SMBC SMBC Group

US Rates Strategy

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April 29, 2026

R&D cash smoothing

At the end of December, non-financial corporate businesses held nearly $6.2trn in cash instruments. Large balances help smooth out R&D expenditures for firms facing cash flow and external financing uncertainty.

- Non-financial firms hold near-record amounts of cash. **The ratio of cash to corporate liabilities was 20% at the end of last year and well above its 30y average**.

- Growth in cash holdings is tied to increased funding uncertainty. Internally generated cash flows and access to external funding have become more volatile since 1985 and these buffers provide firms with some funding flexibility.

- R&D spending is difficult and expensive to unwind. It is hard to re-hire workers and they may transfer their knowledge to a competitor.

- **As aggregate and firm-level R&D intensity has increased over time, the importance of using cash holdings to smooth out variations in financing has grown.**

- Software and R&D spending accelerated last year. The increase coincided with a 27% jump in AI-related tech spending.

- **But AI firms are much larger and have greater access to external financing than the firms that typically need cash buffers to smooth out R&D expenditures.** As a result, it is not clear whether aggregate cash cushions will continue rising.

More cash

Non-financial corporations hold near-record amounts of cash. At the end of last year, their holdings of deposits, money funds balances, and Treasuries were a record $6.2trn.[1] These balances grew 4% y/y last year – faster than the growth of either their debt or loan liabilities. **Indeed, cash as a share of total liabilities reached 20% at the end of last year – nearly matching its post-COVID peak of 21%** (Figure 1). Within these holdings, roughly 76% sits in bank deposits split between checkable balances (60%) and time deposits (40%). Another 20% of corporate cash is held in money funds (Figure 2).

Given the level of interest rates, it is a bit surprising that so much corporate cash in held in low – or even non-yielding – deposits. This suggests that these balances are not held for their potential to earn interest

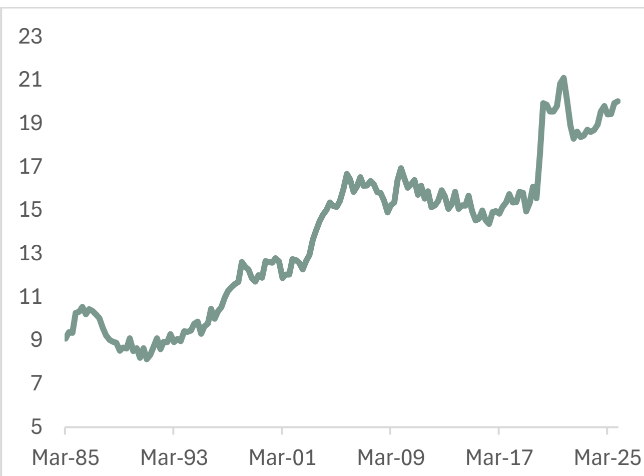
[1] This is the aggregate; cash holdings are concentrated by firm size and industry.

income. Instead, their main function is as a precautionary buffer. **Firms use these resources to smooth expenditures when cash inflows are volatile or when access to credit is uncertain.** Mechanically, these deposits are operating balances that firms use as their working capital. We suspect the concentration in checkable deposits may also reflect minimum balance requirements tied to the services banks provide.

But if the cash holdings are largely precautionary, why have they grown so much since 1985 – in both absolute terms and relative to corporate liabilities, financial assets, and net debt?

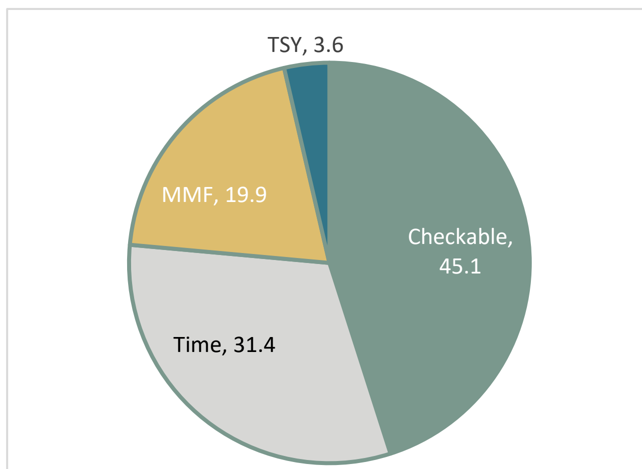
Several explanations for the accumulation of cash have been suggested since the mid-2000s. **Early research identified an increase in firm-level cash flow volatility since 1985**.[2] Over time, as firms became less certain about their future internal cash flows, they increased their precautionary cash buffers. Firms with the most uncertain cash flows increased their cash buffers most. Bates et al. identify economy-wide factors that have increased the volatility of internally generated funding. For example, the shift from manufacturing to services output has reduced firms' ability to monetize their inventory and accounts receivable. Other financing frictions such as equity market volatility and the ability to access debt markets have increased firm reliance on their cash pools to smooth out their expenditures.

Figure 1: Cash (% liabilities)



Source: Federal Reserve, SMBC Nikko

Figure 2: Non-financial corporate cash (%)



Note: As of December 2025. Source: Federal Reserve, SMBC Nikko

Subsequent research pointed to tax effects. Until 2018, US firms were taxed on their global income but only when their overseas earnings were repatriated (generally in the form of a dividend paid from the non-US subsidiary to the US parent). However, if these earnings remained offshore – either as cash or investments in plant and equipment – the US parent could avoid paying US taxes on them. By 2016, Fortune 500 companies held over $2.5trn of offshore, unrepatriated earnings.[3] Most of this amount was held in cash and in dollars. **Firms that faced higher repatriation taxes held more cash**.[4] However in

[2] See, "Why Do US Firms Hold So Much More Cash Than They Used To?," T. Bates, K. Kahle, and R. Stulz, Journal of Finance, October 2009

[3] See, "Tax Reform: Repatriation of Foreign Earnings", D. Marples, Congressional Research Service, December 4, 2017.

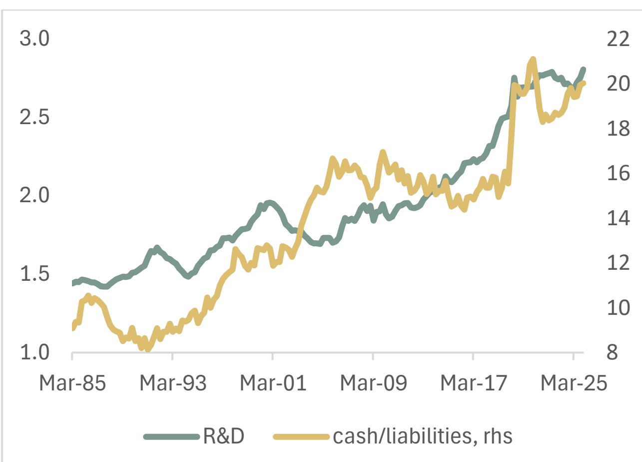
[4] See, "Why Are Corporations Holding So Much Cash?", J. Sanchez, E. Yurdagul, Federal Reserve Bank of St.

2018, US tax laws were changed so that worldwide income is no longer taxed (just the domestic portion). US firms were allowed to repatriate their offshore earnings conditional on the payment of a 15.5% "toll" on all their accumulated earnings since 1986. The tax payment could be spread over installments through this year. In theory since the tax law change there has been no reason for US firms to keep their offshore earnings in cash outside the US. But, since then, corporate cash holdings have risen nearly $3trn and the non-financial corporate cash/lability ratio has risen 4pp.

More R&D

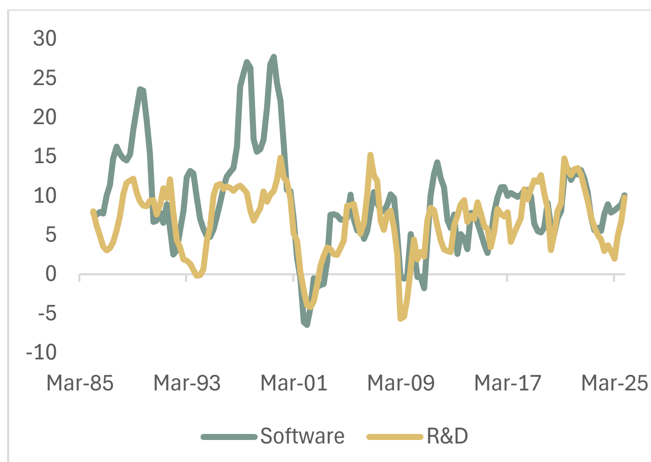
Instead, increased research and development (R&D) investment may be pushing firms to hold more cash. Shutting down R&D programs is expensive and potentially self-defeating. Most R&D spending is the wages paid to professionals with largely transferrable skills. Turning programs off because of a temporary shortfall in internally generated cash flow or a delay in raising external money is difficult because these workers are hard to replace once funding resumes. Significantly, as they leave, they take their accumulated knowledge to a competitor. **As a result, firms with large R&D budgets typically hold thicker precautionary cash buffers which they tap to smooth out any funding shortfall**.[5] Sanchez and Yurdagul examine firm level data (1995-2011) and find that firms in industries with high levels of R&D like pharmaceuticals and IT experienced the fastest growth in their cash balances over the period.[6] As aggregate R&D intensity (R&D expenditures/GDP) has increased, non-financial corporate cash balances (as a share of total liabilities) has grown as well (Figure 3).

Figure 3: R&D intensity and cash ratio (%)



Note: See text for description. Source: Federal Reserve, BEA, SMBC Nikko

Figure 4: R&D and software spending (%y/y)



Source: Federal Reserve, SMBC Nikko

AI expenditures

The volatility in the growth of R&D and software spending has declined since 2000 (Figure 4). While spending still swings from quarter-to-quarter, the moves are smaller since the dot com bubble burst. We think this mostly reflects the cash smoothing effects described above.

Louis, January 1, 2013.

[5] See, "Cash Holdings and R&D Smoothing", J. Brown, and B. Petersen, Iowa State University and Washington University, January 20, 2010.

[6] Sanchez and Yurdagul (2013)

R&D and software spending has accelerated since late year. This acceleration has coincided with a sharp increase in AI-related spending on data centers, and computers, servers, and other IT-related equipment. Spending on data centers exceeded $100bn last year, while AI-tech expenditures increased 27%. All things equal this might be expected to increase the demand for cash buffers. Indeed, Sanchez and Mori note that this rapid growth may strain tech budgets – overwhelming their internally generated cash flow and pushing companies to rely more heavily on debt and bank loans.[7] **But it is not clear that this will cause the AI companies to increase their cash cushions.** Instead, the link between cash holdings and R&D expenditures is strongest for *smaller* firms – those for whom capital markets and bank loans are less accessible. The big AI companies do not seem to fit in that category.

[7] See, "Financing R&D Spending: The Role of Corporate Cash Holdings", J. Sanchez and M. Mori, Federal Reserve Bank of Saint Louis, March 12, 2026

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