Published by

AMERICAN INSTITUTE *for* ECONOMIC RESEARCH

Great Barrington, Massachusetts 01230

RESEARCH REPORTS

Vol. LXVI No. 18 September 27, 1999

A Marginal Concern

The dramatic acceleration of margin credit raises a number of interesting questions. Among them is what the Federal Reserve can or should do, if anything, in response.

In June, debit balances in margin accounts—loans extended to customers to buy stocks by member firms of the New York Stock Exchange—reached nearly $180 billion. As notable as the debt's magnitude, if not more so, is the speed at which this figure was reached. In just the first six months of this year, margin debt jumped 25 percent, raising the present total to over six times the amount outstanding in 1991 at the beginning of the current expansion. (See Chart 1.)

The surge in margin borrowing has not gone unnoticed by Wall Street pundits. A growing chorus of them contend that this greater leverage accounts for the stratospheric run-up in stocks; that is, the seemingly limitless amount of margin credit available is supporting increased trading activity and fueling over-investment in fast-appreciating equities. In addition, they denounce what they view as the Federal Reserve's policy to combat the problem: raising overall interest rates in lieu of jacking up the initial margin requirement—a more selective tool under the Fed's authority, which limits the maximum loan value of a security. Why, former chairman of the House Banking Committee Henry S. Ruess questions, is the Fed using a blunderbuss volley—risking harm to overall economic growth—when what is needed is a rifle shot at the real culprit—stock market speculation? The critics' stance raises a number of fundamental questions: Specifically, what are the objectives behind margin requirements and, more importantly, do they fulfill these goals?

Regulation T (and U)

Buying on margin is the practice of purchasing securities paid for in part with funds borrowed from a broker by using the purchased securities as collateral. The "margin requirement" is the percent of the purchase price that must be paid in cash. For example, an investor wishing to purchase 100 shares of a $50 stock could, if the initial margin requirement was 25 percent, put up $1,250 of his own money and borrow the remaining $3,750 through his margin account. Buying on margin is generally done in anticipation of an advance in price. If an advance occurs, it may enable the trader to pay the loan and make a profit. If the market price declines, however, the value of the collateral deposited to secure the loan may depreciate to such an extent that the broker will demand additional collateral or sell the margined stock to liquidate the loan.

Federal regulation over security margins materialized largely as a result of the prevailing belief that margin trading had played a major role in first the run-up of equity prices during the 1920s, and then the October 1929 stock market crash. The statutory basis that grants the Federal Reserve Board the authority to regulate margins is contained in Sections 7 and 8 of the Securities Exchange Act of 1934. This authority applies to all lenders—Regulation T for securities brokers and Regulation U for commercial banks and others.

In giving the Fed power to control margins, Congress stated three major objectives: to prevent the diversion of credit from "productive uses" (namely commerce, industry, and agriculture) into stock market speculation; to protect unsophisticated investors from using margin to establish excessively risky positions; and to curb excessive stock-price fluctuations.

The first two objectives are self-explanatory. Excessive stock-price fluctuations were thought to be the result of what is called "pyramiding." Pyramiding is alleged to begin when overoptimistic investors use unrealized profits from securities gains as collateral to buy additional securities with funds borrowed from a broker. These leveraged purchases create even greater upward pressure on equity prices, reinforcing the phenomenon. The result is a potentially explosive rise in stock prices. At some point, a sell-off—sparked by any number of factors—reverses the process. Falling prices trigger widespread margin calls and "forced sales" of margined stock, thus sending stock prices plummeting.

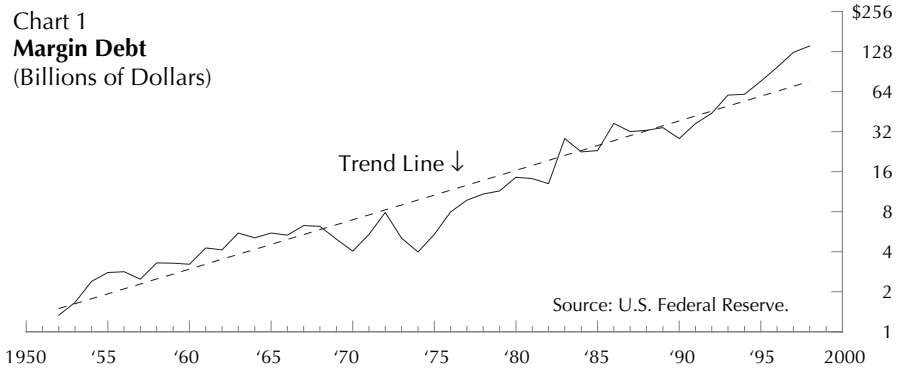
Table 1 shows the adjustments to federal margin requirements since their inception. At least initially, the Fed changed margin requirements fairly often and used the wide latitude allowed by statute. The current margin requirement—50 percent—has remained unchanged since January 1974.

Irrelevant and Ineffective

The trouble with most regulations—ignoring often ruinous inadvertent side-effects—is that either their initial reason for existence is faulty, or whatever foundation that did exist crumbles or becomes irrelevant. Federal margin requirements provide a prime example of both inherent flaws.

The diversion of credit argument is groundless, of course, once both sides of a security transaction are taken into account. Funds borrowed to buy stock do not simply disappear; rather they are trans-

Chart 1
Margin Debt
(Billions of Dollars)



FRB Initial Margin Requirements*

Effective	*Rate*	*Effective*	*Rate*	*Effective*	*Rate*
15-Oct-34	45%	17-Jan-51	75%	10-Jul-62	90%
1-Feb-36	55%	20-Feb-53	50%	6-Nov-63	70%
11-Jan-37	40%	14-Jan-55	60%	8-Jun-68	80%
5-Feb-45	50%	23-Apr-55	70%	6-May-70	65%
5-Jul-45	75%	16-Jan-58	50%	6-Dec-71	55%
21-Jan-46	100%	5-Aug-58	70%	24-Nov-72	65%
1-Feb-47	75%	16-Oct-58	90%	3-Jan-74	50%
30-Mar-49	50%	28-Jul-60	70%		

* Percent of total value required in cash to purchase stock. Source: Federal Reserve Board.

ferred to the seller, who then reinvests the proceeds in the best way in which he sees fit. In short, security credit does not deprive productive sectors of credit. Although this point is lost on some, it is more or less moot—the ratio of security loans held at banks to total bank credit and the ratio of security debt to total credit market debt have each steadily declined over the past 60 years, and both ratios are well below 2 percent. Thus, even if "crowding out" did exist, it would be of little significance.

The belief that limiting leverage would protect individual investors from unwarranted speculative borrowing is also questionable on several grounds. First, uniform margin requirements reduce the degree of leverage available to all investors—regardless of whether the investor is sophisticated or not, or has other meager or substantial financial means. Moreover, margin rules do not distinguish between the type of stock leveraged—high flyer or other. This one-size-fits-all approach, another characteristic of most regulatory schemes, is simply inefficient. Second, investor concerns are already addressed by other regulations and policies, such as "suitability" and "know your customer" rules. Nor do margin requirements appear to limit the leverage available to investors. A host of unregulated sources of credit can readily be tapped for leverage purposes, including unsecured consumer loans or loans backed by unregulated collateral (e.g., home equity loans). Finally, investors can take on a high degree of risk in other ways, such as by purchasing the stock of highly leveraged corporations or taking a position in futures or options markets. In sum, using federal margin requirements to protect customers is inefficient, ineffective, and unnecessary.

The claim that margin requirements reduce stock price volatility is simply not warranted by the data. Numerous studies have failed to link increases in margin requirements with reduced stock price volatility. Additional studies involving exchange-traded futures and options, including contracts on equities and equity indexes, have not been any more successful in making such a connection.

Not Then, Not Now

Despite overwhelming evidence to the contrary, the undaunted maintain that federal margin requirements are eminently justified—especially given the current situation. They argue that credit diversion and investor protection were, and always have been, secondary, if related, considerations. Moreover, the final objective, reducing stock market volatility, is often greatly misunderstood. Its purpose, they say, is first to limit the magnitude of credit-based buying pressures generated by rising loan values in boom periods—i.e., pyramiding—and second to provide a buffer between customers' initial equity and the minimum maintenance levels that would trigger widespread margin calls. In other words, the primary aim is to prevent crashes, not ordinary market volatility.

However, Federal margin requirements—given the current situation—may be less warranted than ever. Although margin debt as a percentage of total market capitalization has risen since 1991 (shown in Chart 2), its latest ratio of 1.16 percent is hardly exceptional. In comparison, total margin debt at the height of the 1929 boom amounted to about 10 percent of the value of (fewer) listed equities. Furthermore, "free credit balances" in customer cash and margin accounts have increased in tandem with margin debt. Free credit balances are the amounts in accounts with no unfilled commitments to brokers. The stable relationship between these balances and margin debt suggests that the current level of leverage is manageable. It should be noted, however, that the group holding the liabilities is not guaranteed to be the same group owning the assets—i.e., some caution is necessary when working with aggregates.

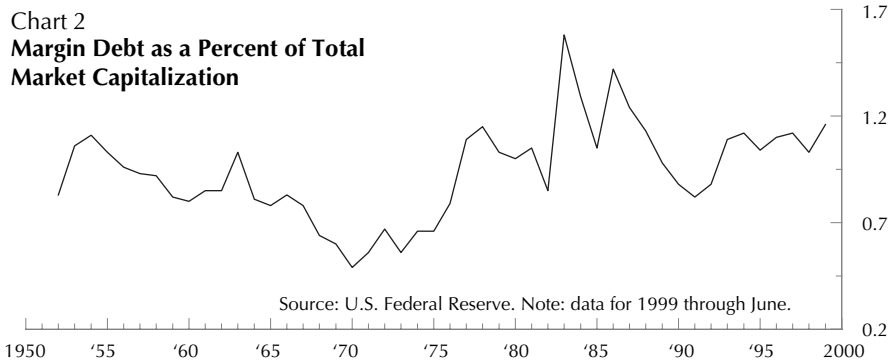
Two other factors that should reduce the cause for alarm involve the questions of who can margin what. Institutional investors, virtually none of whom buy on margin, owned only 6.1 percent of all equities in 1950; today they hold a total of $6.3 trillion, or 49.6 percent of outstanding equities. Investment banks, securities dealers, and exchange specialists, although not regulated by margin requirements, must meet strict capital guidelines, thus limiting the amount of leverage they can employ.

And, although greater and greater numbers of individuals own stock directly or indirectly, many of the ways in which they acquire stock do not allow margin buying. For example, stocks purchased for tax qualified retirement accounts, such as IRAs or 401(k)s, cannot be leveraged. Holdings in such accounts total more than $2 trillion, most of which is held in equities or equity mutual funds. In addition, the claim that investors are margining high-flyers is somewhat dubious. Brokers can and have raised their margin requirements on certain stocks. Schwab, for instance, requires 70 percent cash on stocks such as Amazon, eBay, and Yahoo, and prohibits margin purchases on certain other stocks altogether.

Conclusion

It is not clear what purpose federal margin requirements serve, if any. Difficult as it is to explain the actions that the Federal Reserve does take, it is just as perplexing to understand the actions they don't take. For example, it is not wholly clear what motivated the Fed when it *lowered* margin requirements in the past or its reluctance to use the tool after 1974. What is clear is that the Federal Reserve should not be in the business of influencing the volume of stock market credit, the volume of stock trading, or stock prices. ❑

Chart 2
Margin Debt as a Percent of Total Market Capitalization



Source: U.S. Federal Reserve. Note: data for 1999 through June.

BUSINESS-CYCLE CONDITIONS

Although the cyclical status of four of our leading indicators now is indeterminate, the remaining leaders—considered together with the coinciding and lagging indicators—strongly suggest that the current expansion is unlikely to end soon.

Five of our twelve primary leading indicators reached new cyclical highs this month. They are *M2 money supply*, *new orders for consumer goods*, the *ratio of manufacturing and trade sales to inventories*, *initial claims for state unemployment insurance* (inverted), and the *index of common stock prices*. (M2, stock prices, and all other dollar-denominated series are reported in constant dollars.) All five series remain appraised as clearly expanding. Jobless claims, at 287,000, fell to their lowest level since November 1973—a time when the labor force was one-third its current size. Despite a dip in this month's base data, the 2-year moving average for stock prices reached yet another high owing to the lingering effect of last month's record high for the index.

This month's rise in the base data for the highly volatile *3-month change in sensitive materials prices* pushed the series' 6-month moving average closer to positive territory. The series, which is appraised as clearly expanding, has been strengthening since this time last year. Following August's downgrade to probably expanding, *contracts and orders for plant and equipment* jumped 5.7 percent for the month. However, the latest development did not warrant upgrading the series. In contrast, after being upgraded last month from indeterminate to probably expanding, the base data for *vendor performance*—the percentage of purchasing managers reporting slower deliveries from their suppliers—dropped 5.7 percent. The new data reversed the series' 2-month moving average, but not the appraisal of its cyclical status.

Four of our leading indicators have no apparent cyclical trend, including *M1 money supply*, *new housing permits*, the *average workweek in manufacturing*, and the *3-month change in consumer debt*. M1, the narrowest measure of money, was downgraded for the second consecutive month. The series has somewhat weakened of late, yet it is not clear that the series is cyclically contracting. New housing permits fell 1.8 percent to 1,612,000, after remaining flat in August (as revised). Since May, the 3-month moving average for the series has strengthened slightly, but not of magnitude or duration to warrant upgrading. The average workweek fell 0.2 hour to 41.7 hours, and overtime slipped 0.1 hour to 4.7 hours. The new data offer little help in determining which direction the series is headed. Although total consumer debt continues to reach record highs, the rate at which consumers are borrowing picked up after moderating throughout much of the year.

Overall, 100 percent (eight out of eight) of the primary leading indicators with apparent cyclical trends are expanding. With several series indeterminate, the percent of leaders expanding—which ignores such series entirely—should be regarded with some reservation. However, even if the four indicators in question were contracting, the diffusion index would be well above the threshold of 50, the benchmark that indicates that continued expansion is more probable than the onset of recession.

The cyclical score, AIER's purely mathematical assessment of the twelve leading indicators, was 82 for the month—unchanged following an upward revision in last August's tally from 78. The cyclical score is updated when any of the leading indicators are revised. (The percent of leaders expanding is based upon our assessment of the leading indicators using the data available at that time and is not revised.) Like the percent of leaders expanding, this diffusion index remains well above the threshold that signals imminent contraction.

Five of our six primary roughly coincident indicators reached new highs this month. The five are: *nonagricultural employment*, the *index of industrial production*, *personal income in manufacturing*, *manufacturing and trade sales*, and *gross domestic product* (GDP). All remain appraised as clearly expanding. The sixth coincider, the *civilian employment to population ratio*, is indeterminate.

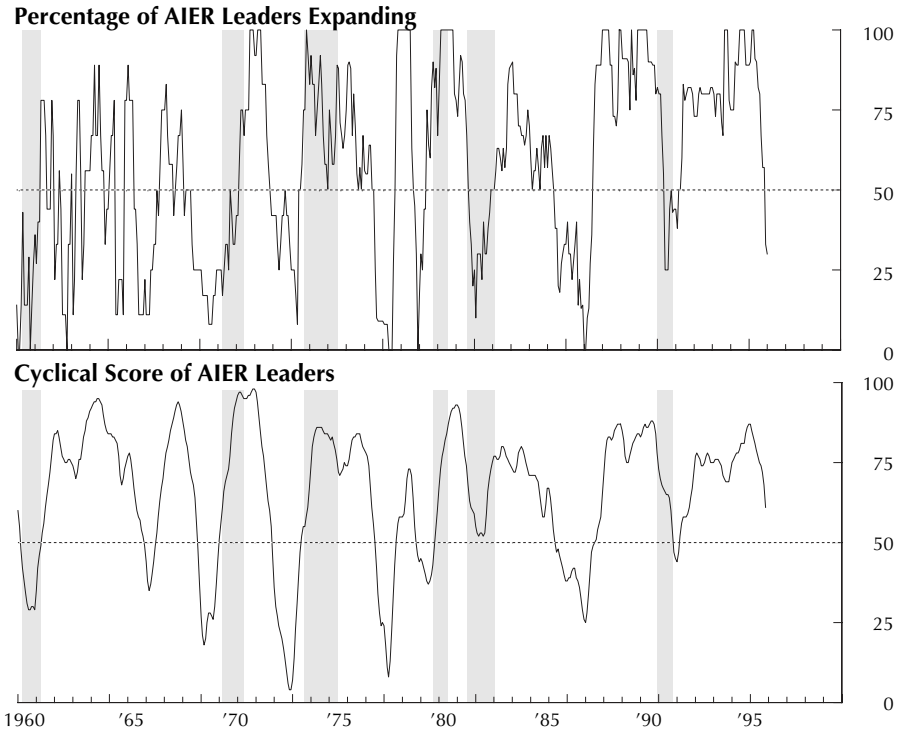
Total nonfarm employment rose by 124,000 in August to 128.9 million. The aggregate figure, however, masks how unbalanced job growth was. As has been the trend, the service-producing sector added enough jobs to more than offset the loss of 95,000 jobs in the goods-producing sector. According to preliminary estimates for the second quarter, GDP grew at an annual rate of 1.8 percent—less than last month's advance estimates of 2.3 percent for the same period, and down substantially from the first quarter's mark of 4.3 percent. Productivity also dropped during

Statistical Indicators of Business-Cycle Changes

Change in Base Data					*Cyclical Status*		
May	*Jun.*	*Jul.*	*Aug.*	***Primary Leading Indicators***	*Jul.*	*Aug.*	*Sep.*
-	-	-		M1 money supply	+	+?	?
+	+	+		M2 money supply	+	+	+
+	+	+		Change in sensitive materials prices	+?	+	+
+	+	+		New orders for consumer goods	+	+	+
+	-	+		Contracts and orders for plant and equipment	+	+?	+?
+	+	nc[r]	-	Index of new housing permits	?	?	?
+	+			Ratio of manufacturing and trade sales to inventories	+	+	+
+	+	+	-	Vendor performance	?	+?	+?
-	-	+	-	Index of common stock prices (constant purchasing power)	+	+	+
+	nc	+	-	Average workweek in manufacturing	?	?	?
+	+	+	+	Initial claims for unemployment insurance (inverted)	+	+	+
+	-	+		Change in consumer debt	+?	?	?
				Percentage expanding cyclically	100	100	100
				Primary Roughly Coincident Indicators			
+	+	+	+	Nonagricultural employment	+	+	+
+	+	+	+	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			
-	-	+	+	Average duration of unemployment (inverted)	+	+	+
+[r]	+			Manufacturing and trade inventories	+	+	+
+	+	+		Commercial and industrial loans	+	+	+
+	-	+		Ratio of consumer debt to personal income	+	+	+
+	-	+		Change in labor cost per unit of output, manufacturing	?	?	?
+	+	+	+	Composite of short-term interest rates	-?	?	+?
				Percentage expanding cyclically	80	100	100

nc No change. [r] Revised.

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.



the second quarter, falling from 3.9 percent in the first quarter to 0.8 percent.

Overall, 100 percent (five out of five) of the primary roughly coincident indicators with apparent cyclical trends are expanding, unchanged again this month.

Five of our primary lagging indicators strengthened this month. *Commercial and industrial loans* reached another new high, as has been the case each month this year, and remains appraised as clearly expanding. Other laggers appraised as clearly expanding, though not at new highs, include the *average duration of unemployment* (inverted), *manufacturing and trade inventories*, and the *ratio of consumer installment debt to personal income*.

The average duration of unemployment for August, 13.2 weeks, was down slightly from July's figure of 13.6 weeks. Both the number of unemployed persons, 5.9 million, and the unemployment rate, 4.2 percent, were essentially unchanged—with job losers being outnumbered by job leavers, reentrants, and new entrants. Taken as a whole, the employment situation appears sound.

The *composite of short-term interest rates* rose 13 basis points during the month to 5.24 percent, a sufficient increase to warrant upgrading the series to probably expanding. On August 14, the Federal Open Market Committee (FOMC) voted to raise both the federal funds rate and the discount rate a quarter-point to 5.25 percent and 4.75 percent, respectively. The FOMC's next policy meeting is on October 5.

Overall, 100 percent (five out of five) of the primary lagging indicators with apparent cyclical trends are expanding. Normally, such a level in this diffusion index could be a warning sign that expansion-thwarting bottlenecks were developing. However, given the current situation, that outcome seems unlikely. In spite of continued growth in manufacturing and trade inventories, the manufacturing sector—owing to even stronger sales—remains balanced. Moreover, the ratio of the composite of coinciders to the composite of lagging indicators, a broader measure used to detect the presence of bottlenecks, has not turned down as would be expected if bottlenecks were forming.

In short, all indications are that the current outlook is highly favorable as the economy begins the fourth quarter.

NIPAs Undergo Revisions

In an effort to provide new and improved measures of output, investment, saving, and wealth, the Bureau of Economic Analysis (BEA) periodically undertakes a comprehensive, or benchmark, revision of the national income and product accounts (NIPAs). Comprehensive revisions involve making definition and classification changes to accounts in order to portray the evolving economy more accurately; introducing new and improved methodologies; and incorporating newly available and revised source data.

In October, the BEA will release major revisions, beginning with 1959 and carried forward, that include recognizing business and government expenditures for software as fixed investment; treating government employee retirement plans similarly to private pension plans; and reclassifying certain transactions as capital transfers. Accounting for software expenditures as investment will raise current GDP by approximately 1.5 percent, while the other changes will have little or no effect on GDP—although they will increase private saving and reduce government saving.

The underlying rational for treating purchased or "own-account" software as investment is that, like other assets included in fixed investment, software produces a flow of services that lasts more than one year—currently estimated by the BEA to be 3-5 years, depending on the type of software. "Own-account" software is software produced by and for the user. Furthermore, the change eliminates the need to distinguish between software that is purchased, produced for own-account, or "embedded." "Embedded" software, or software that comes installed on a computer when purchased, has always been counted as fixed investment.

Previously, business purchases of software and the costs of own-account software were considered to be *intermediate inputs*. Thus, in tallying final expenditures, spending on software was omitted from the calculation of GDP. (GDP is the sum of the value of all *final* goods and services produced.) By redefining business software expenditures, 1996 BEA estimates for private fixed investment—and therefore GDP—will climb by roughly $95 billion.

Similarly, the BEA will now recognize government expenditures for software as fixed investment. Software purchases by general government agencies will be reclassified to gross government investment from gross consumption expenditures. Under the new convention, purchased software services, measured by depreciation, will be added to government consumption expenditures, and thus, GDP. ❑

PRICE OF GOLD

	1997	*1998*	*—— 1999 ——*	
	Sept. 25	*Sept. 24*	*Sept. 16*	*Sept. 23*
Final fixing in London	$324.60	$292.70	$255.90	$264.35

Research Reports (ISSN 0034–5407) (USPS 311–190) is published twice a month at Great Barrington, Massachusetts 01230 by American Institute for Economic Research, a nonprofit, scientific, educational, and charitable organization. Periodical postage paid at Great Barrington, Massachusetts 01230. Sustaining memberships: $16 per quarter or $59 per year. POSTMASTER: Send address changes to ***Research Reports***, American Institute for Economic Research, Great Barrington, Massachusetts 01230.