can be seen, the dollar's movements have been loosely correlated with the differential between U.S. and foreign real long-term interest rates. That differential has been declining since the middle of 1984 and is now negative, where it is expected to remain throughout the forecast period and have a continuing depressing effect on the dollar for some period of time. Meanwhile the dollar has depreciated almost 40 percent in price-adjusted terms against the other G-10 currencies since its peak in the first quarter of 1985. The dollar's depreciation is projected to continue, albeit at a reduced pace, at least through the end of 1988. Against the currencies of eight of our other major competitors in Latin America and Asia, the dollar has appreciated in real terms on average by about 3 percent over the past two years. However, we are assuming that the dollar will depreciate against those currencies by about 2 percent over the forecast period.

The lower panel provides a longer-term perspective on the U.S. current account scaled by U.S. GNP. Although over the past two years the deterioration has slowed somewhat, the current account deficit has persisted substantially outside the historical range. This is the primary reason why we are projecting a further depreciation of the

dollar. The dollar's actual and projected depreciation are expected to begin to reduce the U.S. current account deficit this year; by the end of 1988, the adjustment is expected to amount to a bit more than 1 percent of GNP, which would be a somewhat smaller and less abrupt adjustment than occurred in 1978-79.

Turning to the next chart, progress against inflation both here and in other industrial countries was helped along in the past year or so by declining oil prices and the relative stability of dollar prices of other commodities. However, the depreciation of the dollar has meant that these trends have been magnified in the other industrial countries. Consequently, as is shown in the upper left-hand panel, in 1986 the decline in wholesale prices abroad averaged about twice that in the United States. The red line in the right-hand panel shows that commodity prices, as measured by the Economist index, have continued to decline in foreign currencies even as they have stabilized or turned up slightly in dollar terms.

The lower panel shows the price of U.S. imported oil and, for reference, the spot price of West Texas intermediate crude. Both prices moved up toward the end of 1986. We are projecting that the U.S. import price will drop back by about a dollar to around \$16 dollars a barrel in the second and third quarters of this year as the initial market reaction to OPEC's latest attempt to restrict supply and raise prices dissipates and seasonal tightness in the oil market eases. We believe that OPEC will not be fully successful in pushing the average price of crude above \$18 dollars largely because we anticipate that presumptive OPEC quotas will be exceeded somewhat. However, we are assuming that,

by 1988, rising consumption in industrial countries coupled with no growth in production outside of OPEC will lead to a gradual rise in the U.S. import price, reaching \$17.50 per barrel by the end of the projection period.

As a consequence of these influences, the rate of consumer price inflation in industrial countries--shown in the upper panel of Chart 7--is expected to pick up in 1987. However, because of the dollar's depreciation, the rate of inflation will be substantially lower in the major foreign industrial countries on average than in the United States, reversing the pattern of recent years. Thus, the dollar's projected depreciation in real, or price-adjusted, terms against the currencies of these countries will be less than its depreciation in nominal terms.

Aside from projected trends in competitiveness, a key determinant of the staff's outlook for the U.S. external position is the prospective strength of economic activity in the foreign industrial countries, especially in Japan and Europe. The red bars in the middle panel show that domestic demand is estimated to have accelerated in these countries in 1986, but real GNP decelerated. The difference represents in large part reduced net exports to OPEC, Eastern Europe and the newly industrialized countries of Asia.

During the forecast period, we are projecting a slowing of domestic demand in Japan and Europe, on average, and essentially no change in the growth rate of GNP from that estimated for 1986. This projection relies in part on a pickup in investment demands stimulated by lower interest rates and, in a few countries, by efforts to

reorient their economies. It assumes some further easing of monetary policies and interest rates, at least in Japan and Germany, as their currencies continue to appreciate against the dollar, but it also assumes a continuation of tight fiscal policies--except in the United Kingdom where fiscal policy has been somewhat easier in advance of the election.

The bottom panel presents a comparison of the growth rate of GNP in the United States with that in all foreign countries-- industrialized and developing combined. Over the next two years, growth abroad is expected to be no more rapid than that in the United States, which by itself contributes to a widening of our trade imbalance. Moreover, a comparison with the middle panel shows the pace of economic activity in Japan and Europe is expected to lag behind that in other foreign countries.

Against this background of sluggish growth abroad, most of the projected expansion in the volume of U.S. nonagricultural exports, shown by the red line in the top panel of the next chart, will be propelled by the improved price competitiveness of U.S. products. Indeed, over the four quarters of 1986 the volume of U.S. nonagricultural exports increased by an estimated 13 percent; the increases were widespread across commodity categories, as has been attested to by the informative survey conducted by the Reserve Banks, and the increase in exports to Western Europe was particularly pronounced. We are projecting increases in the volume of nonagricultural exports in the same range--around 15 percent per year--during 1987 and 1988. We also expect the average price of these exports to pick up somewhat under the influence of rising

prices here and abroad and the dollar's depreciation, further boosting the increase in their value.

In contrast, as is shown in the middle panel, we are projecting little further expansion in the volume of our agricultural exports following the bounceback in late 1986 produced by lower U.S. support prices. Although a few commodities such as soybeans and cotton may benefit from special situations, and prices of agricultural exports are expected to pick up a bit on average in 1988, the general worldwide excess supply of agricultural commodities coupled with the level of our support prices should limit the scope to expand the volume of our agricultural exports.

With a declining trend in domestic production of crude oil and a rising trend of consumption, the volume of U.S. oil imports, shown by the red line in the bottom panel, is projected to increase at about a 4 percent annual rate after the first quarter of this year. In the current quarter, however, we are anticipating a further decline following the surge last summer. Meanwhile, given our assumption about oil prices, the value of U.S. oil imports should rise significantly over the forecast period--by about \$13 billion by the fourth quarter of 1988--significantly damping the improvement in our trade balance.

Turning to the outlook for non-oil imports, the top panel of the Chart 9 shows that the prices of these imports have on average advanced at an increasingly rapid pace over the past 18 months. However, as was reported in the Reserve Bank survey, increases have been far from uniform across commodity categories. The latest data from the BLS, which were released after the first estimates of fourth-quarter GNP

were announced and are shown in parentheses, suggest not quite so rapid an increase in prices of certain categories of goods as had been estimated earlier. With profit margins abroad more squeezed than they were 24 and even 12 months ago, we are projecting a further acceleration in the average price of non-oil imports as is shown in the middle panel.

Consequently, as depicted in the bottom panel, we expect the volume of non-oil imports to decline slightly over the forecast period while the value of these imports continues to advance at a rapid rate--about 7-1/2 percent per year.

The next chart provides a summary of our forecast for the current account and real net exports of goods and services in the GNP accounts. (I would note that in preparing the forecast we have made the implicit assumption that its overall contour will not be affected significantly by the trade legislation now under consideration in the Congress.) Taking other relevant factors into account, we hopefully project that the current account balance--the black line in the upper panel--will bottom out in the current quarter; this quarter's deterioration is more than accounted for by the bounceback in the price of imported oil. For the balance of the forecast period, the current account should improve gradually. Meanwhile, the improvement in real GNP net exports of goods and services--the red line--should be more dramatic because that measure of our external position will not be affected by the deterioration in our terms of trade.

The table at the bottom of the chart lays out our best point estimates of the contributions of various factors to changes in real GNP net exports. The first line in the table indicates the estimated

effects of the dollar's depreciation since the first quarter of 1985. It combines both direct positive effects--through changes in relative prices--and indirect negative effects--through impacts on economic activity. The estimated net effect was significant during 1986, and is expected to peak during 1987 and taper off during 1988. The second line, on the same basis, shows the effect of the projected further real depreciation of the dollar. The estimated effect is quite small during 1987, but increases in 1988.

The third line in the table shows the combined influence of other factors; four negative factors can be identified. The first is the further effect on the level of both exports and imports of the dollar's appreciation prior to the first quarter of 1985; this factor was important in 1986 and continues to be important in 1987. Second is the induced rise in the volume of oil imports brought about by lower oil prices. Third is the contribution of relative GNP growth here and abroad to the widening of the underlying deficit. Last is the influence of increased interest payments on our net international investment position, which becomes increasingly negative as our current account deficits persist.

Chart 11 presents a summary of U.S. international capital transactions. I would note that these statistics, which are recorded ex post, can tell one very little about motivation, including those of potential Japanese investors in U.S. Treasury securities. In 1986, a decline in private capital inflows--line 2--is estimated to have been compensated by an increase in official capital inflows--line 7--that was

more than accounted for by the G-10 countries. These trends are expected to continue in 1987.

Within the category of private capital flows, net inflows through U.S. banking offices--line 3--declined last year and are expected to edge down further this year. Inflows through net foreign purchases of bonds and stocks--line 4--increased somewhat in 1986. However, the overall increase combined a drop-off in recorded net purchases of U.S. Treasury securities by private foreigners, continued large net purchases of corporate bonds, and a sharp expansion in net purchases of U.S. corporate stocks. We anticipate that this last category will not show as much strength after the first quarter of 1987. Finally, direct investment showed a resumption of net outflows in 1986 despite plentiful anecdotes about increased foreign direct investment in the United States. Part of the explanation for the increased outflows last year lies with the valuation effects of the dollar's depreciation on new investments and reinvestment of earnings abroad. The lower amount of recorded inflows in part reflects the absence of major foreign takeovers and mergers.

Mr. Prell will now continue our presentation.

Michael J. Prell
FOMC Chart Show
February 10, 1987

Domestic Economic and Financial Outlook

Chart 12 addresses the implications of the projected output and trade developments for pressures on domestic resources. With improved trade performance, gains in industrial production should outpace growth in GNP. As a result, the overall rate of capacity utilization--in the upper left panel--is projected to rise to 81-1/2 percent by late next year, a shade above the '84 recovery high.

On the labor side, pressures on supply will depend in part on the rate of productivity increase. The cyclically adjusted trend of output per hour for the nonfarm business sector as a whole--represented by the red line in the right panel--appears to have improved in this decade, but not very much. In our projection, actual productivity growth parallels the estimated trend of just over 1 percent per annum.

We expect that manufacturing efficiency will continue to show the most rapid improvement, so that the demand for additional factory workers will be limited--as indicated by the red line at the lower left; however, the growth of jobs in the service-producing sector is expected to be strong enough to produce a total payroll increase only moderately below the pace to date in the expansion. With a continuation of the rapid rise in labor force participation by adult women--shown at the right--the expected growth in employment will produce just a mild downdrift in the unemployment rate. However, it is our assessment that the unemployment rate is moving into the range where the disinflationary pressures on wages, in the aggregate, will abate.

The performance of wages last year clearly was favorable. The upper panels of Chart 13 present data on total hourly compensation from the BLS employment cost indexes. As you can see, the deceleration of compensation extended beyond

the goods-producing and unionized segments of the workforce. Although business is expected to pick up in some hard-pressed industries, efforts to contain wage and other labor costs are not likely to disappear overnight. One might also conjecture that the "wage norms" in the minds of labor and management have generally been lowered, providing some inertial force toward moderate pay increases.

Nonetheless, as the middle panel indicates, we think that somewhat greater labor market tautness, combined with faster rising prices, will lead to some acceleration in pay rates in the period ahead. This means that unit labor costs—the black line—will pick up slightly, to about a 3 percent rate of increase in 1988.

The acceleration of prices is expected to be more pronounced, as the economy is hit by higher oil and nonoil import prices. As indicated in the bottom panel, personal consumption expenditure prices are projected to rise faster than GNP prices. The disparity in inflation rates is accounted for by the greater importance of energy in consumer outlays and by the fact that import prices affect consumption prices more directly than they do the "price" of domestic value-added, or GNP. Although the sharper increase in consumer prices will tend to push up wages through formal and informal COLAs, real wages are likely to be eroded in the short run.

That phenomenon is visible in the top panel of the next chart, where real disposable income growth—the red bars—is projected to slow in 1987 and 1988, despite the cut in personal tax rates. This retardation of income growth associated with rising prices on tradable goods is one of the channels by which resources are shifted away from domestic spending and toward improvement of our external position. The slowing in real income growth, along with

the possibility that a four-year binge of durables purchases has left many consumers fairly well stocked up, is expected to result in a considerable slowing in the growth of consumer spending. The gap between the 1987 bars may in a sense overstate the case; as Jim Kichline noted, incentives and tax effects advanced some auto purchases into the latter half of last year. The basic thrust of our projection is simply that outlays are unlikely to continue outpacing income gains.

A search for the downside risks in this projection leads one fairly quickly to the record consumer debt burdens and to indications, such as the delinquency rates shown at the middle left, that some households already are having trouble servicing those debts, especially in the parts of the country where the economy has been soft. But, in our forecast, we've also given weight to the positive signs regarding consumer sentiment--such as the survey responses at the right, where any reading over 100 indicates that more households perceive their finances to have improved than to have deteriorated over the past year. While the propensity to consume out of increases in asset values may not be very high, the tremendous rise in net worth--if sustained--ought, on the basis of the historical patterns suggested by the bottom panel, to help hold personal saving out of current income at a low percentage. I should note that the stock market rise since January 1, which is not reflected in the chart, already has surpassed that for all of 1986.

We also are modestly hopeful about the outlook for the housing sector, our comfortable level in that forecast having risen with the receipt of the stronger December data. Total housing starts, in the top panel of Chart 15, are expected to equal or exceed the fourth-quarter rate over the projection period. Prior to December, single-family starts and new home sales were trending

downward, even though, as may be seen in the middle-left panel, declining interest rates were reducing the monthly payment burdens associated with new home purchases. A variety of factors may have been working to override the financial stimulus, but it seems likely that the contraction in the oil patch economy—where housing starts have dropped sharply—was significant. However, that regional decline may now have largely run its course, and with mortgage rates having fallen still further recently, we believe that single-family building should do reasonably well. On the multifamily side, the projection is for construction activity to remain below the pace of the past couple of years, owing both to the big overhang of vacant rental units, especially in the South—shown at the right—and to adverse changes in tax laws.

Pulling together the income and expenditure projections for the household sector, along with an allowance for likely demands for financial assets, we are left with a sizable gap to be filled by borrowing. As you can see in the bottom panel, our forecast points to a continued large net flow of mortgage plus consumer borrowing in 1987 and 1988. The growth of outstanding household sector debt in percentage terms—at the right—slows only slightly, and continues to exceed income growth by a wide margin. Partly because of the reduced deductibility of consumer loan interest, we are expecting that there will be a noticeable shift toward mortgage borrowing. It is difficult at this stage to assess the potential importance of home equity lines; we have made what we think is a conservative assumption, but that allowance still is enough to cut consumer loan growth substantially.

Turning to the business sector, in the next chart, we expect to see a continuation of the crosscurrents in capital spending that have characterized the past year—namely, weak structures outlays and moderately expanding equipment

purchases. However, one big negative in the investment picture should be behind us now, unless oil prices collapse once again. As you can see at the right, the direct effect alone of declining oil drilling was nearly enough to account for the drop in business fixed investment last year. In the period since oil prices reached their lows last summer, drilling activity seems to have bottomed out, as indicated by the rig count in the middle left panel. Nonetheless, we do not expect to see total structures outlays rising soon, given the high vacancy rates in office buildings--shown at the right--hotels, and other commercial structures. Of course, tax reform is a negative for this sector, too--and one would hope that the aggressive lending practices that have fueled this market are becoming less common. In the case of equipment spending, the elimination of the investment tax credit will have an adverse effect; however, we believe the continuing needs for replacement and modernization will, along with improved sales prospects in manufacturing, yield at least moderate gains in real outlays.

A rising trend of factory shipments also would encourage stronger inventory investment. During the past year, manufacturers have gradually run down their stocks, contributing to the net decline in the inventory-sales ratio in the bottom panel. We anticipate that inventory management will remain cautious for a while, and that the stock-to-sales ratio will continue to edge lower. Nevertheless, as may be seen at the right, this still would permit a bit greater accumulation of nonfarm inventories than we saw in 1986.

As in the household sector, balance sheet considerations are something of a questionmark on the business side. As may be seen in the top panel of the Chart 17, although internal funds generation will be damped by higher corporate taxes, our investment projection implies only a moderate financing gap in the period ahead. Nonetheless, some analysts have expressed concern that balance

sheet constraints will put a lid on capital spending. A number of companies have indeed put themselves in something of a financial straitjacket, by sharply increasing their indebtedness in connection with mergers, buyouts, or share repurchases. The effects on leverage at an aggregate level are visible in the "book" debt-equity ratio shown in the middle left panel. But, as the black line indicates, this financial restructuring has, for the time being, been rewarded by the stock market, so that when the corporate debt-equity ratio is gauged using market valuations of bonds and stocks, the apparent increase in leveraging largely disappears. In addition, the decline in interest rates has helped to hold down debt servicing expenses, and aggregate interest coverage hasn't deteriorated. Just how much is lost in looking at the corporate sector as a whole is hard to say; it seems clear that a good many companies would find themselves in difficulty if there were to be a recession or a major upswing in interest rates, but it is our judgment that balance sheet considerations are not at present a serious impediment to overall capital spending.

Looking at the prospective pattern of corporate financial activity, we must acknowledge that forecasting the volume of mergers and other restructurings has proven to be about as treacherous as predicting M1 velocity. Our assumption is that the tax law changes will help to slow the retirement of equity shares. At the same time, we expect that gross issuance of new stock will remain substantial. So, as you can see in the bottom panel, net equity issuance is projected to be less negative in 1987 and '88 than it has been. The enlarged financing gap, however, will tend to sustain borrowing at a relatively high level. Absent an appreciable deterioration in the bond market, in terms of either rates or access on the part of less-than-prime companies, the bulk of the borrowing is likely to remain longer term.

In a sense, financial constraints on spending seem to loom largest in the case of the government sector. The top panel of the next chart addresses the federal spending picture in terms of GNP real purchases. As you can see, slicing away the noise of CCC activities, which simply shift farm stocks in and out of private hands, federal spending is expected essentially to flatten out after a period of rapid expansion paced by soaring defense outlays.

For state and local governments, we are projecting smaller increases in real purchases. The more substantial gains in 1985 and '86 reflected in part a big jump in construction activity, portrayed at the right. The momentum of major infrastructure programs should hold public construction at a higher level for a while, but the potential for further expansion seems limited in light of the financial stresses felt in some areas. As indicated at the lower left, the sector's budget surplus was buoyed last year by one-time flows associated with offshore lease proceeds and other special factors. Now, states and localities are faced with the loss of federal revenue sharing and many are struggling with the negative effects of slumping economies on their tax bases. Although tax reform will provide a windfall for many states, the sector's overall budget position is likely to deteriorate in 1987. This should not prevent a reduction in net borrowing by state and local governments, however. A lot of money was raised during the past two years to beat tax reform restrictions and is now available to fund projects. That said, there still could be an upside surprise in state and local borrowing if units become particularly anxious to undertake advance refundings or if the taxable muni market becomes a major vehicle for arbitrage.

Barring such developments, the combination of reduced federal and state and local borrowing should result in a reduction in aggregate borrowing this year, as shown in the next chart.

Translated into percentage growth rates, as in the bottom panel, the domestic debt aggregate is projected to decelerate considerably from the pace of the past few years. But, while the gap between debt growth and GNP growth is expected to narrow, it remains decidedly positive. This is just one more reminder that the economic environment we have forecast is unlikely to rid the system of the financial vulnerabilities that have been a source of concern for some time now.

Mr. Kichline will now conclude our presentation.

James L. Kichline
February 10, 1987

FOMC CHART SHOW -- CONCLUSION

Chart 20 provides a summary of 1987 forecasts of Board members and presidents along with those of the staff and the Administration. The forecast ranges for Board members and presidents, taken together, encompass the Administration's projection for each of the variables. In general, however, the Administration tends to be on the high side for nominal and real GNP as well as for the GNP deflator. There is little difference on the unemployment rate for all the forecasts.

The table at the bottom provides the forecasts presented to the Congress last July. The central tendencies of the forecast indicate that current expectations for both real GNP and the deflator have been reduced somewhat.

During the presentation we've attempted to display the major features of the staff's outlook and have pointed to a number of areas of vulnerability. It's a forecast that we believe to be most likely given the conditioning assumptions and one that for 1987 does not have risks particularly weighted to one or the other side in our thinking. The forecast is also one that contains some reduction, even though limited, in key imbalances in the economy--especially the trade and federal budget deficits.

STRICTLY CONFIDENTIAL (FR) CLASS II-FOMC

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

February 10, 1987

PRINCIPAL ASSUMPTIONS

Monetary Policy

- Growth of M2 around the middle of its range in 1987 and a little slower in 1988.

Fiscal Policy

- Deficit-reducing actions of about \$25 billion in fiscal year 1988.

Other

- Foreign exchange value of the dollar declines at about a 10 percent annual rate over the forecast period.
- Oil prices average around \$17 per barrel over 1987 and 1988.

CHART 2

FEDERAL BUDGET

	FY1986	FY1987		FY1988	
		STAFF	ADMINISTRATION	STAFF	ADMINISTRATION
OUTLAYS	990	1009	1016	1046	1024
RECEIPTS	769	828	842	898	917
DEFICIT	221	181	173	148	108
HIGH EMPLOYMENT DEFICIT	173	151	n.a.	129	n.a.

DEFICIT-REDUCING ACTIONS

	FY1987	FY1988	
	ENACTED	ADMINISTRATION	STAFF
SPENDING CUTS	10	20	10
ASSET SALES	7	11	7
RECEIPT INCREASES	5	6	8
TOTAL	22	37	25

BUDGET DEFICIT RELATIVE TO GNP
PERCENT OF POTENTIAL GNP

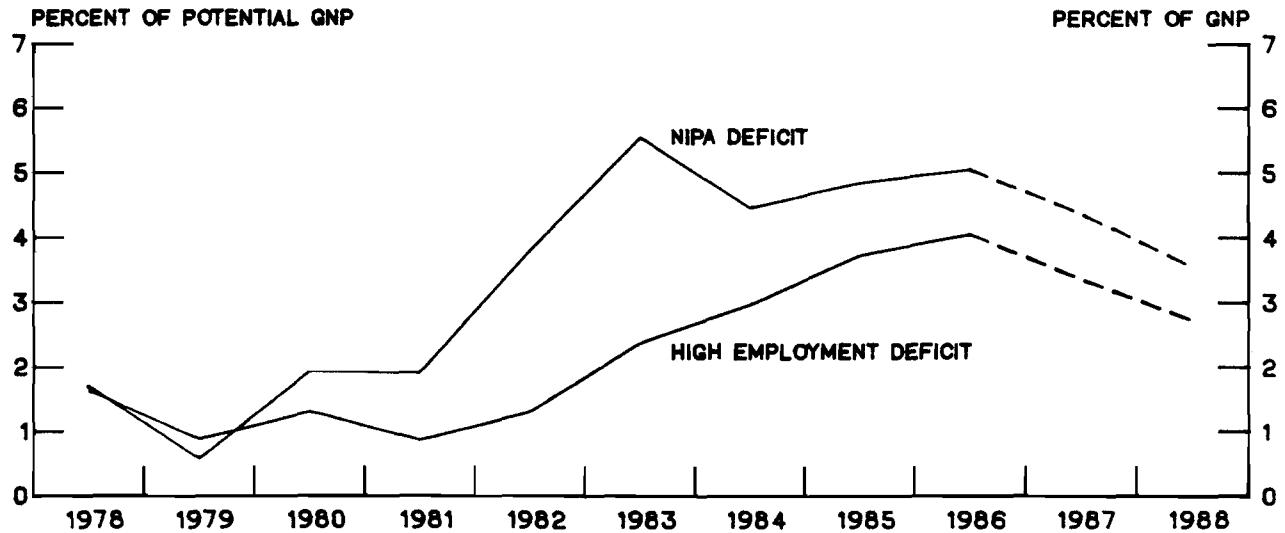
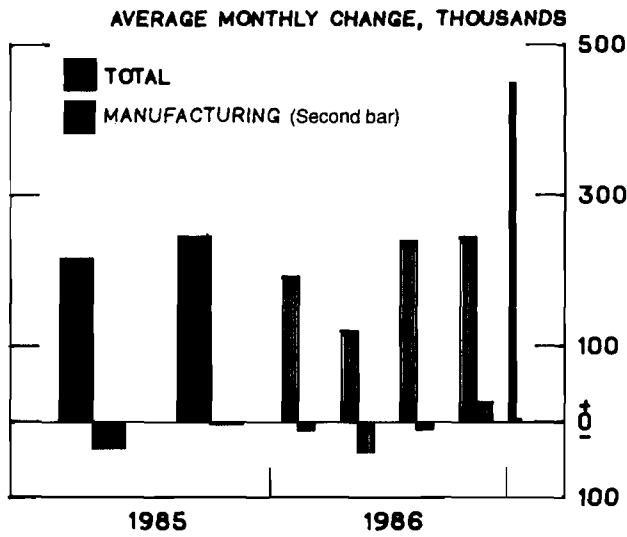
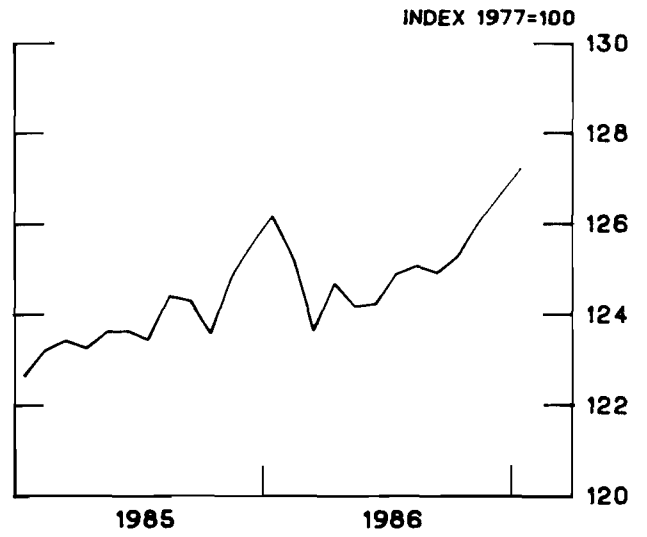


CHART 3

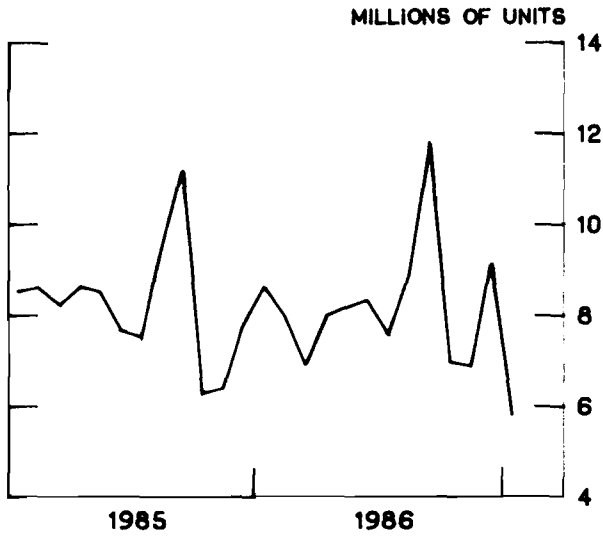
NONFARM EMPLOYMENT



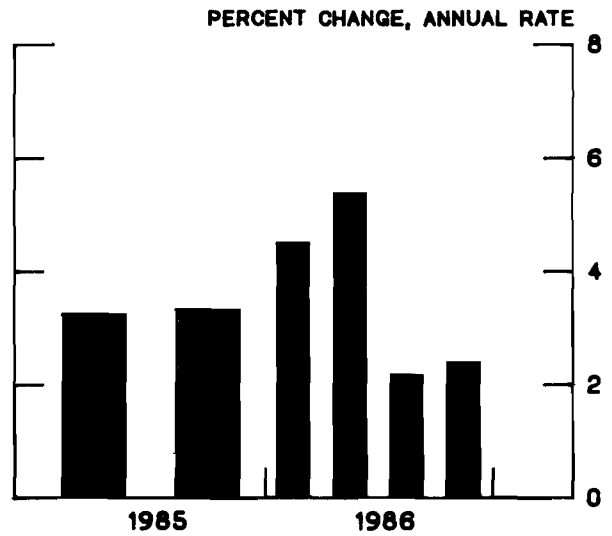
INDUSTRIAL PRODUCTION



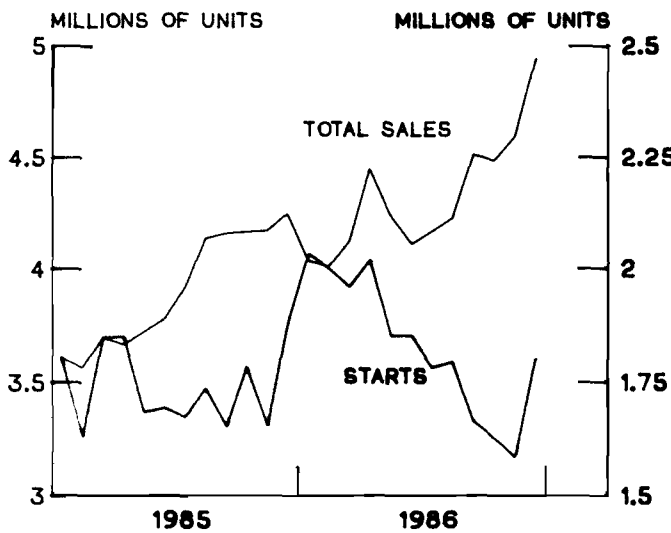
DOMESTIC AUTO SALES



REAL CONSUMPTION LESS AUTOS



HOUSING STARTS AND SALES



NEW ORDERS FOR NONDEFENSE CAPITAL GOODS

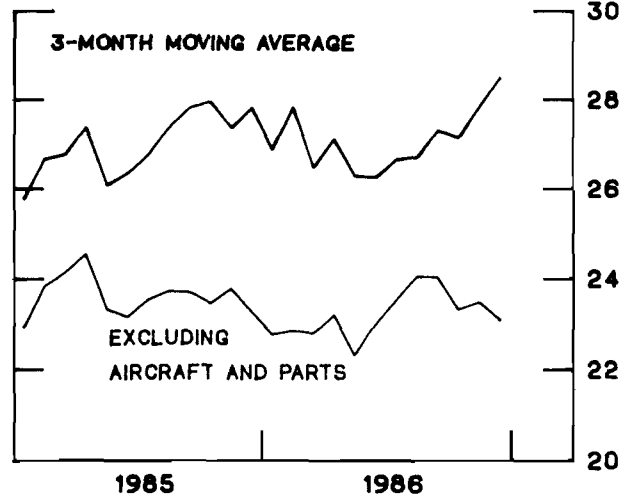
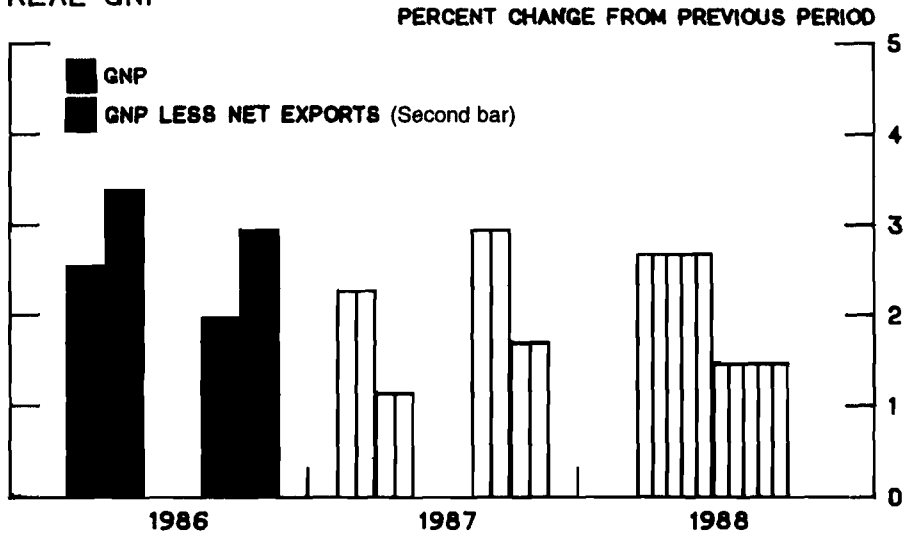


CHART 4

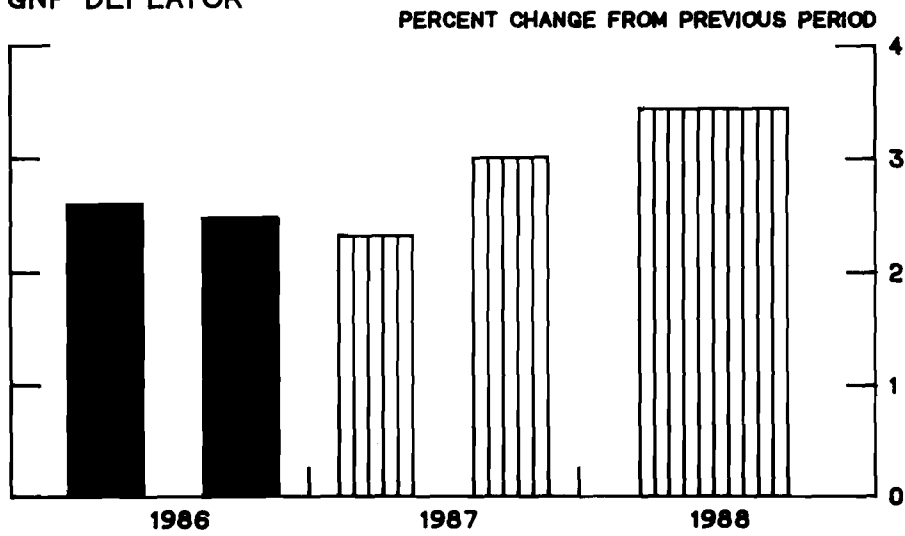
REAL GNP



PERCENT CHANGE, Q4 TO Q4

	GNP	LESS NET EXPORTS
1985	2.9	3.9
1986	2.2	2.8
1987	2.8	1.5
1988	2.7	1.5

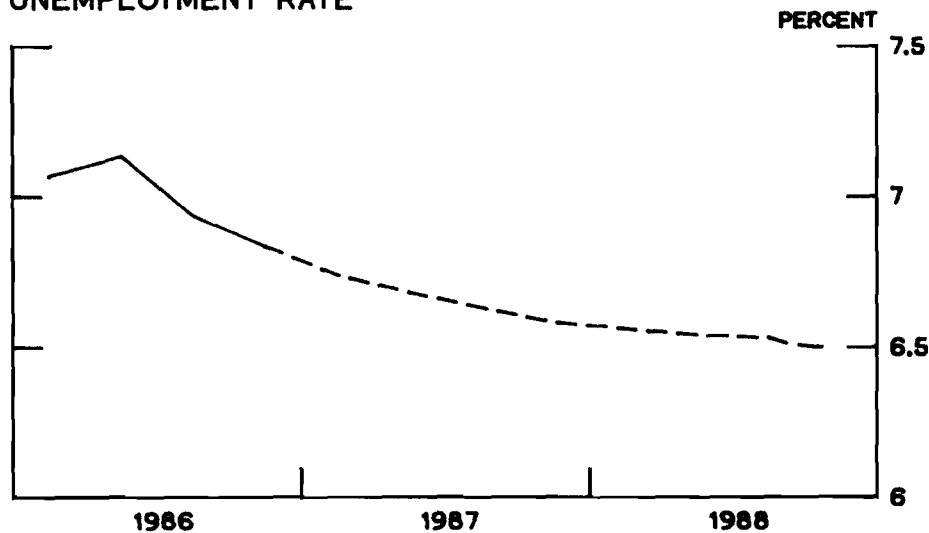
GNP DEFLATOR



PERCENT CHANGE, Q4 TO Q4

1985	3.3
1986	2.2
1987	2.9
1988	3.4

UNEMPLOYMENT RATE

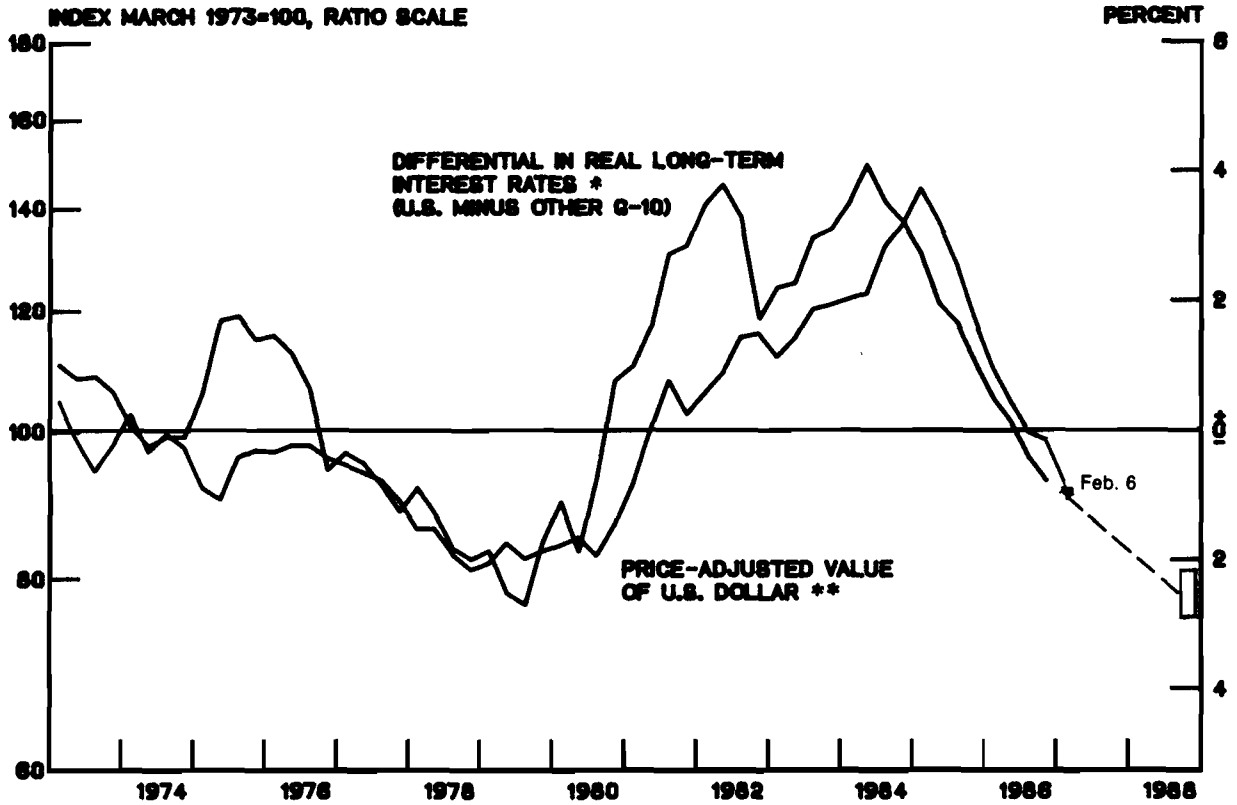


Q4 AVERAGE, PERCENT

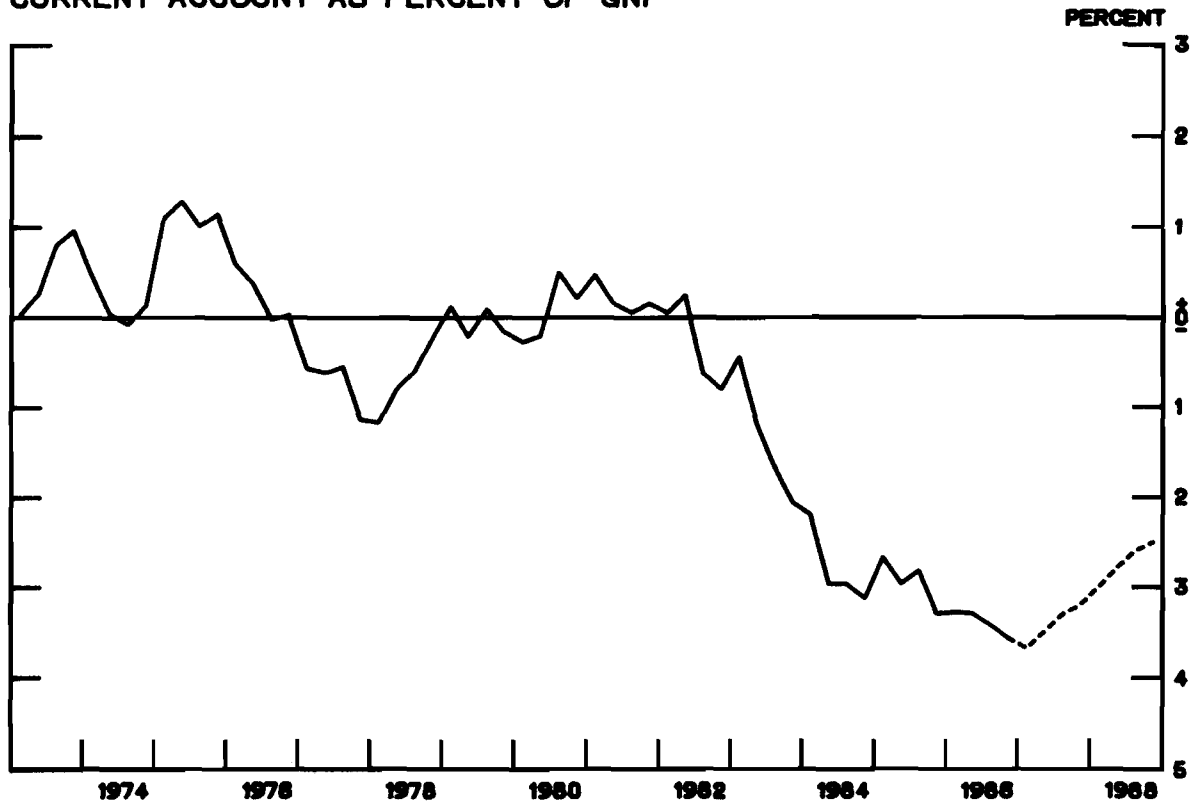
1985	7.1
1986	6.9
1987	6.8
1988	6.5

CHART 5

FOREIGN EXCHANGE VALUE OF U.S. DOLLAR AND INTEREST RATES
INDEX MARCH 1973=100, RATIO SCALE



CURRENT ACCOUNT AS PERCENT OF GNP

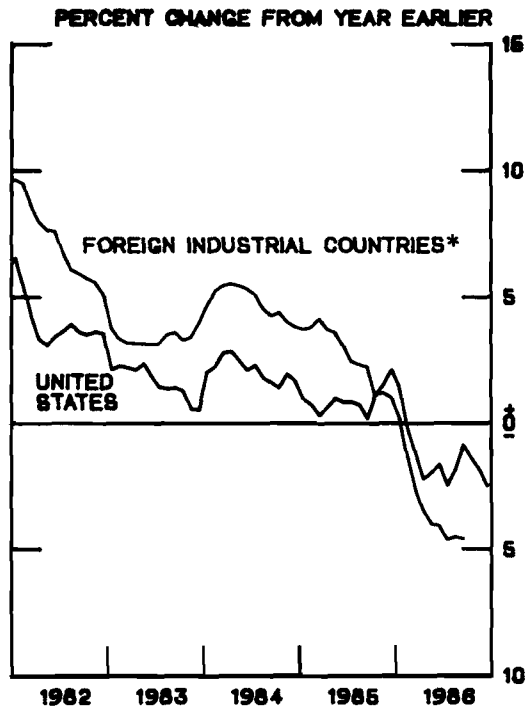


* REAL INTEREST RATES ARE CALCULATED USING A 36-MONTH CENTERED MOVING AVERAGE OF INFLATION RATES, USING STAFF FORECASTS WHERE NECESSARY

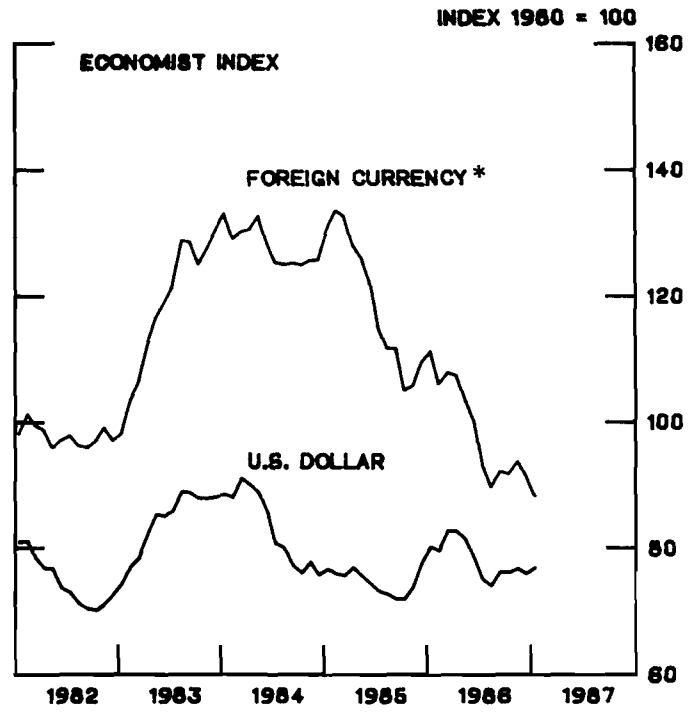
** WEIGHTED AVERAGE DOLLAR AGAINST OTHER G-10 CURRENCIES USING TOTAL 1972-76 AVERAGE TRADE ADJUSTED BY RELATIVE CONSUMER PRICES

CHART 6

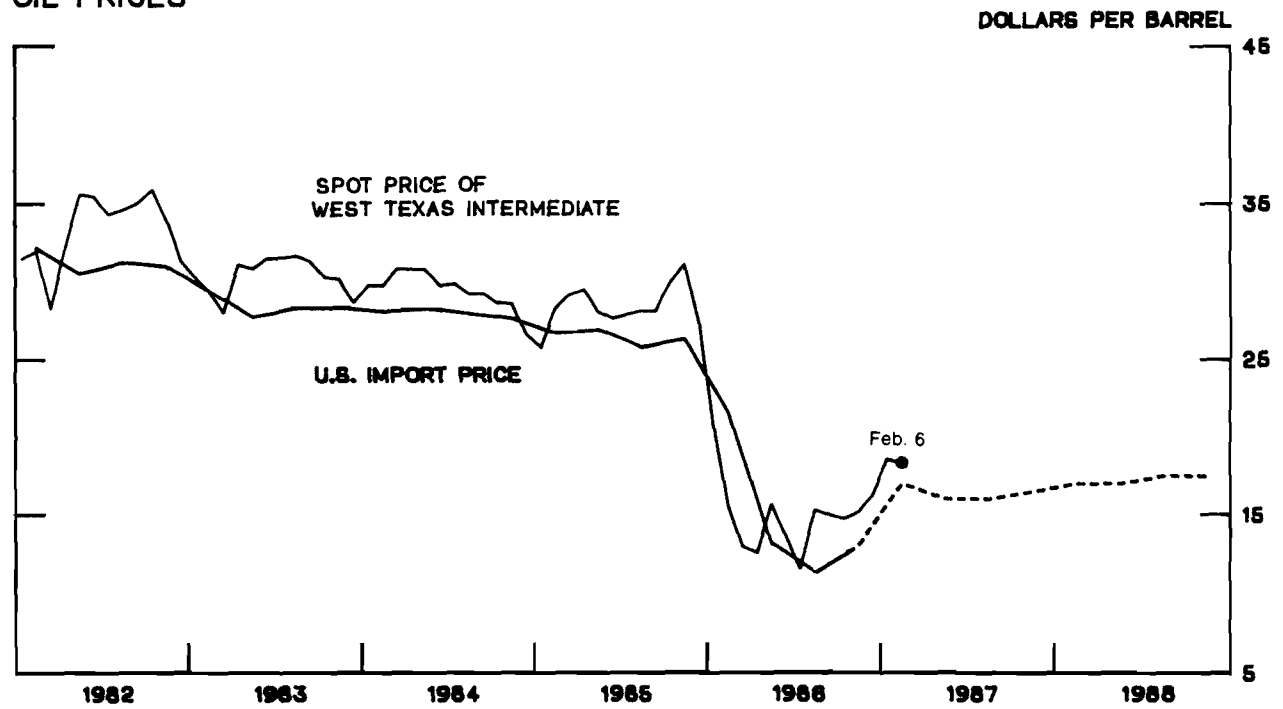
WHOLESALE PRICES



COMMODITY PRICES



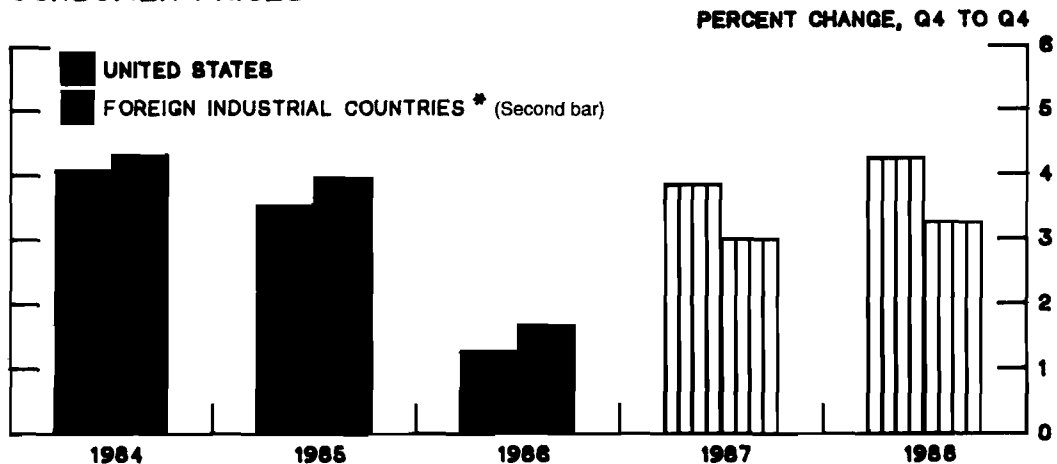
OIL PRICES



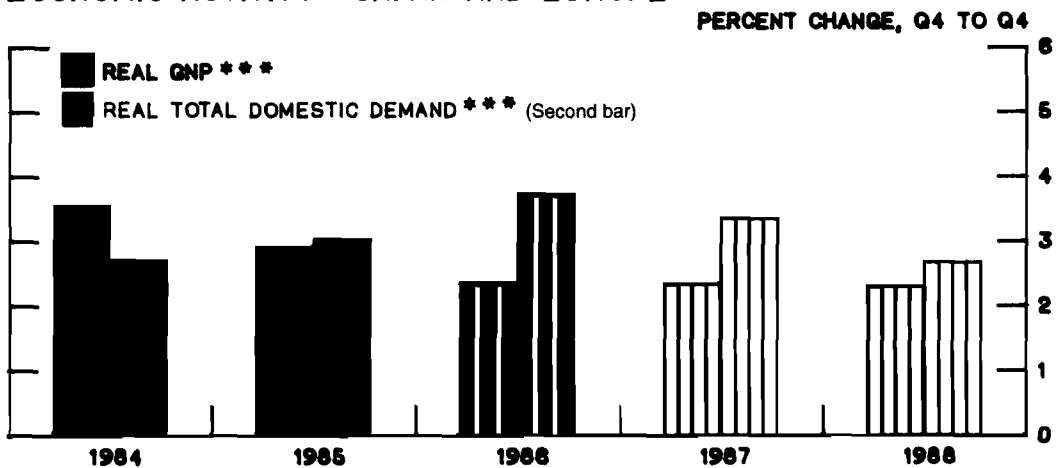
* WEIGHTED AVERAGE OF THE SIX MAJOR FOREIGN INDUSTRIAL COUNTRIES USING TOTAL 1972-76 AVERAGE TRADE

CHART 7

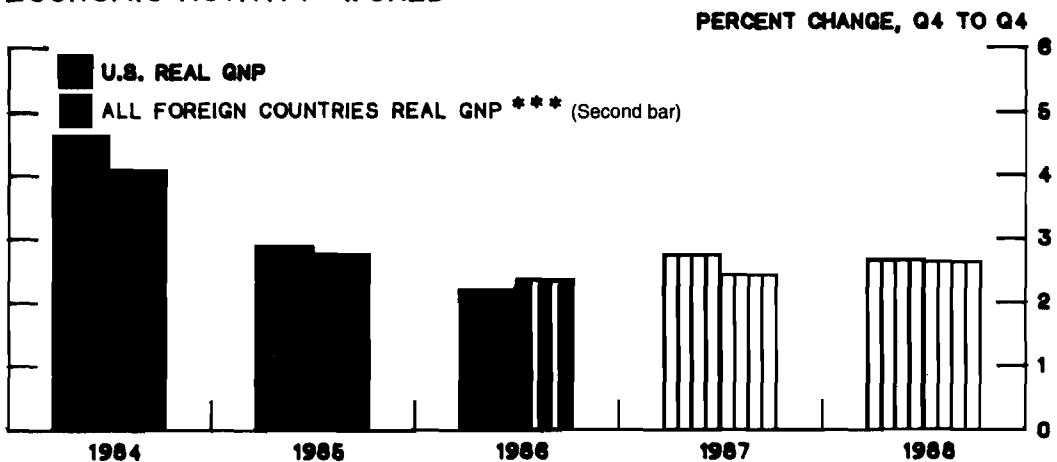
CONSUMER PRICES



ECONOMIC ACTIVITY: JAPAN AND EUROPE **



ECONOMIC ACTIVITY: WORLD



* WEIGHTED AVERAGE OF THE SIX MAJOR FOREIGN INDUSTRIAL COUNTRIES USING TOTAL 1972-76 AVERAGE TRADE
 ** GERMANY, FRANCE, ITALY, AND THE UNITED KINGDOM
 *** WEIGHTED AVERAGE USING U.S. NON-AGRICULTURAL EXPORTS, 1978-83

CHART 8

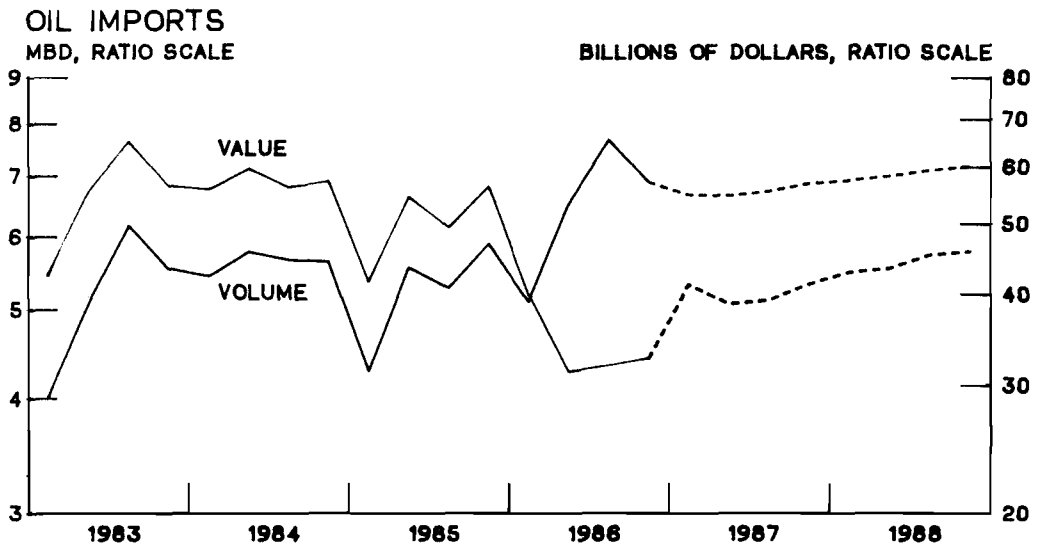
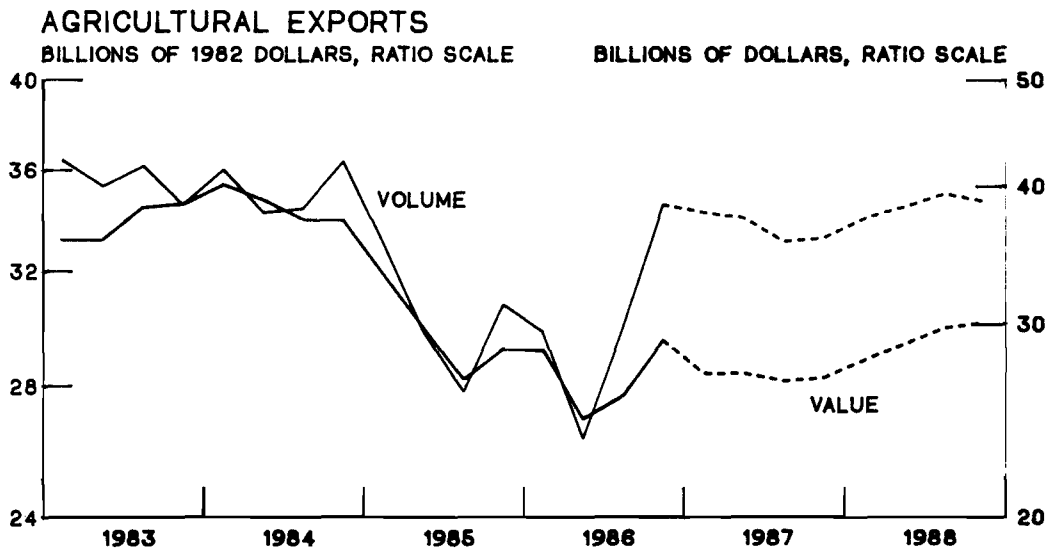
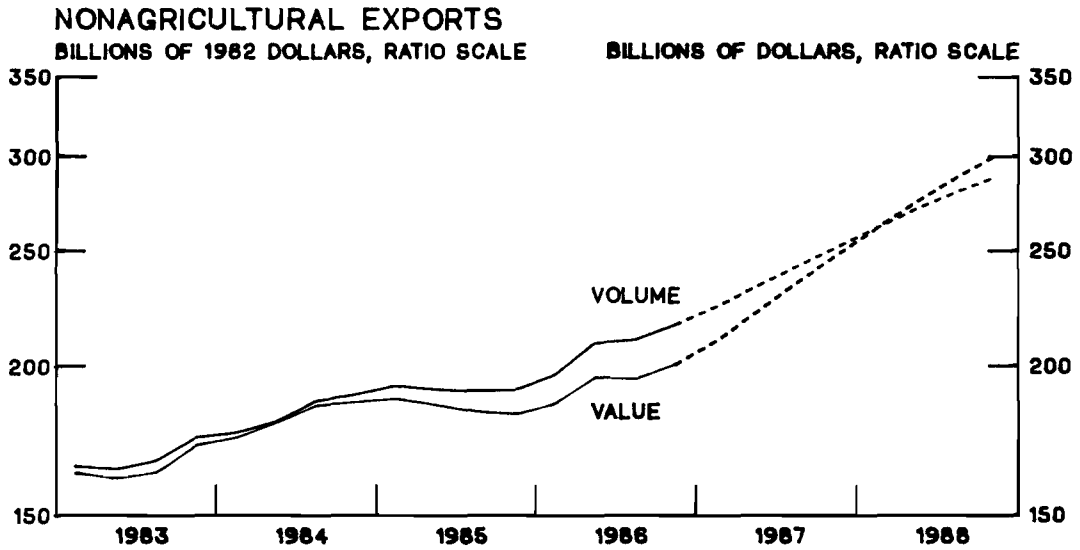


CHART 9

CHANGES IN PRICE OF NON-OIL IMPORTS*

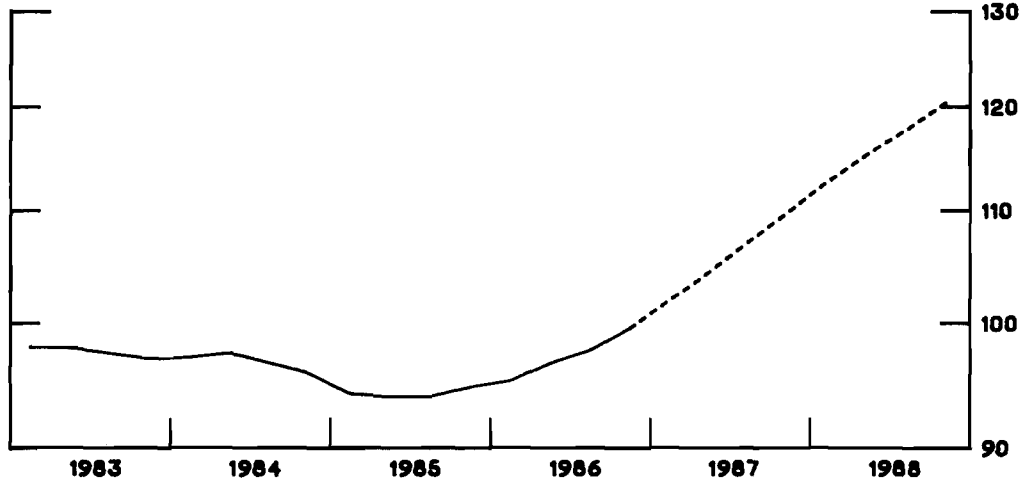
PERCENT, SEASONALLY ADJUSTED ANNUAL RATES

	<u>1985Q4</u> 1985 Q2	<u>1986Q2</u> 1985Q4	<u>1986Q4</u> 1986Q2
FEEDS, FOOD BEVERAGES	-0.2	19.7	-0.4
INDUSTRIAL SUPPLIES	-5.2	-4.6	4.1
CAPITAL GOODS	2.5	8.3	8.9 (7.8)
AUTOS	9.3	11.3	9.3 (7.7)
CONSUMER GOODS	4.1	6.0	8.7 (7.8)
TOTAL	2.3	6.4	7.0

* GNP FIXED-WRIGHT PRICE INDEXES; FIGURES IN PARENTHESES ARE CHANGES IN BLS INDEXES FROM JUNE TO DECEMBER 1986, ANNUAL RATES

PRICE OF NON-OIL IMPORTS

INDEX 1982=100, RATIO SCALE



NON-OIL IMPORTS

BILLIONS OF 1982 DOLLARS, RATIO SCALE

BILLIONS OF DOLLARS, RATIO SCALE

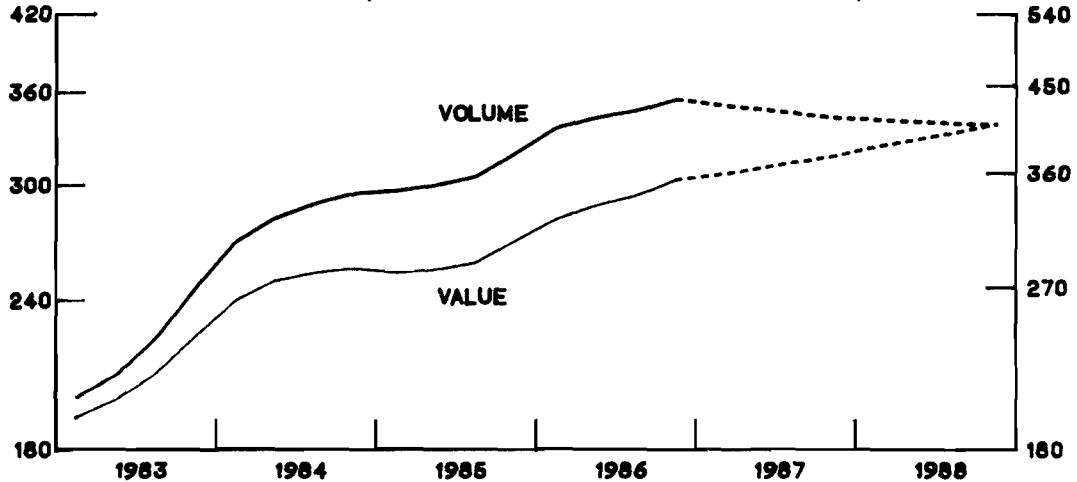
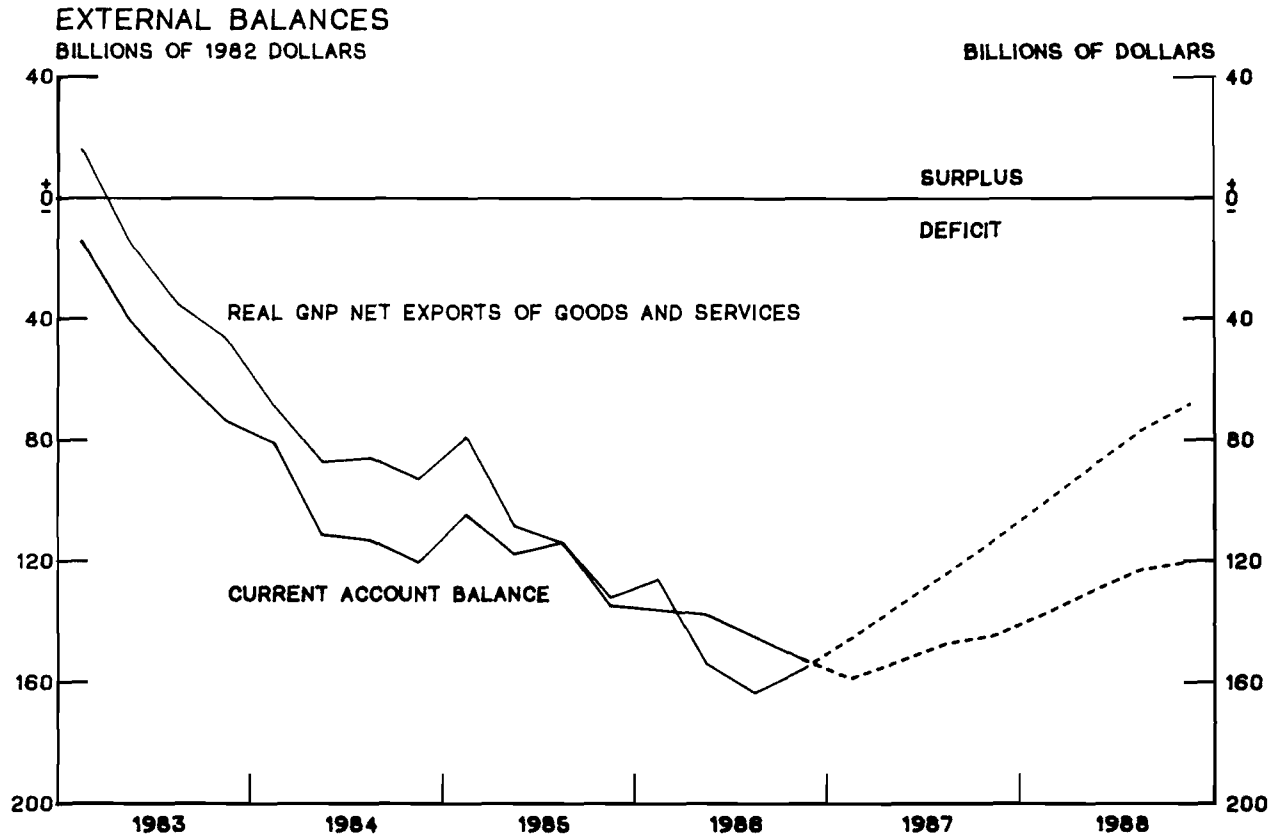


CHART 10



CONTRIBUTIONS TO CHANGES IN REAL GNP NET EXPORTS
BILLIONS OF 1982 DOLLARS, Q4 TO Q4

	1986	1987	1988
DEPRECIATION TO DATE	54	79	33
PROJECTED DEPRECIATION	--	6	25
OTHER FACTORS	-78	-42	-14
TOTAL	-24	43	44

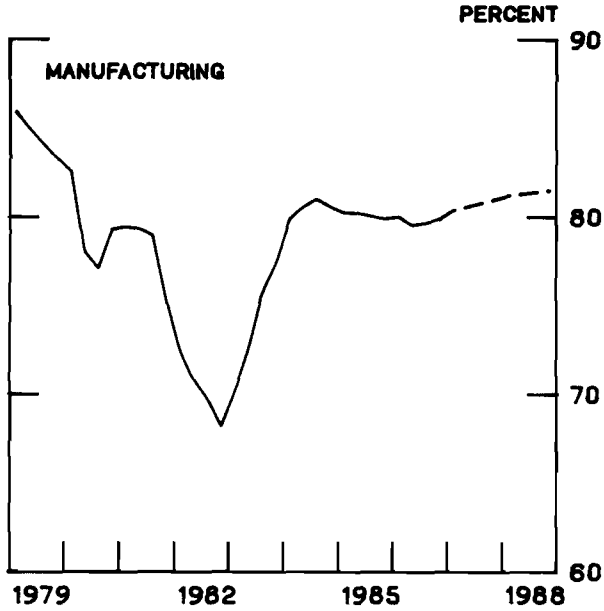
U.S. CAPITAL TRANSACTIONS

BILLIONS OF DOLLARS; NET INFLOWS = +					
	1983	1984	1985	1986 ^e	1987 ^p
1. NET PRIVATE AND OFFICIAL CAPITAL FLOWS	36	79	95	108	120
2. PRIVATE CAPITAL FLOWS	36	85	103	76	74
3. U.S. BANKING OFFICES	20	23	40	30	25
4. BONDS AND STOCKS ¹	14	32	60	71	61
5. DIRECT INVESTMENT ¹	9	20	2	-17	-12
6. OTHER NON-BANK FLOWS	-7	10	1	-8	0
7. U.S. AND FOREIGN OFFICIAL TRANSACTIONS	*	-6	-8	32	46
8. STATISTICAL DISCREPANCY	11	28	23	35	31
9. BALANCE ON CURRENT ACCOUNT	-47	-107	-118	-143	-151

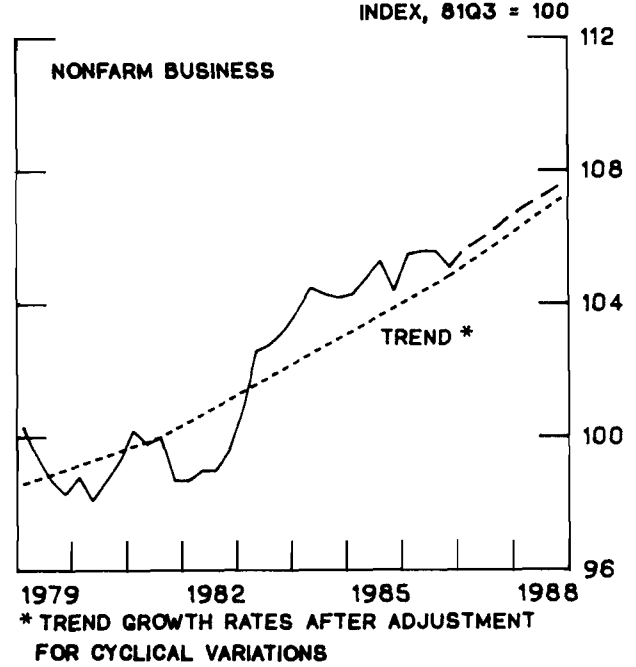
^e ESTIMATED
^p PROJECTED
¹ TRANSACTIONS WITH FINANCE AFFILIATES IN THE NETHERLANDS ANTILLES HAVE BEEN EXCLUDED FROM DIRECT INVESTMENT AND ADDED TO FOREIGN PURCHASES OF U.S. SECURITIES.
* LESS THAN \$500 MILLION

CHART 12

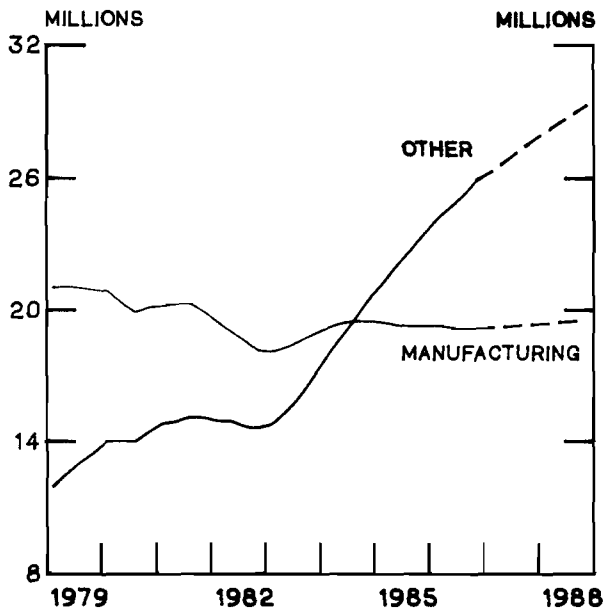
CAPACITY UTILIZATION



LABOR PRODUCTIVITY



PAYROLL EMPLOYMENT



LABOR FORCE PARTICIPATION

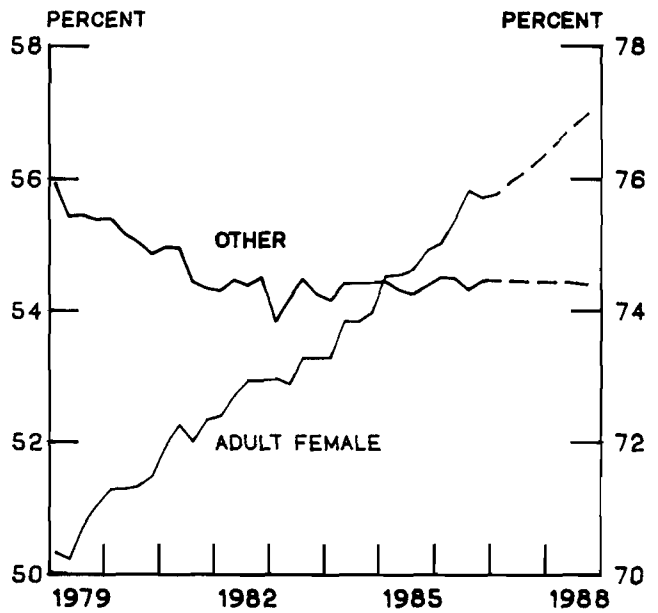
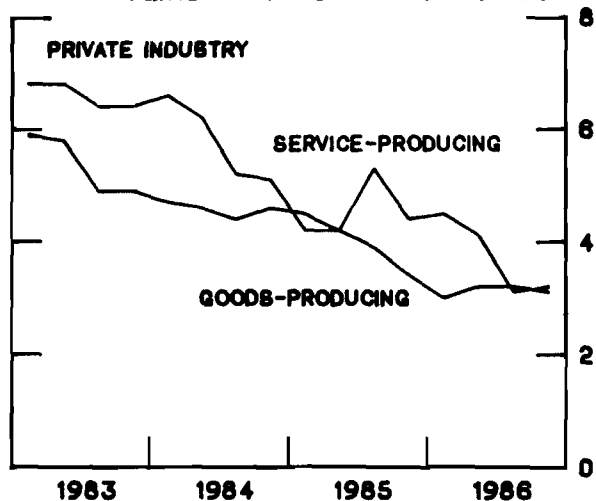
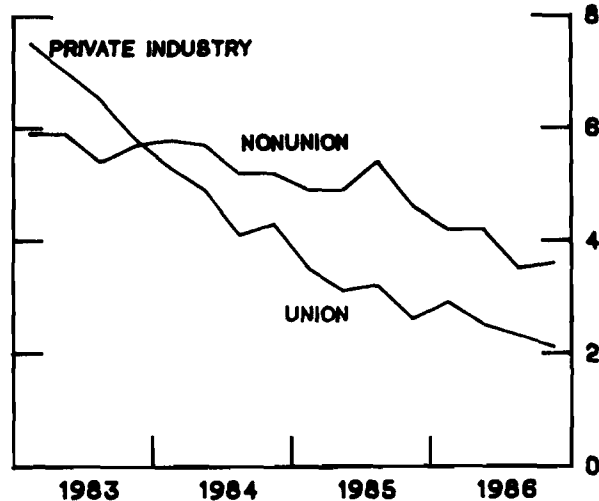


CHART 13

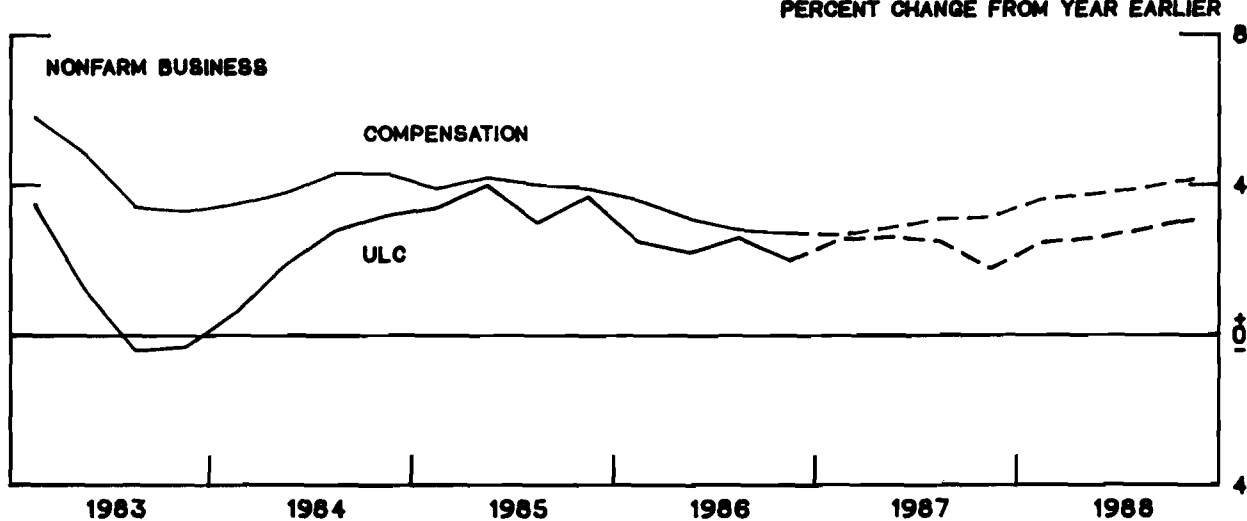
EMPLOYMENT COST INDEX
PERCENT CHANGE FROM YEAR EARLIER



EMPLOYMENT COST INDEX
PERCENT CHANGE FROM YEAR EARLIER



COMPENSATION AND UNIT LABOR COSTS



GNP AND PCE FIXED WEIGHT PRICE INDEXES

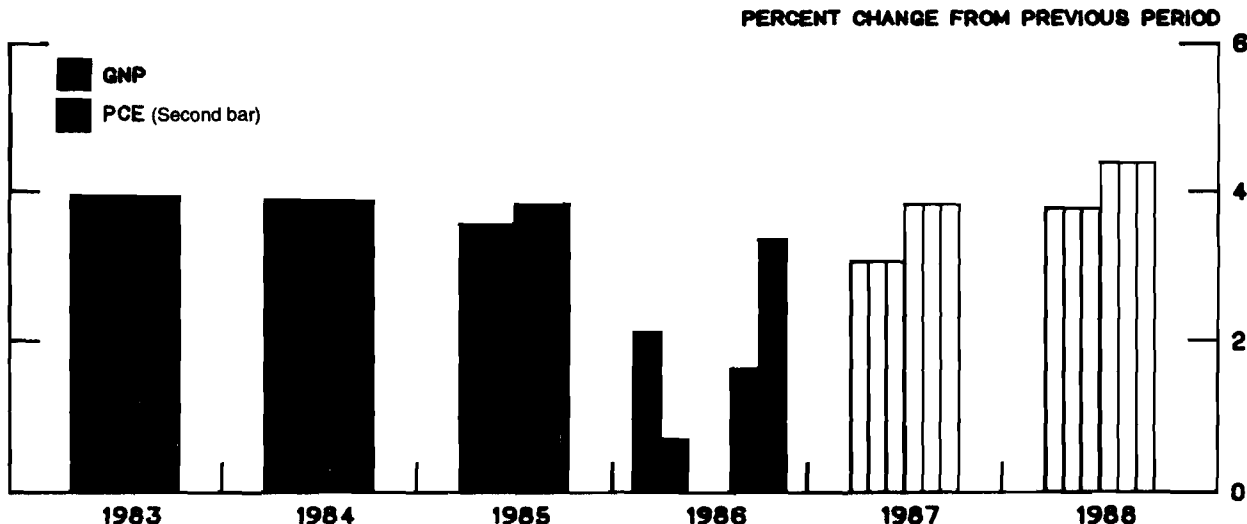
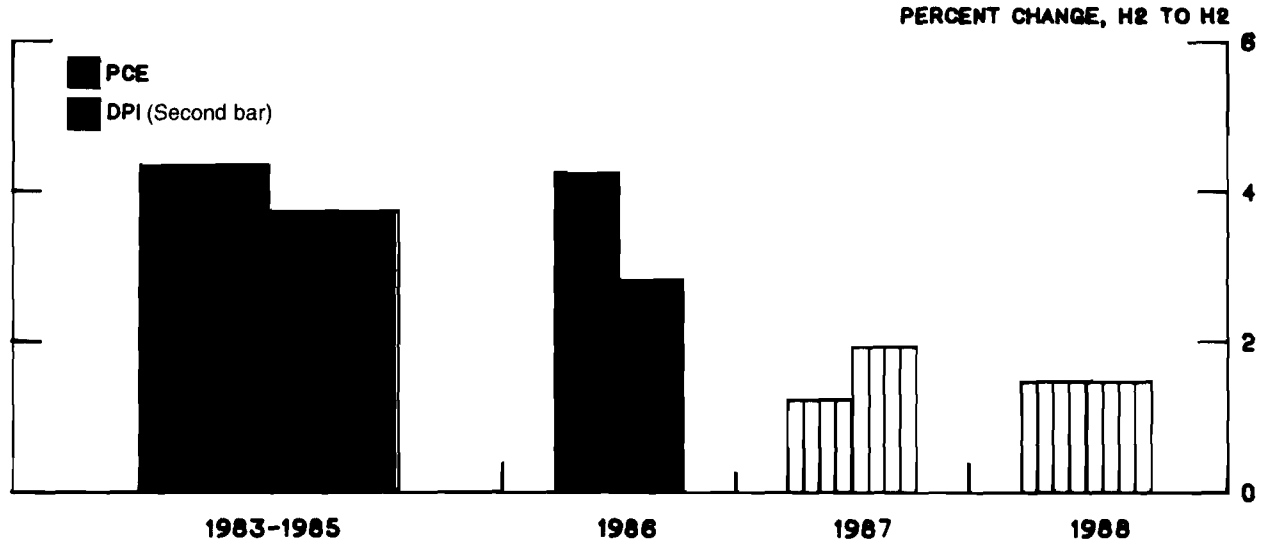
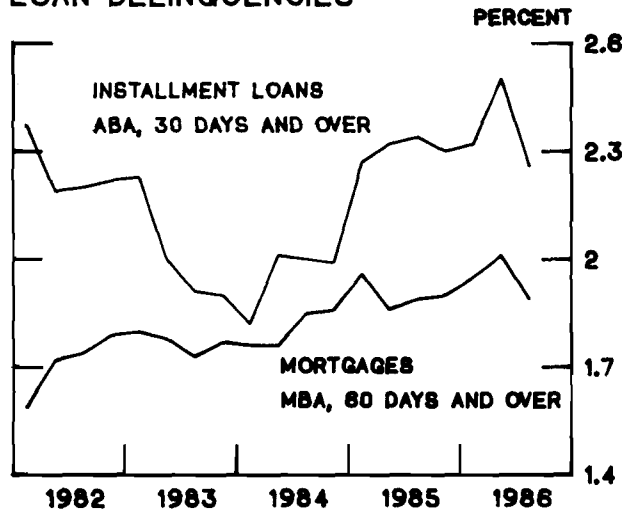


CHART 14

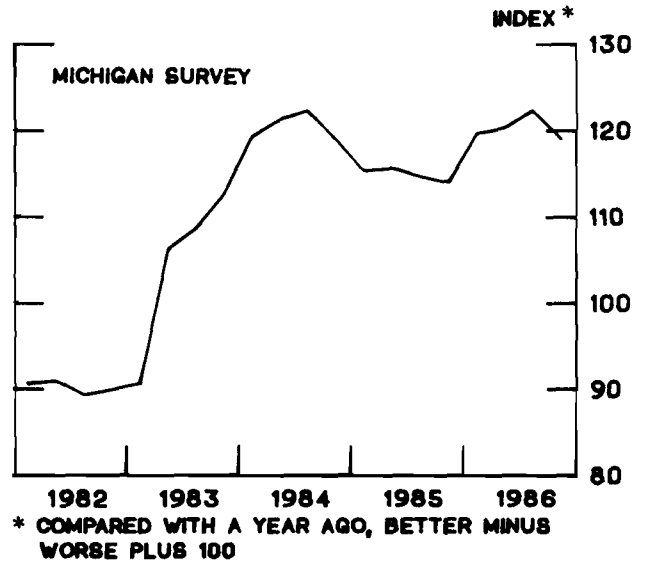
REAL PERSONAL CONSUMPTION AND DISPOSABLE INCOME



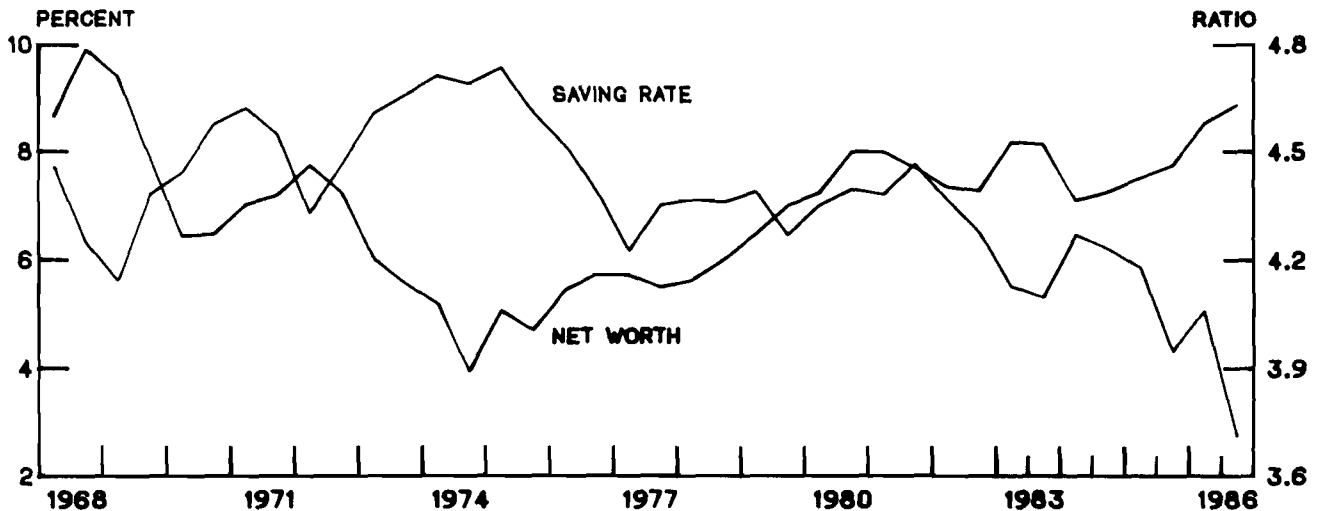
LOAN DELINQUENCIES



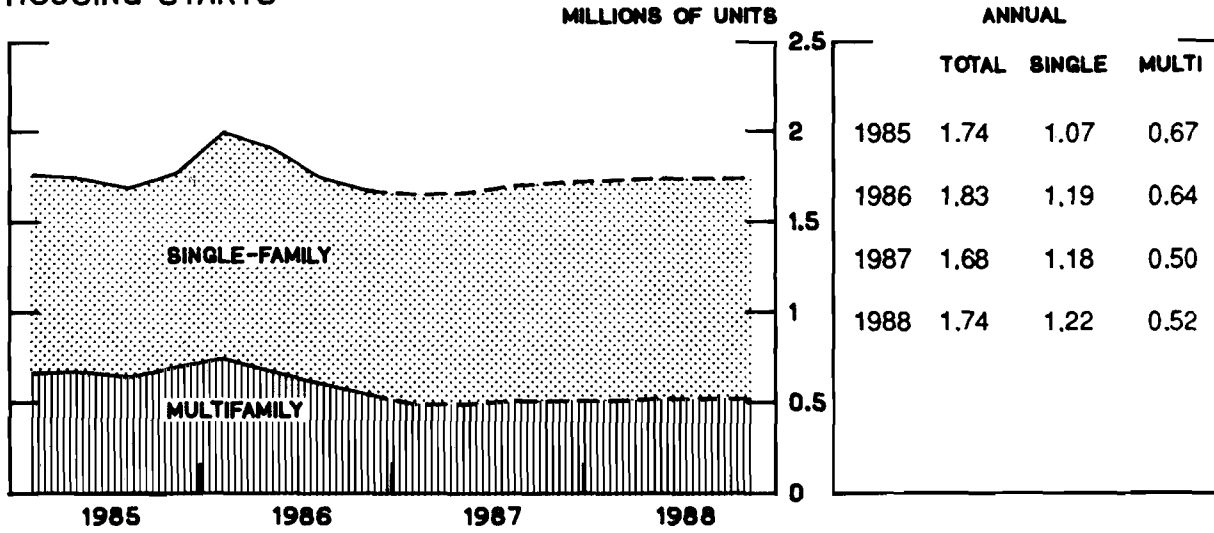
CURRENT FINANCIAL SITUATION



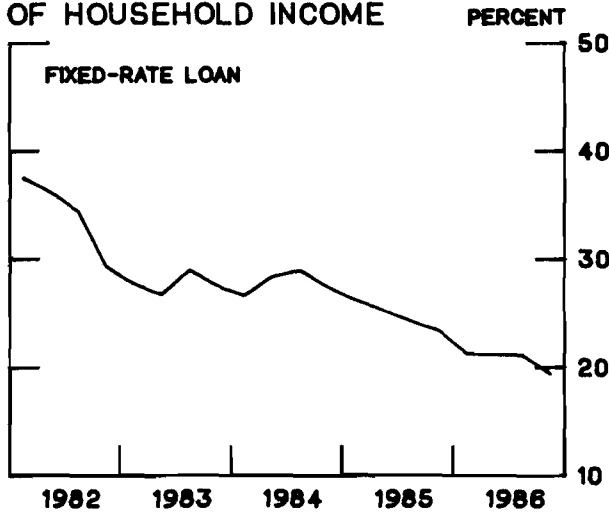
PERSONAL SAVING RATE AND HOUSEHOLD NET WORTH RELATIVE TO DPI



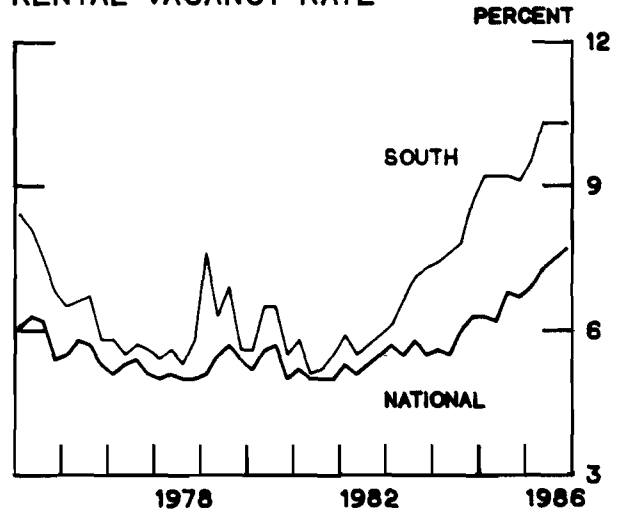
HOUSING STARTS



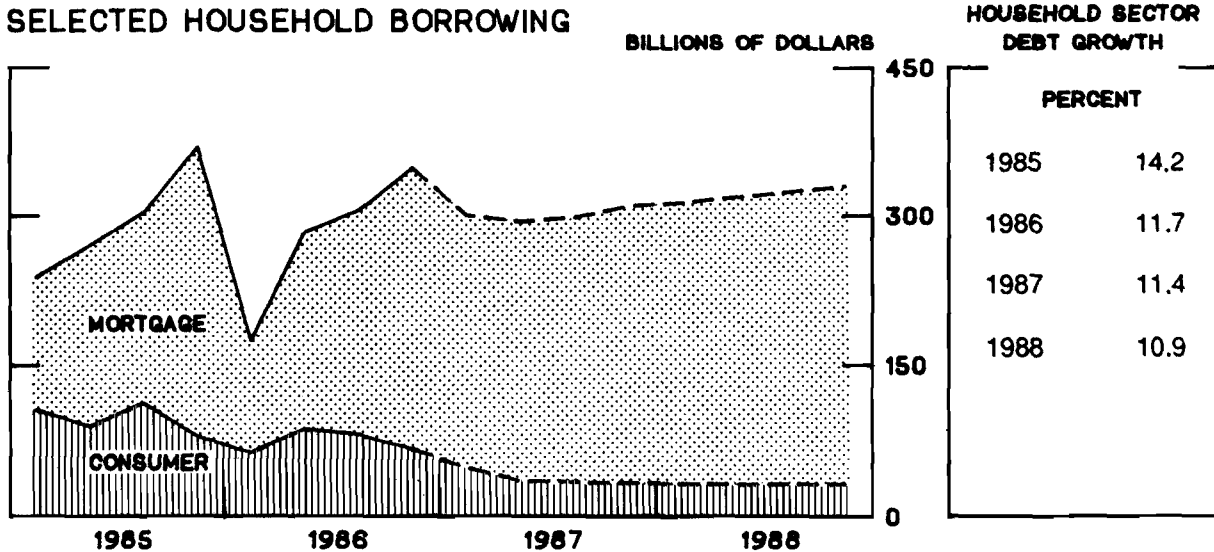
MORTGAGE PAYMENT AS PERCENT OF HOUSEHOLD INCOME



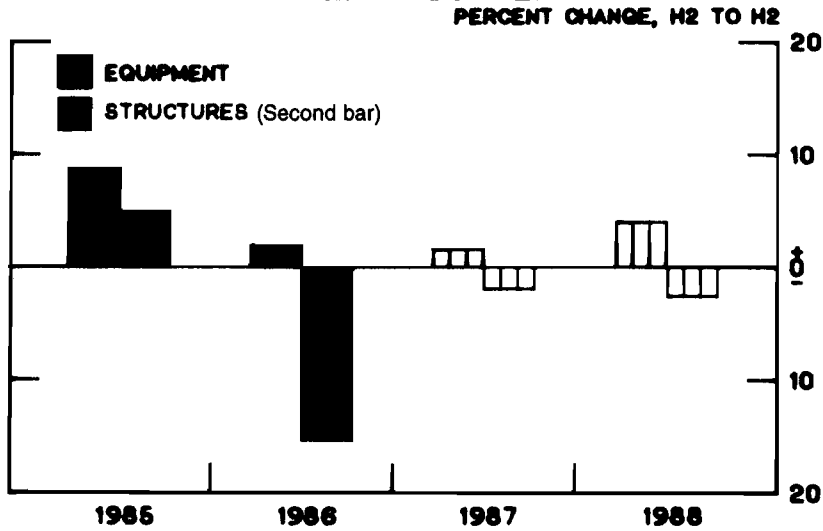
RENTAL VACANCY RATE



SELECTED HOUSEHOLD BORROWING



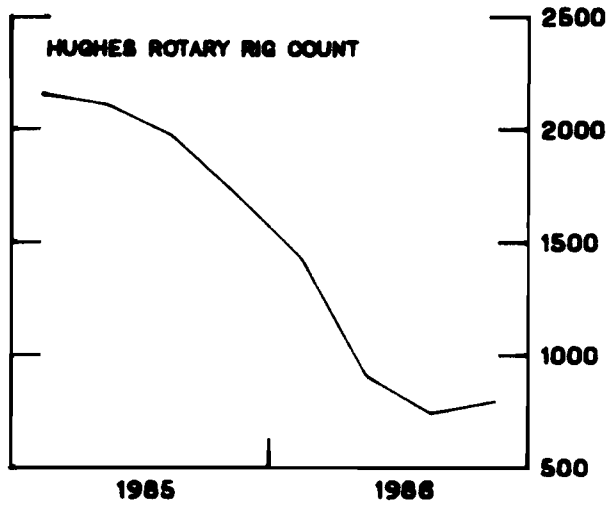
REAL BUSINESS FIXED INVESTMENT



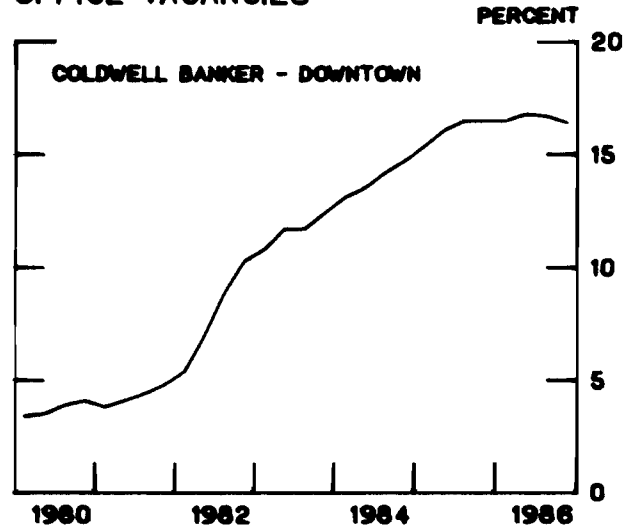
**ANNUAL PERCENT CHANGES
H2 TO H2**

	TOTAL BFI	TOTAL LESS OIL DRILLING
1985	7.5	9.5
1986	-3.7	-0.4
1987	0.6	0.4
1988	2.2	2.1

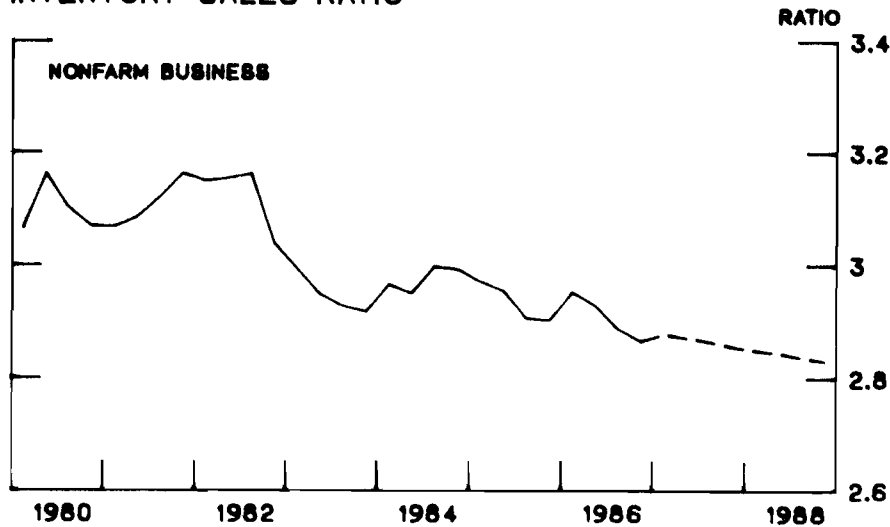
OIL DRILLING



OFFICE VACANCIES



INVENTORY-SALES RATIO



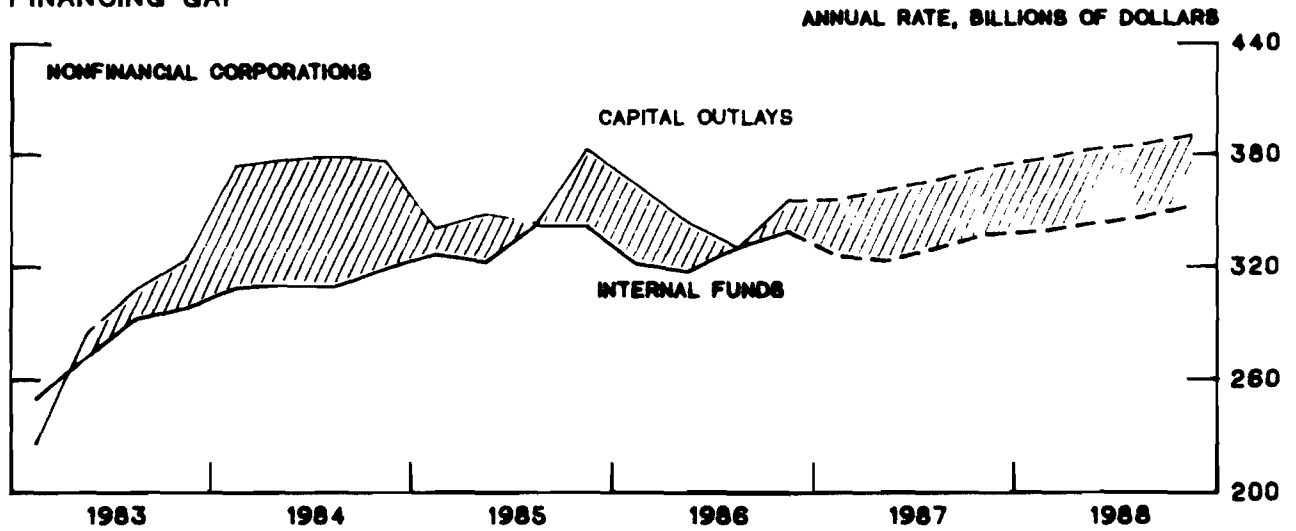
**INVENTORY INVESTMENT
NONFARM BUSINESS**

BILLIONS OF 1982 DOLLARS

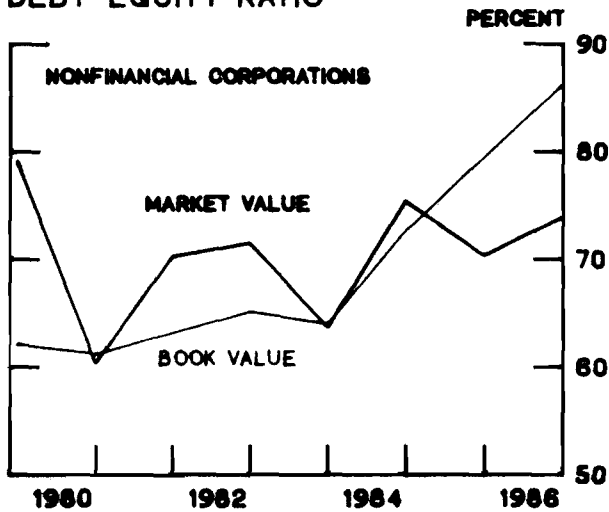
1985	10.9
1986	10.9
1987	14.8
1988	15.3

CHART 17

FINANCING GAP

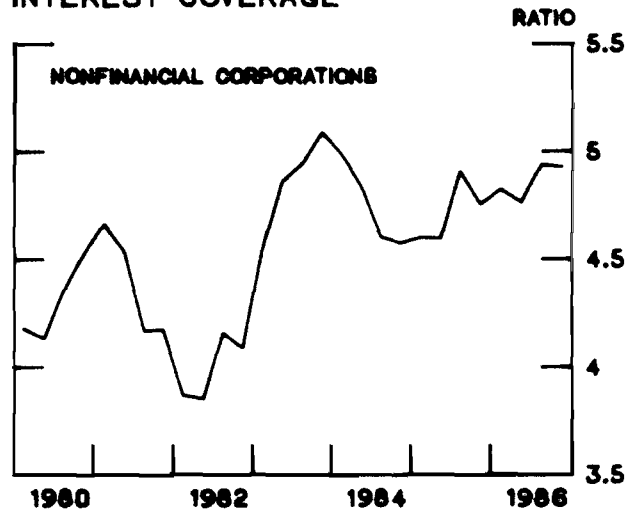


DEBT-EQUITY RATIO



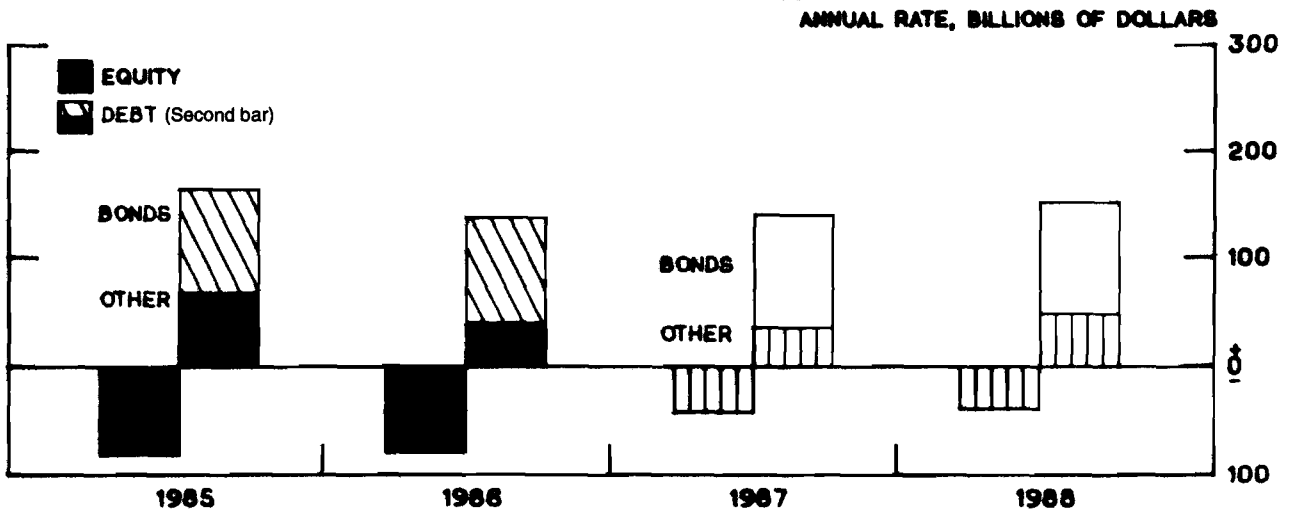
BOOK - DEBT AT PAR, EQUITY AT BOOK
 MARKET - DEBT AND EQUITY SHARES AT MARKET

INTEREST COVERAGE*

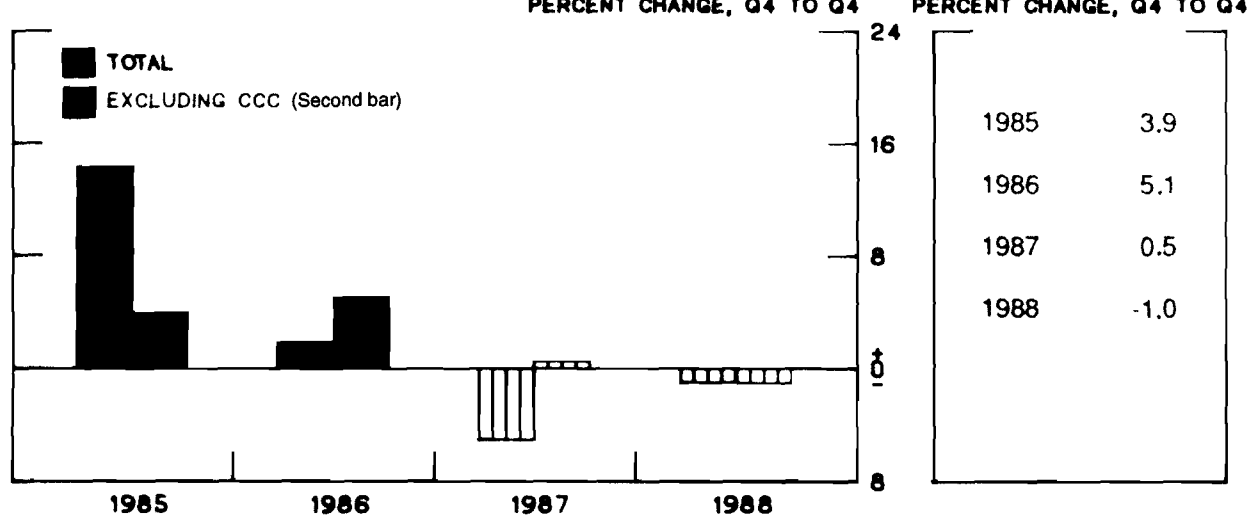


* CASHFLOW AND NET INTEREST RELATIVE TO NET INTEREST

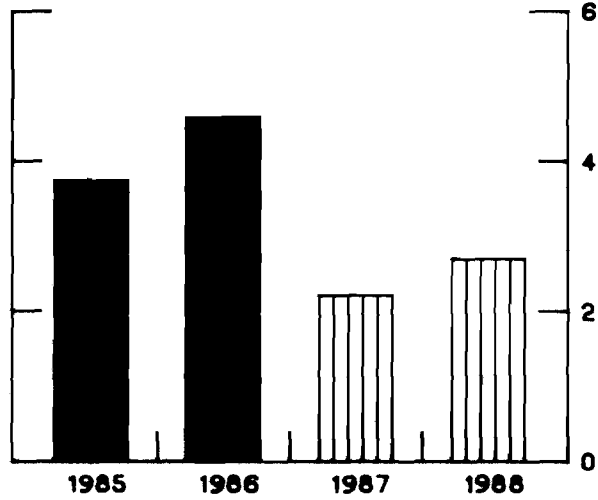
NET FUNDS RAISED BY NONFINANCIAL CORPORATIONS



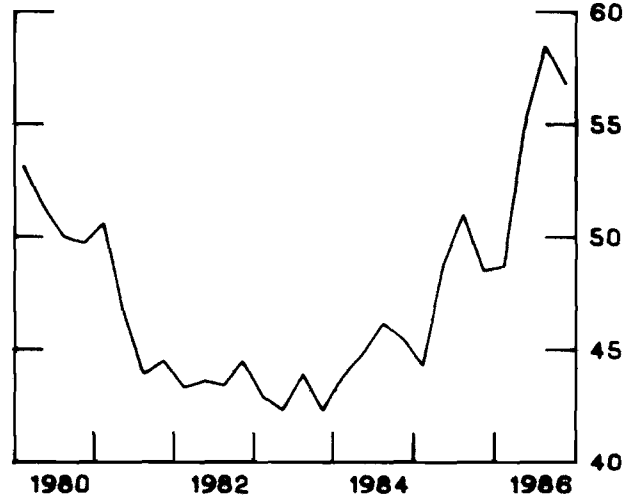
FEDERAL REAL PURCHASES



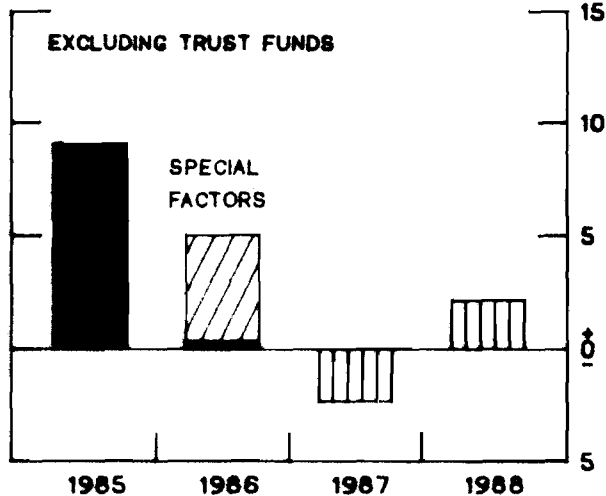
STATE AND LOCAL REAL PURCHASES
PERCENT CHANGE, Q4 TO Q4



STATE AND LOCAL CONSTRUCTION OUTLAYS
BILLIONS OF 1982 DOLLARS



STATE AND LOCAL OPERATING SURPLUS
BILLIONS OF DOLLARS



STATE AND LOCAL NET BORROWING
BILLIONS OF DOLLARS

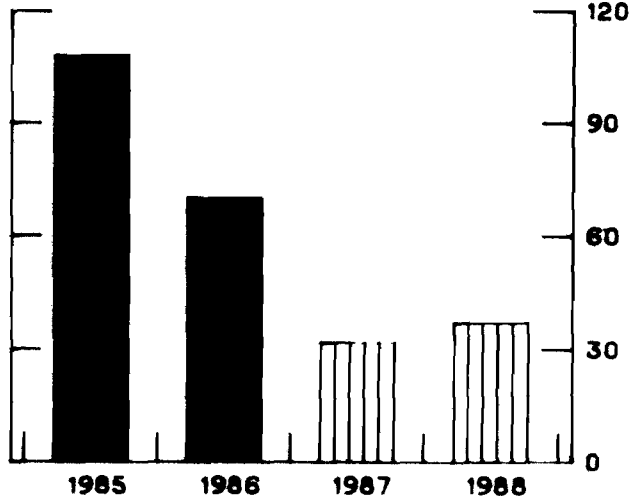
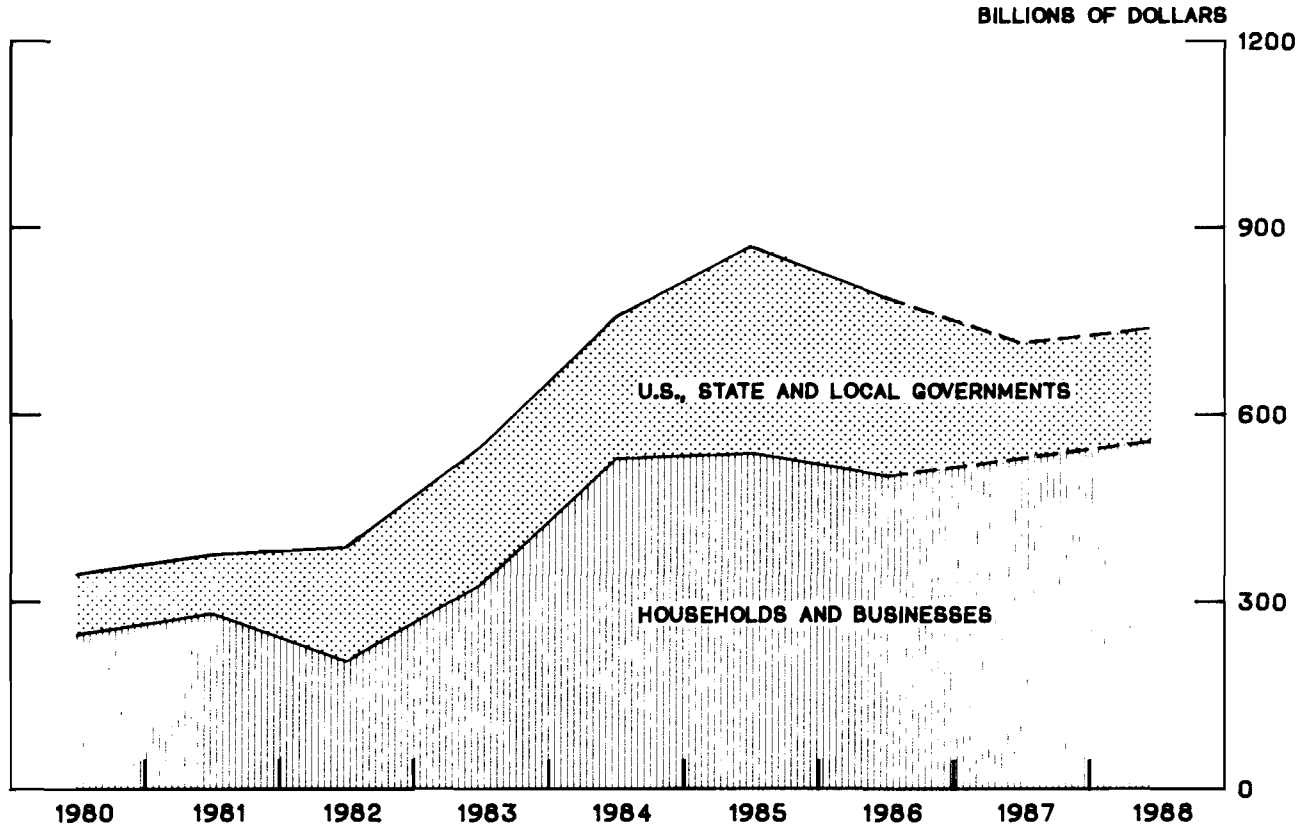


CHART 19

NET BORROWING BY DOMESTIC NONFINANCIAL SECTORS



GROWTH OF DEBT AND GNP

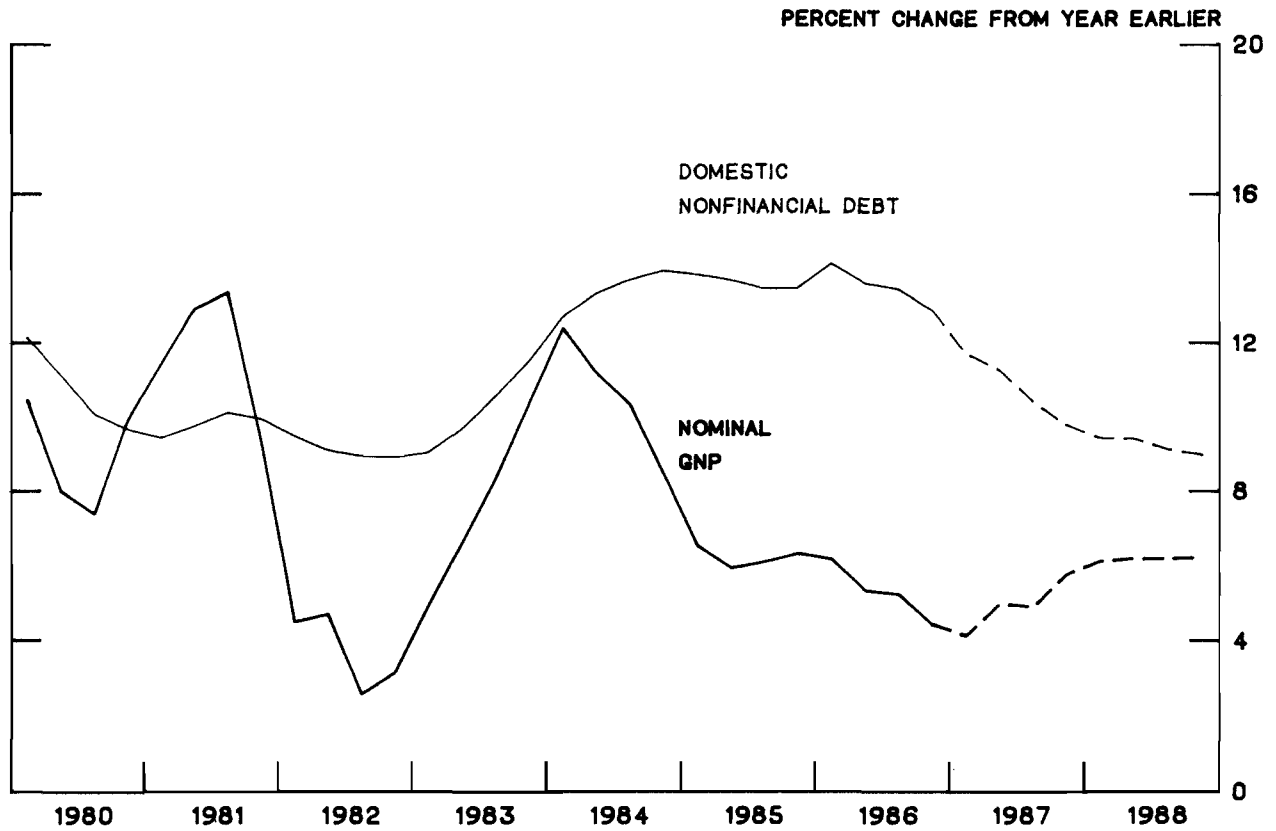


CHART 20

SUMMARY OF PROJECTIONS FOR 1987

PERCENT CHANGE, Q4 TO Q4	BOARD MEMBERS		PRESIDENTS		STAFF	ADMINISTRATION
	RANGE	MEDIAN	RANGE	MEDIAN		
NOMINAL GNP	4½ to 6½	5¼	5¾ to 7½	6	5¾	7
REAL GNP	2 to 4	2½	2½ to 3½	2¾	2¾	3¼
GNP DEFLATOR	2½ to 3	2½	3 to 4	3½	3	3½
AVERAGE LEVEL, Q4, PERCENT UNEMPLOYMENT RATE	6.5 to 6.8	6.7	6.4 to 6.8	6.7	6.6	6.5

PREVIOUS FOMC PROJECTIONS FOR 1987

REPORTED TO CONGRESS JULY 18, 1986		
	RANGE	CENTRAL TENDENCY
PERCENT CHANGE, Q4 TO Q4		
NOMINAL GNP	5 to 8¼	6 to 7½
REAL GNP	2 to 4¼	3 to 3½
GNP DEFLATOR	1½ to 4¼	3 to 4
AVERAGE LEVEL, Q4, PERCENT UNEMPLOYMENT RATE		
UNEMPLOYMENT RATE	6½ to 7	6¾

LONG-RUN POLICY OPTIONS

In considering its long-run ranges, the issues facing the Committee regarding the broader aggregates differ from those associated with M1, and so my discussion, like the bluebook, will be divided along those lines. The Committee's discussion at the last meeting suggested that the treatment of the broad aggregates and their weight in policy implementation would remain the same as in 1986--that is, target ranges for the broad money aggregates would be established, with the understanding that their behavior would continue to be interpreted in light of other information about the economy and financial markets bearing on the direction of policy. The question on the broad aggregates is whether to adopt the tentative targets for 1987 set forth last July, given as long-run alternative II in the bluebook, or to raise or lower them--alternatives I and III respectively.

Staff projections suggest that growth around the middle of the tentative 1987 ranges for M2, M3, and debt would be consistent with an outcome for the economy like that outlined in the greenbook. As noted by Mr. Kichline, this forecast is thought to involve interest rates close to current levels over 1987. Under such conditions, the velocities of M2 and M3 would be expected to return toward their trend growth rates. In the case of M3, a trend velocity decrease of around 1 percent seems reasonable for 1987; for M2, whose velocity has been essentially trendless over long periods, some further decline might be in store, owing primarily to the lingering effects of the large downward movements in short-term rates of last year. However, any such decline should be much smaller than in the last few years--perhaps also on the order of 1 percent. Thus, under these conditions, growth of around 7 percent would be expected for both M2 and M3. The velocity of debt

seems likely to continue to drop--though less rapidly than last year--given the apparent willingness of borrowers to build up debt obligations over recent years and of lenders and savers to accumulate them. Debt growth is expected to slow to a little below 10 percent, well within the tentative 8 to 11 percent range.

The higher growth rates of alternative I would allow somewhat faster income growth if velocity behaves as expected, or would give greater scope for maintaining satisfactory economic growth against the contingency of another sizable decline in velocity. Such a decline might be induced by further substantial downward movements of nominal interest rates in association with much weaker than projected performance of the real economy or prices, or by stronger than anticipated demands for liquidity. While alternatives II and III allow for some velocity declines, alternative I gives the most scope for continued rapid money growth should that be needed to sustain expansion under these conditions. Alternative I also bows in some sense in the direction of historical experience, given the tendency of M2 and M3 to grow at rates above the 8-1/2 percent upper limit of the tentative range through the 1970s and 1980s, though there are reasons to think that the factors responsible for this sort of growth will be present in 1987. Raising the range from the tentative specifications would not be unprecedented, and might be explained by reference to the outcome for 1986--both in terms of velocity declines and of actual M2 and M3 growth, which was above the upper ends of the tentative 1987 ranges.

The lower growth specifications of alternative III might be viewed as appropriate should the Committee put more weight on the risks or costs of a significant strengthening of inflation, especially in the context of a need

to restrain domestic demand to foster needed external adjustments given limited progress on the fiscal side. A reduction in the ranges from 1986 to 1987--under alternative II as well as alternative III--would more clearly signal the Federal Reserve's intention not to allow the greater price pressures of 1987 associated with energy and dollar developments to become the precursor of a more generalized resurgence of inflation. If prices do pick up substantially, rapid expansion of money relative to targets, should interest rates lag the strengthening of inflation, would more quickly signal the need to firm policy under alternative III, and once rates begin to move higher, velocity could rise appreciably, perhaps necessitating growth at even the lower end of this alternative. This alternative also could be seen as more appropriate if demands for liquidity were somewhat weaker than the staff foresees, as is suggested by many of the M2 model forecasts, which show this aggregate running below the 7 percent midpoint of the tentative range. M2 velocity already is below its historic range, perhaps suggesting the scope for a considerable rebound at some point--a rebound that would be less readily accommodated in alternative II, with its 5-1/2 percent lower end.

Turning to M1, the staff expects growth in the neighborhood of 10 percent, consistent with the income and interest rates in the greenbook forecast. Our confidence in this as a point estimate is, understandably, not very high, given recent experience and uncertainties about the response of depository institutions and depositors to historically low opportunity costs on NOW accounts. The basic point is that M1 growth is likely to remain well in excess of GNP next year, largely reflecting continued flows into OCDs, but in the assumed absence of further major interest rate movements, the rate of velocity decline and pace of M1 growth should moderate from 1986. However, the odds would not seem to favor its slowing into the tentative 3 to 8 percent range set last July. Models of M1 demand generally suggest that growth

would fall within the tentative range, but their reliability is open to question in the context of what is fundamentally an unprecedented situation involving narrow opportunity costs and deregulated deposits. Even the higher staff expectation requires a marked deceleration of both demand deposits and OCDs in 1987.

In addition to uncertainties about offering rates and depositor behavior, any M1 forecast is particularly vulnerable to unanticipated movements in market interest rates. These would be expected to have a very marked effect on M1 given the high interest elasticity of the narrow aggregate at the current configuration of market and deposit interest rates. These considerations, along with the expectations of rapid growth, raise questions about the 3 to 8 percent tentative range specifications and more generally about how to treat M1 in the implementation of policy in the communication of the Committee's intentions to the public. In July, the Committee indicated that the tentative M1 range would be subject to especially close scrutiny, resting as it did on an assumption of more normal velocity patterns. At the last meeting there seemed to be a consensus that in the current circumstances M1 should not be afforded the same treatment as M2 and M3 in terms of setting and adhering to target ranges. That still leaves open a number of possibilities.

One would be simply to forego any numerical specification for M1 or even a sense of where it might be headed this year. This approach could be implemented by something like the variant I directive language, without the material in the first set of brackets. Under this approach, the Committee would be saying in effect that uncertainty about M1 behavior is so great that at this point nothing very useful can be said about how it might grow consistent with satisfactory economic performance. The Committee would continue to

follow this aggregate and evaluate its velocity movements, but restoration of M1 as a target or even monitoring variable would have to await signs of a more normal and predictable relationship of money to income.

If the Committee believed that M1 had more value as a guide to policy than is implied by this approach, or was concerned that it might be difficult to bring M1 back at a later time, it could set a range for M1, indicating that because of uncertainties surrounding velocity behavior, growth outside the range might very well be acceptable in a variety of circumstances. Under this approach, which could be implemented by language such as that given in variant II, M1 would have more visibility, but the public would be on notice that the Committee did not consider the range to have the same status as ranges for the broad aggregates. Such a range would convey to the public a sense of what the Committee expected over the coming year, and if it were below last year's results, it would also indicate that continued M1 growth at rates like those of the past two years would not seem to be compatible with attaining and sustaining price stability over the longer run. Having a range might suggest that there are circumstances when growth outside the ranges could have some weight in the implementation of policy. There is some risk that no matter how carefully the words were chosen, the act of putting forth a range might be taken as connotating the placement of more weight on this aggregate and more importance to the upper and lower ends of the ranges than might be warranted, although experience with the debt aggregate indicates that this need not be the case. Given the uncertainties, a range that realistically was expected to encompass a high proportion of acceptable outcomes would be very wide--probably even wider than the current 5 percentage point range--and very high by historic standards.

An intermediate approach between these might be to forego a range, but to indicate in some qualitative form the Committee's expectations for M1 growth next year. The more precise these expectations were stated, of course, the greater the danger that they would not be achieved or that the FOMC would be expected to react to deviations when it would not want to do so. The language in brackets in variant I would indicate only that some slowing was expected. It also suggests why the lack of a slowing might be a cause for concern, or why a very marked slowing might be acceptable. These latter statements are an attempt to define some role for M1 at least as a backup indicator to other information indicating the course of the economy and the thrust of policy.

SHORT-RUN POLICY OPTIONS

As background for Committee discussion of the short-run policy alternatives, I thought it might be useful to expand a bit on some of the considerations behind the staff projections of interest rates and money growth.

With respect to the interest rate outlook, as mentioned yesterday, we expect some factors producing unanticipated tightness in the funds market to be at least partly reversed over the intermeeting period. For alternative B this would mean funds trading centered around 6 percent. With more normal behavior of the Treasury balance, required reserves and float, banks may be less inclined to manage reserve positions unusually conservatively. And continued publication of borrowing levels around \$300 million should calm any market concerns that the Federal Reserve had in any fundamental way tightened up on reserve availability. Under these conditions other short-term rates also would be expected to retrace some of their recent increases. However, the relationship between borrowing levels and the federal funds rate is fairly loose, even abstracting from some of the short-run factors just cited. The greater risk to this projection may be that in the face of cautious reserve management at large banks and a lack of liquidity pressures at smaller institutions funds could trade more often above than below 6 percent, leaving less scope for declines in other rates.

With regard to the outlook for the aggregates, we expect a considerable slowing in growth of all the Ms over February and March relative to the December-January average. The pattern of growth over the four months is greatly affected by the distortions around year-end and much of the slowing

in February-March represents the subsequent dissipation of these effects. By late January, demand deposits had returned to their level of November, suggesting little net effect from this source on the February level. Overall, these variations are around what we believe to be a moderating trend in monetary expansion, as the impact of earlier interest rate declines abates. This is suggested by projections of 7 percent growth for M2 in March and 11-1/2 percent for M1 -- both considerably below the pace of last year. M3 growth also is projected to slow over the two months. For this aggregate the year-end effects have not entirely been reversed, as many of the year-end loans remain on bank books, along with the CDs issued to fund them.

Partly as a result, M3 growth over November to March is now expected at 7-1/2 percent, slightly to the high side of the Committee's current 7 percent path. Even with the marked slowing in February-March, and the washing out of year-end effects, M2 growth is projected at around 8 percent over the four-month period. In this regard it may be worth noting that the seasonal revisions themselves have raised M2 growth rates for a given NSA path over 1 percentage point over the four-month period. M1 is projected to grow at a 15-1/2 percent rate over the four months, and with the demand deposit bulge having washed out, OCDs again are expected to account for the rapid growth. The bluebook retained the November base for the short-run targets in order to minimize the impact on money growth paths of the year-end distortions. If the Committee did shift to the higher December base, however, the staff projections suggest that it could more confidently retain the existing 7 percent short-run specifications for the broad aggregates.

The differences among the three alternatives in terms of money growth outcomes through the first quarter are fairly small, given that we are already halfway through the quarter. The impact of any near-term change in money market conditions would likely be felt more in the second quarter, when the easier conditions of alternative A might give rise to continued M2 growth along the upper end of its range, while alternative C would increase the odds on M2 growth close to the midpoint of its range. The choice of alternatives, or perhaps of any tilt to the directive language dealing with intermeeting adjustments, would seem to rest on much the same kind of considerations discussed with respect to the long-term alternatives. The easier conditions of A or asymmetrical language such as now exists in the directive would seem most appropriate if the risks were seen weighted toward a short-fall in activity with little resurgence in price pressures--perhaps outweighing concerns about the potential for intensified dollar weakness. The tighter conditions of C, or a greater readiness to tighten than to ease over the intermeeting period, might be associated with concern about inflation and the dollar, particularly in the context of stronger economic data of late.

Variant I for M1

With respect to M1, the Committee recognized that, based on experience, the behavior of that aggregate and its appropriate growth must be judged in the light of other evidence with respect to economic activity and prices; fluctuations in M1, among other factors, have become much more sensitive in recent years to changes in interest rates. The Committee anticipates that growth in M1 should slow over 1987 as a whole. However, in the light of its sensitivity to a variety of influences, the Committee decided not to establish a precise target for its growth over the year as a whole at this time. Instead, appropriate changes in M1 during the course of the year will be evaluated in light of the behavior of its velocity, developments in the economy and financial markets, and the nature of emerging price pressures.

In that connection, the Committee believes, particularly in the light of the extraordinary expansion

of this aggregate in recent years, much slower monetary growth would be appropriate in the context of signs of intensifying price pressures, relatively strong growth in the broad monetary aggregates, excessive weakness of the dollar in exchange markets, and continuing economic expansion.

Conversely, continuing sizable increases in M1 could be accommodated in circumstances characterized by sluggish business activity and maintenance of progress toward underlying price stability. As this implies, the Committee in reaching operational decisions during the year, will evaluate appropriate growth in M1 from time to time in the light of circumstances then prevailing, including the rate of growth of the broader aggregates.