Are U.S. Firms Really Holding Too Much Cash?

By Professor Laurie Simon Hodrick

On April 23, 2013, Apple Inc. announced its intention to pay out a total of $100 billion in cash by the end of calendar year 2015, the largest total payout ever authorized. Apple’s planned distribution includes 1) raising its regular quarterly dividend by 15 percent from $2.65 per share to $3.05, paying a total dividend of approximately $11.5 billion annually, with plans to review the payments each year; 2) repurchasing up to $60 billion in stock by the end of 2015, the largest share buyback authorization in history; and 3) continuing to net-share-settle employee restricted stock units as they vest, paying approximately $1 billion annually.1

Apple made this payout decision in response to increased pressure to pay out its cash holdings, including a lawsuit filed by investor David Einhorn of Greenlight Capital. The hedge fund manager compared Apple’s conservative mentality to his depression-scarred grandmother, “someone who’s gone through traumas … they sometimes feel they can never have enough cash.”2 He advocated, “As a shareholder, this is your money … Apple’s board should act to unlock the latent value of Apple’s balance sheet.”3

Apple’s decision has been met with a mixed response. Proponents credit the plan with “helping to propel the stock market’s rally.” Critics instead describe the plan as though Apple is saying, “I don’t know what to do with this [cash]. You take it. It’s not something to be proud of.”4 It has even been noted that Apple, with $144.7 billion of cash holdings at the end of March 2013, had more

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1 When restricted stock units are net-share-settled, the company withholds shares of equivalent value for the applicable income tax obligation and remits cash to the appropriate taxing authorities. This net-share settlement will have the effect of a share repurchase by the company.

About The Author

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Disagreement about optimal corporate cash holdings is nothing new. In defense of high cash holdings, Scott McNealy, co-founder of Sun Microsystems, remarked in 2002 that “cash is king. No company ever went out of business for having too much cash.” In contrast, value investor Benjamin Graham in 1932 cautioned regarding excess undistributed earnings held by corporations, “Treasurers are sleeping soundly these nights, while their stockholders walk the floor in worried desperation.” Modern agency theory further warns that managers may waste retained cash on excessive perquisite consumption, empire building, and other value-destroying activities. As U.S. companies continue to accumulate massive cash holdings, the debate about how much cash firms should hold and what would be the best way to pay out excess cash continues to heighten.

Current Cash Holdings by U.S. Firms

According to the U.S. Federal Reserve Flow of Funds Accounts, nonfinancial corporate businesses held a record $1.79 trillion of aggregate liquid assets at the end of 2012, a quantity that has been steadily increasing for decades, as shown in Figure 1. Cash and marketable securities now equal 46 percent of short-term liabilities, which is a far higher percentage than was true historically, as shown in Figure 2. This high working capital ratio, which is a measure of excess liquidity, suggests that cash is not being held only to satisfy those obligations arising from normal business operations.

An important fact about the record levels of cash and short-term investments—totaling $1.27 trillion for the subset of firms included in the S&P 500 ex-Financials at the end of 2012—is that these cash holdings are far from evenly distributed. While convention dictates that a typical firm should hold only a small fraction of its revenues as cash, a subset of firms are holding cash levels far in excess of their annual sales. Five companies, General Electric, Microsoft, Google, Cisco, and Apple, account for 25 percent of the $1.27 trillion, while 22 companies account for half of it. As documented in Pinkowitz et al. (2013), cash holdings are concentrated among highly profitable firms, many in the technology and health care sectors. Thus, even in an era of record cash holdings in the

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7 For example, Harvard Business School’s “Clarkson Lumber Company” case 9-297-028 assumes that necessary cash is one percent of sales.
aggregate, the distribution of cash holdings across firms is far from uniform.

**Why Do Firms Hold Cash?**

Firms hold cash for many reasons. John Maynard Keynes (1936) posited three motives: a transaction motive, a precautionary motive, and a speculative motive. The transaction motive arises because firms must meet the cash needs that emerge in the ordinary course of business. Theory predicts that economies of scale allow larger firms to hold less cash as a percentage of sales, all else equal, a fact confirmed in Bates et al. (2009). The precautionary motive suggests that firms hold a buffer of liquid assets such that firms with riskier cash flows and poorer access to external capital markets hold more cash as a precaution against adverse cash flow shocks, all else equal, a finding also confirmed in Bates et al. (2009). The speculative motive allows firms holding cash to earn profits from future investment opportunities.

One way of understanding why U.S. companies have amassed so much cash is to recognize that holding cash provides firms with unexercised option value, giving them financial flexibility in times of heightened uncertainty. Investor Warren Buffet is noted to think of cash held in his portfolio as a call option allowing him to obtain cheap assets at fire sale prices (such as his $5 billion investment in Goldman Sachs in the depths of the financial crisis). Google’s CFO Patrick Pichette motivates the company’s holding $48.1 billion of cash at the end of 2012 as giving it “the strategic ability to pounce.”

Tax codes also influence a firm’s cash holdings. Bates et al. (2009) find that U.S. multinational firms, all else equal, accumulate more cash to avoid the material tax consequences associated with repatriating foreign earnings. Because U.S. corporate taxes due on income earned abroad reflect the difference between taxes paid in a foreign country and the applicable 35 percent U.S. federal corporate tax and because the U.S. taxes are due only when the earnings are repatriated, many firms choose to reinvest those earnings abroad. General Electric leads with $108 billion held overseas at the end of 2012. It is interesting to note that $102.3 billion of Apple’s total cash holding of $145 billion was offshore in lower-tax jurisdictions at the end of March 2013. Rather than repatriate some of this cash and incur significant taxes, Apple, which was carrying no debt, chose to issue $17 billion of debt, the largest corporate issuance on record. Apple also anticipates raising $50 billion or more in the bond markets over the next three years to finance its dividends and repurchases.

It is also important to recognize that the “overseas” money owned by foreign subsidiaries need not be invested abroad, but instead can be held at U.S. banks, in U.S. dollars, or invested in U.S. securities. For example, according to SEC filings, $58 billion of Microsoft’s total cash holding of $66.6 billion is held by foreign subsidiaries. Surprisingly, about 93 percent of Microsoft’s cash held by foreign subsidiaries in 2012 was invested in U.S. government bonds, corporate bonds, and mortgage-based securities. The assets of Apple Operations International, Apple’s Irish subsidiary, are managed in Reno, Nevada, by employees at one of its wholly owned subsidiaries, Braeburn Capital, according to a Senate report, with the funds held in bank accounts in New York.

Firms choose their optimal cash holding in response to existing market challenges. These currently include 1) an uncertain economic environment following the financial crisis, 2) an uncertain fiscal environment, including ongoing debates about the corporate tax structure and the federal government budget, and 3) an uncertain monetary environment, including challenges to the sustainability of historically low interest rates as the Federal Reserve discontinues

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its quantitative easing policies. These uncertainties increase expected corporate cash flow volatility, which in turn increases the option value of holding cash.

**An Analysis of the Sources Equal Uses Constraint**

For each firm, there is a (simplified) sources equal uses constraint, equating sources of cash flow with uses, as given in the following equation:

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\text{Operating cash flows} + \text{Debt issuance} + \text{Equity issuance} + \text{Sale of property and investment} = \text{Capital expenditures and investments} + \text{Dividends} + \text{Share repurchases} + \text{Mergers and acquisitions} + \text{Debt reduction} + \text{Excess cash flow}
\]

Operating cash flows are defined as the after-tax amount of cash a company generates from its operations (revenues minus costs) less interest paid plus investment income received. According to the most recent U.S. Federal Reserve Flow of Funds Accounts, capital expenditures remain the largest use of operating cash flows for U.S. corporations, at more than $1 trillion per year. Another key use of cash is payouts. In 2012, S&P 500 firms paid out $282 billion in dividends and $384.3 billion to repurchase shares. S&P Dow Jones Indices forecast that these payouts will reach a 10-year high in 2013. In addition to Apple, Exxon Mobil and AT&T each pay aggregate annual dividends of about $10 billion. Mergers, an additional use of cash, are not at record levels. In the United States in 2012, firms announced $980 billion of acquisitions, and the number of worldwide deals announced so far this year is the lowest since 2003.

Rather than using cash to de-lever, many firms like General Electric have chosen to refinance higher-yield debt before its maturity, and firms including Nike and Microsoft have issued, rather than reduced, their corporate debt to take advantage of historically low yields. 2012 was a record year in corporate bond sales, in excess of $1 trillion for investment grade bonds, primarily due to the refinancing of higher-yield debts. Since more equity was bought back through repurchases than was issued, net equity is negative, implying that equity is in aggregate a use, rather than a source, of cash for U.S. firms, as it has been since 1994. In balance, aggregate net borrowing for nonfinancial corporate businesses in 2012 totaled $206 billion.

Any personal or corporate level tax reform will certainly impact corporate cash holdings, as we consistently witness firms actively responding to such changes. Most recently, firms preempted the 2012 year-end tax increases by accelerating their dividends forward from January 2013 to December 2012 and by paying more than $30 billion in special dividends before year end, with the number of special dividends more than seven times the typical pace for the last quarter of the year. Wal-Mart, Oracle, the Washington Post, and Walt Disney are among the firms that made their scheduled dividend payments early. Firms paying special dividends before January 1, 2013, in excess of $1 billion included Costco Wholesale, Las Vegas Sands, LyondellBasell, and HCA Holdings. Firms like Nike escalated stock buybacks. Private equity firms chose dividend recapitalizations at record levels, to get the dividend proceeds distributed to their buyout groups before the increase in tax rates. We witnessed similar response to the Jobs and Growth Tax Relief Reconciliation Act of 2003, including Microsoft’s first-ever dividend in January 2003 and its 2004 $32 billion special dividend, which qualified for the lowered individual dividend tax rate.

**What Can We Learn from Microsoft: Déjà Vu?**

In 2004, Microsoft announced its intention to pay out a total of $75 billion over the subsequent four years. At that time, this announcement was the largest authorized total payout in history, and it included 1) paying a one-time special dividend of $3.00 per share, for a total of $32 billion, the largest special dividend in history; 2) doubling the regular quarterly dividend.

15 Similarly, in 2010, when Congress discussed dividend tax hikes, roughly two dozen companies, including Sara Lee, accelerated their January 2011 payouts into December and 74 companies paid special dividends in anticipation.

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dividend from $0.04 per share to $0.08, paying approximately $3.5 billion annually; and 3) repurchasing up to $30 billion in stock over the subsequent four years. Microsoft was holding $60 billion of cash and was generating nearly $1 billion per month in excess cash at the time.

As I detail in my case “Cash is King” about Microsoft, cash can be thought of as a put option, providing insurance in uncertain times. Bill Gates, Microsoft’s chairman of the board, certainly prepared for the worst, maintaining that the company must always have enough cash to operate for a year with no revenues (about $20 billion). Microsoft’s CFO, John Connors, explained the strategic rationale: “The first thing is to keep enough cash on hand to give us flexibility to manage things like a severe short-term economic dislocation or investment opportunities … We also want to have enough for acquisitions.” Having survived long periods during which the company’s key competitors had stumbled or disappeared because of competition and/or regulation, such conservatism was seen by some as bordering on paranoia. Essentially, it was feared that somebody was out there in a garage developing the next big thing that could kill Microsoft. They felt a need to protect Microsoft’s ability to grow and to innovate, and cash was like a security blanket. In a competitive battle, cash would allow the company to out-invest the competition by 10 times.

Investors, however, questioned the insurance value of such a large stockpile. According to one Institutional Shareholder Services representative, “[Microsoft’s cash hoard could not simply be a ‘rainy-day fund’] because if it is, then they’re expecting something along the lines of Noah.”

The striking lesson from Microsoft’s historic payout is its consequence. Microsoft completed its distribution and repurchased even more than pledged, in the process becoming a high-dividend paying stock in terms of total cash distribution and dividend yield (3.01 percent versus the S&P 500’s yield of 1.98 percent, both as of the end of March 2013). Microsoft also began issuing debt. At present, despite paying out $220 billion to shareholders since 2004, including $147 billion in repurchases, and dividends even larger than proposed, Microsoft still held $74.5 billion in cash as of March 31, 2013, remarkably higher than its cash level in 2004. If Apple generates about $5 billion in free cash flow per month and raises additional capital through its debt financing, as expected, it too may be replacing its withdrawals to the extent that it may end its record-setting distribution holding even more cash than it holds now.

In Summary

U.S. firms are holding a record amount of cash, but this cash is asymmetrically held by the subset of highly profitable firms. Firms hold this cash for many reasons, including the high option value it provides in times of heightened uncertainty, which is exacerbated by the tax consequences associated with repatriating foreign earnings. Surprisingly, much of the overseas cash is actually invested domestically.

An analysis of the sources equal uses constraint reveals the important role of capital expenditures as the primary utilization of cash in the aggregate. Historical evidence confirms that changes in the tax code have important effects on the cash held by corporations. Firms like Microsoft and Apple currently generate such large cash flows, augmented by debt issue proceeds, that their record distribution plans may prove insufficient to ultimately reduce their cash holdings.

In this brief, I have presented the key considerations needed to answer whether U.S. firms really hold too much cash. It will be interesting to watch how and when cash-rich firms choose to exercise their options to use cash, through investments in capital and labor, dividends, stock repurchases, mergers and acquisitions, and debt reductions. If the economy continues to recover and uncertainty about future growth rates and fiscal and monetary policies declines, the option value of holding cash will decline. If heightened uncertainty continues, however, these firms will continue to hold high cash levels.

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17 They were aware, for example, that Google was going public that year.

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