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Corporate Cash Balances and Economic Activity

Remarks by

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Thank you for the opportunity to speak today on financial conditions and economic activity in the corporate sector. A striking feature of this economic expansion has been the historically high holdings of cash and short-term securities that the corporate sector has accumulated since 2001. But business attitudes seem to be in the process of change--cash has started to decline and borrowing has picked up--so this topic is especially timely.

Today, I will first provide a historical perspective on cash balances at corporations, and discuss some factors that may have encouraged firms to hold such large cash balances during this recovery. I will also evaluate whether these factors are likely to persist. Then, I will discuss the more recent indicators that suggest that the buildup in corporate cash balances may be abating, and offer some reasons for that change. In particular, some of the unwinding of cash balances appear, in part, to be due to a renewed focus on capital spending and other business expansion efforts by executives. This renewal has been spurred, notably, by growing external pressures to boost shareholder value. To be sure, such developments may cause the liquidity and credit quality of some corporations to recede a bit from their very high levels but will not, in my view, put at risk their strong balance sheets or impede the solid expansion of business spending.

I would like to stress that I will *not* be addressing the immediate economic outlook or the recent conduct of monetary policy. Rather, my comments reflect observations about longer-term trends for business sector activities.¹

¹ I should note that I am expressing my own opinions, which are not necessarily those of my colleagues on the Board of Governors of the Federal Reserve or on the Federal Open Market Committee. Nellie Liang and Steve Sharpe, of the Board's staff, contributed to these remarks.

Corporate Financial Conditions and Cash Balances

In the past several years, we have witnessed a dramatic improvement in the financial health of the nonfinancial corporate sector. This improvement is clearly evident in the low default rate on corporate bonds and the relatively few delinquencies that have occurred on business loans at commercial banks: Both have dropped markedly since 2002 and have remained close to their historic lows during the past couple of years. Likewise, risk spreads on corporate bonds--the gap between yields on corporate bonds and comparable-maturity Treasuries--narrowed from their peaks in late 2002 to low levels in early 2004. Since then, they have hovered around fairly low rates, suggesting that investors continue to have a favorable outlook for corporate credit quality. Despite some recent turbulence, owing in part to geopolitical events, stock prices have logged robust gains over the past 3-1/2 years, and broad equity indices have now retraced most of the ground lost between 2000 and 2002.

Some of the improvement in the financial condition of businesses is due to substantial efficiency gains by firms. Moreover, the resulting robust gains in labor productivity have been well ahead of compensation growth and have dramatically boosted corporate profits. Indeed, profits as a share of sector product--in essence profit margins--jumped to more than 14 percent in the first quarter, the highest level in decades. The improvement in the financial conditions also reflects fundamental changes in firms' balance sheets. In particular, firms have boosted their liquidity by extending debt maturities, replacing shorter-term debt with longer-term debt; at the same time, they have reduced total leverage. Many firms retired debt using proceeds from equity offerings, asset sales, or mounting profits. As a result, from 2002 to 2004, nonfinancial corporate debt grew at an annual rate of about 2 percent, its slowest pace since the early 1990s.

One of the most striking financial developments since 2001 has been the rapid increase in corporate holdings of cash and short-term securities. Since the end of 2001, the ratio of cash holdings to assets has risen sharply (see exhibit).² This increase is even more pronounced when (on a consolidated basis) cash is measured relative to investment, defined as the sum of capital spending and research and development (R&D) spending during the preceding twelve months. The ratio of cash to investment has averaged about 60 percent during the past few decades. Generally, it is higher in recession periods, consistent with a strong precautionary savings motive by firms that face costly external financing (Almeida, Campello, and Weisbach, 2004). And, in 2001, the ratio of cash to investment was already somewhat elevated. But the ratio then soared to more than 150 percent by year-end 2004, as investment fell far short of cash flow from operations and net financing. This juxtaposition is unusual when the economy is expanding. Indeed, former Federal Reserve Board Chairman Alan Greenspan pointed to this unusual configuration a year and a half ago. "Although capital investment has been advancing at a reasonably good pace," he said, "it has nonetheless lagged the exceptional rise in profits and internal cash flow."³

Subsequently, aggregate cash holdings remained elevated through much of last year, even as the economy continued to advance smartly. Only in the very recent quarters has this trend seemed to abate somewhat. We are left with an overall picture of a highly liquid corporate sector--perhaps more like that which we would expect of corporate balance sheets in the early stages of an expansion. As policymakers and forecasters, we might ask why corporations have built up such a large stock of liquid assets. Is the buildup of cash indicative of a "new equilibrium"? Is there something about the current economic or regulatory environment that

² Data are for U.S. corporations from Standard and Poor's Compustat, reported on a consolidated basis.

³ Testimony of Chairman Alan Greenspan, February 16, 2005, Federal Reserve Board's semiannual Monetary Policy Report to the Congress, before the Committee on Banking, Housing, Urban Affairs, U.S. Senate.

requires the maintenance of high liquidity levels? And, does the current level of liquidity portend a more robust surge in corporate spending?

Partial Explanations for Large Holdings of Cash

Almost by definition, the rise and fall in cash holdings can be linked to fluctuations of operating cash flows and capital expenditures. A simple regression of changes in cash, on changes in operating cash flows, and on changes in capital expenditures--using annual data from 1957 to 2001--accounts reasonably well for historical fluctuations in cash at U.S. nonfinancial corporations, with a regression R-squared of over 50 percent. However, in this framework, the current period appears to be an outlier.⁴ That is, *even after* factoring in the current-cycle dynamics of strong profit growth and relatively modest investment, a good part of the rise in liquid assets remains unaccounted for--as much as one half of the total rise in cash-to-assets--according to Federal Reserve staff estimates. A number of explanations have been advanced for this unusual rise, and they have a bearing on judging whether this is a temporary shift born of the current environment or a result of a persistent change in behavior.

Foreign Operations

The first explanation relates to the growing significance of foreign operations of U.S. multinationals in countries with lower corporate tax rates and the recent accumulation of earnings retained by the foreign subsidiaries. When U.S. multinationals receive dividends from their foreign subsidiaries and the host country levies a lower tax rate than the U.S. corporate tax rate, any repatriated dividends are subject to U.S. corporate taxes. Thus, many companies have an incentive to leave those funds with their foreign subsidiaries, even if the funds far exceed

⁴ Corporate cash holdings also rose in a number of other G-7 countries, but I do not address whether the buildup in those countries might, as in the United States, be unusual, or whether it is adequately explained by its historical relationship with fluctuations in cash flow and investment spending.

plans for foreign capital expenditures. In such circumstances, those funds are often parked in cash or short-term investments overseas and are, thus, less accessible than one might infer from a consolidated balance sheet.

It is difficult to determine whether a corporation's cash is held at home or abroad, but we know that significant holdings of cash are concentrated at large multinational firms. In particular, the Board staff's analysis (of Standard & Poor's Compustat data) indicates that the ratio of cash to total assets at domestic-only companies rose slightly less than 20 percent between year-end 2001 and 2004. At the same time, the cash intensity of balance sheets at multinational companies increased more than 50 percent. Moreover, recent research has demonstrated a strong statistical link between the accumulation of cash and the estimated tax burden from repatriating foreign earnings (Hartzell, Titman, and Twite, 2006).

As a means of unlocking those offshore cash holdings, the Congress and the President provided U.S. companies a one-time opportunity--through the *American Jobs Creation Act of 2004*--to repatriate foreign profits at a much reduced statutory tax rate. Indeed, Wall Street estimates indicate that many companies have capitalized on this opportunity: An extra \$250 billion may have been repatriated during the past four quarters. That estimate appears consistent with the recent pattern of distributions from foreign income reported in the Commerce Department's international transactions data.

With access to such large holdings of cash, we would expect corporations to disburse an unusually large portion of current cash earnings either through de-leveraging, accelerated dividends, or increased share repurchases. To the extent that any of these firms face financing constraints, the repatriated cash could provide a boost to new fixed investment, R&D projects, or

acquisitions. Indeed, during the past few quarters, companies have been raising shareholder payouts and making new investments.

The buildup of cash at foreign subsidiaries could account for a good part of the unexplained buildup in corporate cash--that is, the rise in cash that is not explained by the dynamics of profits and investment. Because we expect that foreign subsidiaries will continue to grow, and because of the ongoing tax liability associated with repatriation, we should not be surprised if overall corporate cash balances remained somewhat higher compared to previous decades.

Focus on Liquidity

A second factor that may contribute to an elevated new equilibrium of cash balances is the renewed emphasis that investors may be placing on balance sheet liquidity, particularly in the aftermath of the commercial paper (CP) defaults that occurred at the end of the previous expansion. At that time, even financially solvent firms faced the prospect that they might have difficulty rolling over their maturing CP. This led investors and rating agencies to scrutinize the ability of firms to manage short-term liquidity events. Consequently, many firms raised cash holdings to mitigate these concerns.

Business Caution

As I discussed earlier, regression analysis suggests that the robust growth in profits and the comparatively modest recovery in capital expenditures leaves a good part of the extraordinary cash buildup unexplained. But that analysis takes capital expenditures as given. In doing so, it sidesteps some of the important questions with which economists and policymakers have wrestled: Why did business fixed investment contract so severely in the most recent recession? And, why wasn't the rebound from the recession more vigorous, particularly in light

of such high profitability? Although this expansion is more than four years old, the ratio of business fixed investment to gross domestic product (in current dollars) is still well below its forty-year average.

Two hypotheses for the behavior of investment have received a great deal of attention. The first hypothesis is that a capital overhang, caused by excessive investment during the previous boom, held back the recovery in capital spending. While it is difficult to measure *excess* capital, the Federal Reserve Board staff estimates that any broad-based capital overhang was probably eliminated early in the recovery. Of course, more persistent capital overhangs may well have been experienced in some sectors, most notably in telecommunications equipment, though that sector accounts for less than 10 percent of business fixed investment.

Another leading hypothesis is that businesses were more risk-averse than warranted by the underlying economic fundamentals, especially early in the expansion. One obvious source of caution was the degree of conviction about the strength and sustainability of the recovery. Concerns about terrorism and other geopolitical uncertainties were likely at play as well. Although many periods of recovery are accompanied by concerns of economic growth and political turmoil, surveys in 2002 and 2003 suggested that business leaders were experiencing a more prolonged sense of gloom, with measures of sentiment dropping to low levels for as long two years beyond the trough in the business cycle. Since the spring of 2003, however, the economy has been expanding briskly and thus the durability of the recovery should be a less significant constraint on capital expenditures now. Indeed, more recently, some surveys of business confidence and capital spending plans have reached or exceeded the levels of the late 1990s. Nonetheless, concerns about global political uncertainties often reemerge in executive suites and board rooms as important factors for business spending plans.

Regulatory Environment

Still, one corollary of the corporate-caution explanation may have persisted. Many have argued that the conditions created by the corporate governance scandals--and the regulatory response to those events--have contributed to a more cautious attitude toward risk taking. More concretely, the scandals themselves, and the markets' reaction to them, are said to have caused firms to restrain capital spending. Clearly, Sarbanes-Oxley compliance costs have been substantial, diverting funds and, probably even more importantly, some of the attention of chief executive officers (CEOs) and boards of directors from capital spending and R&D plans. Every meeting that board members and executives spend focused predominantly on compliance issues is, by definition, meeting time generally not being spent on big strategic questions. However, proving the connection between executives' "mind-share" and capital expenditure rates is difficult. Moreover, firms are benefiting to some degree from reforms arising from Sarbanes-Oxley. Thus, research on the net effects of Sarbanes-Oxley being undertaken by AEI and other institutions should be exceptionally useful as the economic, political, and legal environment continues to evolve. Based on the evidence available to date, I believe that the uncertainty resulting from the regulatory and legal environment has had meaningful economic implications for business investment and cash holdings.

Catalysts for Change

Each of these factors--increased foreign operations, greater investor focus on liquidity, business caution due to geopolitical uncertainty, concerns about the sustainability of the recovery, and a more process-intensive regulatory and legal environment--likely contributed to the buildup in cash through this expansion. But we have recently seen signs that the cash

hoarding trend may have abated or reversed. During the past several quarters, the ratios of cash to assets and cash to investment have slipped, and in the first quarter of this year, the ratio of debt to assets edged up. These reversals can be attributed, in part, to the resurgence of share repurchases, the growth in dividend payouts, cash-financed merger activity, and a pickup in capital investment.

The pace of share repurchases accelerated strongly in 2005, especially in the fourth quarter, when they exceeded \$400 billion at an annual rate. These accelerated shareholder payouts were to be expected given that repatriated profits from firms' foreign operations had become available to finance investment, acquisitions, and retire debt.

In addition, signs of changing business attitudes towards expansion have emerged. Merger and acquisition activity picked up markedly in the second half of 2005 and continued to accelerate in the first half of 2006, also contributing to the drawdown of cash. Cash-financed mergers in the past four quarters resulted in a retirement of public equity of more than \$250 billion, four to five times the average rate since the peak of the previous expansion. Investment spending is also expanding at a solid pace. Data from the national accounts through the first quarter indicate that domestic real outlays for new equipment and software have been growing at an annual rate of almost 10 percent since the beginning of 2005. Spending on high-tech equipment has been rising at an annual rate of more than 15 percent, several percentage points faster than in 2003 and 2004, with spending especially strong for telecommunications equipment. Outlays for nonresidential construction firmed in 2005 and turned up notably in the first quarter of this year. Not surprisingly, outlays on structures used in energy production strengthened in response to higher energy prices, but the rise in the first quarter also reflected an increase for office, retail, and industrial structures.

At the same time that the growth in cash balances has started to reverse, the pace of debt financing has also picked up. In the first half of this year, the net amount that firms raised from bonds, commercial paper, and bank loans reached its highest level since the current economic expansion began. Unlike the earlier period of this expansion, more of the funds raised of late are being deployed for merger and acquisition activity and other corporate spending. Considerably less is being used to refinance higher-cost debt or to lengthen debt maturities.

The recent signs that cash hoards are being trimmed and leverage is increasing suggest a move towards more normal conditions. These developments may be amplified by increased pressure from shareholder groups in conjunction with a more active market for corporate control. A prominent feature of the current environment is the notable amount of leveraged buyout (LBO) activity. An LBO or the threat of an LBO acts to discipline management to raise shareholder value (Jensen, 1986; Kaplan, 1989). LBOs, and other forms of private equity investment, may force management to implement strategic changes rapidly to restore the firm's return on equity and boost share prices, in part by increasing financial leverage. LBOs increased sharply in late 2005, and they continued apace in the first half of this year. The value of public equity retired by LBOs has accounted for almost one-third of the total retired from total mergers and is at its highest level since the boom in the late 1980s.

Many signs point to a continuation of this high pace of equity retirements. Valuations for many firms appear attractive to private equity sponsors. (Although, as I noted earlier, stock prices have risen quite a bit since 2002, their gains have been far outstripped by the boom in earnings.) Lower valuations for firms in industries that are in the throes of downsizing also provide opportunities for LBOs. Perhaps at least as important, private equity funds are flush with funds, having raised more than \$100 billion in 2005, a pace that continued in the first

quarter of 2006, and general partners of these funds are actively scouting for opportunities to deploy this capital. This robust equity funding, combined with the currently accommodative debt markets, has made many more firms potential targets. Moreover, with the rise of so-called club deals, in which private equity funds pool their capital, even very large corporations--replete with large excess-cash positions--are potential targets. The bottom line is greater pressure on business executives to maximize shareholder value.

As a complement to traditional private equity funds, hedge funds are also more active as they seek alternative investments to enhance returns. Many hedge funds have contributed to the deal activity by providing debt financing, either by directly investing in mezzanine debt or by participating in loan syndications. And in a departure from typical past practices, hedge funds are also making investments, sometimes alongside more traditional LBO funds. More often in these types of transactions, hedge funds will purchase large, non-controlling stakes in potential targets to exert greater influence. They will then agitate for changes to boost shareholder value. They may push for asset sales, higher dividends, share repurchases, or other changes that make the firm an attractive target to potential acquirers.

In my view, internal and external forces have come together to reduce cash levels from their recent highs, although they remain above historical norms. Private equity investors are increasingly pressuring CEOs to make more fundamental changes in their financial and strategic positions, and CEOs themselves appear to have already shifted their focus somewhat from compliance issues to building their businesses more aggressively through increased capital expenditures and increased cash-financed acquisitions. Debt ratios may rise from their current low levels, and a modest slippage in corporate credit quality may result. Indeed, most forecasts call for a rise in default rates from their near-record lows. And while risk spreads for lower-rated

bonds are up a bit this year, they do not suggest that debt investors are anticipating a significant deterioration over the near- to medium-term horizon. Nonetheless, should some emerging trends, such as lower required interest coverage ratios, gain traction, they might induce a more pronounced deterioration in credit quality than is currently expected. Moreover, as recent events highlight, geopolitical developments will continue to be an important component of the risk profile that businesses face.

Conclusion

In sum, it appears that firms are likely to continue to draw down their cash balances from the elevated levels witnessed during the past few years. Increasingly, firms appear to be accelerating shareholder buybacks, raising dividends, increasing business spending, and becoming more acquisitive. Notwithstanding these very recent developments, I would expect firms to hold more cash than has been the norm over the previous few decades due to changes in the economic and geopolitical environment, and a more rigorous legal and regulatory setting. Clearly, corporations in the United States have shown a remarkable ability to adapt and thrive in recent years despite these changes, and I expect them to continue to do so in the period ahead.

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Cash Balances at Nonfinancial Corporations

