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Are Consumers Overextending Themselves?

Recent economic growth has been fueled by a revival of consumer borrowing. After decreasing during the recession, consumer and household borrowing are now increasing in absolute terms and in relation to income and net worth. The burden of monthly debt payments also may be increasing, raising questions about whether consumer spending will be as powerful a source of growth in future months.

The current business expansion got off to an unusually slow start in 1991 partly because consumer borrowing did not rebound as quickly as in prior recoveries. Over the 12 months ended in September 1994, however, consumer installment debt increased 14 percent. This was the biggest 12-month increase since 1986. During this same period, personal income increased much less (see Chart 1). Some analysts question whether the surge in consumer borrowing will continue, particularly in light of the trend toward higher interest rates (on November 15, the Federal Reserve raised short-term rates for the sixth time this year). If consumers cut back their borrowing, they will likely cut back their spending and perhaps derail the economic expansion.

To measure how large household indebtedness is and how much it has increased, we must look beyond consumer installment debt, which includes mainly credit card balances and automobile loans. The most substantial debt for most households, by far, is mortgage debt. For the nation as a whole, the outstanding value of mortgages held by U.S. households at the end of 1993 was $2.97 trillion, or 77 percent of total household debt. Consumer debt amounted to $867 billion, only 23 percent of the total.

The nominal value of household debt (mortgage plus consumer debt) has been increasing for decades, reflecting both price inflation (it takes more than six dollars to buy what one dollar bought in 1950) as well as what financial author James Grant has called the "democratization of credit" (the Government subsidizes mortgage loans, and virtually everyone with a post office address, it seems, can now get a "pre-approved" credit card). In nominal terms, household debt increased 154 times from 1945 to 1993. Of course, nominal household incomes also increased during this period, thus the level of debt relative to income did not increase nearly as much. Even so, it has increased substantially in the postwar years.

This historical trend can be seen in Chart 2, which shows household debt and its two components as percentages of disposable personal income. In the 1980s, in particular, household debt rose sharply relative to income, but this was largely due to a rapid increase in mortgage debt. For all the talk of consumers spending beyond their means, the ratio of *consumer* debt to income varied little during this period.

After 1988, the ratio of household debt to income leveled off for two reasons. The rate of increase in mortgage debt slowed, and consumer debt actually declined in 1991 — the first annual decline since at least 1945, when the data series begins.

In 1993, consumer debt rebounded sharply and mortgage debt (which, again, is much larger) also increased. Total household debt edged up to 81.8 percent of disposable personal income. Although the ratio of consumer debt to income remained below its 1989 peak, the ratio of household debt reached an all-time high at the end of 1993.

Personal income data ignore evidence that consumers borrow not only against their incomes but against their assets. An individual with $30,000 income and $100,000 net worth is better able and more likely to carry debt than an individual with the same income and zero net worth. From this standpoint, another useful measure of indebtedness is the ratio of debt to net worth, shown in Chart 3. As can be seen, the long-term trend in this ratio is similar to the debt-to-income ratio; debt has tended to increase faster than net worth, thus the ratio has increased. However, household debt is substantially lower as a

Chart 1
Consumer Installment Debt and Personal Income
(12-Month Change)

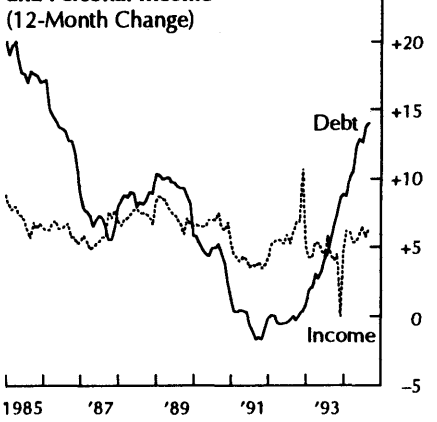


Chart 2
Debt as a Percentage of Disposable Personal Income

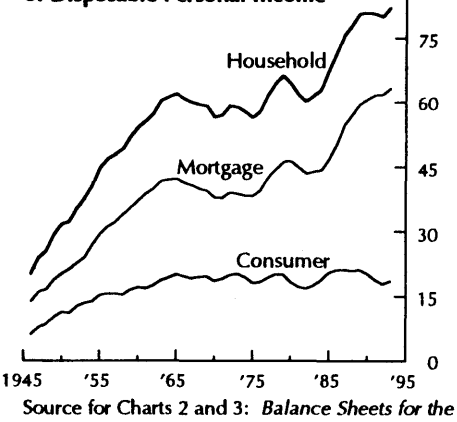
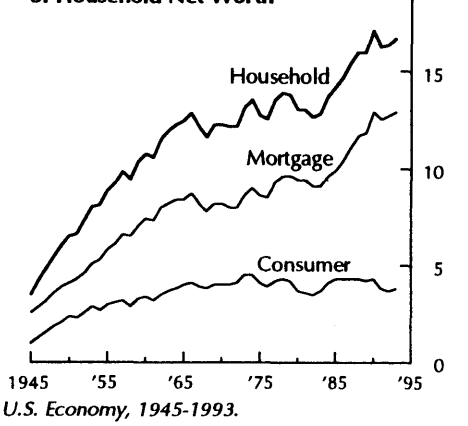


Chart 3
Debt as a Percentage of Household Net Worth



Source for Charts 2 and 3: *Balance Sheets for the U.S. Economy, 1945-1993.*

percentage of household net worth than as a percentage of personal income.

In 1990, debt increased somewhat but net worth rose even less, posting the smallest annual percentage increase in nearly 30 years. Debt increased to 17.1 percent of net worth, the highest ratio ever recorded. The trend reversed in 1991 but resumed in 1992, and by the end of 1993 debt equaled 16.7 percent of net worth. Given the historical trend, it seems only a matter of time before this measure of indebtedness surpasses the 1990 high and reaches a new historical peak.

This already may have happened. The consumer debt figures cited above include automobile debt but not the value of automobile leases, which have become increasingly popular. From the standpoint of an individual's financial situation, a monthly lease payment is as much of a financial burden as a monthly loan payment. Taking into account this substitution, the aggregate value of consumers' financial obligations undoubtedly is higher than indicated by the figure for outstanding consumer debt. (How much higher cannot be determined, because we have not been able to find any aggregate data on auto leases.) Similarly, the adjusted ratios of consumer and household debt to income and net worth would be higher than shown in the chart.

These aggregate figures mask considerable variation across households. A more detailed picture of family debts, incomes, and net worth is provided in the periodic Federal Reserve Surveys of Consumer Finances. Newly released data from the 1992 survey* indicate that indebtedness varies widely among households. Roughly 60 percent of families had no mortgage or home equity debt in 1992, and 55 percent had no installment debt. Although 73 percent of families reported holding credit cards, only 43 percent of all families reported outstanding balances on their cards — many credit card bills are paid in full as received.

As might be expected, families with relatively high incomes and net worth are more likely to be in debt. Among families with pre-tax income of less than $10,000 (18 percent of all families surveyed), only 48 percent reported owing at least one type of debt in 1992, and fewer than one in ten had a mortgage or home equity loan. In contrast, among families with incomes of $50,000 or higher (27 percent of the total), 85 percent reported debts, with two-thirds having mortgages or home equity loans.

* "Changes in Family Finances from 1989 to 1992: Evidence from the Survey of Consumer Finances," *Federal Reserve Bulletin*, October 1994.

Higher income families also are more likely to owe more. Among the 48 percent of indebted families with incomes under $10,000, the median debt was $2,000. Among families with incomes of $50,000-$99,999, the median debt of the 85 percent of families reporting any debt was $57,200. For families with incomes of $100,000 or more, the median debt was $131,000. For all income groups, the biggest debt holding by far was mortgage and home equity debt (even though, as noted above, families with incomes below $10,000 were much less likely to carry such debt). The second largest debt holding, again for all income groups, was investment real estate debt, *i.e.*, debt owed on vacation homes, rental units, commercial property, and land. (Fewer than 1 in 100 of the lowest-income families held such debt, compared to 1 in 3 of families with incomes over $100,000.)

The Fed's previous survey of family finances was conducted in 1989, providing a basis for comparison with the 1992 data. During the 3-year period, the share of all families reporting some type of debt did not change. Here, too, however, the aggregate trend masks substantial variation.

Most strikingly, the percentage of high-income families with debts decreased during this period, from 93 to 85 percent of families with incomes in the $50,000-$99,999 range (in 1992 dollars), and from 90 to 85 percent for families with incomes above $100,000. Relatively fewer of these families had mortgage debt, and the share of families owing installment debt dropped sharply (from 51 percent to 35 percent for the highest-income group). The latter shift probably reflects the increased use of home-equity loans and leases as substitutes for installment loans.†

In contrast, overall indebtedness became more widespread among middle-income families. Among families with incomes in the $10,000-$24,999 range, the proportion of borrowers increased from 60 to 70 percent, largely due to the proliferation of credit cards.

Among families with debts, the median outstanding balance of nearly every type of debt increased among every income group from 1989 to 1992. The major exception was installment debt, which decreased in all but the lowest income group. For families with incomes of $100,000 or more, median family debt increased from $118,400 in 1989 to $131,000 in 1992. For families with income of $50,000-$99,999, median debt increased by $7,900, to $57,200; in the income range $25,000-$49,999, median debt increased by $2,800, to $21,100; in the $10,000-$24,999 income range, median debt was unchanged at $5,600, and among families with incomes under $10,000, median debt increased by $500, to $2,000.

† The Tax Reform Act of 1986, it may be recalled, phased out the tax deductibility of interest payments other than those for mortgage (and home equity) loans. Lease payments are not deductible by consumers, but leasing companies can deduct depreciation on the cars (or boats, or whatever) they lease, and may therefore be able to offer a better deal than conventional lenders. Families with relatively higher incomes have the strongest incentive to take advantage of the tax benefits provided by these alternatives to conventional consumer loans.

The Burden of Debt

The key question is whether the burden of servicing this debt also increased. In this respect, ratios of debt to income or net worth do not shed full light on the answer. Monthly payments on a loan depend not only on the outstanding balance, but also on the interest rate and maturity (which may be open-ended, as in the case of credit cards and home equity lines of credit).

According to the Fed survey, during the period 1989-92 total monthly payments on many loans fell, largely due to the decrease in interest rates. Thus, the ratio of aggregate payments to total family income — the conventional measure of debt burden — decreased from 16.5 to 15.1 percent. However, this ratio includes the incomes of families holding zero debt. Looking only at families with debts, the median ratio of debt payments to income increased slightly, from 15.1 to 15.4 percent of income. These diverging trends suggest that the decline in the aggregate ratio was largely due to the decrease in the debts of higher-income families, rather than a decrease in the payment ratio of the typical family with debt.

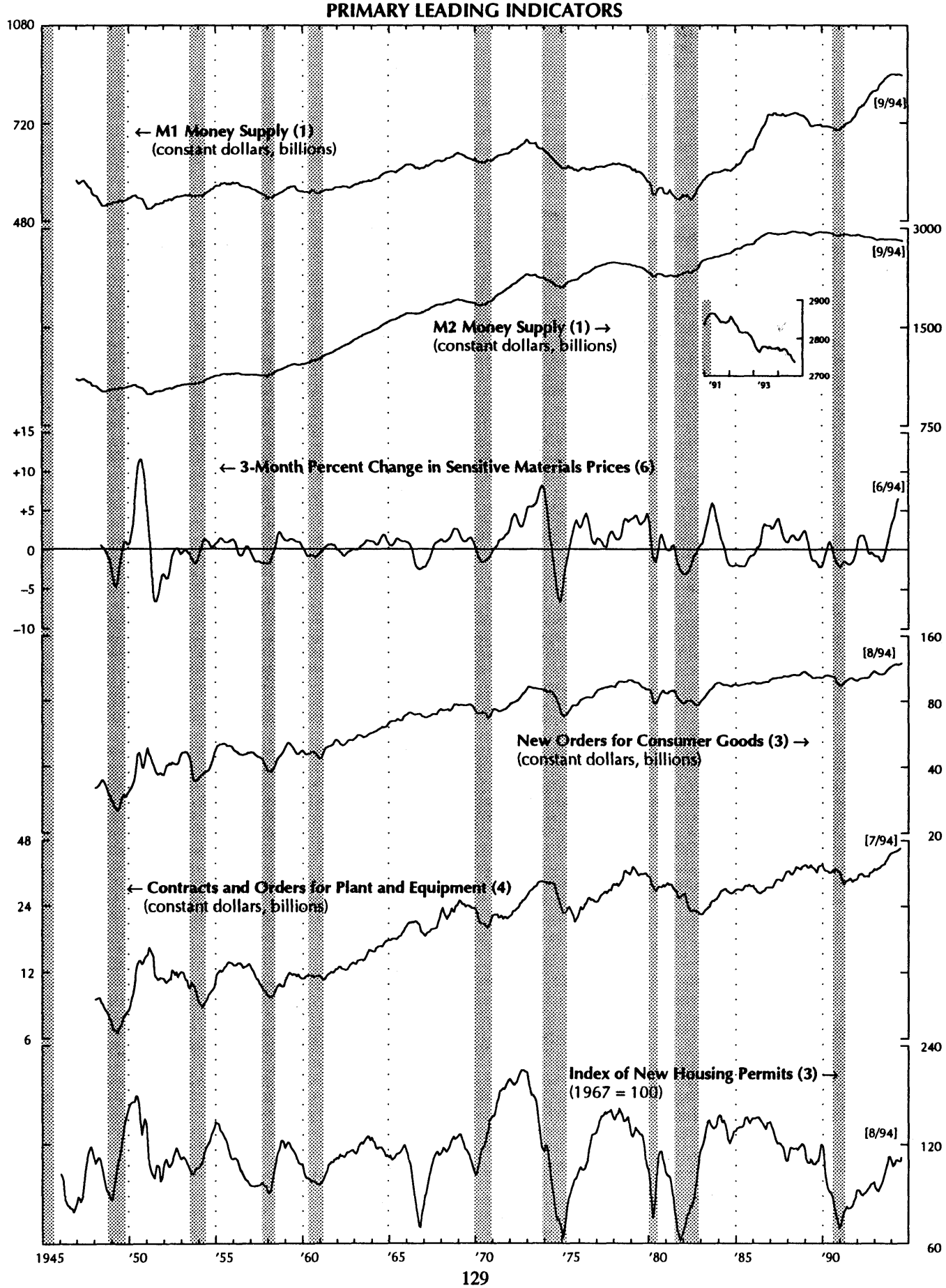
Despite the increase in the overall median debt ratio, the debt burden of some families decreased. As shown in the table below, the monthly debt payments of lower-income borrowers decreased relative to income, while the debt burden of the typical high-income family increased. The overall increase reflects higher ratios for borrowing families with annual incomes of $25,000 or more.

Median ratio of debt payments to income, among families with debts

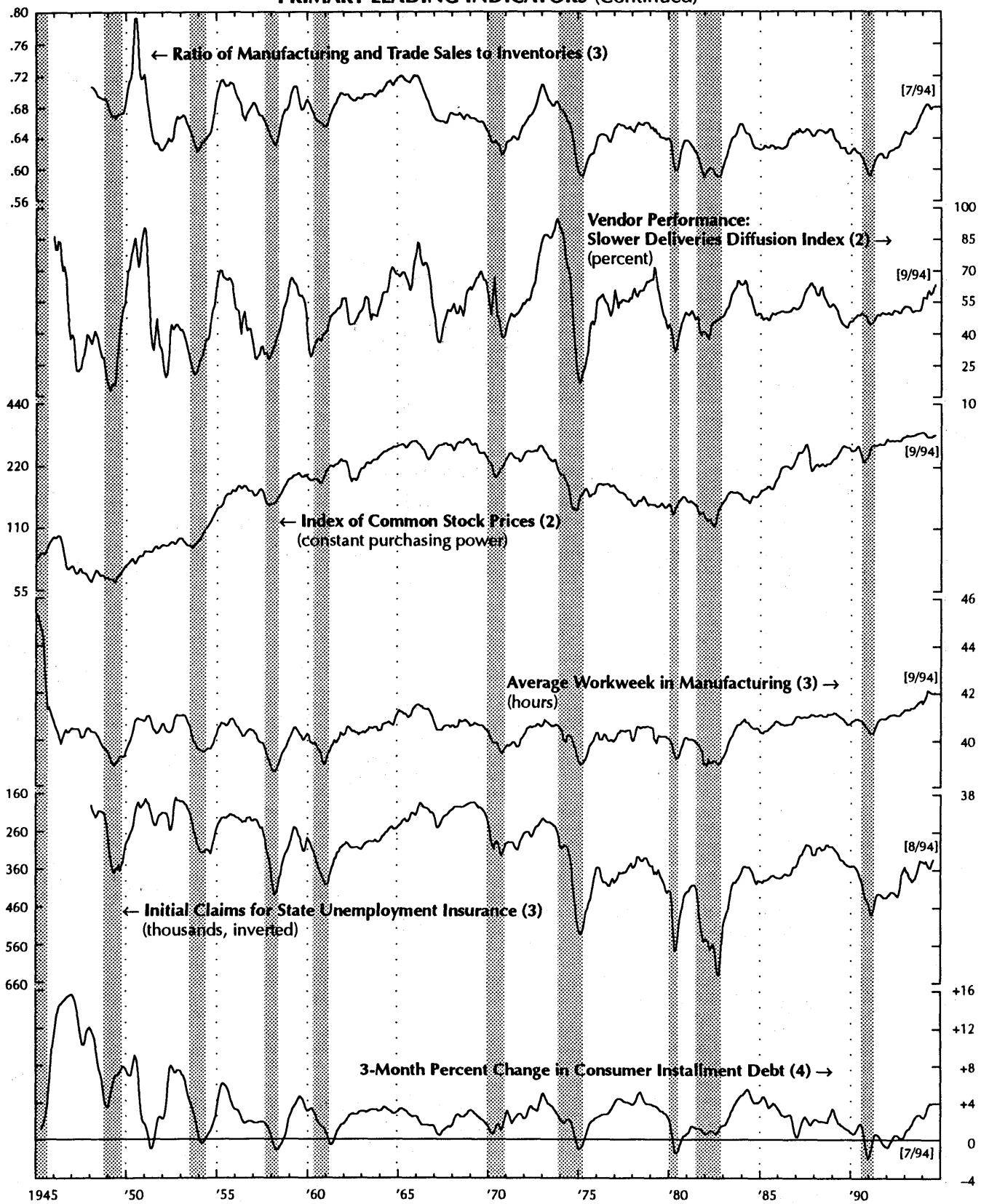
	1989	*1992*
All families	15.1	15.4
Income (1992 dollars):		
Less than $10,000	13.4	11.6
$10,000–$24,999	15.1	14.8
$25,000–$49,999	15.6	16.7
$50,000–$99,999	15.8	16.2
$100,000 and more	12.6	13.7

Source: *Federal Reserve Bulletin.*

PRIMARY LEADING INDICATORS

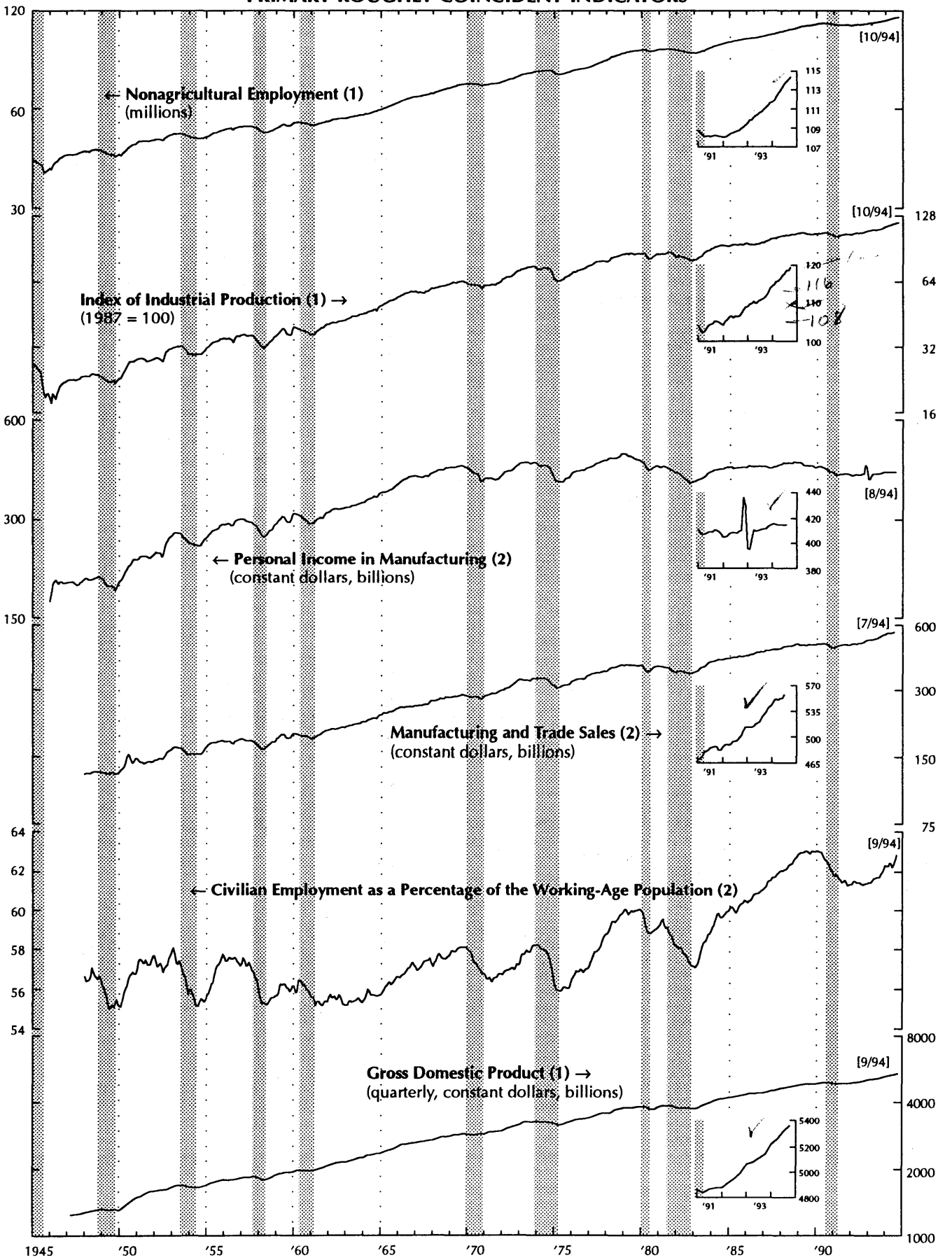


PRIMARY LEADING INDICATORS (Continued)

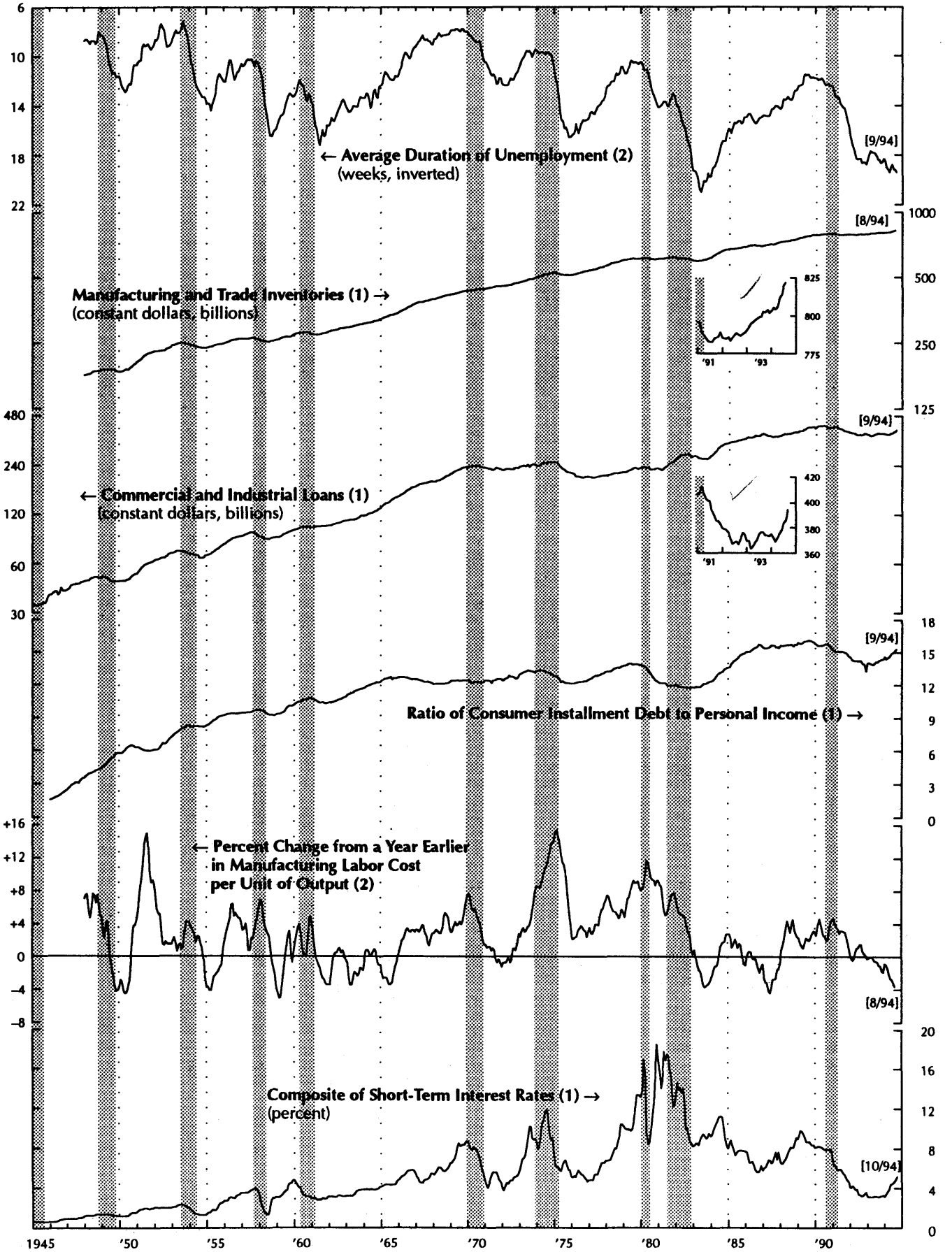


Notes: 1) Shaded areas indicate recessions as dated by the National Bureau of Economic Research. 2) The number in parentheses next to the name of a series is an estimate of the minimum number of months over which cyclical movements of a series are greater than irregular fluctuations. That number is the span of each series' moving average, or MCD (months for cyclical dominance), used to smooth out irregular fluctuations. The data plotted in the charts are those MCDs and not the base data. The number in brackets is the latest month for which the moving average is plotted. 3) The insets in selected charts show recent trends more clearly. These insets have arithmetic scales, even when the main chart is plotted on a ratio scale.

PRIMARY ROUGHLY COINCIDENT INDICATORS



PRIMARY LAGGING INDICATORS



During 1993, interest rates decreased further, mortgage refinancing reached record levels, increased competition among credit-card issuers led to more favorable terms, and real family income began to rebound as the pace of economic recovery accelerated. The debt burden, measured by the ratio of debt payments to income, may have declined from the levels shown in the table.

During 1994, however, interest rates have increased. The payments on outstanding adjustable-rate debt have risen, as have the payments on new debts. Aggregate installment debt has surged, and the ratio of consumer installment debt to personal income has increased sharply. (This series is one of our lagging indicator of business conditions and is plotted on page 132.) In short, it is likely that for many people the burden of monthly loan payments has increased relative to their incomes. For the economy as a whole, it is not clear how high is too high. In each successive business cycle, household borrowing has risen to new all-time highs before falling back, and it could do so again.

When Fed Chairman Alan Greenspan pushed interest rates lower from 1989 to 1993, he made much of the need to reduce the economic "headwinds" created by, among other things, overextended consumers. After losing force in recent years, this particular headwind appears to be building again. One key indicator that the cyclical upturn in debt is approaching its limit would be a downturn in the *3-month rate of change in consumer installment debt*, one of our leading indicators of business conditions. As noted in the following article, this has yet to happen. ❑

BUSINESS-CYCLE CONDITIONS

The prospects for continued economic growth remain bright, although some negative developments are apparent. A large percentage of the leading indicators is expanding, but few are exceptionally strong and the lagging indicators are beginning to suggest tight conditions in the credit markets. Powerful expansionary forces remain at work, however. Labor remains plentiful and wage pressures negligible. The chances of imminent recession appear remote.

Since our last review, newly published data put five of the 12 primary leading indicators at cyclical highs: the *change in sensitive materials prices*, *new orders for consumer goods* (new orders and all other dollar-denominated series are reported in constant dollars), *contracts and orders for plant and equipment*, *vendor performance*, and *initial claims for state unemployment insurance*, an inverted series. All five series are clearly expanding.

The *index of new housing permits* posted a strong increase in September. The increase brought the index's 3-month moving average within a point of its high for the current expansion, which it reached last December. This development prompted a reappraisal of the index's cyclical status: appraised as indeterminate last month, the housing permits index now is probably expanding.

As of September, the *change in consumer installment debt* had decreased in 3 of the latest 4 months, pulling the series' 4-month moving average down slightly from its cyclical high. In previous cycles, the moving average seldom has produced false signals of recession, so the current 1-month decrease was sufficient to raise doubts about the series' cyclical status. Previously appraised as clearly expanding, the change in installment debt now is probably expanding.

The *M1 money supply* continued its sideways drift for a sixth month in September, falling to its lowest level since last December. Given this drift, the uncertainty that arose last month over the cyclical status of M1 intensified, and its cyclical status was downgraded from probably expanding to indeterminate. As discussed below, this weakness probably reflects the Federal Reserve Board's drive to raise short-term interest rates this year.

The revisions in the appraisals of M1 and the index of new housing permits offset each other, leaving the percentage of leading indicators expanding unchanged at 89 (8 series expanding of the 9 for which a trend is evident). Our cyclical score, based on a separate analysis of the leaders, remained at 82, unchanged from the score reported last month. The percentage expanding and the cyclical score both suggest that expansion remains significantly more probable than recession in the coming months.

Nevertheless, as we noted last month, uncertainty about the cyclical statuses of half of the leading indicators (three are indeterminate and three are probably expanding) suggests that the business outlook could worsen quickly. The recent ac-

Statistical Indicators of Business-Cycle Changes

Change in Base Data					Cyclical Status		
Jul.	Aug.	Sept.	Oct.	Primary Leading Indicators	Sept.	Oct.	Nov.
+	–	–		M1 money supply	+	+?	?
+r	–	–		M2 money supply	–	–	–
+	–	–		Change in sensitive materials prices	+	+	+
–	+	–		New orders for consumer goods	+?	+	+
–	+	+		Contracts and orders for plant and equipment	+	+	+
+	+	+		Index of new housing permits	?	?	+?
–	+			Ratio of manufacturing and trade sales to inventories	+?	?	?
–	+	+	+	Vendor performance	+	+	+
–	+	+	–	Index of common stock prices (constant purchasing power)	?	?	?
nc	nc	nc	+	Average workweek in manufacturing	+	+?	+?
+	+	+		Initial claims for unemployment insurance (inverted)	+?	+?	+
–	+r	–		Change in consumer installment debt	+	+	+?
				Percentage expanding cyclically	*90*	*89*	*89*
				Primary Roughly Coincident Indicators			
+	+	+	+	Nonagricultural employment	+	+	+
+	+	–r	+	Index of industrial production	+	+	+
–	–	+		Personal income in manufacturing	+?	?	?
–	+			Manufacturing and trade sales	+	+	+
–	+	+	+	Civilian employment to population ratio	+	+	+
+	+	+		Gross domestic product (quarterly)	+	+	+
				Percentage expanding cyclically	*100*	*100*	*100*
				Primary Lagging Indicators			
–	nc	nc	–	Average duration of unemployment (inverted)	–?	?	–
+	+			Manufacturing and trade inventories	+	+	+
+	+	+		Commercial and industrial loans	+	+	+
+	+	+		Ratio of consumer installment debt to personal income	+	+	+
–	–	+		Change in labor cost per unit of output, manufacturing	–	–	–
+	+	+	+	Composite of short-term interest rates	+	+	+
				Percentage expanding cyclically	*67*	*80*	*67*

nc No change. rRevised.

Under "Change in Base Data," plus and minus signs indicate increases and decreases from the previous month or quarter and blank spaces indicate data not yet available. Under "Cyclical Status," plus and minus signs indicate expansions or contractions of each series as currently appraised; question marks indicate doubtful status when shown with another sign and indeterminate status when standing alone.

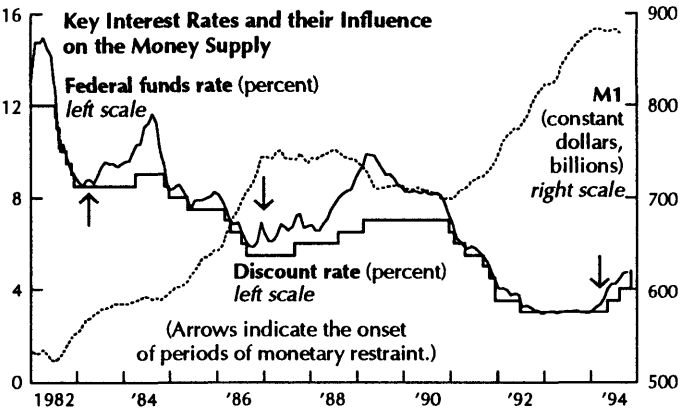
celeration of certain lagging indicators (discussed below) is one reason to be concerned about the potential for such a change in the outlook. That acceleration could signal the development of obstacles to further growth, in which case clear contracting trends might emerge to resolve the current uncertainty about the trends of the leading indicators.

It remains to be seen whether this unfavorable scenario will unfold anytime soon. For now, the outlook remains bright and, as the roughly coincident indicators attest, the economy continues to grow steadily. The latest reports put five of the six primary roughly coincident indicators at cyclical highs, including *manufacturing and trade sales*, which rebounded sharply in August on the strength of a sizeable increase in automobile sales. The other four coinciders that reached cyclical highs were *nonagricultural employment*, the *index of industrial production*, the *civilian employment to population ratio*, and *gross domestic product* (GDP). All five series are clearly expanding.

Overall, the economy grew at a 3.4 percent annual rate during the third quarter, according to the Commerce Department's initial estimate of GDP. This growth rate is lower than the brisk 4.1 percent growth recorded in the second quarter, but recent estimates of GDP have been subject to substantial upward revisions, so it is not yet clear that the pace of economic activity is slowing. At any rate, the percentage of coinciders expanding remains at 100 (5 out of 5), unchanged from last month.

Among the primary lagging indicators, four series have reached cyclical highs and are expanding rapidly: *manufacturing and trade inventories*, *commercial and industrial loans*, the *ratio of consumer installment debt to personal income*, and our *composite of short-term interest rates*. All four are appraised as clearly expanding, and their rapid growth is raising some concerns. For example, the accelerating accumulation of inventories may be based on excessively optimistic sales forecasts, which could force production slowdowns and layoffs while unsold stocks are worked off. Similarly, surges in the two measures of indebtedness (commercial and industrial loans and the debt-to-income ratio) raise concerns that debt-service burdens soon will reach unsustainable levels, especially as interest rates rise.

Although these grim scenarios are played out in every business cycle, the concerns about the acceleration among the laggers could be premature, because the experience of previous cycles shows that such trends can persist for some time before significant barriers to continuing expansion develop. From this perspective, it is encouraging that neither measure of indebtedness has surpassed its peak for the 1982-90 expansion — experience shows that the economy can continue to grow at somewhat higher levels of indebtedness. Also, despite the uncertainty about the status of the *ratio of manufacturing and trade sales to inventories* (a leading indicator), sales so far have kept up with inventory accumulation, and they surged in August, the latest month for which data are available. Even if unsold stocks were piling up, previous cycles show that the sales-to-inventories ratio can begin to deteriorate as early as 4 years prior to the onset of recession.



In another important development among the laggers, two series are approaching all-time lows: the *average duration of unemployment* (an inverted series), and the *change in manufacturing labor costs per unit of output*. Both series are clearly contracting. (The duration of unemployment was appraised as indeterminate last month, before its latest contraction became apparent.) The contractions in these series suggest significant slack in the labor market. In the manufacturing sector, wage pressures remain negligible while productivity continues to soar. In the overall labor market, new entrants to the labor force are finding work so readily that only the virtually unemployable remain out of work. This trend has yielded a historically high average duration of unemployment.

With the downgraded cyclical status of the duration of unemployment, the percentage of laggers expanding fell to 67 (4 out of 6) from 80 percent (4 out of 5) last month. Thus far, the slack in the labor markets is offsetting the developing tightness in the credit markets and the uncertain outlook for sales of manufactured goods. Given the uncertainty among the leading indicators, the duration of the current expansion may well depend on how long these trends among the laggers continue to offset each other.

Soft Landing Redux?

One factor prompting our discussion of recession scenarios and underlying the growing tightness in the credit markets is the Federal Reserve Board's effort this year to rein in the growth of the money supply. As the chart above shows, the increases in the Federal funds rate and the discount rate, the two key interest rates that the Fed controls, and the widening gap between these two rates have ended the period of rapid money supply growth that began in 1991. The levels at which the Fed sets these interest rates and the gap between them strongly influence the availability of reserves in the Nation's banking system, which in turn affects the availability of bank credit. The chart suggests that current monetary conditions strongly resemble the onset of earlier periods of monetary restraint, such as those beginning in 1983 and 1987.

Slower economic activity followed both of those earlier episodes. A "growth recession" (a period of near-zero GDP growth) in late 1985 and 1986 followed the 1983 Fed tightening. The 1987 tightening began a long slowdown that culminated in the 1990-91 recession. One inference to be drawn from these episodes is that if slower economic growth once again follows monetary restraint (and there is little reason to expect otherwise), the slowdown may not begin until 1996. This is one reason to believe that concern over the rapid expansion of some of the lagging indicators may be premature. ❑

PRICE OF GOLD

	1992	*1993*	*— 1994 —*	
	Nov. 19	*Nov. 18*	*Nov. 10*	*Nov. 17*
Final fixing in London	$334.25	$376.75	$384.20	$386.75

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