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Not Dead Yet: The Changing Role of Cash on Corporate Balance Sheets

by
Finn Poschmann

- Public alarms have sounded over the rising holdings of cash on Canadian businesses' balance sheets. Critics have alleged the hoards reflect a market failure or collective business failure to invest productively in new machinery and equipment.

- A closer look at the situation suggests more to the story. While corporate cash as a share of assets has risen in the past decade, the share of other, non-income-earning current asset components, such as inventories and accounts receivable, has significantly fallen. Businesses appear to have been responding to long-term trends in economic conditions, including enhanced business processes that have shrunk inventories, by better managing their balance sheets.

- Evidence therefore suggests that businesses have been shoring up financial assets to match liabilities, in part for precautionary reasons, that there is no economic problem or market failure to be addressed and, accordingly, no policy action indicated in response.

Politicians and policymakers in recent months have sharply criticized Canada's corporate sector for its apparent collective failure to invest in new processes, plant and equipment.[1] Pointing to growing cash hoards on corporate balance sheets – cash and deposits or cash equivalents held by nonfinancial corporations have almost doubled, over the past decade, as a share of assets –

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1 "Jim Flaherty and Mark Carney take on corporate Canada." *Toronto Star*, August 28. http://www.thestar.com/news/canada/politics/article/1248470--jim-flaherty-and-mark-carney-take-on-corporate-canada

other commentators and media have picked up the theme, sometimes alleging business malfeasance, market failure and the need for government action to correct it. Some observers have attributed rising cash holdings to corporation income tax rates that began to fall a decade ago, and have intimated that corporate tax increases might correct the presumed problem (Stanford 2011).[2]

Concern over mounting corporate cash seems mistaken. While businesses have increased the share of assets they hold as cash, improving their resilience through the business cycle, they have simultaneously decreased their share of current assets held in non income-earning forms, such as inventories and accounts receivable. This broad reallocation of holdings on the asset side of the balance sheet ledger has occurred over the long term, not only amid recent economic uncertainty. The net result is higher precautionary holdings of liquid assets, and a long-term, secular decline in the share of corporate assets held in unproductive form. Viewed from this perspective, dead money in the Canadian economy has been steadily decreasing, not increasing. As we shall see, a significant reason for this lies in the economic forces driving down the need for inventory holdings, in part through improved business processes, and a shift toward holding cash instead, to meet potential needs for liquidity.

Accordingly, there seems to be no market failure or errant business behavior to be corrected, and hence no policy response indicated.

Background, and What the Data Say

Analysts who study current business conditions long have looked at the ratio of inventory to shipments of finished goods, or the inventory-to-sales ratio – each measure captures inventory turnover. A high inventory-to-shipments ratio means shipments are low relative to inventories, or inventories are high, implying weak demand conditions. A falling ratio means goods producers are boosting shipments to meet demand or inventories are declining; either way, a low and declining ratio indicates demand conditions are strong, and perhaps that inventory management has been improving.

From the early 1950s through the mid-1980s, the inventory-to-shipments ratio for Canadian manufacturers averaged about 175 percent (see Figure 1). Since then, the ratio has averaged about 140 percent and, since the mid-1990s, the variability of that ratio has dropped dramatically, suggesting businesses have much improved their capacities to manage shipment and inventory flows.[3] United States data, as measured by the Bureau of the Census' Survey of Manufacturers' Shipments, Inventories, and Orders, shows a similarly downward sloping pattern, and less variability.[4]

Why? Among the likely global causes is the shipping container revolution, which began to take hold through the 1960s, lowering the costs, improving the pace and reliability of goods delivery, enabling businesses to carry on with less inventory on hand to meet demand.[5]

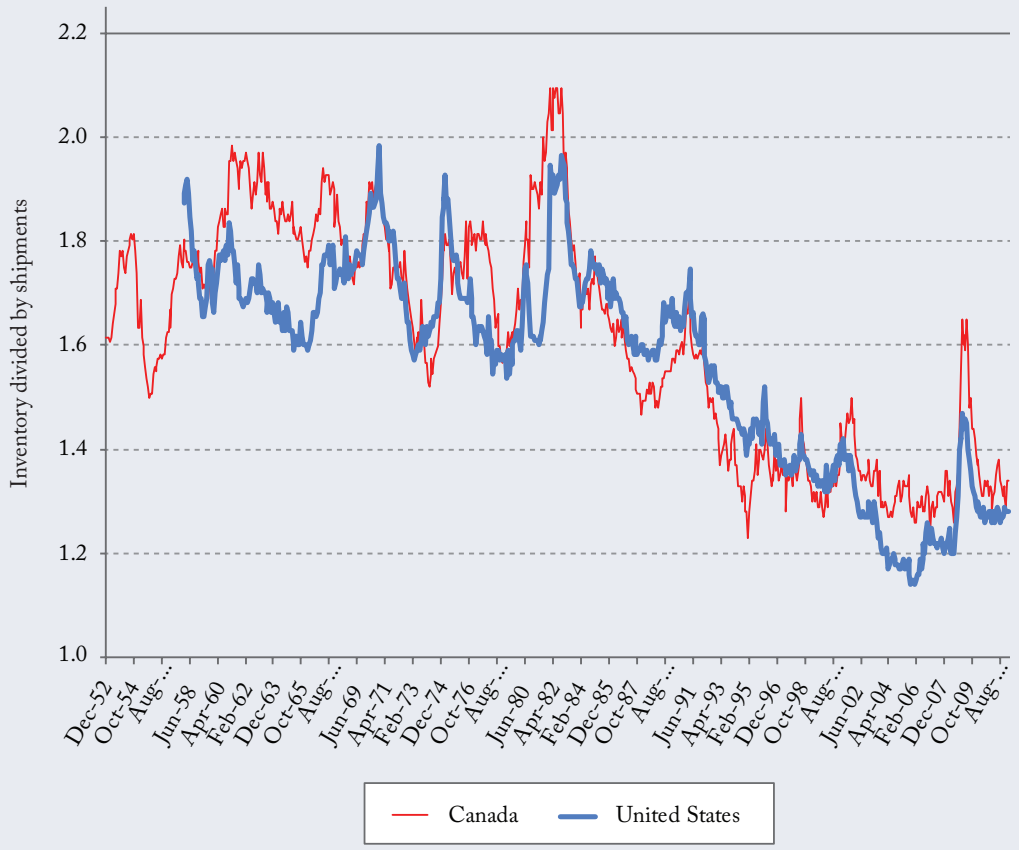
2 "Walkom: Ottawa's 'dead money' tirade misses the point." *Toronto Star*, August 29. http://www.thestar.com/news/canada/politics/article/1248800--walkom-ottawa-s-dead-money-tirade-misses-the-point

3 Statistics Canada, CANSIM, Table 377-0003, accessed December 3, 2012.

4 Available at http://www.census.gov/manufacturing/m3/.

5 The contemporaneous expansion of global trade supports this notion: Global merchandise trade relative to output roughly tripled in the intervening decades, indicating that the flow of inputs and finished goods, from where they are to where they are needed, has risen dramatically. United Nations Conference on Trade and Development. 2012. UNCTADstat: http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx. Accessed December 3, 2012.

Figure 1: Inventory to Shipments Ratios, Manufacturing Sector, Canada and the US, 1952 – 2012



Note: Canada and US data backward-spliced with predecessor series, for dates prior to January 1992.

Source: As noted in text.

At the regional trade level, the Canada-United States Free Trade Agreement (1988) and the North American Free Trade Agreement (1993) increased competitive pressure, eased trade movement and improved manufacturing integration across Canada, the US and Mexico. Improvements in logistics, truckers' performance, and management of just-in-time manufacturing processes occurred alongside, and likely to some extent because of, these changes in the trade environment.

Meanwhile, management information systems also entered business lexicon and practice, and businesses learned to reduce their holdings of finished inventories, in favour of speedier responses to changing markets, tastes and demand conditions, in pursuit of improved profit margins. For example, the success, growth and spread of Wal-Mart, which increased the integration of information flows among suppliers, shippers and distributors, also changed the competitive environment. The spread of Wal-Mart's practices seems to have sharpened the performance of suppliers and shippers – and competitors (Huang et al. 2012).

Finally, given that the rise in cash holdings, detailed below, began in earnest in 2003 in the wake of the information technology sector meltdown, anecdotal evidence suggests another factor. Financial analysts, when presenting corporate assessments of that sector, tend to focus on available cash relative to current liabilities, hence firms' abilities to carry on operations in the event of sales withering away, a crucial indicator of business' viability under stress.[6] Firms must maintain sufficient liquid assets, relative to near-term liabilities, to fund operations, especially when under stress. If market forces and business strategy push down holdings of some assets, like inventories and accounts receivable, firms must ensure that other equally or more liquid assets, such as cash and short-term deposits, are pushed up.

In management accounting terms, this reflects the current ratio – the ratio of current assets to current liabilities.[7] For the Canadian business sector as a whole, the current ratio showed a dip over the 1999-to-2002 period, indicating a depletion of working capital. Subsequently, businesses in aggregate, having learned from experience, began steadily to shore it up (see Figure 2).[8]

This interpretation finds support in the observation that the 2007 credit crisis, and 2008/2009 recession, led two of the three major North American automobile manufacturers into bankruptcy and triggered expensive US and Canadian government bailouts. The third major manufacturer, Ford Motor Company, had made an early strategic decision to convert available assets to cash, and survived without bankruptcy or bailout, indicating that businesses' tendency to hold cash, in macroeconomic terms, represented a rational, precautionary approach.[9]

Testing Hypotheses Against the Data

If the hypotheses I advanced above are correct, they should have been reflected in changes in the current asset configuration of Canadian nonfinancial corporations. And Canadian nonfinancial businesses' holdings of cash and deposits, as a share of assets as reported in Statistics Canada's Quarterly Survey of Financial Statements, has nearly doubled in the past decade (see footnote 8).

6 The practice continues, as in Bloomberg Canada's November 9, 2012, corporate credit bulletin, "Bombardier's Dwindling Cash Sidetracks Rally," which reported that, "Having used $1.6 billion of cash in the first nine months of 2012 … Moody's Investors Service [reduced] its outlook on the Ba2 debt to negative from stable, saying any additional shortfalls to their cash-flow expectations would lead to a ratings downgrade."

7 Some analysts focus on the quick ratio, or asset quick test, which is defined as current assets less inventories, taken as a percentage of current liabilities. If businesses wish to target a steady current ratio while inventories are falling, the quick ratio must rise. Current assets are those that readily may be converted to cash when needed, such as call deposits, accounts receivable, inventory, or marketable securities. Current liabilities, as commonly defined, are those such as debts or accounts payable that are due within a year.

8 I estimated the current ratio using Statistics Canada's Quarterly Balance Sheet and Income Statement (CANSIM Table 187-0001), excluding investments and accounts with affiliates from both the asset and liability sides, on the view that it is not clear to what extent investments in affiliates might readily be converted to cash to meet current liabilities. I estimate current assets as the sum of cash and deposits, inventories, accounts receivable, portfolio investments, and current liabilities as the sum of accounts payable and other current loans and borrowings.

9 Previous studies in Canada and the US have shown evidence that beyond the decline in cash substitutes (such as accounts receivable and inventories) and beyond the precautionary need to balance variable cash flows, firms that increase their levels of relatively risky research and development also tend to hold more cash (McVanel and Perevalov, 2008, and Bates, Kahle and Stulz 2009).

Figure 2: Current Ratio, By Industry Sector, Canada, 1988-2012

Source: Statistics Canada CANSIM, Table 187-0001, accessed November 3, 2012.

Given that the components of current assets are to some extent substitutable, rational businesses may choose to hold them in more liquid forms rather than less, in response to market conditions.[10] Evidence suggests that they have been doing so, and for domestic nonfinancial corporations over the past quarter century, inventories have fallen from almost 15 percent of assets to 8 percent. Accounts receivable, another non income-earning asset category, has declined from about 14 percent of assets to 11 percent. At the same time, cash has risen from about 4 percent to just less than 8 percent of assets. The profound drop in inventories is consistent with the notion that businesses are motivated, and enabled by improved logistics and management information systems,

10 Cash and deposits are more liquid than inventories or accounts receivable – and interest bearing assets, even if at a low rate; 30-day deposits currently earn a little over 1 percent, while the return on inventories and (normally) accounts receivable is zero.

Figure 3: Panel A
Canadian Manufacturing Industries: Current Assets, Major Items, as a Percentage of Total Assets, Q1 1988 – Q3 2012

Source: Statistics Canada CANSIM, Table 187-0001, accessed December 19, 2012.

to ensure that the right products are present at the right place and time. The smaller decline in accounts receivable presumably reflects, on one hand, that information systems help businesses manage down this unproductive asset and, on the other, that there is a limit to which they can be squeezed without souring relationships with customers.

Again, if my hypotheses are correct, the same scenario should have strongly played out in the manufacturing subsector, and this seems to be the case. Just-in-time delivery and improved trade logistics have allowed inventories to fall from 17 percent of assets to 9 percent, and improved reporting systems have allowed accounts receivable to fall from more than 16 percent to 9 percent, while cash has risen from 3 percent to nearly 6 percent of assets (see Figure 3, Panel A).

Finally, improved control over inventories should have a dramatic impact in the retail sector. There, inventories fell, again over the past quarter century, from more than 40 percent of assets to less than 30;

Figure 3: Panel B
Canadian Retail Industries: Current Assets, Major Items, as a Percentage of Total Assets, Q1 1988 – Q3 2012

Source: Statistics Canada CANSIM, Table 187-0001, accessed December 19, 2012.

accounts receivable went from 10 percent to 9 percent, while cash rose from 5 percent to 9 percent (see Figure 3, Panel B). Rising cash and deposits only partly offset the decline in unneeded inventory holdings.

Conclusion

The hypotheses and data suggest firms have allowed their ratios of current assets to liabilities to rise on the margin, reflecting their learned need for precautionary holdings of cash or other liquid assets in the wake of the recessions of the early 1990s, 2000/01, and 2008/09. The perceived market risks, or risk-adjusted returns, associated with global economic outlook, apparently have held them back, to a limited degree, from investing instead in fixed assets. Meanwhile, changing trade conditions, improvements in technology and logistics, and responses to market incentives have enabled businesses to hold fewer of their assets in the form of inventories

and accounts receivable, and more in the form of low interest-bearing cash and deposits, which they require to match current liabilities on a continuing basis.

In turn, the liveliness of corporate balance sheets has improved, not atrophied. In the absence of an apparent business or market failure, no policy concern, or response, is indicated.

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Finn Poschmann is Vice President, Research, at the C.D. Howe Institute.

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