

APPENDIX

NOTES FOR FOMC MEETING  
Margaret Greene  
July 9-10, 1985

The dollar was remarkably resilient for much of the period since the latest discount rate cut and your last meeting. Through last week, dollar rates moved essentially sideways, showing little of the volatility that had marked exchange rate movements during earlier months of this year. The tone for the dollar was at times soft-- particularly following release of figures suggesting a further slowdown of U.S. economic growth and talk of yet further declines in U.S. interest rates. But not until yesterday did the dollar show any pronounced drop. Now the dollar is 3 to 7 percent lower than May 21. Much of this decline occurred in the past two days.

Neither the German mark nor the Japanese yen got much lift from the dollar's easier tendency. Their gains against the dollar were among the lowest, or about 3 percent. Perceptions that the economies of Europe and Japan are vulnerable to a slowdown in exports to the United States were reinforced by disappointing statistics for the first quarter. The Bundesbank's efforts to guide short-term market interest rates down about 25 basis points since late May through open market operations has not relieved growing concern about Germany's unemployment problem. The focus of attention there has moved to fiscal policy, where a debate has emerged over whether to cut taxes in one or two steps. Whatever the merits of the case, this debate is leaving a sour taste in the market. It underscores Germany's difficulty in creating new jobs, casts doubt about the government's ability to respond constructively to a changing economic environment, and raises questions about the prospects for retaining political support even within the governing coalition.

The principal currency to benefit from the easier dollar has been the British pound. It alone appreciated 7 percent during the intermeeting period. Since its low point in February, the pound has recovered 32 percent against the dollar and 14 percent against the mark to trade at its highest levels in 14 months. The outlook for economic growth for the United Kingdom is brighter than for most. Interest rates in the United Kingdom are high, holding the levels above 12 percent that have prevailed for six months. Current retail price and money supply data suggest to market participants that the British authorities will have less scope than others for letting domestic interest rates follow any generalized decline in interest rates. Thus, sterling-denominated assets appear to be the most attractive alternative to dollar assets for investors resisting lower, single-digit yields. With all the traditional and innovative hedge products available to be used should sterling start to weaken, investors feel reasonably confident they can protect themselves against adverse exchange rate moves.

For much of the intermeeting period, the dollar benefitted from a fading of expectations of a sharp downward break in dollar rates. The currency was steadier than anticipated in the face of narrowing interest-rate differentials and unfavorable news. Also many market participants expected the United States economy to be more buoyant in the second half of the year than the first. Consequently, corporations and investors remained willing to take advantage of dollar rates that appeared cheap, relative to rates of the past nine months, to meet requirements. Furthermore, the interest yields on dollar investments were still large relative to any loss of principal coming from the modest decline in the dollar. Consequently, there was a further buildup of foreign investment in fixed income securities and

little concern that investors had an immediate incentive to hedge by selling dollars in the forward market.

Foreign central banks, breaking sharply with the pattern of earlier months, were also substantial net buyers of dollars during the intermeeting period. The other central banks of the G-10 bought more than \$3 billion in the market as well as more than \$1 billion equivalent of marks, thereby in effect providing support to these two reserve currencies. Adding central banks' market purchases of dollars, estimated interest earnings and estimated dollar proceeds from other operations, we calculate that the foreign G-10 central banks as a group have accumulated, since the beginning of the year, the bulk of the dollars they sold in the coordinated interventions of January-early March.

Foreign central banks have thereby shown themselves unwilling to sustain a more or less permanent drop in official reserves. Their concern about relatively high levels of the dollar appears quick to subside when their currencies stop declining and the exchange rate is no longer a source of price pressure at home. A couple of central banks have sought to reconstitute reserves lost earlier in the year. At least one central bank is making provision for a government loan repayment later this summer. Several central banks are operating within the EMS framework at a time when their currencies appear to be firm relative to the German mark. These central banks feel an appreciation of their currencies against the mark is unrealistic on economic grounds. Similarly, they are apprehensive about letting their domestic interest rates ease more rapidly than those in Germany. Consequently, they resort to intervention and purchase the two currencies deemed likely to be most useful if needed to finance future intervention to support their currencies.

Demand for dollars from both the private and public sectors-- as well as the practice of judging the dollar chiefly by comparison with the mark--gave the dollar more of an appearance of stability than was justified. In fact there was a weakening of sentiment towards the dollar developing among a more narrowly defined group of market professionals since late May. Bank foreign exchange dealers and IMM speculators have been consistent buyers of currencies, preferring Swiss francs and yen to German marks. They have noted the dollar purchases of foreign central banks and perceived other countries to be willing to accept the competitive advantages of the current situation. Bank dealers now perceive it is the United States--not other countries--that is concerned about the consequences of the current exchange rates. They are wary that the Federal Reserve might perceive itself as having room to push interest rates down aggressively in hopes of stimulating the economy and getting the exchange rate lower. It is the Federal Reserve, rather than the Bundesbank, that is being rumored to be the central bank most likely to intervene to limit any tendency for the dollar to rise.

Under these circumstances, the market is vulnerable, both technically and psychologically. An example of this vulnerability is the exchange market reaction to Friday's employment data that weakened confidence about the ability of the U.S. economy to regain momentum on its own. Market professionals simply were not prepared to take into their positions dollars offered them by investors and corporations now disappointed by the dollar's performance. Thus, the dollar moved down 2-3 percent in a matter of 24 hours. After this drop, talk began to circulate in the market that investors are beginning to reevaluate their dollar investments and taking advantage of maturing deposits to diversify somewhat more. In the days ahead, sentiment will be

influenced greatly by market assessments of how the Committee deals with the difficult policy choices it confronts at this meeting.

Despite persistent rumors to the contrary, we have not intervened in the exchange markets during this period.

Our only foreign-currency operation was done, for the account of the Treasury's Exchange Stabilization Fund, in connection with U.S. participation in a multilateral bridging loan for Argentina. The United States accounted for \$150 million of the total \$483 million facility that was established with the support of twelve monetary authorities after Argentina announced its agreement with the IMF on a stabilization program. Argentina has made two drawings of roughly equal size on this loan for a total amount of \$460 million, of which the U.S. portion was \$142.9 million. Argentina is scheduled to repay the drawings in two installments--on August 15 and September 30--using if necessary proceeds of its drawings on the IMF.

Recommendations

None.

NOTES FOR FOMC MEETING  
July 9-10, 1985  
Peter D. Sternlight

Desk operations since the May 21 meeting sought to maintain unchanged pressure on reserve positions, taking account of the discount rate cut just before that meeting. Operations were conducted against the background of an exceptionally unruly Treasury balance and mixed trends in economic and money growth. Economic indicators continued to show spotty growth, with occasional signs of strength mitigated by indications of weakness. At the same time, inflation data remained quite favorable. Meanwhile, after slowing in April and early May, growth in M1 surged later in May and right through June--raising it far above the Committee's preferred March-to-June pace and appreciably above its parallel growth band. Growth in M2 accelerated as well, with strength in June lifting this measure a little above its annual growth cone but still well within its parallel band. March-to-June M2 growth turned out about in line with anticipations as of March, but above those indicated at the May meeting. While M3 growth also picked up, it was still a bit below the Committee's three-month growth rate indicated at the March meeting. This put the June level just above the midpoint of its annual growth cone.

Reserve paths allowed for \$350 million of adjustment and seasonal borrowing exclusive of "special situation" thrift borrowing, an amount close to the borrowing of the prior intermeeting period after comparable adjustment. Actual borrowing was initially expected to run somewhat higher because of the special borrowing that had not yet been classified as extended credit. (By late June, virtually all such borrowing had been reclassified and some of it had been paid down.) After incorporating this adjustment, however, borrowing ran higher than

allowed for, averaging in the neighborhood of \$500 million in each of the three full reserve maintenance periods. These higher levels reflected a surge in borrowing on the final day of the first period and a deliberate undershoot of the nonborrowed reserve objective in the second period when it seemed appropriate to avoid exacerbating a resurgence of discount rate fever. Borrowing ran close to path over most of the third reserve period but surged again on the final day when quarter-end seasonal needs sharply boosted demand for excess reserves, well beyond the rough allowance made for greater demands. Borrowing is averaging about \$1,250 million so far in the current period, boosted partly by the high borrowing last Wednesday which carried over to the July 4 holiday, but running somewhat high even after allowing for that factor.

Following the newly established 7 1/2 percent discount rate just prior to the last meeting, the average funds rate initially varied about 7 5/8 - 7 3/4 percent, about as expected. The rate began slipping off around mid-June and fell briefly below 7 percent before moving back up. Later in the period when quarter-end and seasonal needs exerted upward pressure at the end of June and early July, the rate rose above 8 percent. The drop in mid-June reflected persistent shortfalls in the Treasury's balance, the string of which defied normal probability. As a result, banks' cumulative reserve excesses grew even though projections for the full reserve period then underway still showed a need for additional reserves. With downward pressure on the funds rate intensifying and buoyed further by near-term expectations of another discount rate cut, the Desk deliberately left the reserve need unsatisfied and, in fact, took some action to drain reserves.



The Treasury balance complicated reserve management again toward the end of the period but in the opposite direction. Bank reserve needs at the mid-year quarter-end--followed shortly by the social security payment day and the July 4 holiday--are normal periods of seasonal strain. In the three day interim this year, however, massive swings in the Treasury balance at the Fed exacerbated the dislocations. The balance jumped to \$10.2 billion on July 2 when new financings were paid for--a one-day swing of \$8.2 billion--only to fall back on July 3 when social security payments were made. So far in the current reserve period, the funds rate is averaging 8.17 percent, but market participants generally regard this as a temporary result of lingering seasonal pressures, and expect to see funds more like 7 1/2 - 7 3/4 percent in the next few days.

Desk operations added \$2.3 billion to the System's outright portfolio early in the period through purchases of \$1.7 billion of Treasury bills in the market and a net of about \$600 million from foreign accounts. These were designed to offset seasonal drains from currency and the Treasury balance which still absorbed reserves despite the shortfalls noted earlier. Matched sales in the market were used three times, in large part to dampen market enthusiasm, while repurchase agreements were arranged on about 10 occasions.

Rates declined over the interval but there were wide swings in the process as the market pored over each economic release and reacted with fits of exuberance or caution. Market participants began anticipating another cut in the discount rate shortly after the May 17 reduction. Incoming information on the economy continued lackluster,

price data were positive and news on the budget front appeared encouraging. The markets rallied sharply through early June, reducing yields in the Treasury and corporate sectors to the lowest levels in five years. Hopes for a near-term cut in early June were set back for a time by the report of a large rise in payroll employment in May.

By mid-June, however, expectations of a rate cut were revived again by weak industrial production numbers, favorable price statistics and a softer funds rate. By June 18, bill rates were down by 60 to 65 basis points and the yield on the Treasury's 30-year bond had dropped to 10 1/4 percent, a decline of 60 basis points. The prime rate was cut that day to 9 1/2 percent. Discount rate hopes were blunted shortly thereafter by strong personal consumption data and a 3.1 percent "flash" estimate of second-quarter real GNP growth. The markets quickly retreated, and a surge in the weekly money supply number contributed a further sobering influence. While rates backed up considerably, the undertone has remained constructive, although the weaker dollar in the last couple of days has also had a cautionary impact. Fundamentally, market participants seem to feel that the economy is just not growing sufficiently--certainly not enough for the Fed to react to rapid money growth by firming up, and perhaps showing enough weakness to warrant some greater measure of policy accommodation. An added fillip in this respect came from weaker June employment data last Friday.

In the Treasury coupon market, the decline in rates on a net basis ranged from 45 to 60 basis points. The Treasury raised \$26.2 billion of new cash in the coupon market during the period but a good part of this was done following the market's mid-period retreat and, at

the higher rate levels, the financings were well received. The financing included another sale of foreign-targeted notes early in the period in conjunction with the 5-year note auction. The Treasury saved 19 basis points on this offering--up from the 7 basis point differential at its prior sale. In this regard, I should note the growing influence of Japanese activity in the Treasury market. They are becoming a sizable factor in daily activity as well as in the auction process.

In the Treasury bill market, rate declines of 30 to 45 basis points were registered on a net basis. Only \$1.6 billion of new cash was raised in this market. At yesterday's weekly auction, average issuing rates of 6.92 and 7.00 percent were set on new three- and six-month bills compared with rates of 7.28 and 7.43 percent at the May 20 auction. Other money market rates shared in the decline initially but to lesser extent thereafter. Some caution emerged in the wake of adverse news for B of A and First Chicago and quality spreads widened somewhat. Declines of roughly 20-30 basis points were registered for CDs with commercial paper and BA's lower by 10 to 25 basis points.

Finally, a few words on regulation of the Government securities market, which has been the subject of active discussion and Congressional hearings since the last FOMC meeting. Conclusions of the Fed-SEC-Treasury discussions of regulatory possibilities were presented to the House Subcommittee on Telecommunications, Consumer Protection and Finance on June 20 by SEC Chairman Shad. It's an understatement to say that neither the participating agencies, the Congress, or the public, were terribly enthusiastic about the approach presented.

The statement indicated that there remained a difference of views among the agencies about the necessity for regulation, but it provided a regulatory framework which would be acceptable to the three agencies, if Congress deemed legislation necessary. The proposed approach included: registration; rule-making by the Treasury, in consultation with the Fed; inspection and enforcement by existing bank and nonbank regulators; and continued surveillance over primary dealers by the Fed.

The proposed Treasury role as rule-maker seems to be particularly controversial, with only the Treasury firmly in that corner. One SEC Commissioner was clearly opposed to it. Chairman Volcker said at the Subcommittee hearing on June 26 that the Fed supports a legislative approach entailing registration, inspection and limited regulation directed to specific areas of concern. The joint agency proposal would satisfy these needs, he said, but he noted his own leaning toward a self-regulatory body to write rules with the Fed exercising more than a consultative role in the oversight of that body.

The House Domestic Monetary Policy Subcommittee is currently holding hearings on bills to regulate the market with the Fed in a more prominent role. Chairman Volcker testified this morning.

Given the differing views among the agencies, and sticky questions about Congressional Committee jurisdiction, it's hard to say where all this might end up, but in the meantime we're proceeding on the assumption that the Fed will retain an active and in fact intensified role with regard to surveillance of the primary dealers.

JLKichline  
July 9, 1985

## CHART SHOW -- INTRODUCTION

During our presentation this afternoon we will be referring to the package of charts distributed to you. The first chart in the package displays the principal assumptions that underlie the staff's economic and financial forecast. For monetary policy, we have assumed growth of M1 at a rate of around 8-1/2 percent this year and 5-1/2 percent in 1986. The fiscal policy assumption entails deficit-reducing actions of \$50 billion effective in fiscal year 1986. The foreign exchange value of the dollar is expected to decline at a moderate rate of 8 percent per year.

The top panel of the next chart shows the behavior of money and nominal GNP growth in recent years. Growth of M1 over the first half of this year was at an unusually rapid pace relative to the expansion of nominal GNP; a similar phenomenon of a steep decline in velocity occurred during 1982 and the first part of 1983. These developments are discussed in Mr. Axilrod's memorandum to the Committee assessing recent M1 growth and the implications for monetary targeting. In any event, we've struggled with the relationship among money, interest rates, and income in developing the staff forecast. The assumption of 8-1/2 per cent M1

growth during this year is consistent with M1 growth in the second half of this year of a bit over 6 percent on a quarterly average basis, down from the 10-1/2 percent increase in the first half. We have taken the position that the lagged effects of earlier interest rate declines and whatever unusual forces have been affecting money demands will wane, such that the slower money growth occurs in the context of an interest rate structure that is little changed over the course of the projection.

The lower panel displays information on the federal budget. The bulk of the assumed \$50 billion deficit reduction package is expected to fall on outlays, but even with those actions the deficit is projected to be \$185 billion in FY 1986. The actions assumed, however, are still sufficient to halt the rise in the structural deficit. This is a different posture for fiscal policy than in the preceding several years in which the structural deficit was rising strongly and adding to growth of domestic demands, although some portion of that stimulus was flowing abroad.

The next chart presents information on recent economic developments, which have shown a good deal of diversity among various sectors. The top left panel shows that payroll employment this year has risen considerably while manufacturing employment has declined. On a monthly basis,

the employment figures for June, which became available last Friday, indicated a weaker pattern of overall employment growth than earlier in the year, with notably smaller increases in service employment. The general weakness in the manufacturing sector is evident in the behavior of industrial production, the top right panel. Industrial output in May was not much higher than during the summer of last year, and June is expected to show little change.

The middle left panel indicates the generally large gains in consumer spending, measured by real retail sales excluding autos and nonconsumer items. In the auto market, the right panel, total sales in the second quarter averaged about the same as the strong pace in the first quarter. For June, however, total auto sales declined, associated in part with the ending earlier of sales incentive programs at domestic firms.

The housing market, bottom left panel, has been benefitting from lower levels of mortgage interest rates and housing activity seems to be on the rise. In the business investment area, orders for nondefense capital goods have been volatile, but nonetheless have been flat or trending lower for some time reflecting the slowing of investment spending as well as the toll of capital good imports on domestic suppliers. All told, it seems to us that real GNP

in the second quarter expanded at about a 2 percent annual rate, the same as thought at the last meeting of the Committee and somewhat less than the Commerce Department's flash report.

The next chart shows the broad contours of the staff's projection. Real GNP in 1985 and 1986 as a whole is projected to rise around 2-1/4 to 2-1/2 percent, with more of the demands next year expected to be satisfied from domestic sources than was the case earlier in this expansion. That rate of growth of GNP is insufficient to absorb much more than the increase in the labor force and--as shown in the middle panel--the unemployment rate remains around 7 to 7-1/4 percent through 1986. Price increases, shown by the GNP deflator, are expected to remain at the rates experienced in 1983 and 1984.

Mr. Prell will now discuss the staff's economic and financial forecast in more detail.

\* \* \* \* \*



MJPrell  
July 9, 1985

CHART SHOW -- DOMESTIC ECONOMIC & FINANCIAL OUTLOOK

The next chart offers some perspectives on the slowdown in economic expansion since the middle of last year. As you can see in the top panel, the cumulative increase in real GNP over the course of the business upswing has moved back into line with the experience of other post-Korean War cycles that lasted this long. Moreover, the middle panel shows that the same story holds for industrial production, despite the special difficulties the manufacturing and mining sectors have faced in this expansion. The lower panel highlights a couple of features of the deceleration in GNP growth. A comparison of the first and second lines reveals that the slowdown in domestic purchases has been more pronounced than that of GNP, as net exports are estimated to have deteriorated less rapidly over the past year than they did in the first six quarters of the expansion. The other observation, based on the second and third lines, is that the slowdown has reflected in significant part an inventory correction, as domestic final purchases actually have decelerated considerably less sharply than total domestic purchases over the past year.

The next chart focuses on this inventory swing. Inventory investment was strong in the first half of last year, and the inventory-sales ratio in manufacturing was rising even before sales softened. Since then, businesses have struggled hard to keep stocks under control. The data in the top panel are consistent with our sense that, although inventory overhangs remain something of a problem in a few areas, such as primary metals and nondurables retailing, they are not a serious impediment to expansion. We do expect that businesses will seek to maintain lean stocks, however, and--as the bottom panel indicates--we are not expecting inventory investment to be a dynamic element in GNP growth over the forecast period.

Of course, if final demand were to weaken markedly, the inventory investment outlook would be less stable. But, as the top panel of the next chart indicates, we are projecting that consumer spending will continue to post gains, albeit more moderate ones than earlier in the expansion. One reason for expecting a less robust growth of consumer outlays is that the heavy purchases of durable goods in the past couple of years probably satisfied a good share of the demands deferred during the back-to-back recessions of the early 1980s.

A slowing of spending growth also is suggested by developments on the income side. Employment gains will be smaller than those to date in the expansion, implying lesser increases in wage and salary income. But, in addition, under our fiscal assumptions there will be no repetition of the personal tax cuts that, as shown in the middle left panel, boosted spendable income in 1981 through '83. Indeed, while the gyrations caused by refunds in the first half obscured underlying trends, it appears that the Deficit Reduction Act of 1984 raised slightly the federal tax bite.

Several considerations do lead us to expect that consumer spending will keep pace on average with disposable income growth in the period ahead, even though the personal saving rate has been relatively low of late. As may be seen in the right panel--the wealth position of the household sector has improved greatly since last year, owing in part to the strong performance of the stock market. Moreover, consumer sentiment--as reflected in the survey data at the left--is favorable, and people have demonstrated their willingness to borrow to finance desired outlays. As you know, installment debt soared further over the first half of the year, pushing the debt-to-income ratio to an all-time high; delinquency rates on consumer loans, represented in the right panel, have risen somewhat, but evidently not enough to deter lenders.

Turning to the next chart, the downturn last year in homebuilding was a significant contributor to the slowing in GNP growth, but the decline in interest rates since last fall has fostered a strong rebound. With rates expected to remain near recent levels, we are looking for some further gain in housing starts in the second half, centered in the single-family market. As the middle left panel indicates, the recent drop in mortgage rates has been sizable, but the affordability of homes has been enhanced as well by the relatively slow rise of house prices. The right panel shows that, relative to income, the payment on a typical new loan has fallen substantially.

The slower advance of house prices--with absolute declines in some markets--has had its negative side, to be sure. Among other things, it has contributed to a higher rate of mortgage delinquencies and foreclosures, the former being depicted at the bottom left. Indeed, the response of single-family home demand to the decline in interest rates might have been stronger had it not been for the defensive measures taken by lenders and insurers in response to the deterioration in credit quality. Meanwhile, in the multifamily sector, we expect that the high level of rental vacancies, shown in the right panel, will soon begin to be reflected in lower starts. However, multifamily building reportedly has been buoyed somewhat by tax considerations, and we recognize that the housing market in general could be buffeted by shifting anticipations of tax reform legislation.

The same certainly is true of business fixed investment, which is addressed in the next chart. On the assumption that anticipatory effects will be largely offsetting, we are projecting growth of real BFI at roughly a 4 percent annual rate in the second half of this year and closer to 3 percent next year. The implied increase for 1985 as a whole is in line with the

available survey evidence. The middle panel summarizes the spring Commerce Department survey. It is of interest to note that manufacturing industries account for well under half of expected plant and equipment spending; this reflects in part the fact that the overall ratio of capital to output in the nonmanufacturing sector is now comparable to that in manufacturing. The table shows that the two biggest industry groupings reported plans for appreciable increases in outlays, though much smaller than those recorded in 1984. Spending by the residual "other" category looks to be flat, owing to weakness in the mining and electric utility industries. On the whole, capital spending programs seem to be holding up relative to earlier plans, despite the weakness in output growth, as firms seek to cut costs and maintain competitiveness for the longer haul.

One segment of spending that has been conspicuously weak recently has been the computer and office machine category, at the bottom left. Problems of digesting the equipment already acquired or of deciding what to buy from a confusing array of actual and promised equipment evidently are cutting into orders. But, our expectation is that high-tech equipment eventually will provide renewed lift to investment outlays as firms perceive opportunities for production efficiencies. In contrast, we are projecting that nonresidential construction will level off in the coming year. Office building, shown at the right, has continued to rise rapidly, but so too have vacancy rates and a downturn should come before long--indeed, the sooner the better if lenders are to avoid major problems.

The decline in the cost of capital that we've seen in recent months should help to buoy overall investment, but at the same time businesses in many industries will continue to face pressure on their profit margins. The

top panel of the next chart shows that the economic profits of nonfinancial corporations have leveled off, and we see some slight erosion in the next year. We've also plotted a rough estimate of economic profits for manufacturing. It's rough because the Commerce Department does not compute economic depreciation at this industry level. The figures suggest that aggregate manufacturing profits, while losing some ground relative to earnings elsewhere since early last year, have recorded a comparable improvement over the expansion as a whole.

In terms of cash flow, it appears that the projected capital spending should not strain corporate resources. As the middle panel shows, the ratio of capital outlays to internal funds remains well within the historical range. And though the financing gap is likely to widen somewhat in the months ahead, credit demands may not increase commensurately. As indicated in the bottom left panel, the net redemption of equity in association with mergers and various forms of financial restructuring has continued to be extremely large and has been offset by heavy borrowing. We have assumed that this distortion of financial flows will diminish progressively.

We also are projecting a stabilization of the overall corporate debt structure. The aggregate measure shown in the right panel, which takes loans and short-term paper as the proxy for short-term debt, may not be a precise indicator of financial risk in a world of floating rates and swaps; nonetheless, the recent surge in bond offerings suggests that there is a considerable desire to shift borrowing patterns when the price looks right.

Turning now to the public sector, the next chart shows that, with the assumed deficit reduction actions, real federal purchases are expected to slow considerably. In fact, purchases are projected to grow more slowly

than GNP in 1986, and the same is true in the state and local government sector, depicted in the middle panel. State and local construction outlays have resumed an upward trajectory, reflecting in part an effort to address the problems of a deteriorating infrastructure; however, construction does not bulk large in total outlays, and pressures from taxpayers and concerns about possible federal actions are leading to a cautious spending stance by state and local officials. Even with the slow growth projected for spending, as the bottom panel shows, we expect that the sector's budget position will be worsening in the next year.

Both the federal government and state and local units, have been heavy borrowers in recent years. As you can see in the top line of the next chart, the federal government's cash needs will continue sizable, though diminishing with the deficit next year. The state and local outlook is more uncertain, but we expect their borrowing to slow, too, partly because, absent a further decline in interest rates, there should be a drop-off in refunding activity from the recent strong pace.

Household borrowing, on the other hand, is likely to increase somewhat. We foresee some rise in mortgage flows, in line with housing activity, and this should more than offset the expected slowing of consumer debt expansion. In the business sector, as I noted earlier, we see only a small change in overall credit use, assuming that our assumptions about mergers, etc. are right.

The bottom line of this analysis--and of this table--is some deceleration in the growth of the domestic debt aggregate, but with the expansion of debt continuing to outstrip that of GNP. As may be seen in the lower panel, this pattern has produced a dramatic increase since 1982 in the ratio of debt to GNP. While much of this rise reflects, arithmetically, the surge in federal

debt, the phenomenon has been broader than that. Moreover, adjustments for merger financing or the substitution of domestic spending for GNP would not alter the picture greatly. The amassing of such debts relative to income flows does raise some concerns about financial fragility; however, the economic circumstances embodied in our forecast don't seem to point to a major testing of the vulnerability of this structure.

For example, the household sector should continue to benefit from reasonably robust labor demand. As shown in the next chart, employment growth is projected to taper off, but to remain quite substantial outside of manufacturing. Output expansion is expected to be reflected primarily in increases in employment, as productivity over the next year and a half likely will only parallel the underlying trend line in the projected environment of moderate growth. I should note that, in light of recent experience, we have held our estimate of the current trend in productivity growth at  $1\frac{1}{4}$  to  $1\frac{1}{2}$  percent.

The bottom panel indicates our expectation that the pace of increase in compensation rates will be little changed over the next year and a half, owing largely to the continuing slack in labor markets and to the particular stresses faced in some industries. However, with productivity advancing less rapidly than it did earlier in the cycle, wage increases are showing through more in unit labor costs than was the case in 1983-84.

As the top panel of the next chart indicates, we have seen a narrowing of the gap between the rates of increase in unit labor costs and prices. The widening of the margin of prices over labor costs in this recovery was unusually large and persistent, but the margin was squeezed considerably in the first half of this year and is expected to widen only slightly in coming quarters.

The two lower panels highlight two special factors in this forecast. First, we are assuming that, while OPEC will be able to maintain some control over its members' production, the ample supplies of oil relative to world demand will lead to a further decline in prices. From the current level of about \$26.75 per barrel, the price of imported crude is assumed to drift down to \$24. At the same time, we are expecting that a depreciating dollar will lead to a rise in the prices of nonoil imports. It is primarily through that channel that we see the pressures arising to cause a pickup in the rate of inflation to something over 4 percent by the end of 1986.

Mr. Truman will now discuss further the international aspects of our projection.



E.M. Truman  
July 9, 1985

FOMC CHART SHOW -- INTERNATIONAL DEVELOPMENTS

The next chart provides an overview of developments in, and our projection for, U.S. external balances. As is shown in the top panel, the current account balance has declined to a deficit estimated at about \$125 billion at an annual rate in the first half of this year; most of the deterioration during the past three years has resulted from a steadily weakening trade balance. The current account deficit is projected to widen further in the second half of this year and level off at around \$140 billion in 1986.

The bottom panel shows the projection translated into net exports of goods and services in 1972 dollars as recorded in the GNP accounts. On this basis, the deterioration in our external accounts is projected to end in 1985, and a slight improvement is anticipated for next year.

A major factor driving this forecast is, of course, our projection that the depreciation of the dollar will continue at a moderate pace. As is shown in the top panel of the next chart the dollar depreciated on average by about 5 percent during the second quarter of this year. In recent days, the dollar has moved below the previous low for the year recorded in mid-April, and it has returned about to its level in early September of last year. We are projecting that the depreciation of the dollar will continue at an 8 percent annual rate on average over the course of

the next six quarters. I might note in passing that the level of the dollar now projected for the fourth quarter of 1986 is the same as that projected in February.

One factor that appears to have contributed to the recent decline of the dollar has been the decline in real dollar interest rates. When inflation expectations are measured by a combination of past and projected inflation, the U.S. long-term real interest rate is estimated to have declined by about 250 basis points since its peak in the second quarter of 1984, as is shown in the lower panel; however, this rate is still very high by historical standards and is also higher than in the early part of the expansion. Meanwhile, real long-term interest rates abroad have, on average, declined only slightly in the past year, and they are not expected to decline significantly over the forecast horizon.

The next chart depicts two other important factors influencing the current account forecast, especially the forecast for U.S. exports. As is shown in the top panel, we are now projecting economic growth in the foreign industrial countries to average in the 2 1/2 to 3 percent range, roughly similar to the expected rate of expansion of the U.S. economy and to the growth in these countries recorded on average in 1983 and 1984. Although we expect some bounce back from the low growth abroad in the first quarter of this year, we see little prospect of an expansion rapid enough to bring down already high unemployment rates. This discouraging outlook is based on fiscal policies abroad that

remain generally tight, monetary policies that are cautious, growth in the U.S. economy that has slowed, and an expectation of no further general acceleration of economic activity in the developing countries.

Meanwhile, as is shown in the bottom panel, a small further improvement is expected in the rate of price inflation in the foreign industrial countries as a group, corresponding to continued progress against inflation in France, Italy, and Sweden. For these three countries, one already has to go back to the early 1970s to match the inflation performance already recorded; for most of the other G-10 countries, one has to go back to the 1960s.

The influence of these various factors on U.S. nonagricultural exports is reflected in the top panel of the next chart. As is indicated by the red line, the quantity of such exports expanded quite rapidly (on a year-over-year basis) in 1983 and 1984 under the influence of recovery in the industrial countries abroad as well as in some of the heavily indebted developing countries. However, the positive influence of these factors has been reduced this year and is being offset by the continued negative lagged effects of the dollar's appreciation. As a consequence, we are not projecting much of an increase in the quantity of nonagricultural exports until 1986 when the cumulative influence of the dollar's actual and projected depreciation will begin to be felt. We also expect that by then the average price of nonagricultural exports will begin to edge up, as exporters restore a bit of their compressed profit margins.

Thus, the bottom panel shows that by the middle of 1986 the value of U.S. nonagricultural exports is projected finally to return to its previous peak recorded in 1981.

Meanwhile, agricultural exports have been depressed by the influence of the dollar's strength and by good harvests elsewhere. We estimate that last quarter such exports were at a lower level in volume and value than they had been for seven years, and only a very moderate recovery from this low level is projected.

The top panel of the next chart provides a longer-term perspective on U.S. exports and imports. U.S. exports as a percentage of real GNP rose irregularly for 15 years from 1965 to 1980, until slow growth abroad, the debt crisis, and the strengthening dollar began to exert restraining influences. Since 1980, the export-GNP ratio has dropped back to where it was in 1973, and it is not projected to improve during the forecast period. Meanwhile, the ratio of U.S. imports to real GNP, which more or less had been following the trend for the export ratio, rose rapidly in 1983 and 1984. That ratio is expected to show another sharp increase this year. These trends suggest that a return to a more balanced pattern of U.S. exports and imports certainly is possible, but such a process is likely to involve significant adjustments in economic variables and to take many years.

As is shown in the lower panels, the extent of import penetration in recent years in capital and consumer goods

industries has risen markedly, though with significant quarter-to-quarter fluctuations in the data.

These fluctuations, especially in the context of extraordinary increases in the volume of non-oil imports, suggest that considerable uncertainty must necessarily surround any forecast of such imports. As a consequence, our forecast for the volume of non-oil imports is depicted in the top panel of the next chart with an illustrative error band.

Our best judgment, as shown by the dashed line, is that the volume of U.S. non-oil imports will rise slightly further in the second half of this year and will record a very small decline next year. This judgment is based on the fact that the growth rate of real domestic spending has declined in 1985 and will edge off further in 1986 and on the influence of the dollar's actual and expected depreciation. However, the position of the forecast in the illustrative error band indicates where we feel the balance of risks lies. The "higher imports" shown would be 25 percent above the level projected for the fourth quarter of 1986. Such a large, exogenous upside error in our forecast would require, for example, a further 35 percent appreciation of the dollar or an additional structural shift relative to historical import relationships 2 and 1/2 times that already built into our forecast.

Any large errors in our forecast as the consequence of such exogenous factors would have significant implications for

domestic production. The lower panel indicates the range of growth rates in real GNP for the forecast period that would be associated with the range of hypothetical outcomes for the volume of non-oil imports shown in the top panel. The estimates include feedback effects generated by deviations in the volume of non-oil imports from the base line projection. As can be seen, the scenario of "higher imports" would take away about half of the growth in output we have projected for the next 6 quarters, but it would not be sufficient by itself to push the economy into recession.

Mr. Kichline will now conclude our presentation.

JLKichline  
July 9, 1985

CHART SHOW -- CONCLUSION

The last chart in the package displays the economic projections for 1985 and 1986 for Board Members, Presidents and the staff. The FOMC's 1985 projections presented to the Congress in February are shown in the table at the bottom. For 1985, the principal change has been some downward revision of expectations for growth of real GNP given developments during the first half of the year. In general, the staff's expectations for both real growth and inflation in 1985 and 1986 tend to lie at the low end of the ranges for Board Members and Presidents.

The Administration will not report to the Congress on an updated review of the budget and associated economic projections until mid-August, and at this juncture they have not settled upon their forecast. It does appear likely, however, that they will reduce the projection of real GNP growth for 1985, which currently stands at 4 percent.

\* \* \* \* \*

STRICTLY CONFIDENTIAL (FR) CLASS II-FOMC

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

*July 9, 1985*



# Principal Assumptions

## **Monetary Policy**

- Growth of M1 of around 8½ percent during 1985 and 5½ percent in 1986.

## **Fiscal Policy**

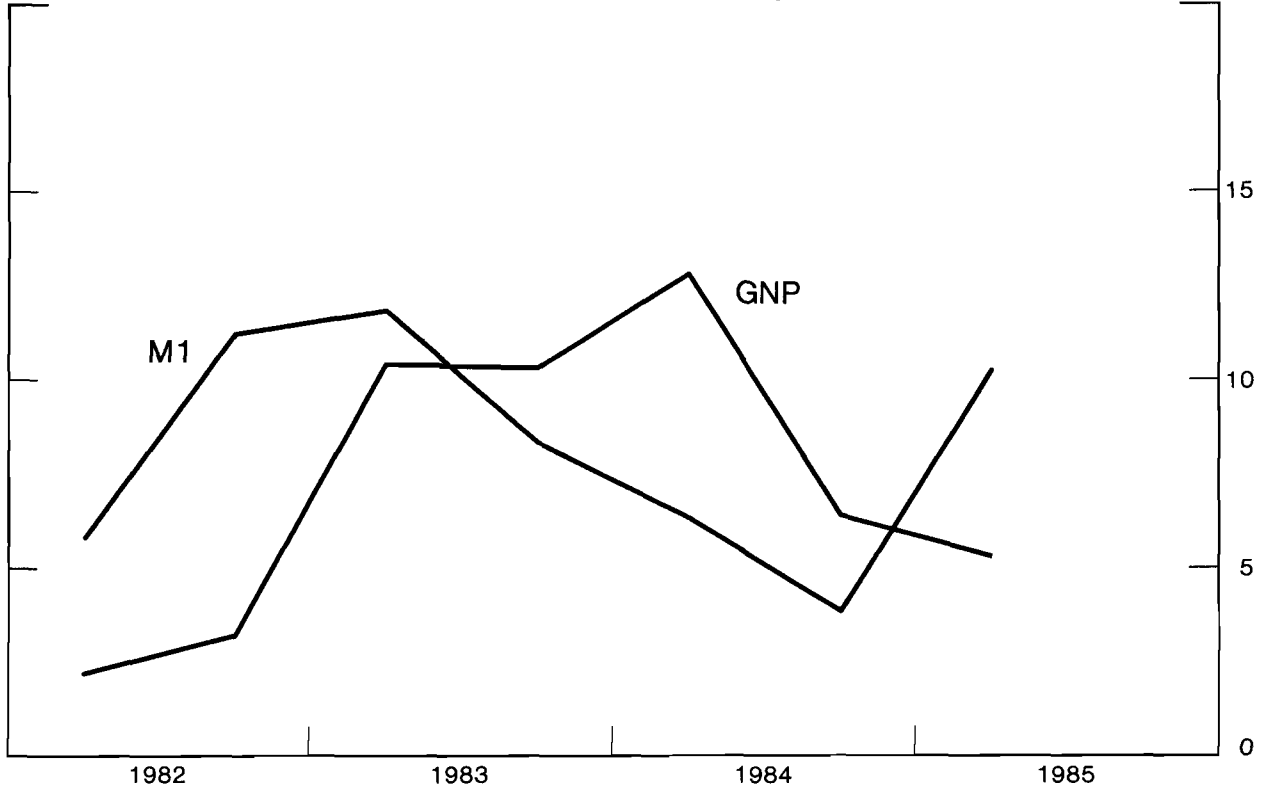
- Deficit-reducing actions of around \$50 billion for FY 1986.

## **Other**

- Foreign exchange value of the dollar declines at an 8 percent annual rate.

## Growth in GNP and Money

Change from previous period, annual rate, percent



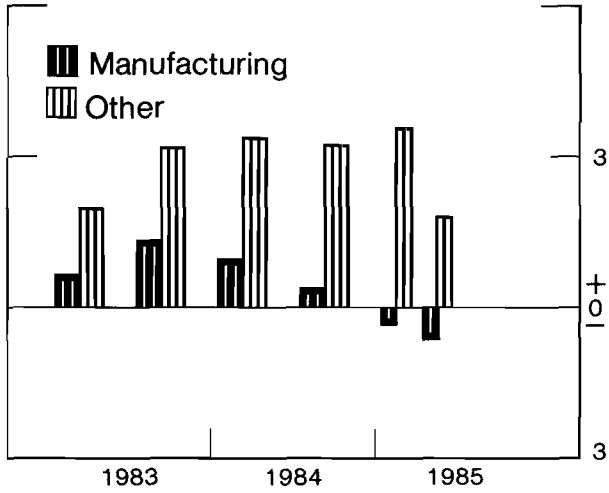
## Federal Budget

Unified budget, fiscal year, billions of dollars

	1984	1985	1986
<b>Outlays</b>	842	940	969
<b>Receipts</b>	666	732	784
<b>Deficit</b>	175	208	185
<b>Structural Deficit</b>	126	160	158

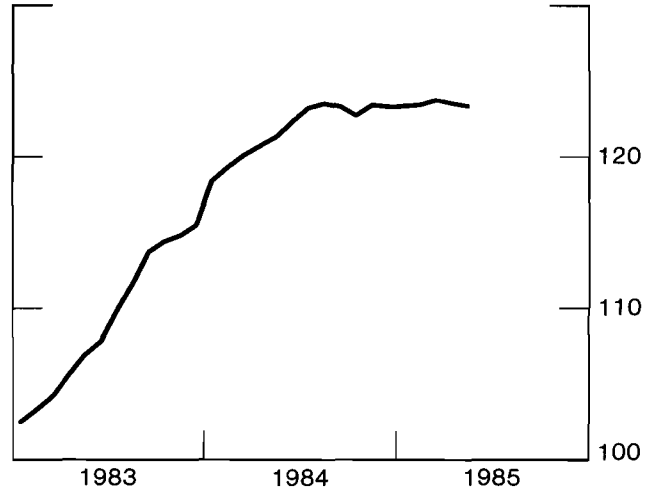
### Employment

Change, annual rate, millions of persons



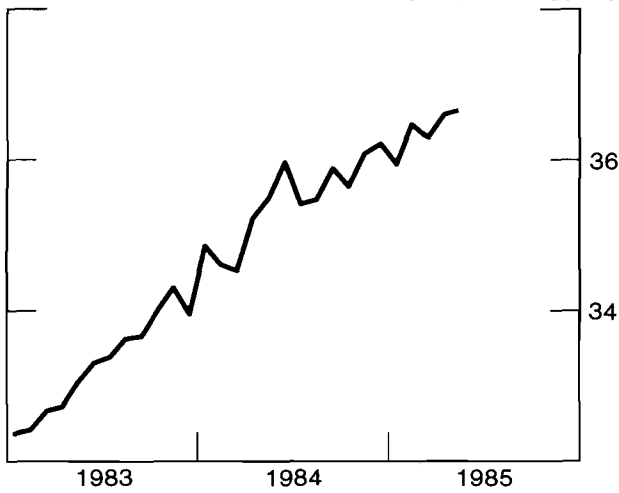
### Industrial Production

Index 1977=100



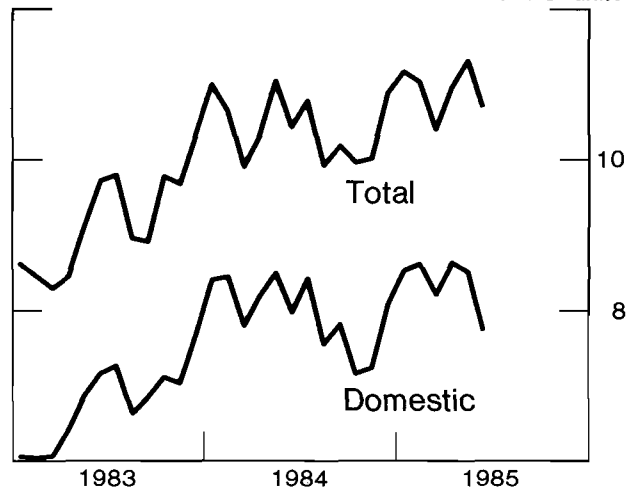
### Real Retail sales

Billions of 1972 dollars



### Automobile Sales

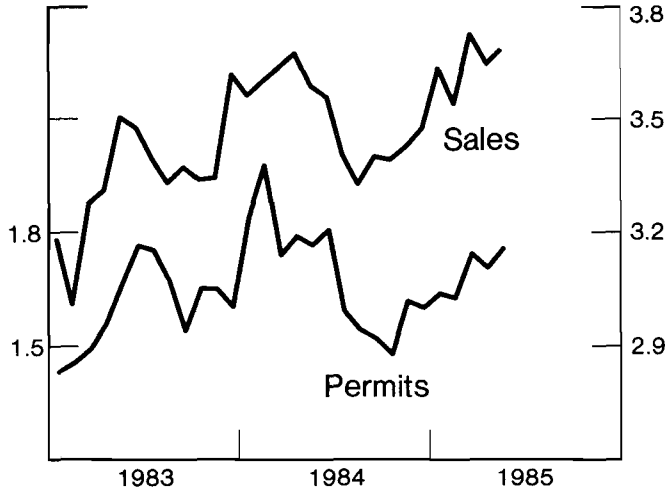
Millions of units



### Housing Permits and Sales

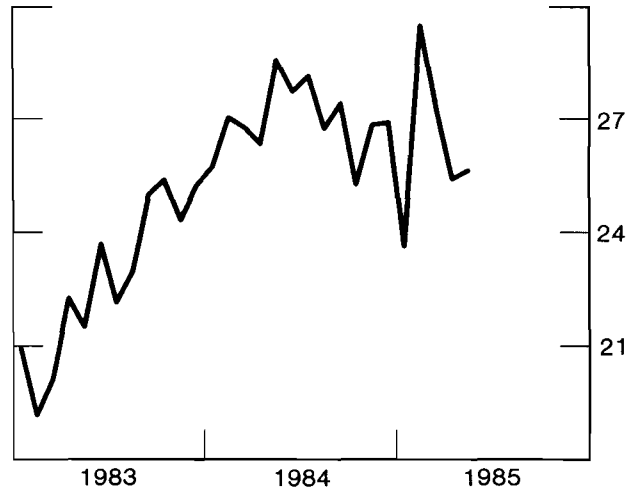
Millions of units

Millions of units

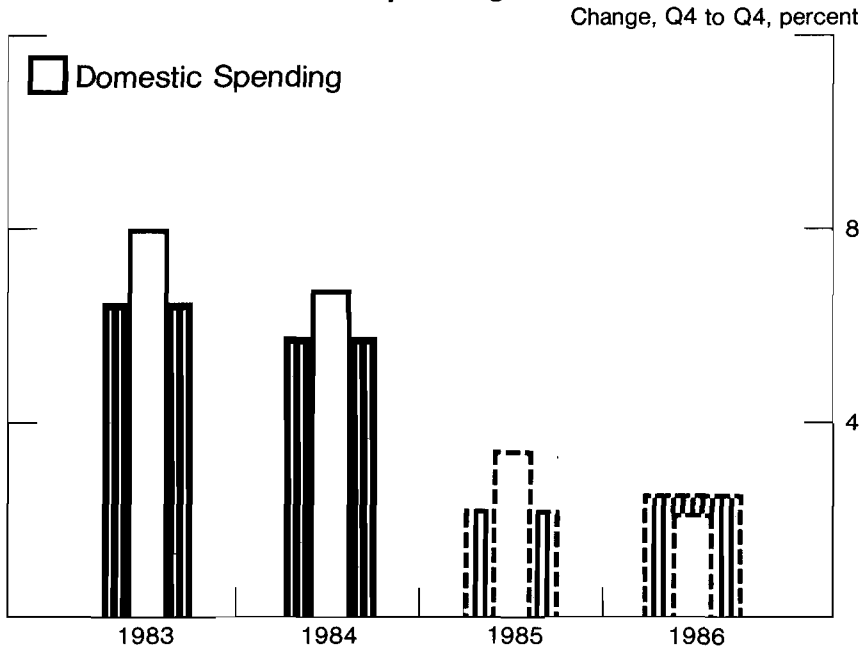


### Orders for Nondefense Capital Goods

Billions of dollars

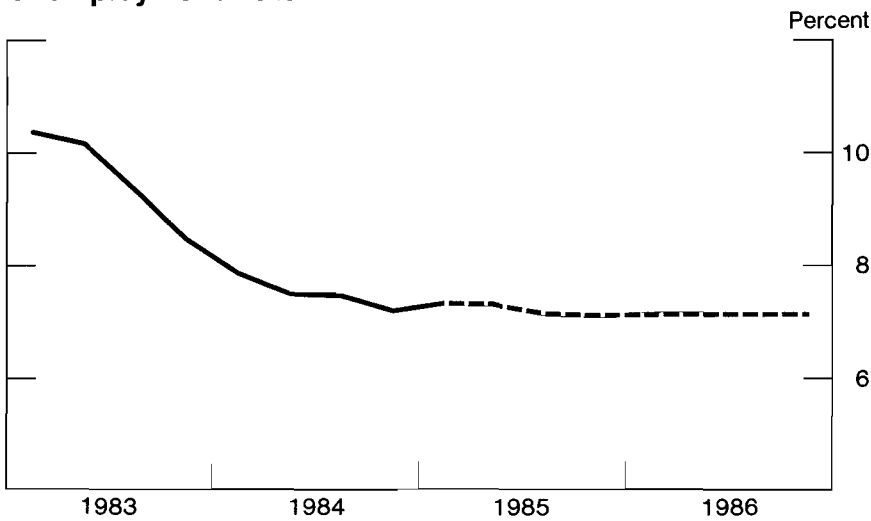


### Real GNP and Domestic Spending



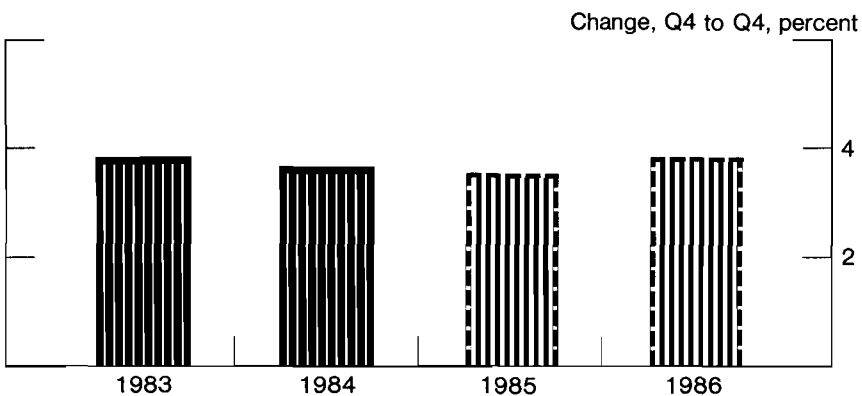
	Real GNP	Real Domestic Spending
1983	6.3	8.0
1984	5.7	6.7
1985	2.2	3.4
1986	2.5	2.1

### Unemployment Rate



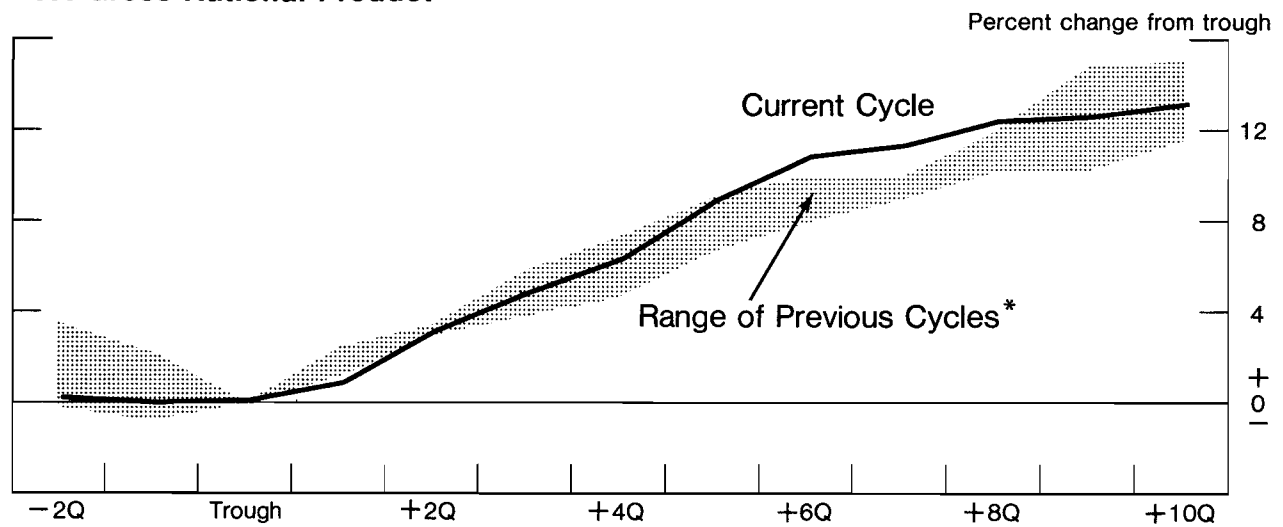
	Q4 Level
1983	8.5
1984	7.2
1985	7.1
1986	7.1

### GNP Deflator

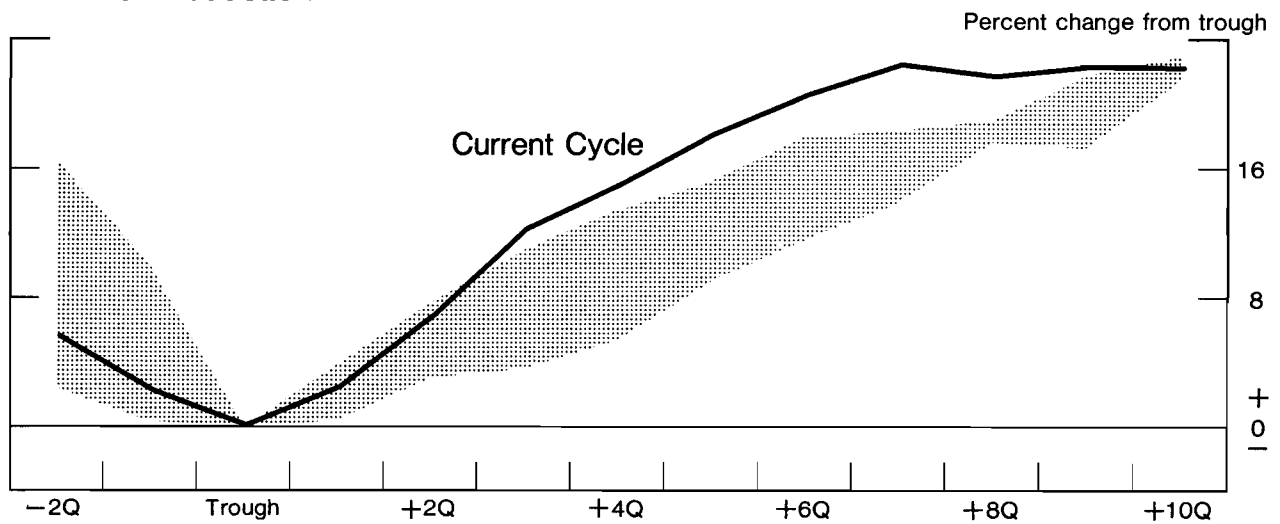


1983	3.8
1984	3.6
1985	3.5
1986	3.8

## Real Gross National Product



## Industrial Production

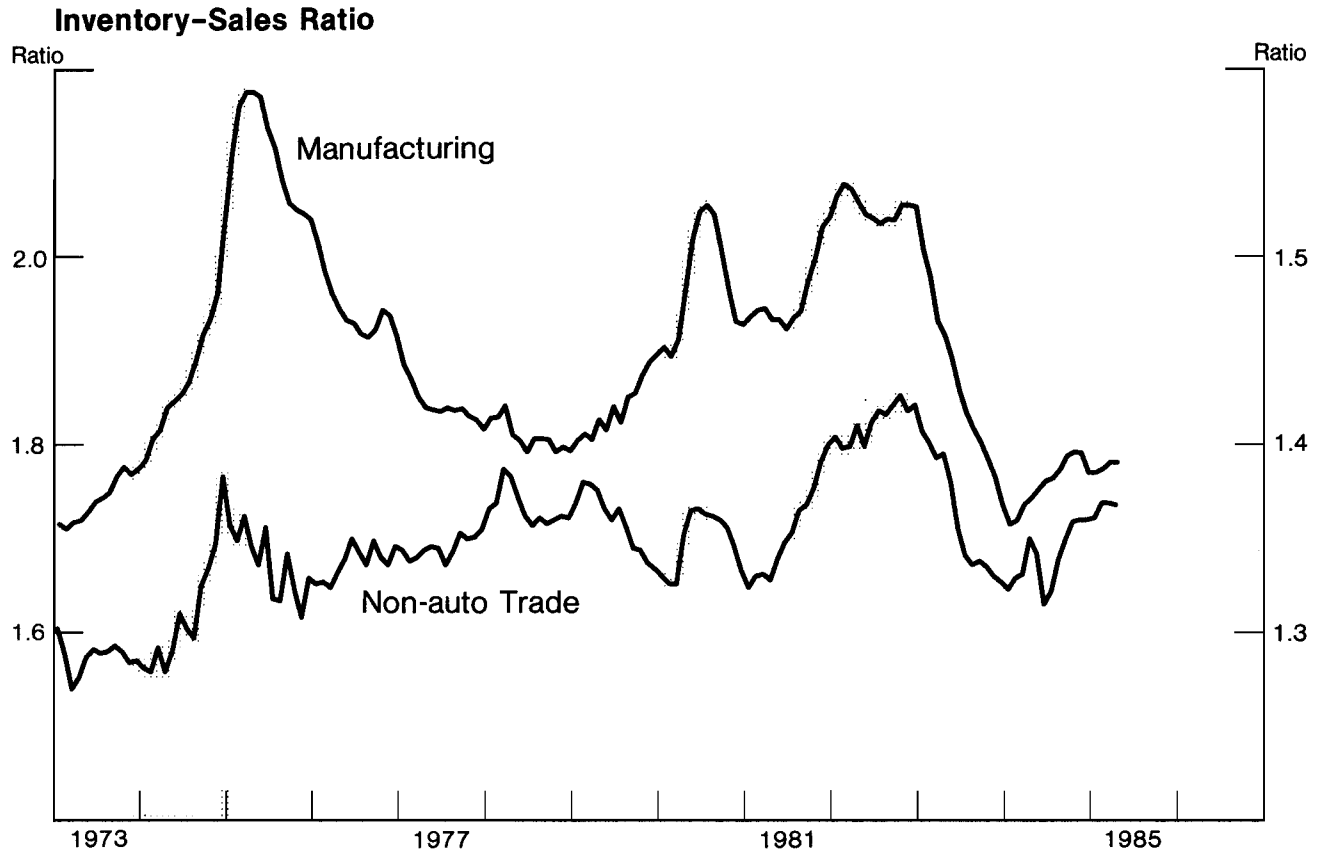


## Current Cycle

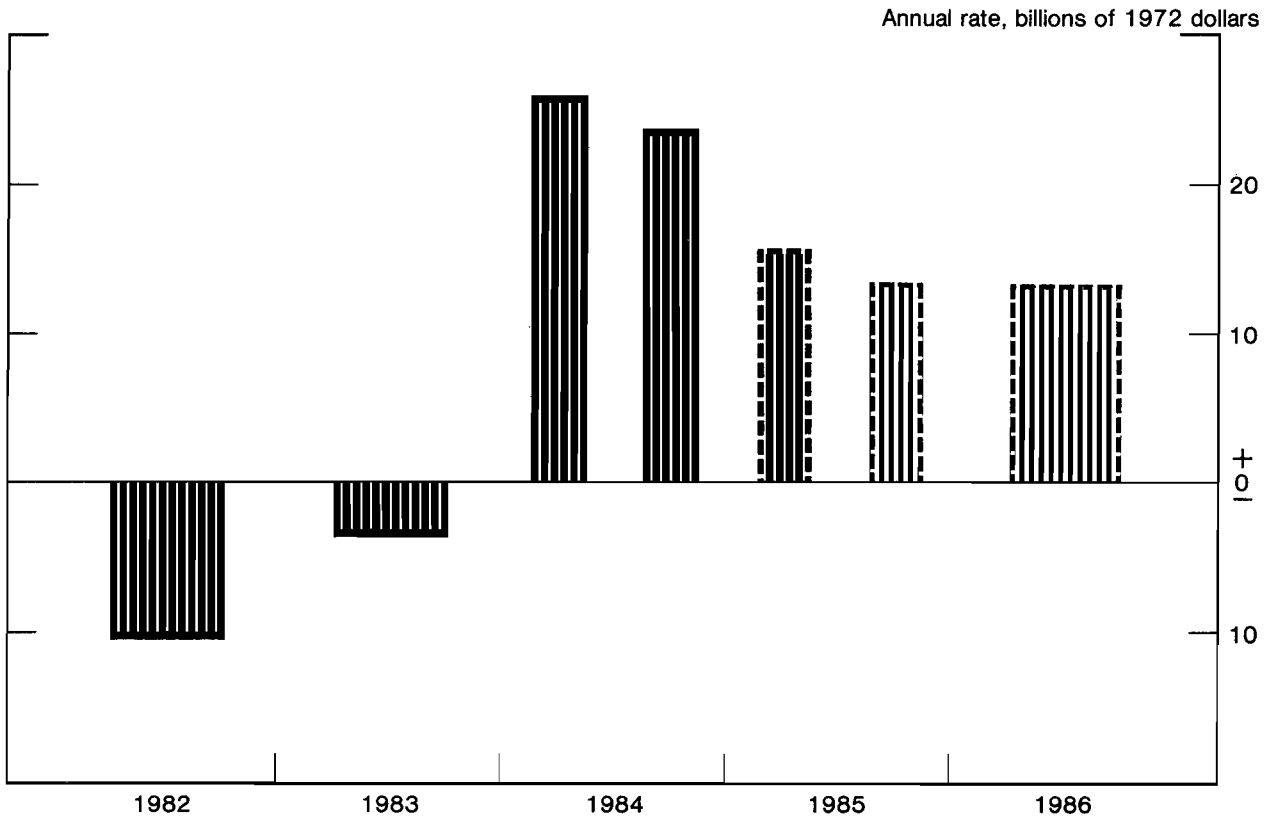
	Percent changes, annual rates	
	First 6 Quarters	Next 4 Quarters
<b>Real GNP</b>	7.1	2.0
<b>Domestic Purchases</b> GNP Less Net Exports	8.8	3.3
<b>Domestic Final Purchases</b> Domestic Purchases Less Inventory Investment	6.7	3.8

\* Includes cycles with troughs in 1954, 1961, 1970, 1975.

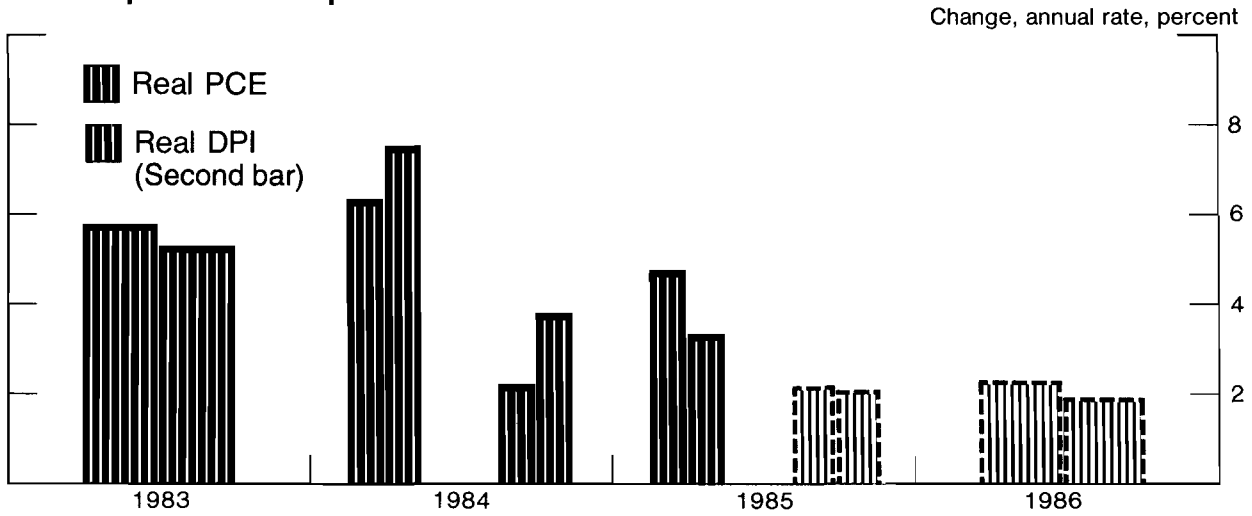
# Inventory Investment



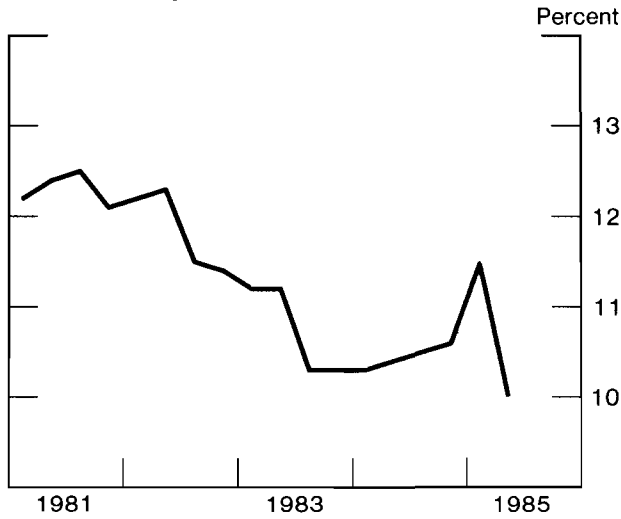
### Real Inventory Investment



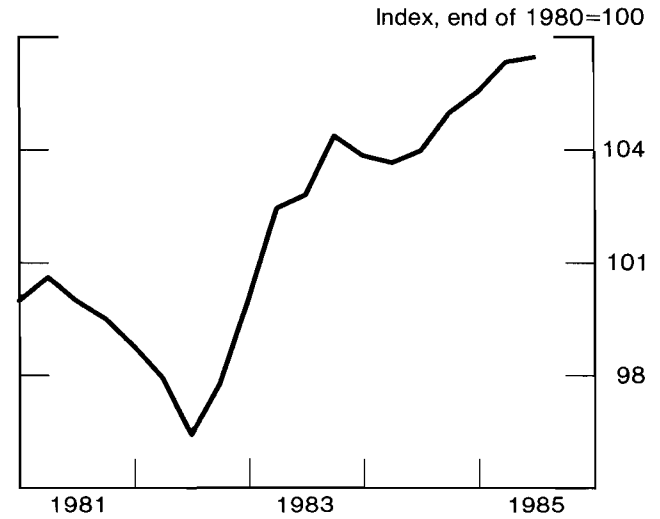
### Consumption and Disposable Income



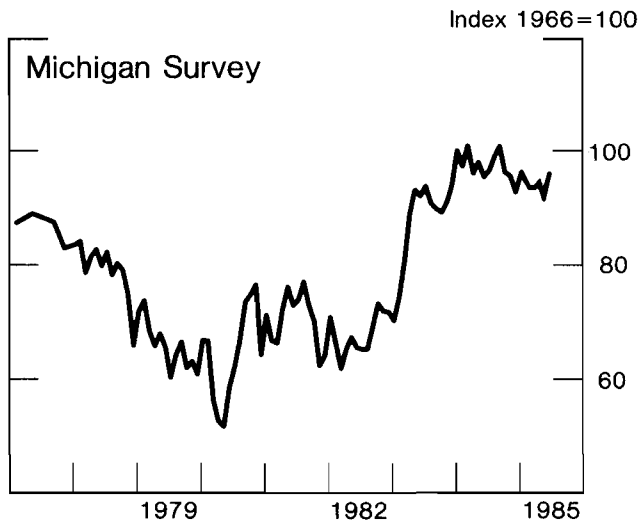
### Net Tax Payments to Personal Income



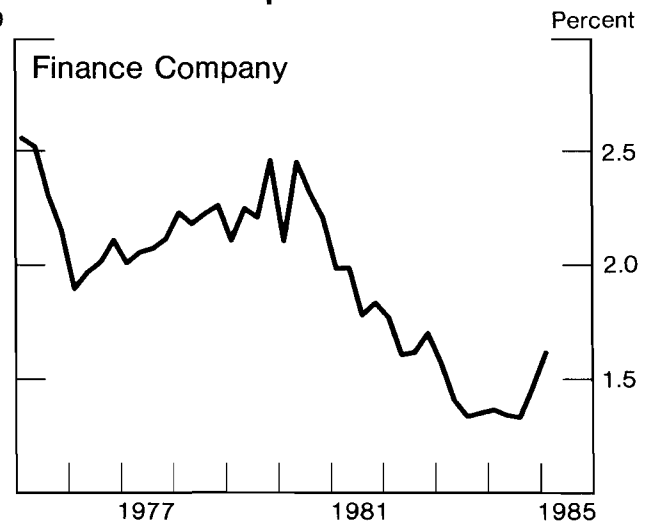
### Real Net Worth Per Household



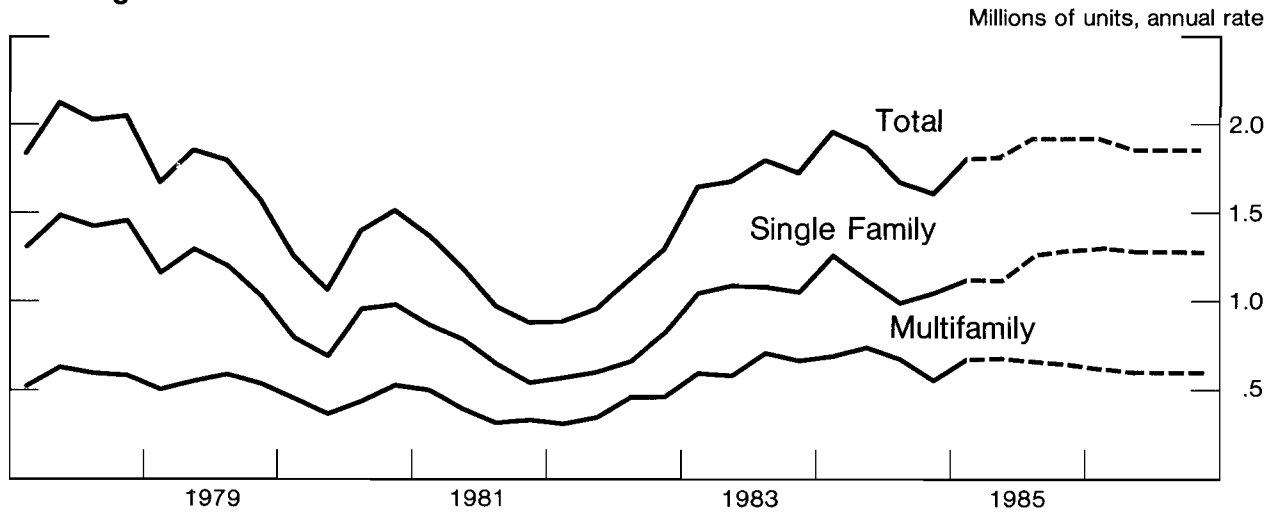
### Consumer Sentiment



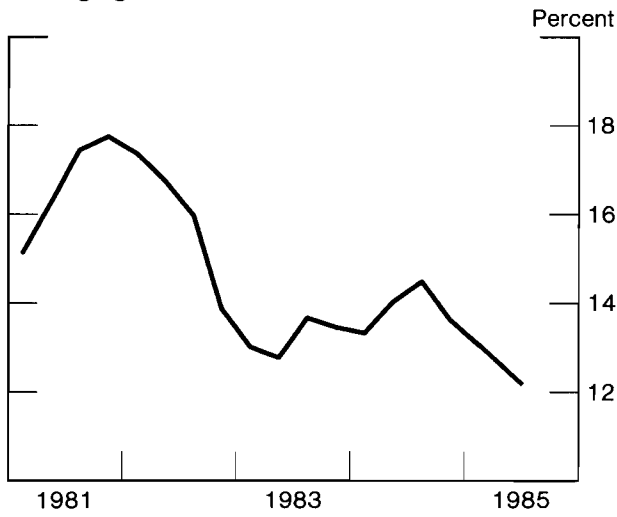
### Auto Loan Delinquencies



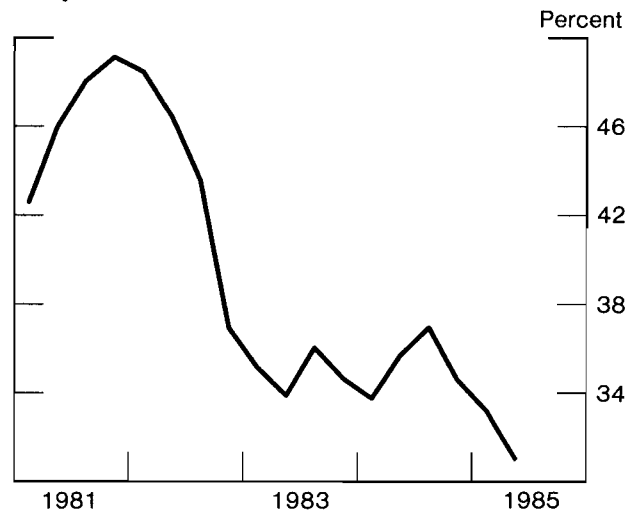
### Housing Starts



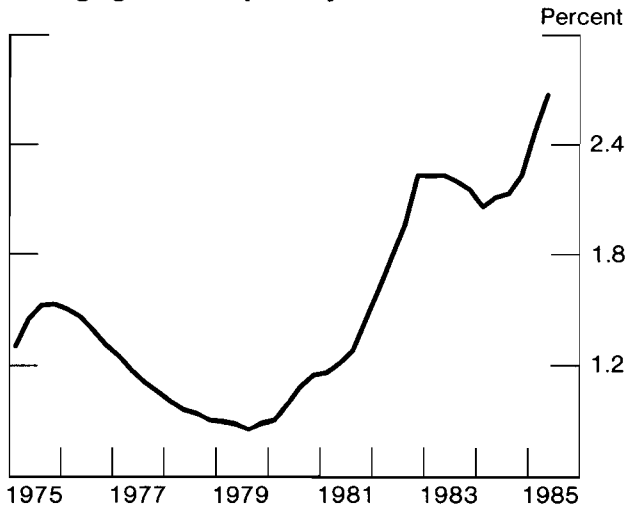
### Mortgage Rate



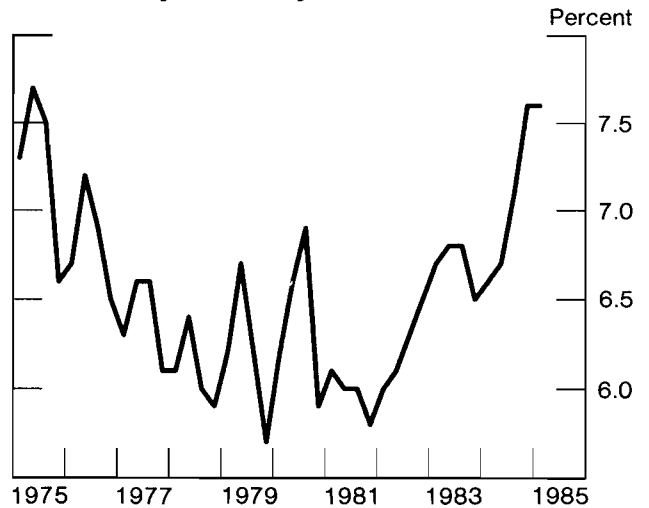
### Mortgage Payment as Percent of Disposable Income



### Mortgage Delinquency Rate

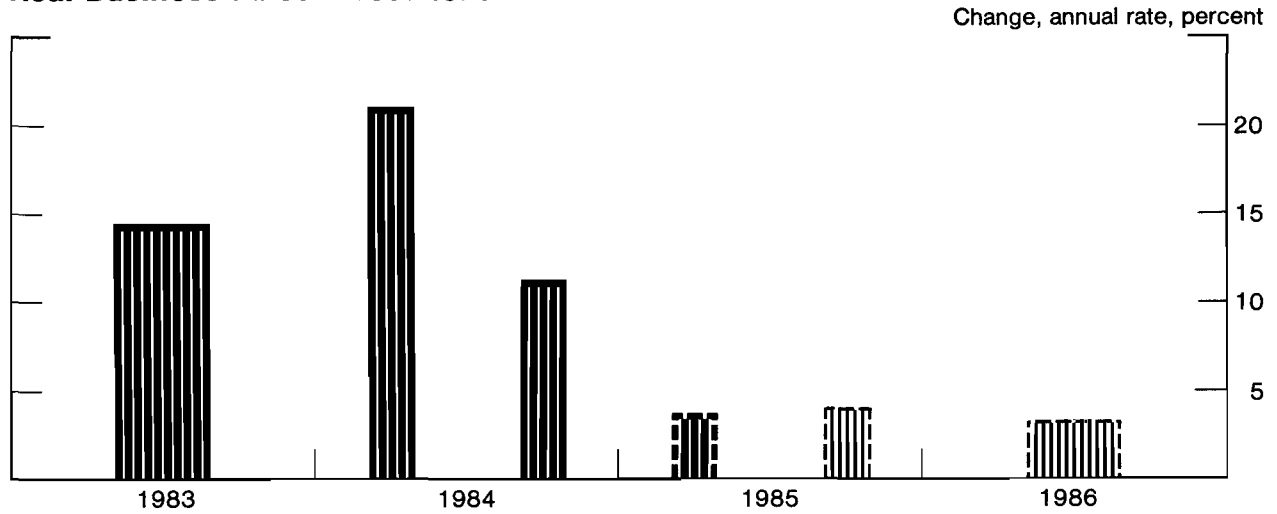


### Multifamily Vacancy Rate



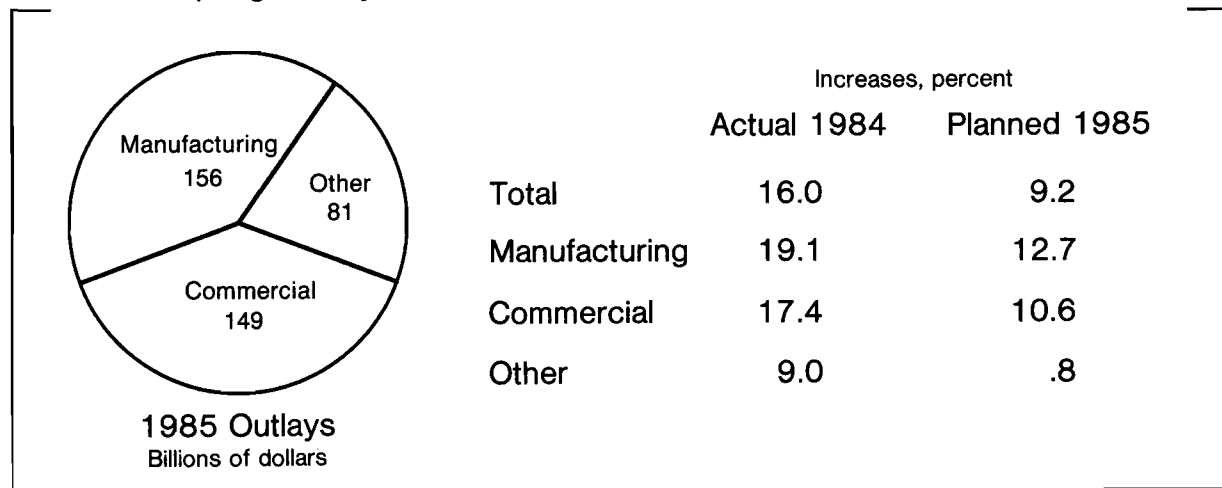


### Real Business Fixed Investment

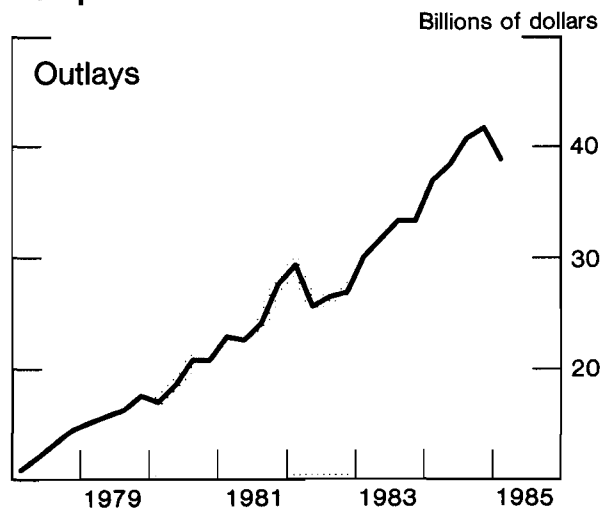


### Plant and Equipment Spending Plans

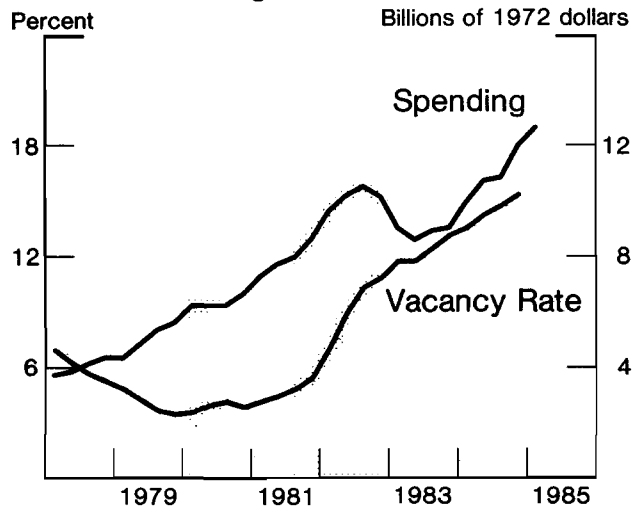
Commerce Spring Survey



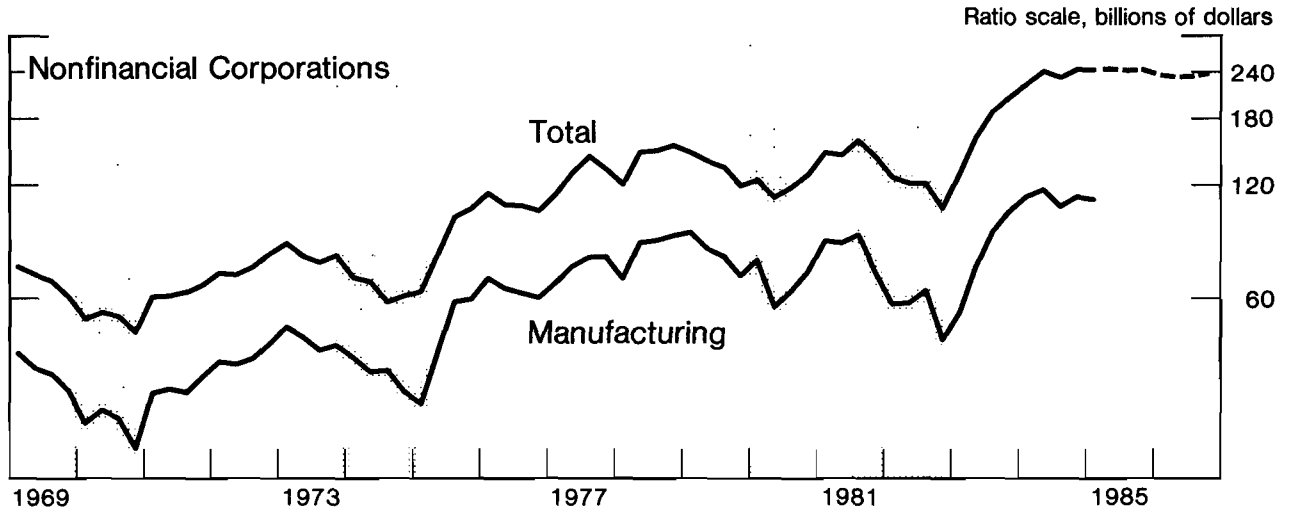
### Computers and Office Machines



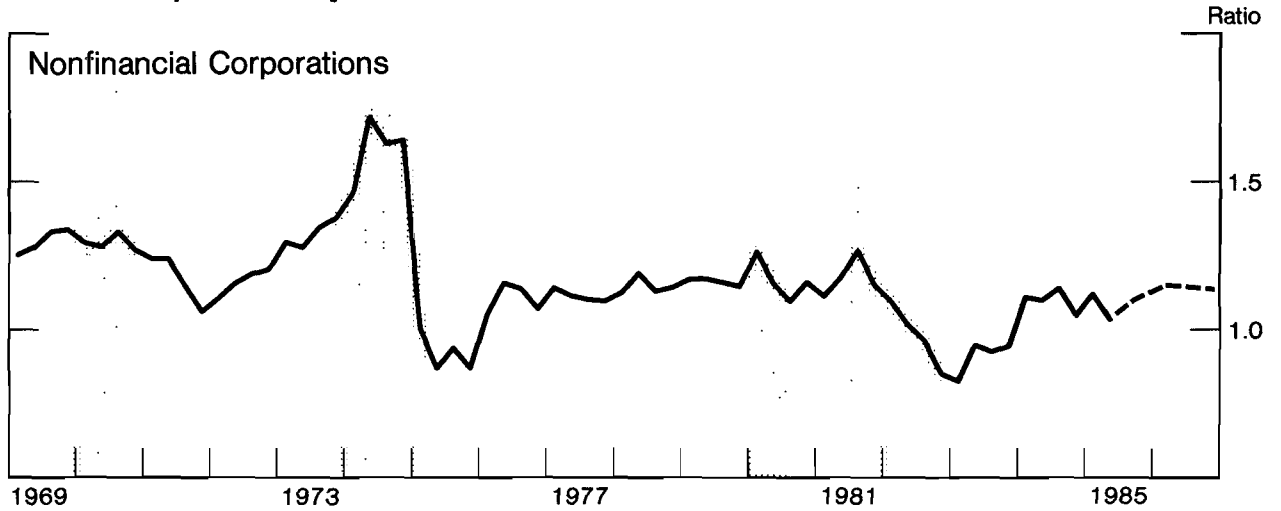
### Office Building and Vacancies



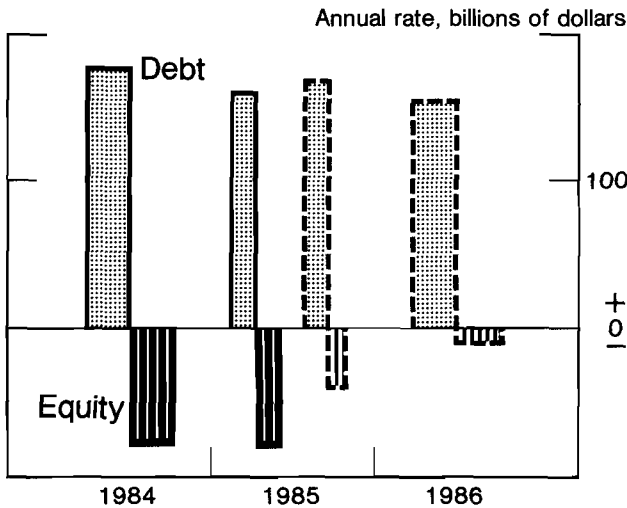
### Economic Profits Before Tax



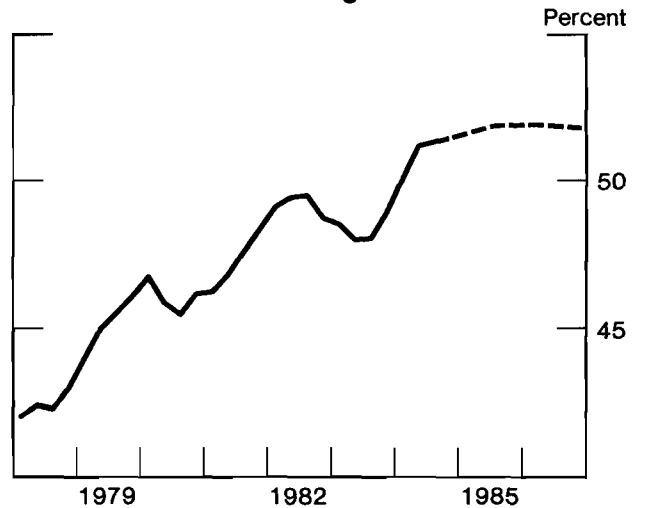
### Ratio of Capital Outlays to Internal Funds



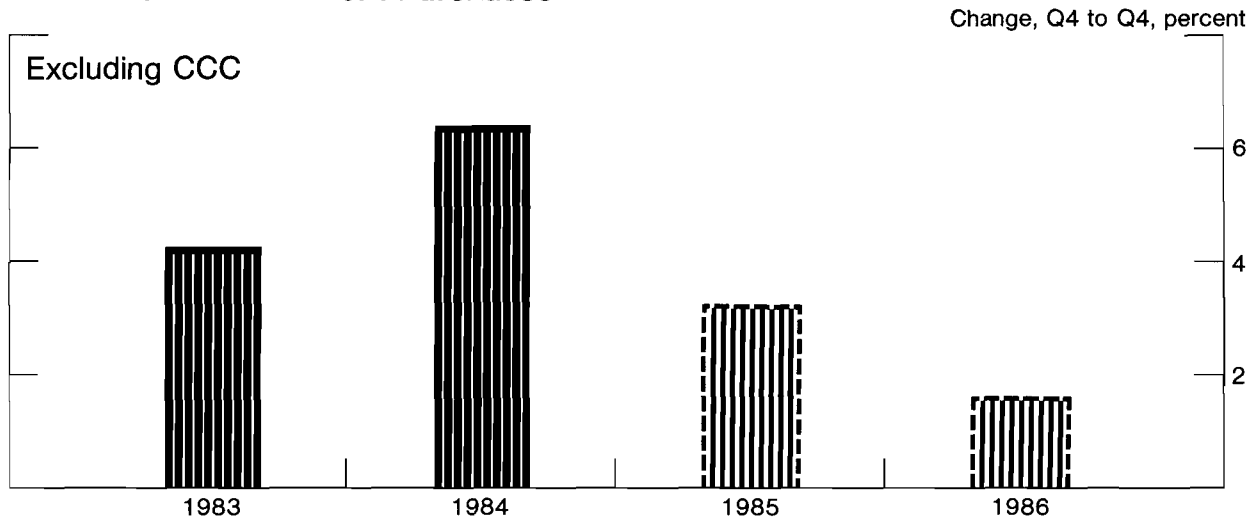
### Total Funds Raised



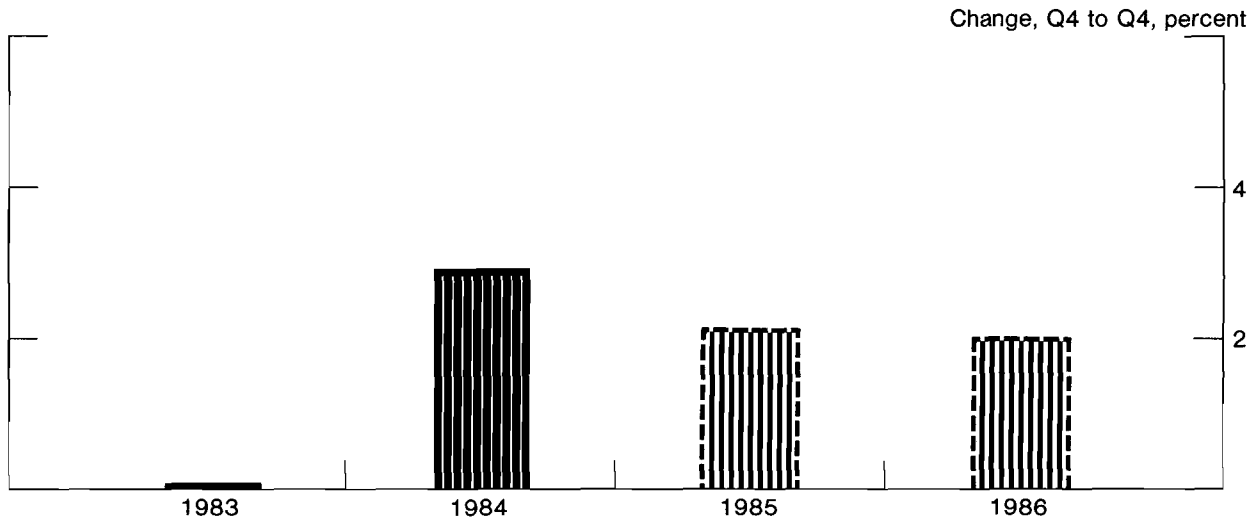
### Short-term Debt to Total Debt Outstanding



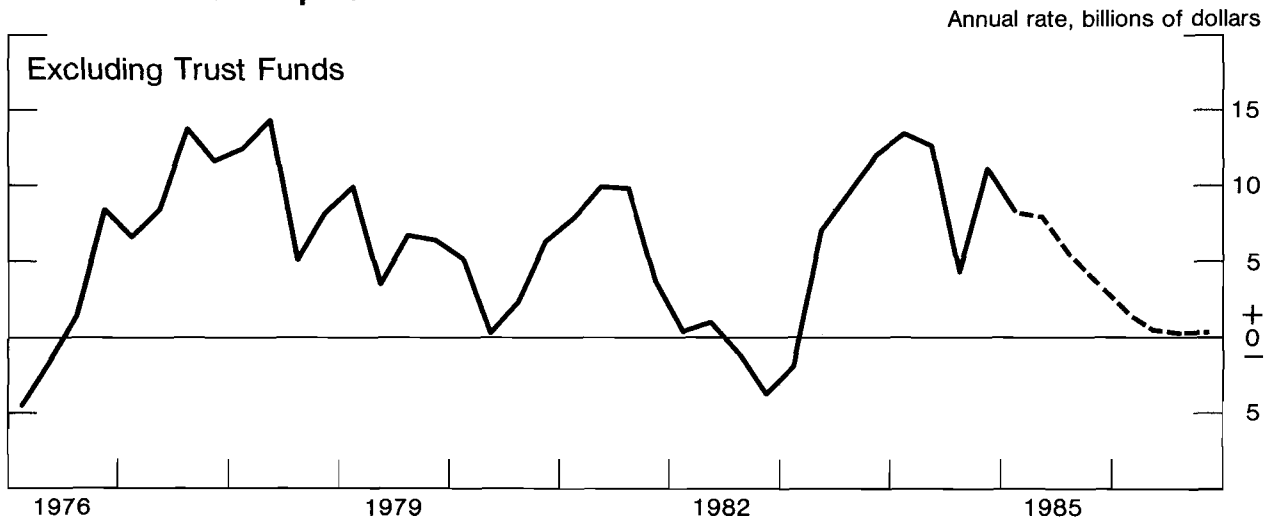
### Real Federal Government Purchases



### Real State and Local Government Purchases



### State and Local Surplus

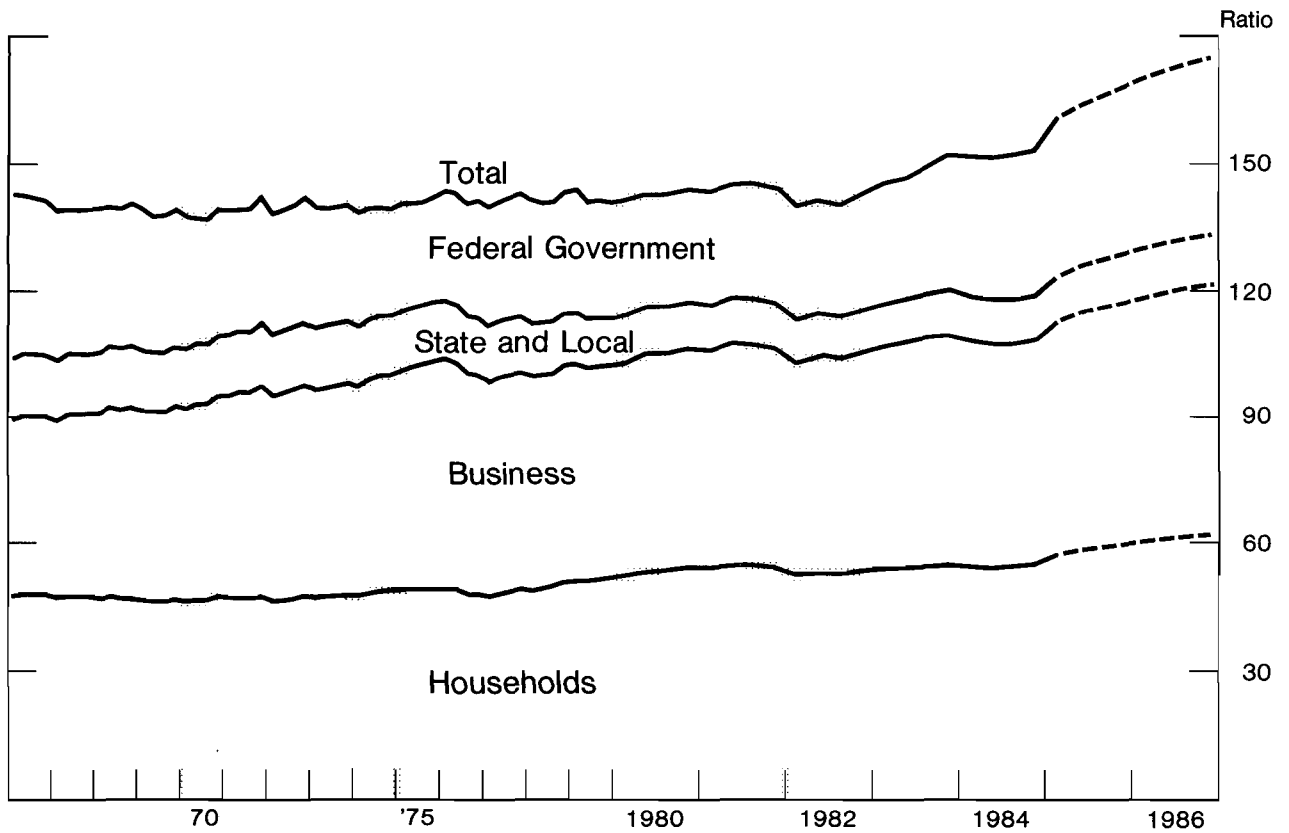


### Borrowing by Domestic Nonfinancial Sectors

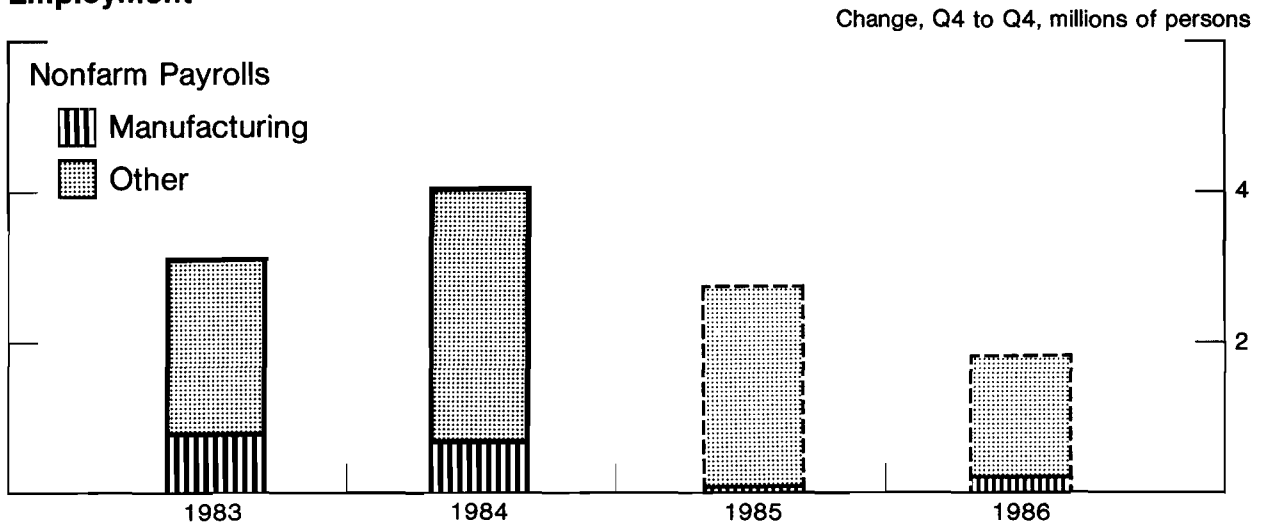
Billions of dollars

	1984	1985	1986
<b>Federal Government</b>	199	202	181
<b>State and Local</b>	37	49	38
<b>Households</b>	242	247	256
<b>Business</b>	257	228	220
<b>Total</b>	734	726	696
<b>Memo: Debt growth rate, percent</b>	14.0	12.1	10.4

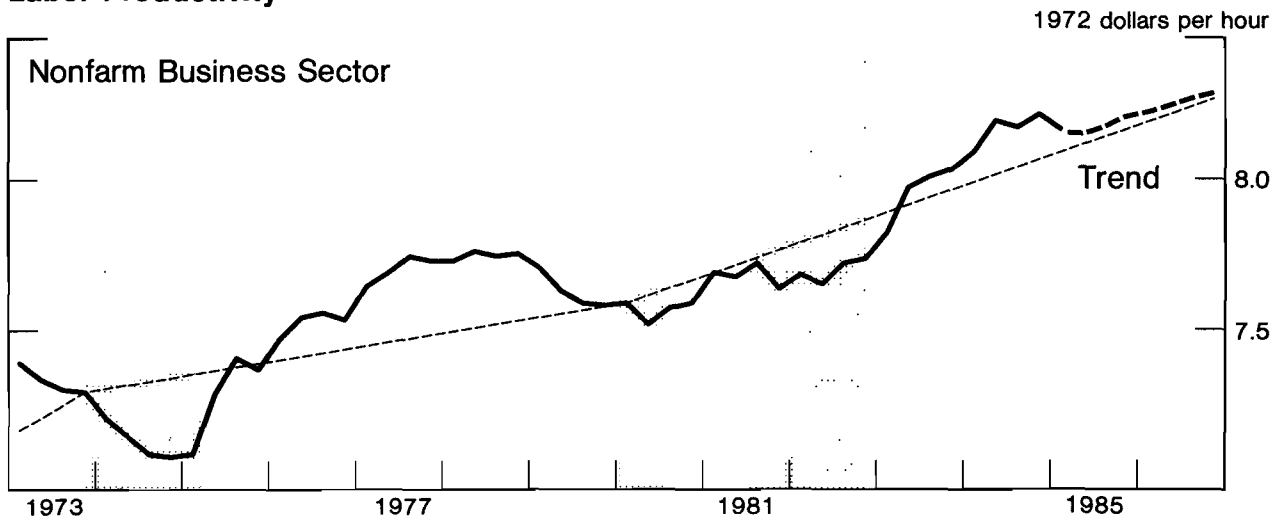
### Debt Relative to GNP



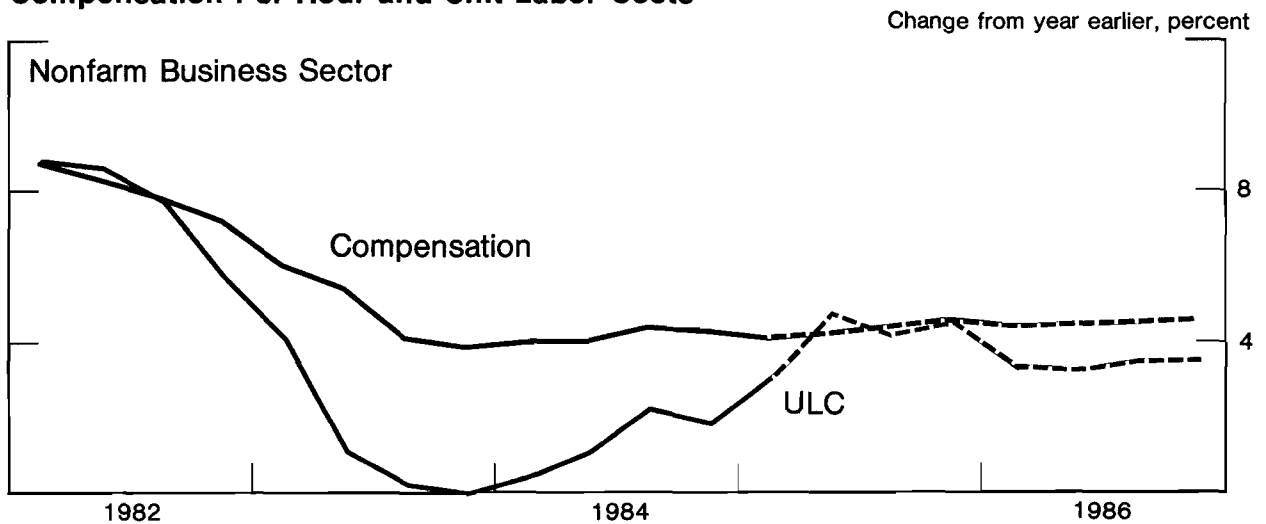
### Employment



### Labor Productivity

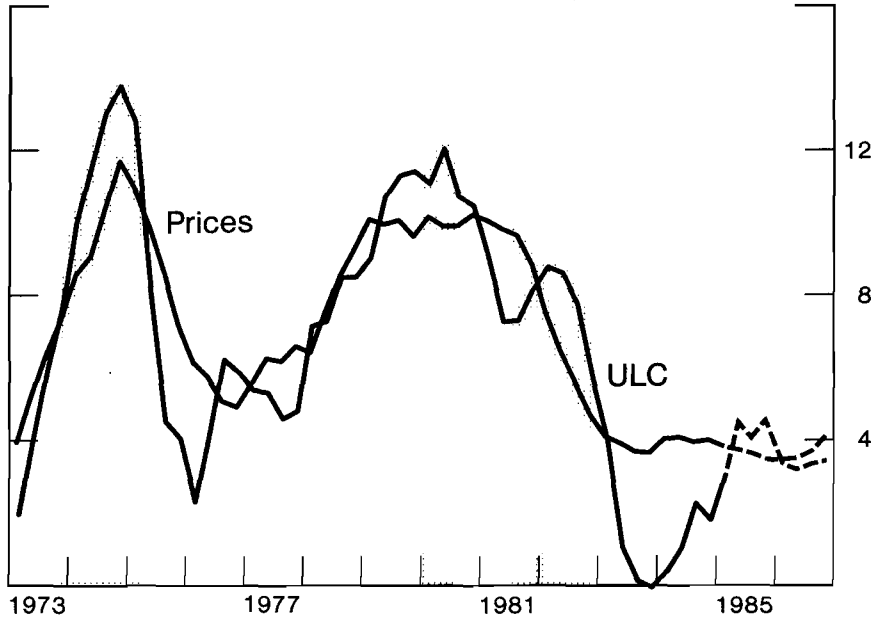


### Compensation Per Hour and Unit Labor Costs



### Business Product Prices and Unit Labor Costs

Change from year earlier, percent

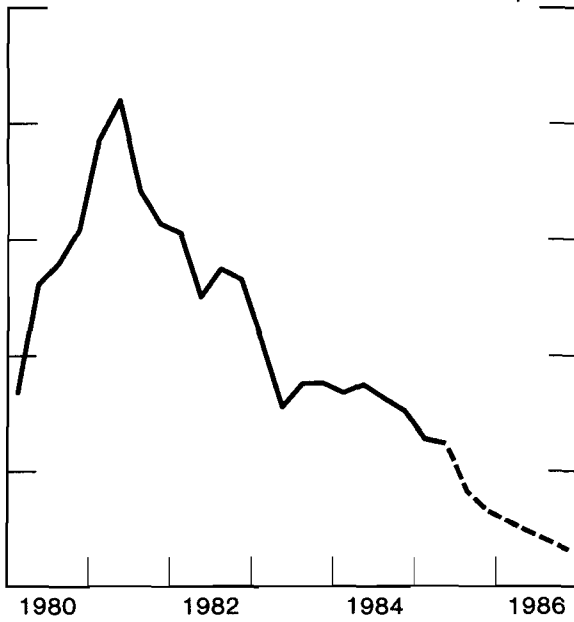


Percent change, Q4 to Q4

	ULC	Prices
1983	0.0	3.7
1984	1.9	4.0
1985	4.6	3.5
1986	3.5	4.0

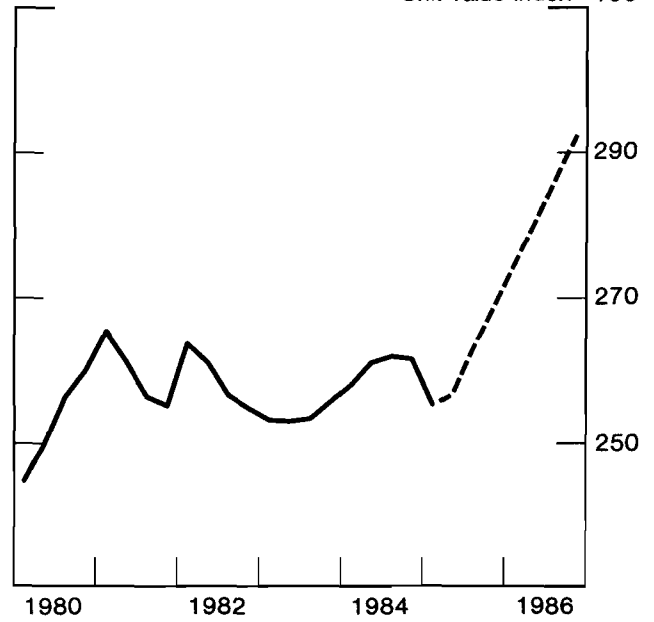
### Oil Import Prices

Dollars per barrel



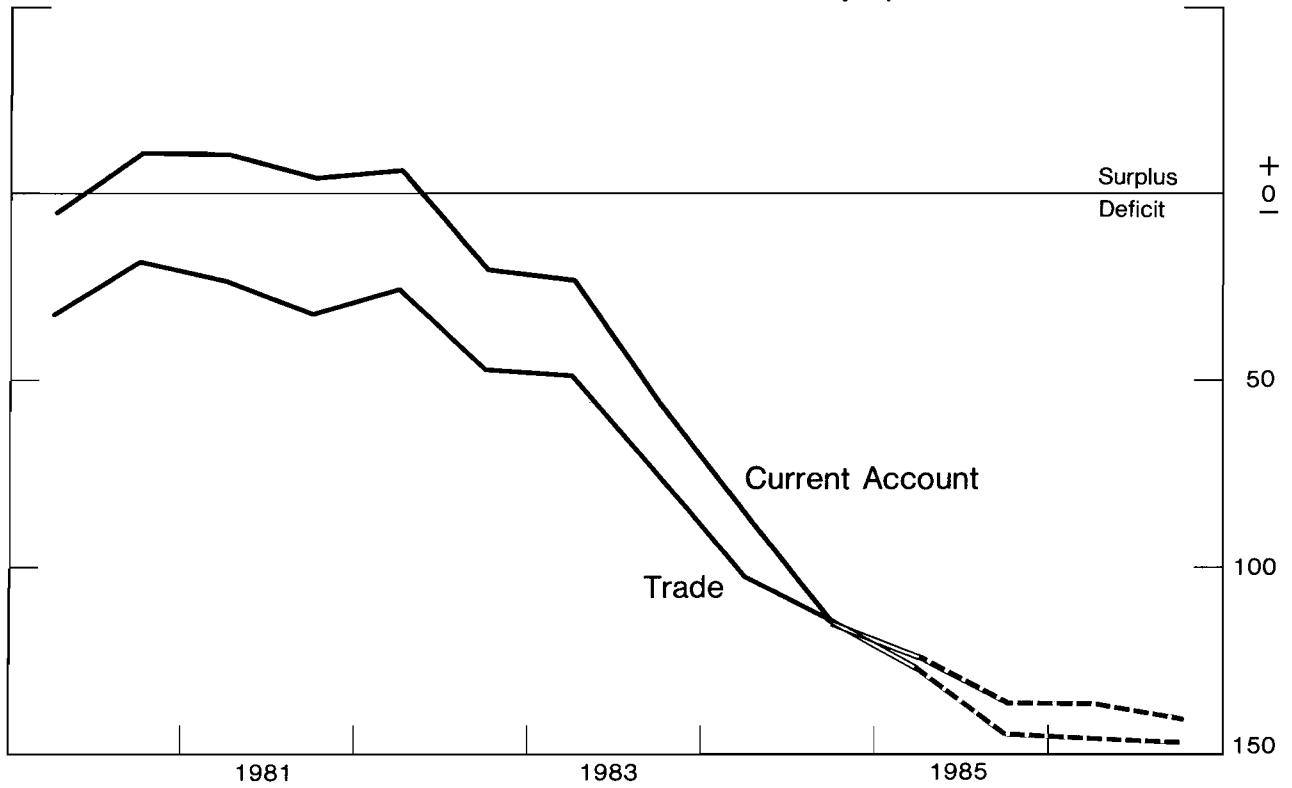
### Non-oil Import Prices

Unit value index = 100



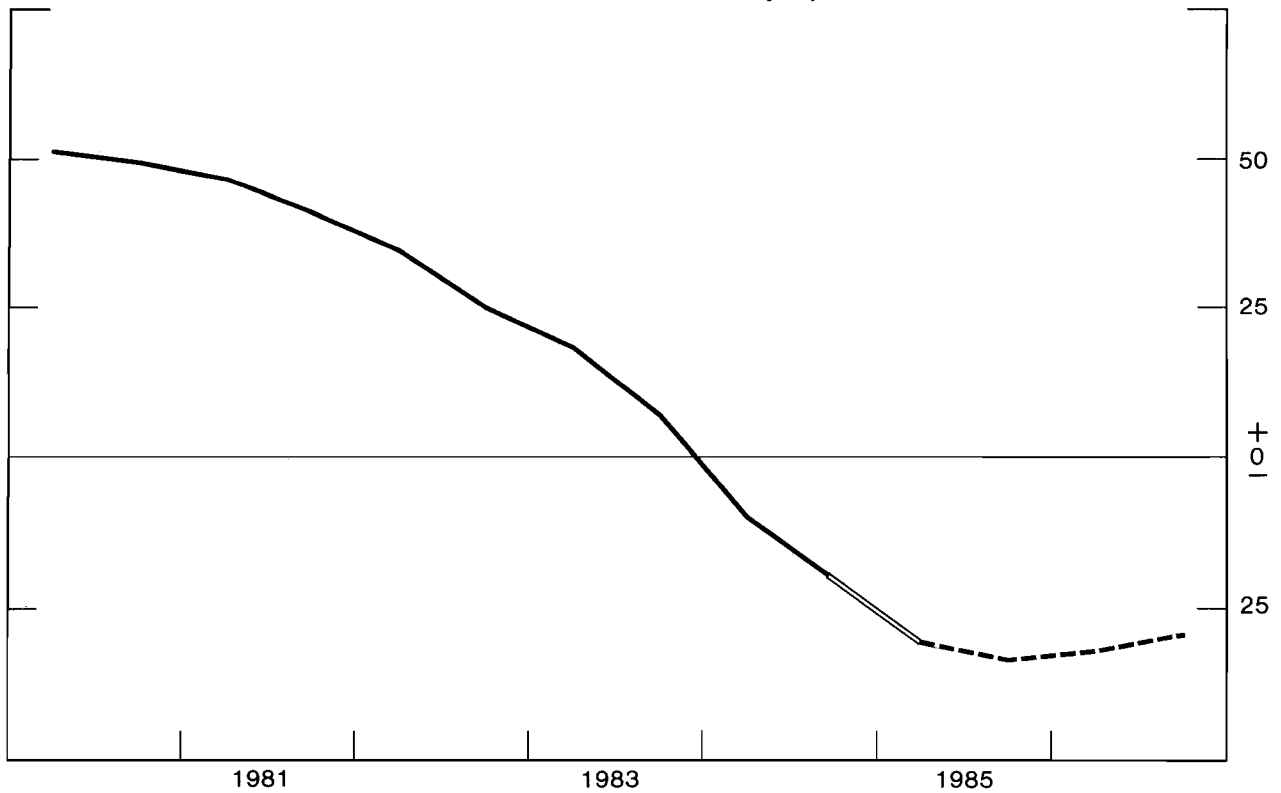
## External Balances

Seasonally adjusted, annual rate, billions of dollars

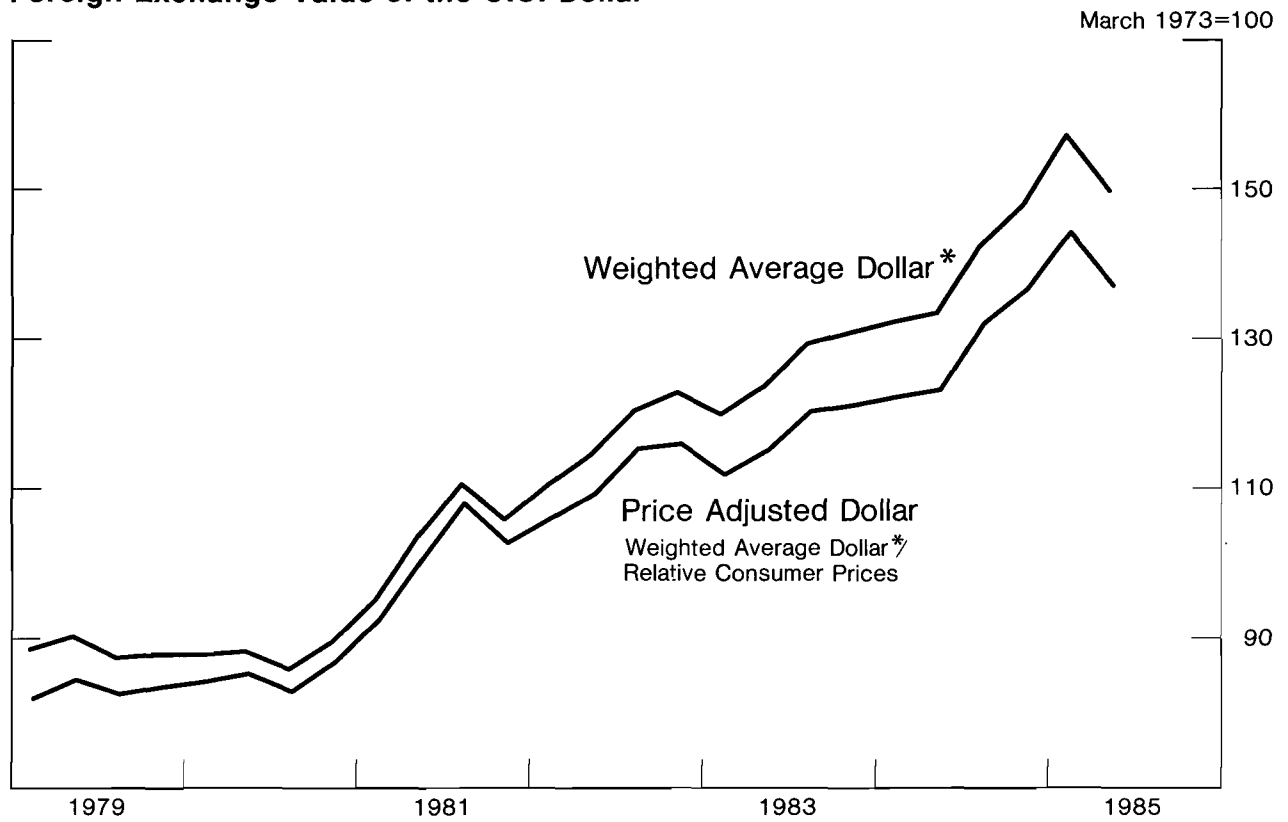


## Real Net Exports of Goods and Services

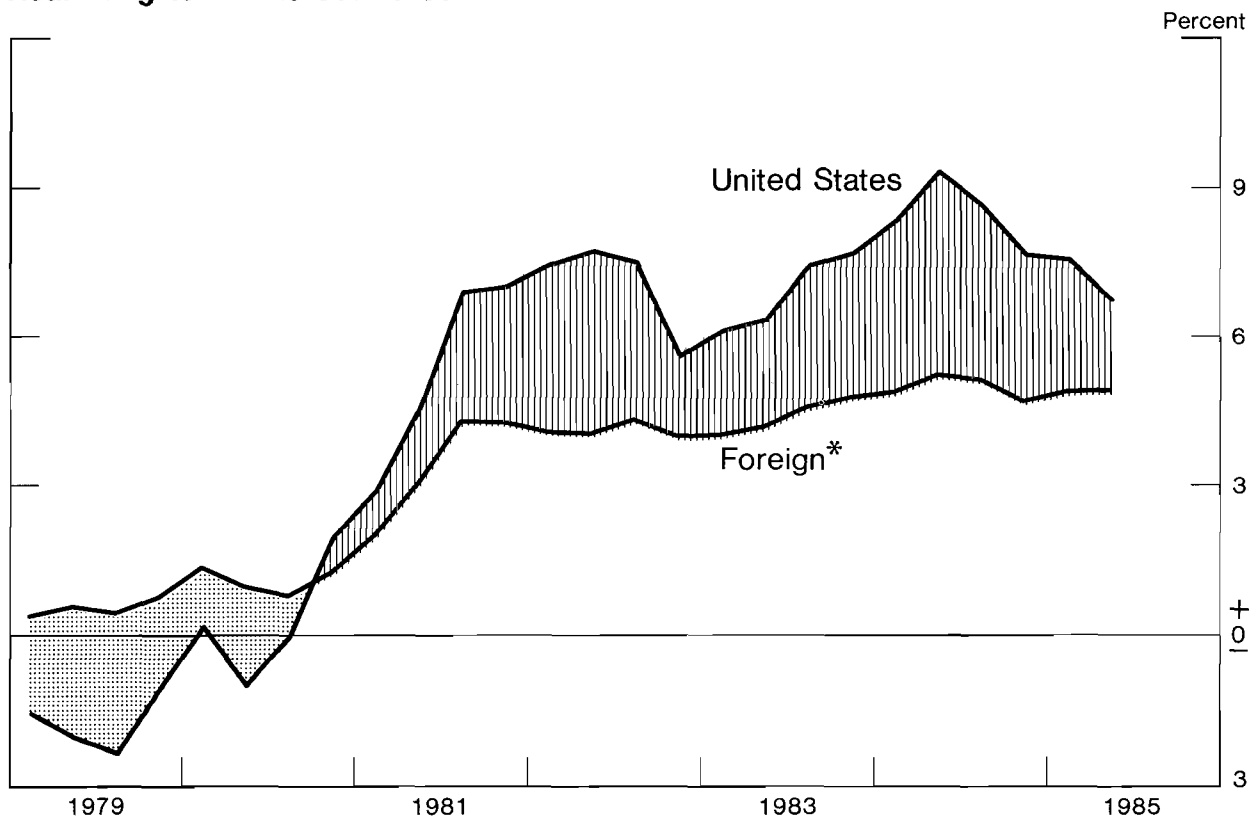
Seasonally adjusted, annual rate, billions of 1972 dollars



### Foreign Exchange Value of the U.S. Dollar



### Real Long-term Interest Rates\*\*

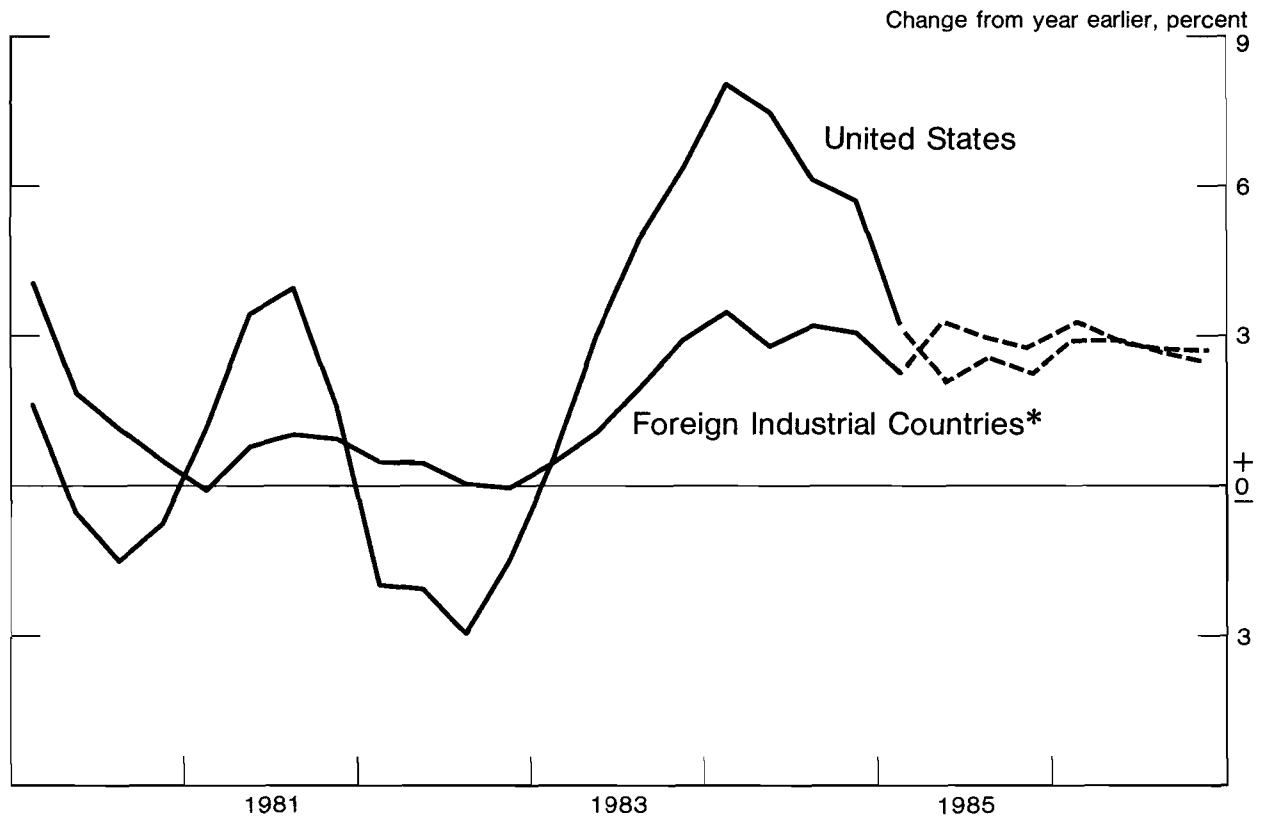


\* Weighted average against or of foreign G-10 countries using total 1972-76 average trade.

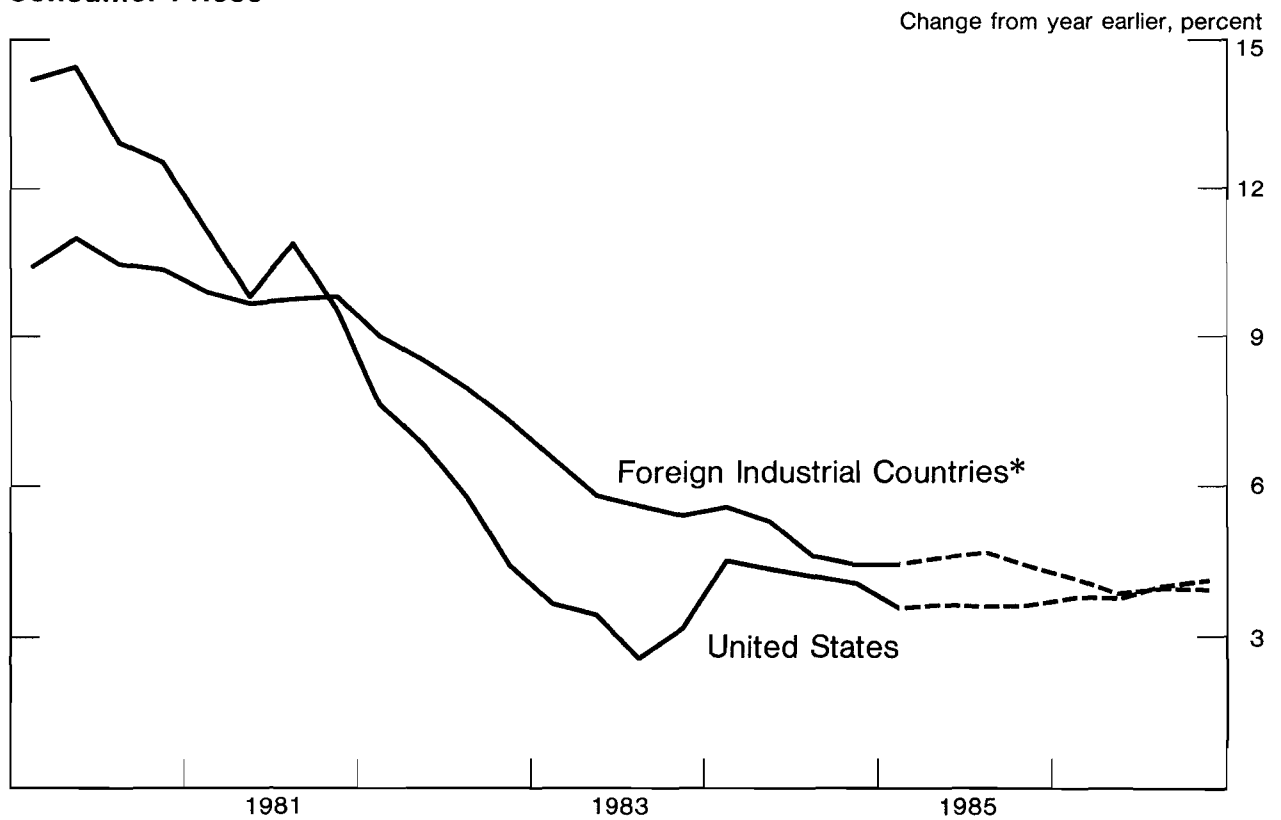
\*\* Long-term government or public authority bond rates adjusted for expected inflation estimated by a 36-month centered moving average of actual inflation (staff forecasts where needed).



### Real GNP

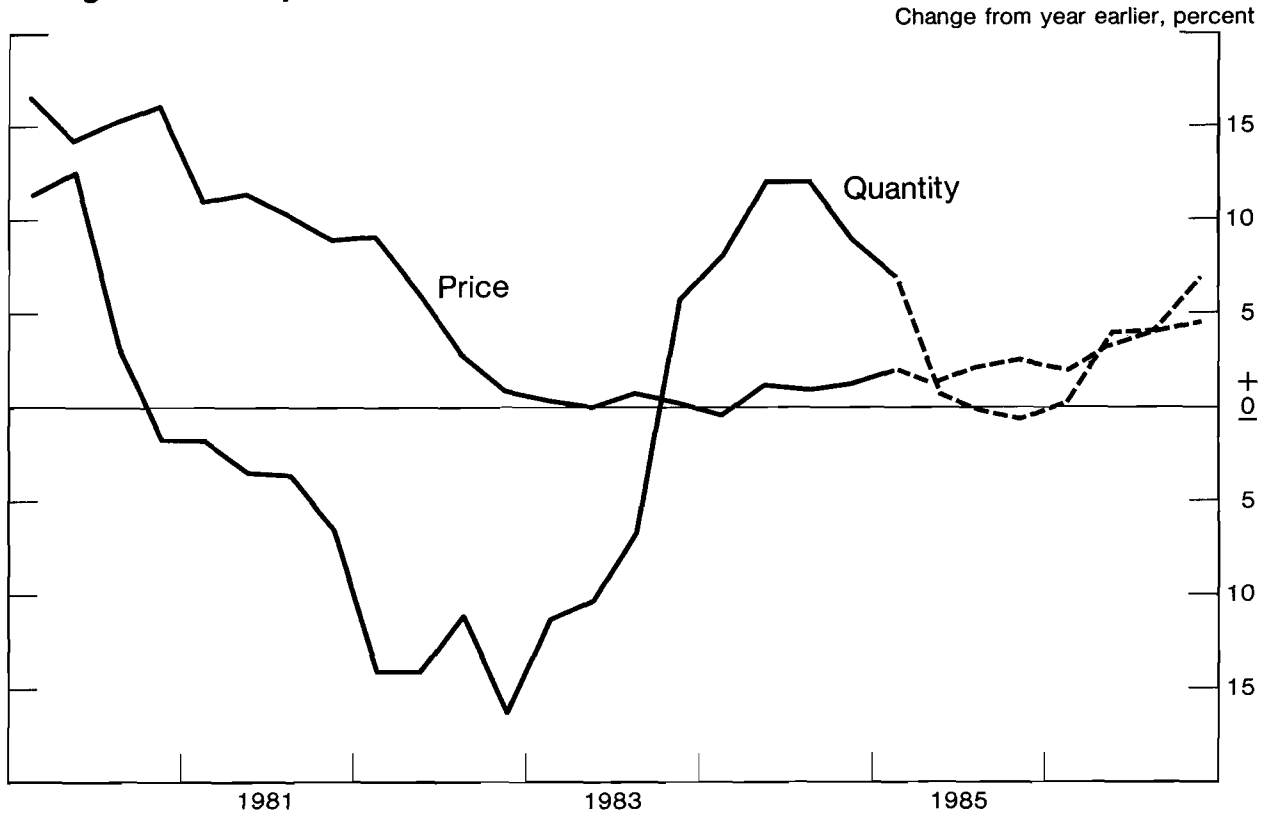


### Consumer Prices

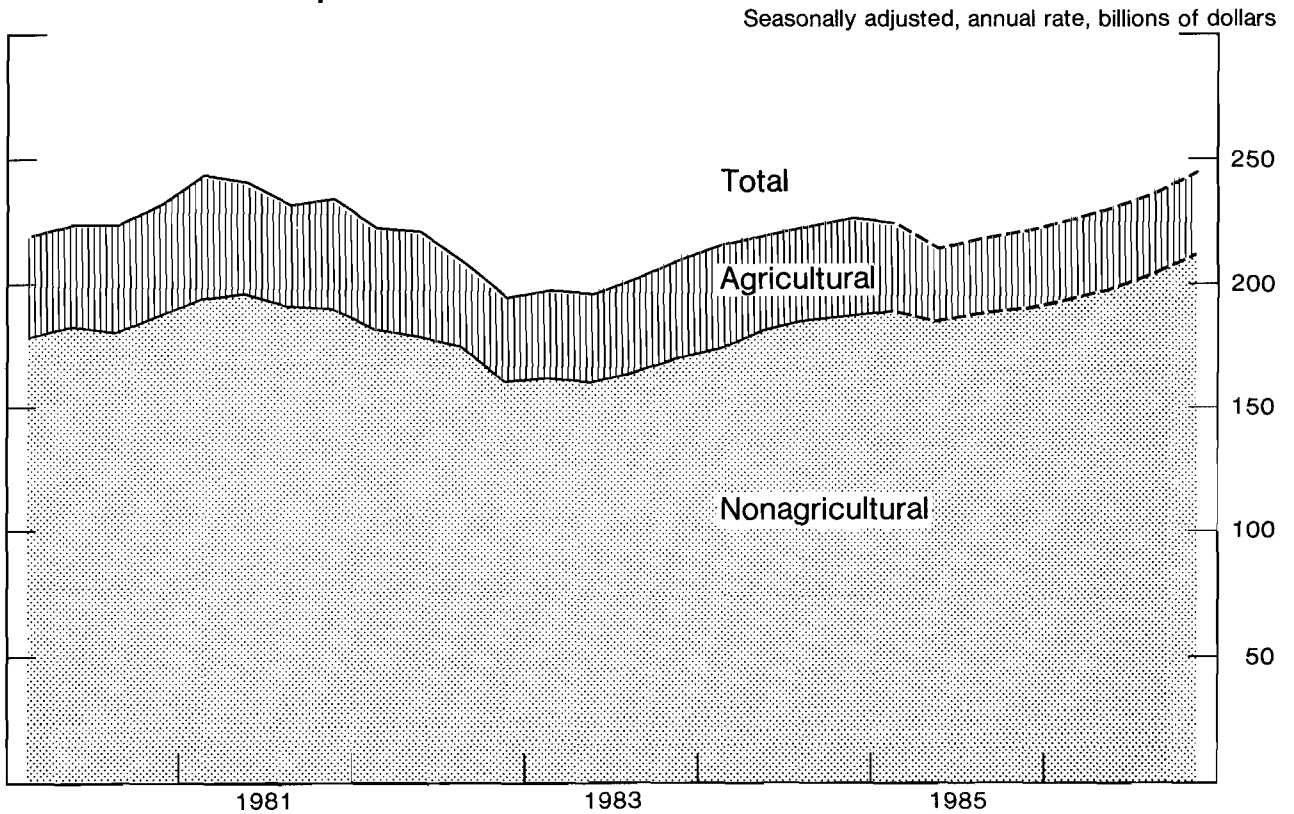


\* Weighted average of foreign G-10 countries using total 1972-76 average trade.

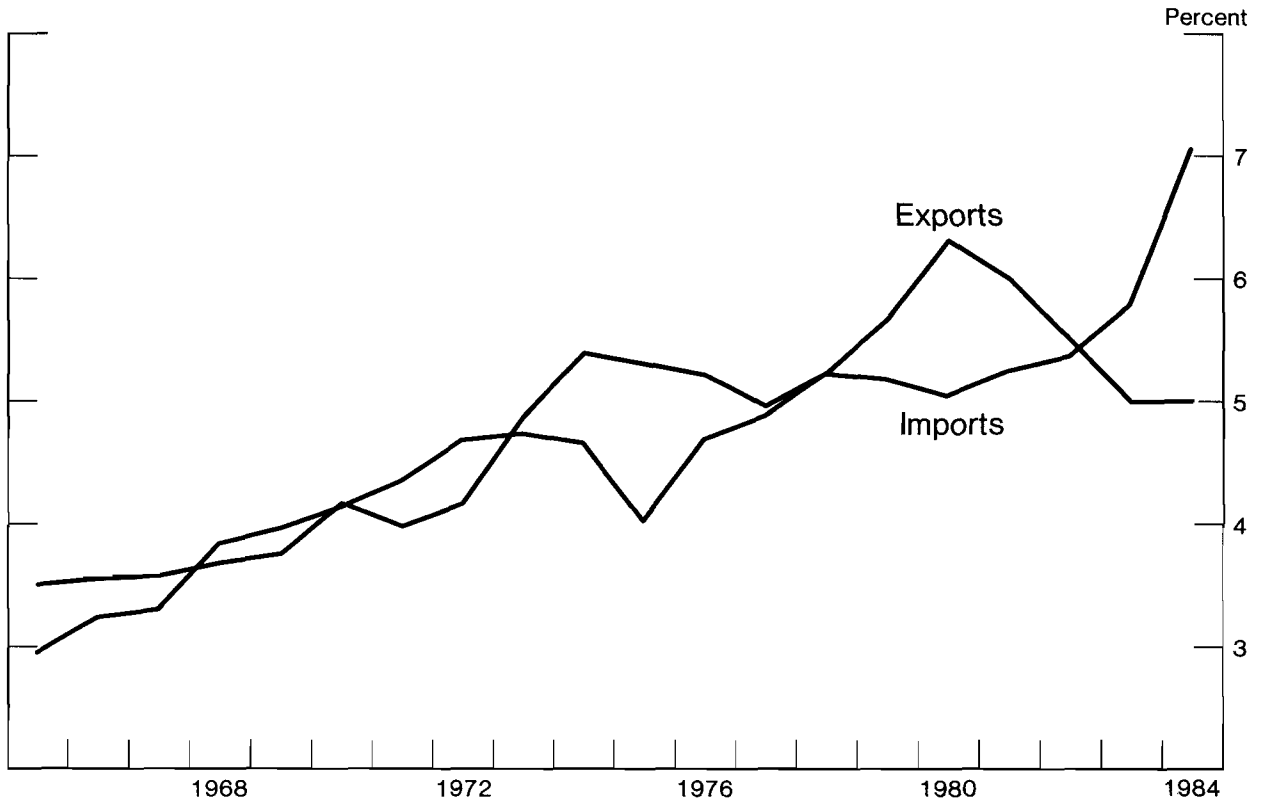
### Nonagricultural Exports



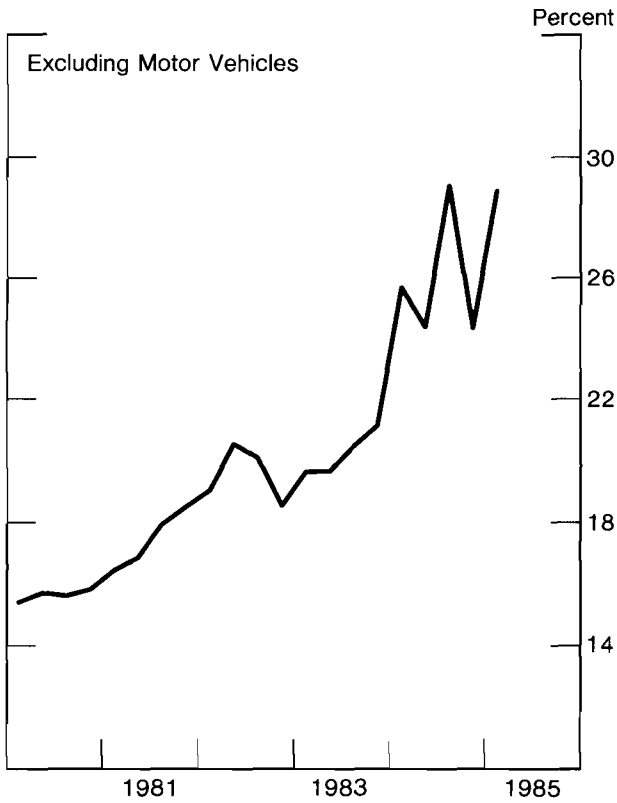
### U.S. Merchandise Exports



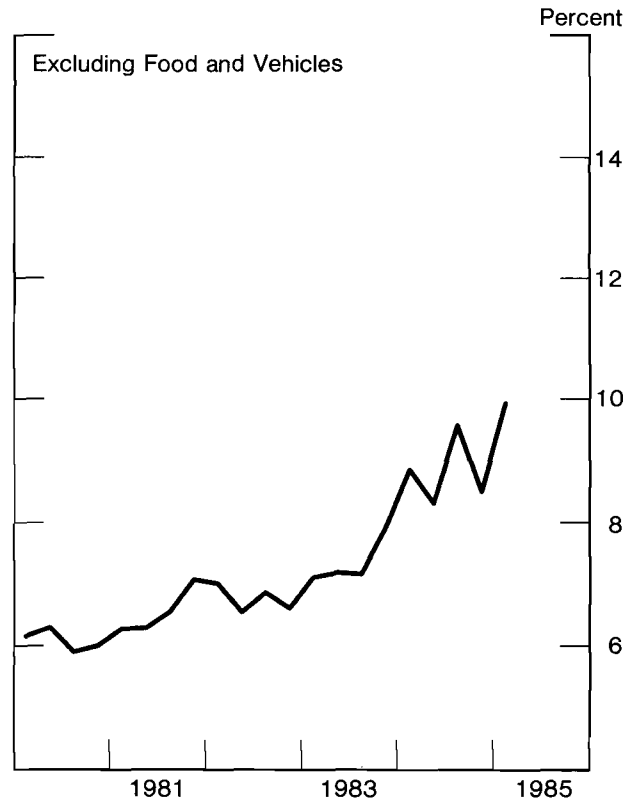
### Exports and Imports Relative to Real GNP



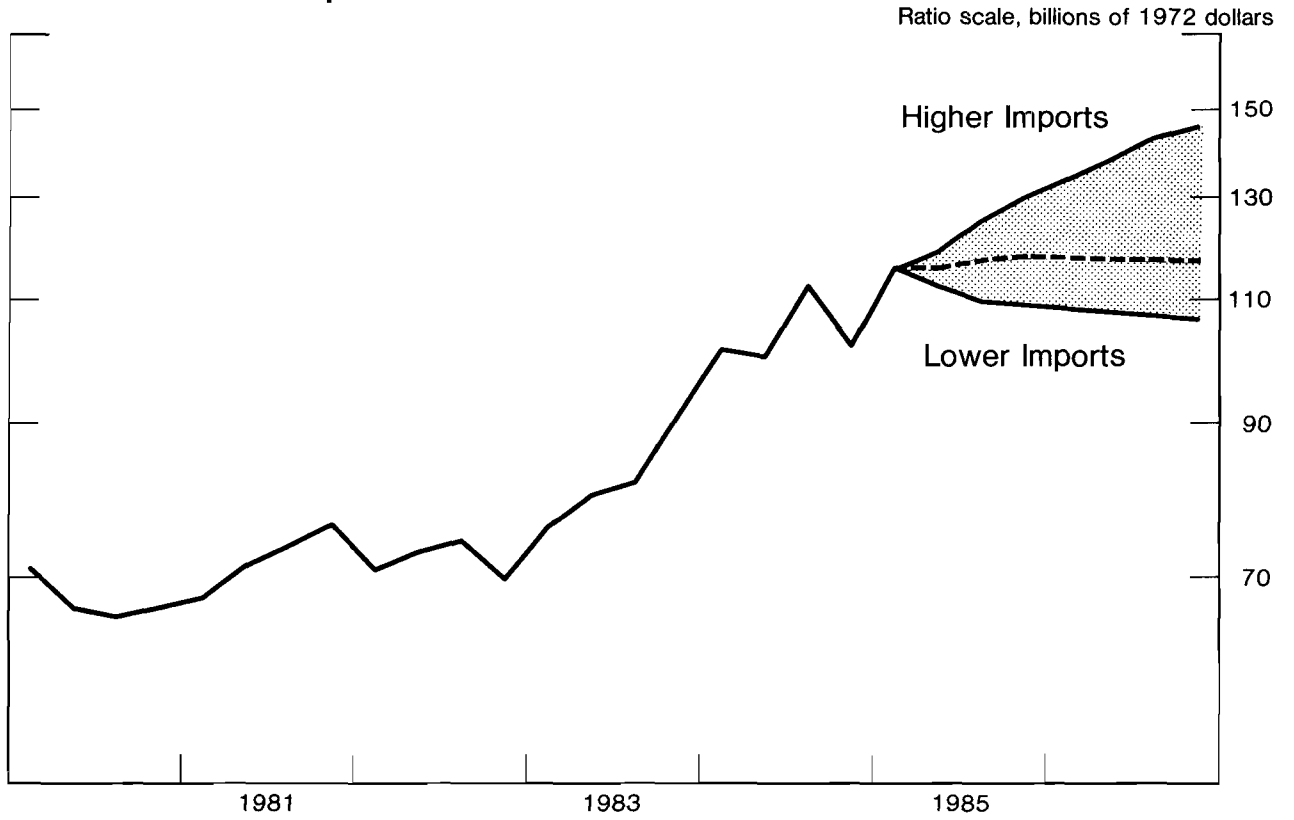
### Capital Goods Imports Relative to Real PDE



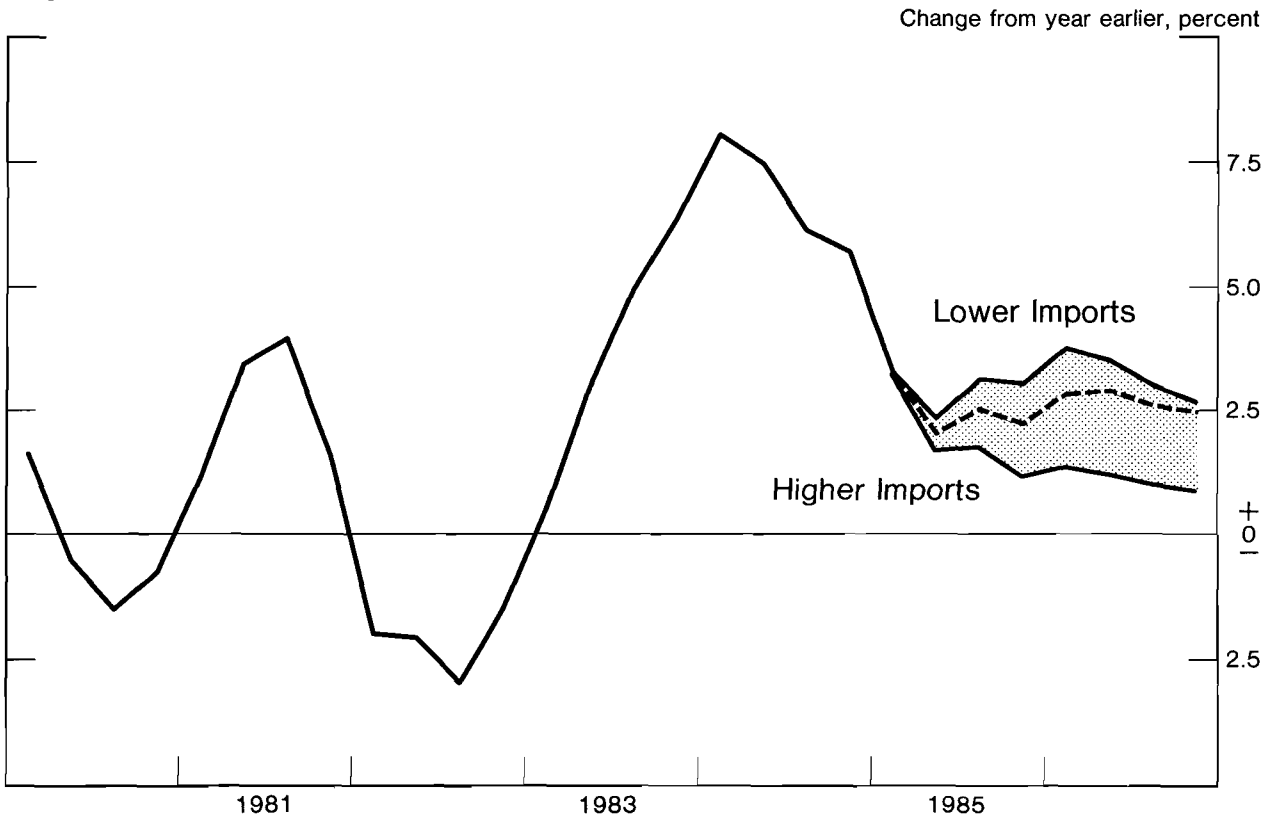
### Consumer Goods Imports Relative to Real PCE



### Volume of Non-oil Imports



### Real GNP



## Forecast Summary

	Board Members		Presidents		Staff
	Range	Median	Range	Median	
Percent change, Q4 to Q4					
<b>Nominal GNP</b>					
1985	6¼ to 7	6½	6½ to 7¾	7	5¾
1986	5½ to 7½	7	6½ to 8½	7½	6¼
<b>Real GNP</b>					
1985	2¼ to 3¼	2½	2½ to 3¼	2¾	2¼
1986	2 to 3½	2½	2 to 4	3	2½
<b>GNP Deflator</b>					
1985	3½ to 4	3¾	3¾ to 4¼	4	3½
1986	3 to 4¾	4½	3½ to 5½	4¼	3¾
Average level, percent					
<b>Unemployment Rate</b>					
1985	6¾ to 7¼	7	7 to 7¼	7¼	7
1986	6¾ to 7½	7¼	6¾ to 7½	7	7

## FOMC Projections for 1985

Reported to Congress Feb. 20, 1985		
	Range	Central Tendency
Percent change, Q4 to Q4		
Nominal GNP	7 to 8½	7½ to 8
Real GNP	3¼ to 4¼	3½ to 4
GNP Deflator	3 to 4¾	3½ to 4
Average level, Q4, percent		
Unemployment Rate	6½ to 7¼	6¾ to 7

FOMC Briefing  
SHAxilrod  
7/8/85

The main problems in reassessing the long-run targets for 1985 rather clearly focus on M1. There are some issues to consider first with the broader aggregates, though. M2 and credit are currently running around or above their long-run ranges. We do, however, expect M2 to grow within its present range for the year, unless interest rates drop significantly further. Credit growth will probably be around the top of its range, explainable by continued strength in merger and other refinancing activities as well as by expansion of spending in excess of GNP, factors at least partly taken into account by the Committee in setting the range in February. Thus, while the Committee might wish to consider upward adjustments in the upper limits of those ranges, the technical need seems marginal. Another consideration would be whether it might not in any event be better to leave the broader ranges unchanged as something of an anchor in face of the seeming need to make some adjustment in M1.

The materials sent to the Committee attempt to explain both the arithmetic and economic problems in setting an M1 range. The arithmetic says that to attain the 7 percent upper limit of the present M1 range, the aggregate will have to remain essentially flat, on balance, over the rest of the year. It seems likely that M1 growth will indeed slow from the about 11-1/2 percent rate that obtained from December to June. However, short of a large rise of interest rates in the coming six months, the odds do not suggest that demands for money in the period between now and year-end have already been satisfied by the rapid M1 expansion of recent months and that, therefore, little or no further

growth will be needed. For one thing, we are still expecting that the lagged effects of recent interest rate declines will stimulate growth for the months ahead. For another, some of the increase in M1 in the first half of the year represents funds shifted into NOW accounts for long-run savings purposes in response to market rate movements and thus in effect would not be employed to finance growing transactions demands for cash.

If the Committee were to take the view that the existing 4 to 7 percent M1 range was either not practically attainable or no longer desirable, there is the question of course of how to adjust it. One alternative is simply to set M1 aside for a while, at least until it becomes clear that this latest burst of rapid growth is over and that the aggregate's velocity has stopped declining and is returning to a positive rate of growth that our models suggest represents historical trend (abstracting from the effect of interest rates). I should mention at this point, though, that if interest rates need to decline from current levels to sustain real economic growth you can expect that velocity growth will be held down below trend and may often be negative.

However that may work out, there are probably considerable disadvantages under current circumstances in abandoning an M1 range. There may be certain public relations problems, including the risk of promoting fears that the Committee has become less concerned with continuing inflation. In addition, the Committee would lose a guide to policy implementation that, while difficult to employ at times, bears some leading, and also contemporaneous, relationship to economic behavior and which in that light--perhaps more usefully than the other aggregates--can be understood as calling for changes in money market conditions when it goes far astray.

The paper circulated to the Committee as background showed, among other things, that M1's relation to the economy has been loose in the sense that predicted changes in nominal GNP given the changes in M1 frequently have been wide of the mark in recent years. Still, even though such prediction errors have been rather large at times, there has been enough regularity about directional effects so as to make one wary of ignoring M1 entirely. That is, an acceleration or deceleration of M1 has more often than not been followed two quarters later by an acceleration or deceleration of nominal GNP growth--though the exact amounts of acceleration or deceleration have not corresponded well to prior M1 behavior.

If the Committee takes the view that an M1 range is not to be abandoned, the question arises about whether to raise the existing range and continue to apply it to the year as a whole, or whether to shift a range forward to a QII '85 base and have whatever range is chosen apply to the second half of the year. I am not very sure which of those two approaches would indicate more or less concern with M1, or more or less concern than the Committee may wish to signal. The act of raising the existing range would seem to suggest some determination to hit the new adjusted range--which would imply that the range should be rather clearly a realistic one. Shifting the base does not on the face of it provide a very different signal. It would seem to say the past is forgiven--as reflecting the impact on money demand of the effects of another notch down of interest rates, including lagged effects from last year. The Committee then would be providing its best estimate of appropriate growth over the balance of the year. One advantage of such an approach--no more than a symbolic one--would be that the Committee might not necessarily have to raise the existing 4 to 7 percent range, merely shift it forward.



However, our point estimate at the moment of M1 growth from QII '85 to QIV '85 is very near 7 percent at an annual rate, so that if the range were merely shifted forward to a QII base, without an upward adjustment there would be virtually no breathing room.

Whether the base were shifted forward, or the existing range raised, the present level of M1 would in any event be above such a new range. There is therefore the possibility that announcement effects of a new range might cause an unintended tightening of credit conditions, although that would in practice depend very much on the economic news also coming out at the time and, most importantly, on the words surrounding announcement of the ranges.

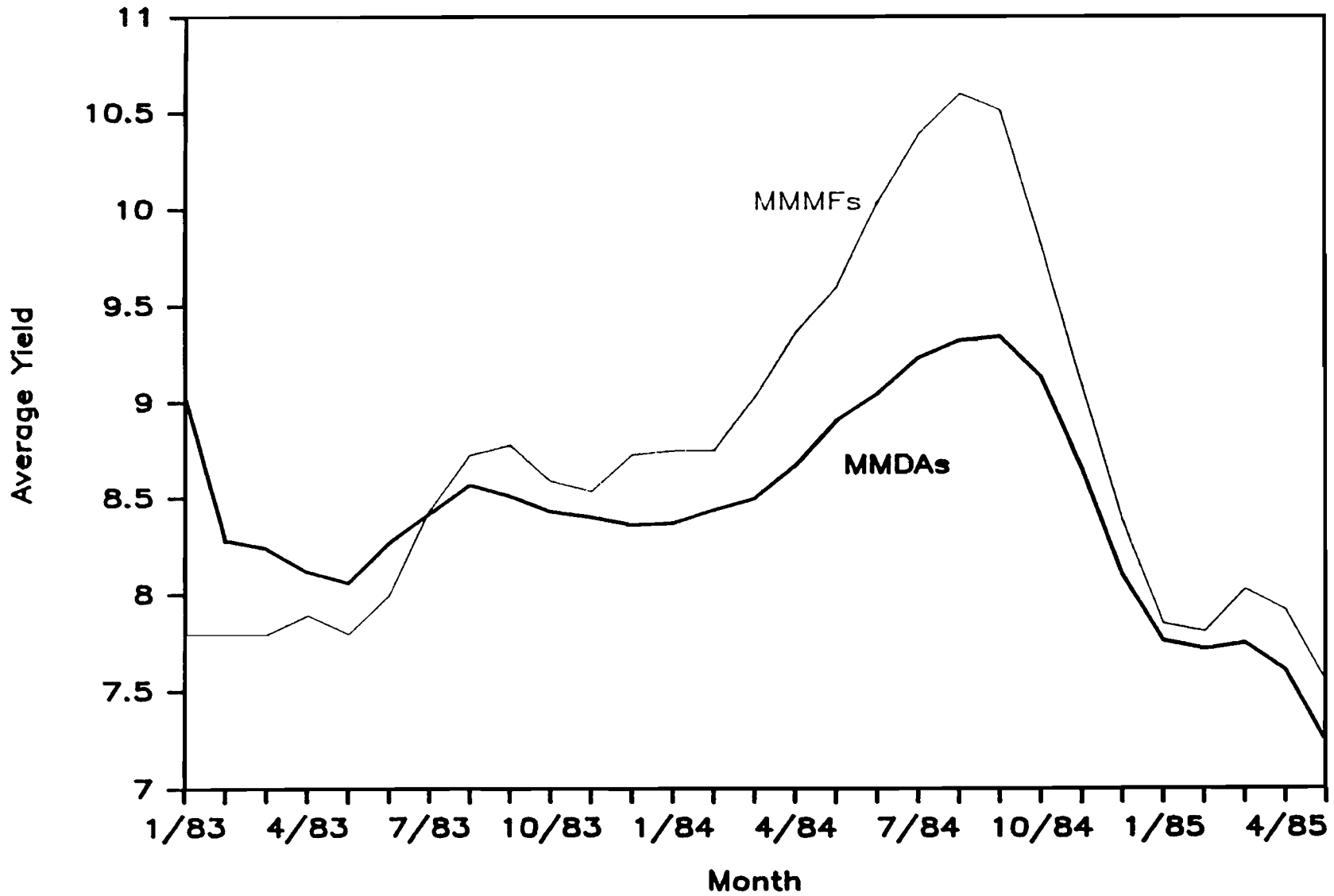
Depending in part on how much importance the Committee wishes to give to M1, a compromise between abandoning the range and setting a new range could be to retain the existing 4 to 7 percent based on QIV '84, indicate that the Committee expects or intends growth to slow in the second half of the year but further indicate that the Committee finds growth above the range acceptable for the year as a whole provided economic conditions permit, such as inflation remaining subdued. Such an approach is contained in proposal 2 for long-run directive language.

With respect to the tentative ranges for 1986, one basic question would seem to be whether the Committee wishes to signal its intent to continue with fostering progress toward reasonable price stability. The 1986 alternative III is one suggestion serving that end. The 3-1/2 percent lower limit of this M1 range, however, seems a bit unrealistic so far as can be foreseen now, and the Committee also may not wish to risk as large a downward adjustment in the range for the debt aggregate, given

recent experience, as is suggested in that alternative. Alternative I for 1986 would represent declines relative to current 1985 ranges for M3 and credit, and possibly also for M1 depending of course on the Committee's decision about adjusting the current M1 range.

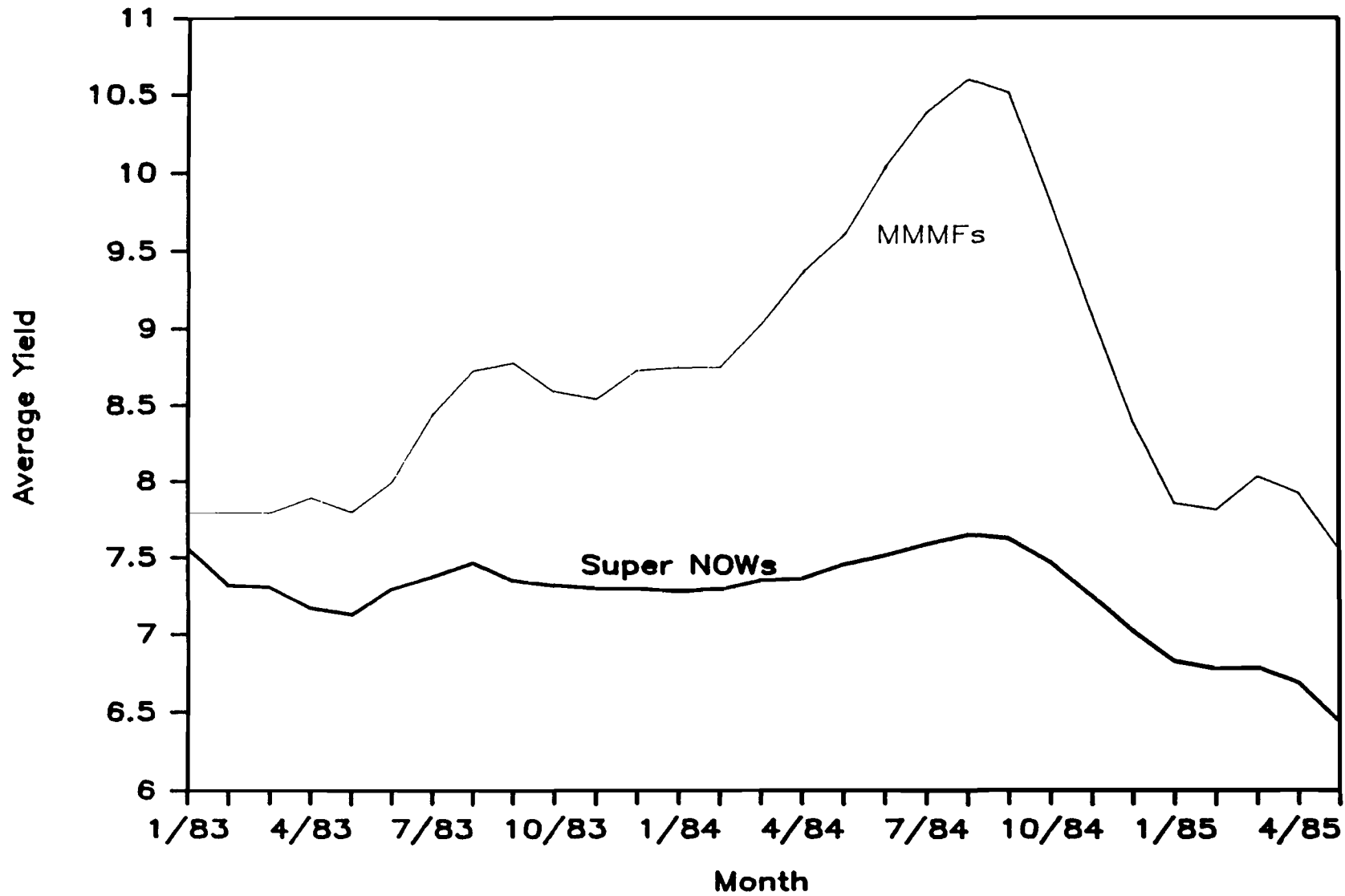
Finally, Mr. Chairman, whatever the choices made for the ranges this year and next, it would be desirable to keep before the public, in one way or another, the possibility that further downward movements of interest rates might entail increases in M1 and M2 above their ranges as investors shift savings out of market instruments and into depository institutions depending in part on how banks and thrift institutions adjust offering rates on deposits as market rates decline. Nominal interest rates could decline if and as inflationary expectations ebb. But they would also decline if the present level of real interest rates proves too high, given the exchange rate, to sustain real economic growth at a satisfactory pace. In that context, it can be observed that while real rates have dropped recently, and short rates are probably still somewhat above the range of variation during the 1950's and 1960's, real longer-term rates remain well above that range of experience.

# MMDAs vs MMMFs

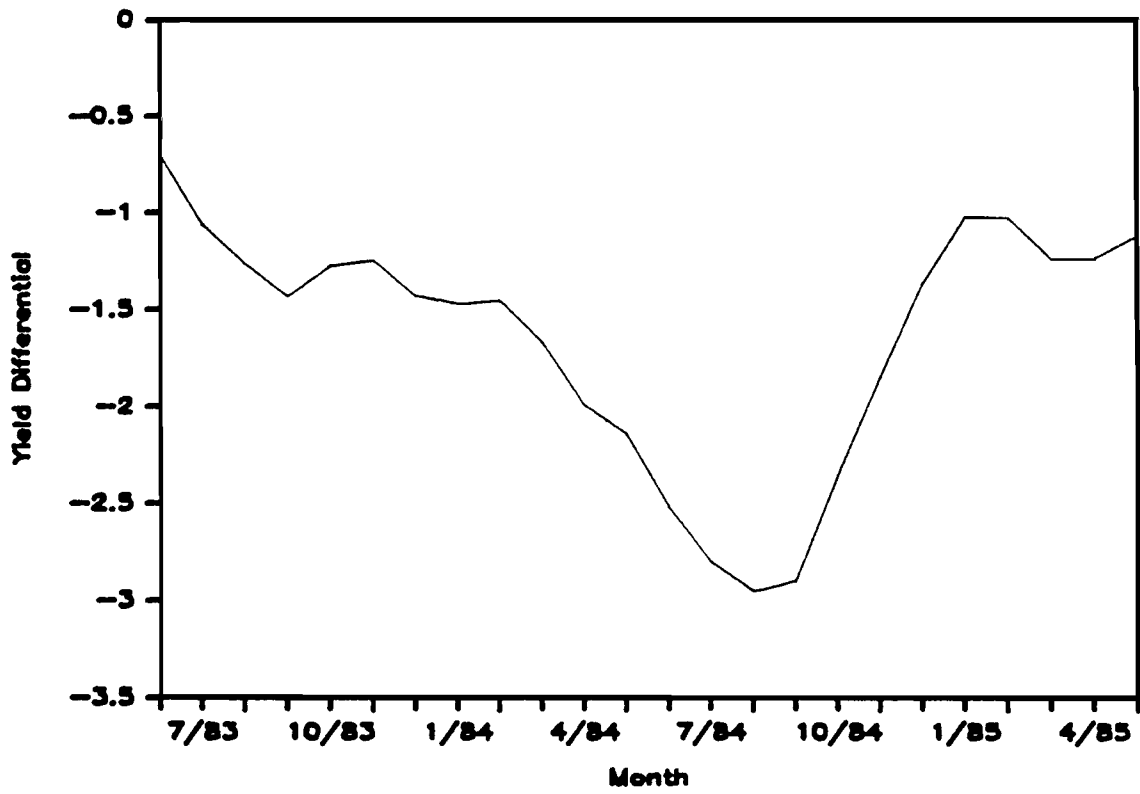


CHARTS AND TABLES  
PREPARED BY MR. MORRIS  
JULY 1985

# Super NOWs vs MMMFs

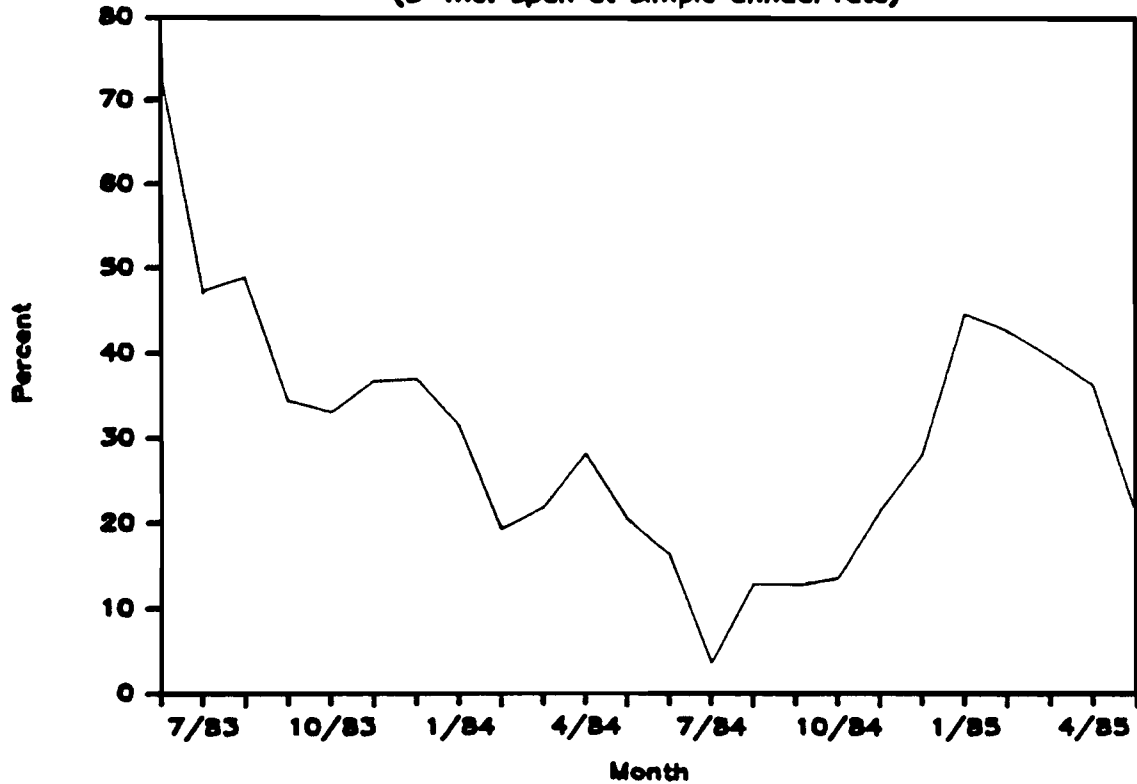


## Super NOWs Less MMMFs



## Growth Rate of Super NOWs

(3-mo. span at simple annual rate)



Recent Behavior of Selected Velocities  
Deviation from 1970-1980 Trends  
(in percent)

	<u>M1</u>	<u>M2</u>	<u>M3</u>	<u>L</u>	<u>D</u>
1981:I	1.9	6.3	5.0	3.7	2.1
1981:II	0.3	5.1	4.8	2.9	1.3
1981:III	1.7	6.0	4.2	3.2	2.1
1981:IV	0.2	4.1	2.1	1.0	0.6
1982:I	-3.9	1.6	-0.2	-1.5	-1.6
1982:II	-3.4	1.0	-1.1	-2.6	-2.3
1982:III	-5.1	-0.8	-2.8	-4.4	-3.8
1982:IV	-9.1	-2.3	-3.9	-5.5	-5.2
1983:I	-10.7	-5.4	-4.3	-6.0	-5.4
1983:II	-11.7	-5.1	-3.4	-5.4	-4.9
1983:III	-12.7	-4.7	-3.0	-5.5	-5.2
1983:IV	-12.6	-4.3	-2.7	-5.1	-5.3
1984:I	-11.5	-2.7	-1.3	-4.3	-5.0
1984:II	-11.5	-1.9	-1.1	-4.6	-5.5
1984:III	-12.2	-2.3	-1.9	-6.1	-7.2
1984:IV	-12.1	-2.9	-2.7	-6.5	-8.7
1985:I	-14.3	-4.6	-3.8	-7.5	-10.6
Mean Absolute Error 1970:I-1980:IV	1.0	2.2	2.2	1.6	0.7