

Analytical Paper

Analysis in Brief

Indebtedness and Liquidity of Non-financial Corporations

by Boran Plong



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- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- p preliminary
- r revised
- x suppressed to meet the confidentiality requirements of the *Statistics Act*
- E use with caution
- F too unreliable to be published

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Indebtedness and Liquidity of Non-financial Corporations

by Boran Plong

1 Summary

On the whole, non-financial corporations in Canada entered the economic downturn in mid-2008 with one of the lowest debt loads in the past four decades, and with an improved liquidity position. By mid-2009, their financial position was more or less unchanged, remaining at historically favourable levels.

The debt-to-equity ratio among non-financial corporations declined almost steadily from its last peak of 0.92 in 1992 to 0.54 in mid-2008. The pace of the decline accelerated in 2003 when corporations started recording strong growth in profits and increased retained earnings. Net issuances of share capital—another component of a company's equity—also helped to keep corporation indebtedness at historical low levels after 2005.

A corporation's leverage or indebtedness level is typically measured by using the debt-to-equity ratio. A high ratio generally means a company has been aggressive in using debt rather than equity to finance its growth. Liquidity position is measured as cash holdings relative to the amount of credit debt or asset. Higher liquidity levels mean corporations are better suited to meet their short term obligations and to implement investment strategies.

Since mid-2008, corporations' net profits declined and equity markets deteriorated, putting a hold on the growth of corporate equity. At the same time, corporations' debt load remained more or less stable as access to credit tightened and demand slackened. As a result, the debt-to-equity ratio increased only slightly from 0.54 in the second quarter of 2008 to 0.55 in the second quarter of 2009, similar to the level of 1969.¹

Corporations also improved their liquidity position since 1998. That is, they held more cash relative to outstanding credit market debt and total assets compared with previous years. At the end of the second quarter of 2008, they held \$373.4 billion in cash or \$514 for each \$1,000 in credit market debt. By the end of the second quarter in 2009, their liquidity stood at \$509 per \$1,000 of credit market debt. This was just shy of their 2007 levels, which were the highest since 1961 when these data were first collected.

The combination of low indebtedness and high liquidity for non-financial corporations left them better suited to face challenges arising from the economic downturn and tight financial markets. Liquidity is especially important in light of evidence that corporations were having trouble accessing credit.²

The decline in non-financial corporations' debt-to-equity ratio was widespread between 2003 and mid-2008, as 10 of 11 non-financial industries entered the downturn with less leveraged balance sheets. Among the largest industries, the energy, wholesale and retail industries recorded notable declines in leverage during this period. In addition, these sectors retained more cash and increased their liquidity position.

From mid-2008 to mid-2009, while corporate revenue declined and credit markets faltered, indebtedness continued to decline for 7 of the 10 industries that had previously improved their balance sheets. However, these declines were offset by increases in 3 other industries. Energy, wholesale and retail still managed to increase their liquidity position during this one-year period. Overall, seven industries improved their liquidity position during that time.

1. For more details on recent trends in corporate finance, please see Alan Tomas, *Recent Trends in Corporate Finance: Some Evidence from the Canadian System of National Accounts*, 2006, Statistics Canada Catalogue no. 13-604-M, <http://www.statcan.gc.ca/pub/13-604-m/13-604-m2006050-eng.pdf>, Ottawa.

2. Leverage and liquidity positions for corporations as a whole might not reflect individual firms' situations.

There were some exceptions, though, most notably non-energy manufacturers, driven by motor vehicle and parts manufacturers. Leverage ratios for motor vehicle and parts manufacturers tripled to 0.31 between the first quarter of 2003 and the second quarter of 2008.

Leverage for motor vehicle and parts manufacturers further increased to 0.48 between mid-2008 to mid-2009. Liquidity became an issue for the automotive industry during that period as the cash ratio fell in all quarters in 2008. The ratio rebounded slightly to 0.13 in the first quarter of 2009 before restructuring in the industry helped boost liquidity to 0.20 in the second quarter of 2009.

Concepts and definitions

Debt and shareholder equity

Corporations generally have two ways to finance investment in assets. First, they can take on debt in the form of loans, bonds, commercial paper or mortgages. Second, they can use owner or shareholder equity. This generally consists of capital raised by issuing both common and preferred shares. It also includes retained earnings—the portion of net profits not redistributed to owners in the form of dividends.

Retained earnings and leverage

Net profits not paid out as dividends to shareholders are reinvested by the corporation: it will purchase additional assets or pay down debt. These retained earnings are one component of equity and are added each quarter to the accumulated retained earnings on the company's balance sheet: they raise owner equity and help to lower the firm's indebtedness or leverage.

Leverage or indebtedness

For the purposes of this paper, leverage and indebtedness are the relative amounts of debt and equity used to finance a corporation's assets. A firm's leverage or indebtedness is typically measured by debt-to-equity ratio. A ratio greater than 1 indicates the corporation is using more debt than equity to finance its assets; a ratio less than 1 indicates more equity than debt is being used to finance assets. In this paper, the debt-to-equity ratio is measured as credit market debt (the sum of bank and other loans, commercial short-term paper, mortgages and bonds issued) divided by shareholder equity. Excluded from debt are loans owed to parent and affiliate firms, which in many instances closely resemble equity investment, rather than debt owed.

Liquidity ratios

At the total non-financial industry level, liquidity is measured as cash holdings relative to total outstanding credit market debt and cash holdings relative to total assets from the National Balance Sheet Accounts (NBSA). Using data from the Quarterly Financial Statistics (QFS) for Enterprises program, which surveys firms' current liabilities—those liabilities due within one year—more familiar liquidity ratios can be measured for non-financial corporations. For the purposes of this paper, we use the more conservative measure, the cash ratio—cash to current liabilities—to measure the liquidity of non-financial industries.

Corporate balance sheets and income statements from the Quarterly Survey of Financial Statements and the National Balance Sheet Accounts

Data in this paper that refer to the total non-financial industry are from the NBSA; data referring to various non-financial industries are from the QFS for Enterprises. The NBSA provides a consistent time series for leverage and liquidity since 1961 for private non-financial corporations. However, it does not publish industry detail below the level of all non-financial private corporations. To assess the leverage and liquidity positions of various industries, the balance sheets and income statements compiled from the QFS need to be considered. The QFS compiles balance sheet and income statements for various industry aggregations from 1988 onward, and covers all corporations in Canada except those that are government-controlled or not-for-profit.

2 Non-financial corporations' balance sheets: Less leveraged and more liquid

On the whole, Canada's non-financial corporations entered the economic downturn in the middle of 2008 with one of the lowest debt loads in the past four decades, and with an overall improved liquidity position.

Among Canada's non-financial corporations, the relative reliance on debt to finance investments in revenue-generating assets such as machinery and equipment reached historic lows in the first half of 2008. Since then, after rising slightly in the second half of 2008, indebtedness fell in the first two quarters of 2009, and now sits at 0.55.

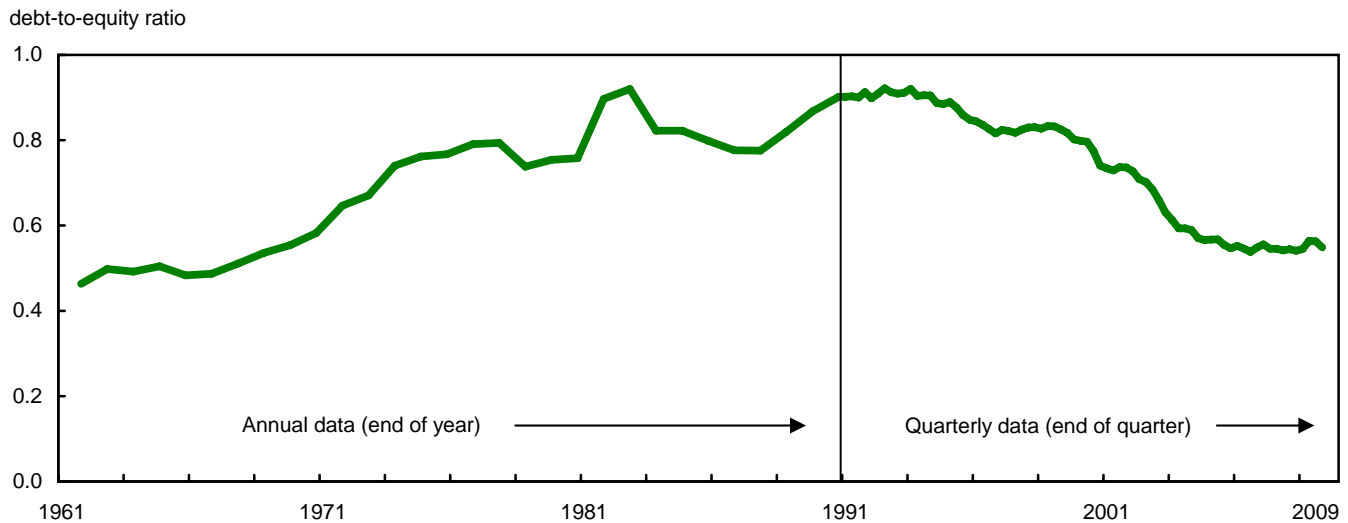
The debt-to-equity ratio, a measure of a corporation's relative indebtedness, has declined markedly since the late 1990s. Rather than debt, new assets have increasingly been financed with owner equity. This was possible because firms could draw on strong profit growth—especially from 2003 to 2006, when net profits rose almost 25% a year on average. After 2005, firms' net issuances of share capital rebounded, further working to keep indebtedness to near historic lows.

In the 1990s, the indebtedness, or amount of leverage, as measured by the debt-to-equity ratio, was above 0.80. This indicates that corporate assets were then financed with nearly as much debt as equity. Since then, leverage has declined, reaching 0.54 in the second quarter of 2008.

Beginning in the middle of 2008, as both profits and equity markets declined, the growth in the equity slowed considerably. At the same time, corporations' aversion to taking on debt in times of uncertainty, coupled with a lack of credit kept corporations' leverage more or less flat.

Leverage remained relatively unchanged from the middle 2008 to the middle 2009: firms' debt-to-equity ratio reached 0.55 in the second quarter of 2009.

Chart 1
Non-financial corporations: Since 2005, leverage stands at 1969 levels



Source(s): Statistics Canada, special tabulation, Industrial Organization and Finance Division.

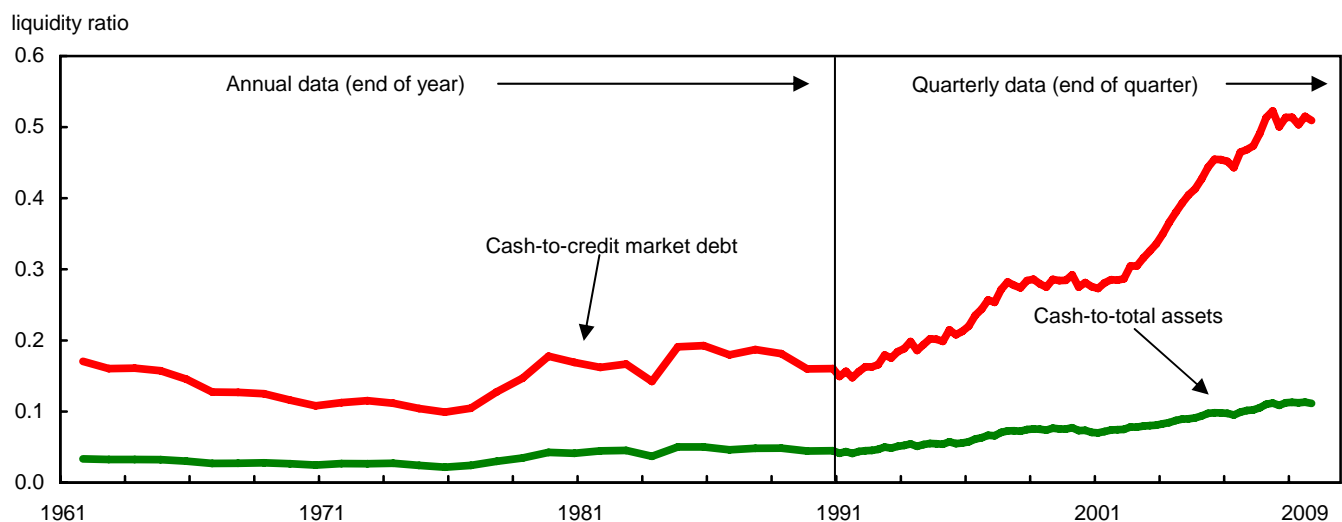
The declining use of leverage by non-financial corporations has many implications. First, it indicates that future interest and principal payments for outstanding debt will be lower than they would be if the balance sheet had been more leveraged. While the use of debt has its advantages, lower leveraged balance sheets leave firms better equipped to face economic turmoil. Given declining corporate revenues in three straight quarters (on a seasonally adjusted basis) from the fourth quarter of 2008 to the second quarter of 2009, a less leveraged balance sheet means corporations face relatively smaller debt charges.

In addition, the lowered leverage balance sheets takes on increased importance given the interest coverage ratio³ deteriorated in two of the three quarters from the fourth quarter of 2008 to the second quarter of 2009 after peaking earlier in 2008.

While firms lowered their leverage, they also improved their liquidity positions. The amount of cash held by non-financial corporations at the end of the second quarter of 2008 stood at \$373.4 billion or \$514 for each \$1,000 in credit market debt. Cash holdings grew at an annual average rate of 13.8% from 2003 to 2008, faster than all other identifiable asset groups except foreign investments.

Thus, the ability of non-financial corporations to meet their credit market debt with just their cash has increased since the beginning of the decade. At the end of the second quarter of 2008, the ratio of cash to credit-market debt was 0.51. The ratio remained relatively unchanged at this level until the end of the second quarter of 2009. This was just shy of levels in 2007, which were the highest on record since 1961, when these data were first collected.

Chart 2
Non-financial corporations are the most liquid in more than 40 years



Source(s): Statistics Canada, special tabulation, Industrial Organization and Finance Division.

Profits directly affect the value of the debt-to-equity ratio; less clear is the role of profits in improving the liquidity of non-financial corporations. However, several years of profit growth, such as those from 2003 to 2006, likely helped create an environment in which firms could more easily stock up on cash.

The improved liquidity position of non-financial corporations takes on growing importance, given recent declines in corporate revenue and evidence that credit may be harder to come by as a result of the financial crisis. The Bank of Canada's Senior Loan Officer Survey continued to indicate tight credit conditions as of July 2009.⁴ Having cash leaves corporations in a better position to cover regular expenses during periods of slower economic activity.

3. The interest coverage ratio is calculated as operating profit/loss divided by interest expenses tied to borrowings. It indicates the ability of corporations to cover interest expenses from profits earned by their operations rather than by using existing cash holdings, selling assets, or raising more debt.
4. See Bank of Canada, *Monetary Policy Report*, July 2009, <http://www.bankofcanada.ca/en/monetary/2009/mpr230709.pdf> (accessed November 9, 2009).

Multinational balance sheets and exchange rates

Multinationals and worldwide consolidated balance sheets

Assets, liabilities, and equity which make up the balance sheets compiled by the Quarterly Financial Statistics (QFS) for enterprises program and the National Balance Sheet Accounts (NBSA) include only those that are booked in Canada. As a result, further analysis is warranted of the largest multinational firms covered by the QFS and NBSA, as well as their worldwide consolidated balance sheets.

For example, leverage and liquidity ratios for Canadian subsidiaries of large multinationals might show improving trends. However, these trends might not reflect the true financial situation of these multinationals if the leverage and liquidity ratios from their worldwide consolidated balance sheets were deteriorating.

To address this issue, leverage and liquidity ratios for the largest corporations from some of the largest industries were calculated and compared with their booked-in-Canada leverage and liquidity ratios. This was done for four industries with large assets: oil and gas extraction, petroleum and coal product manufacturers, motor vehicle and parts manufacturers, and retail trade. These four industries accounted for about one-quarter of total non-financial assets in the second quarter of 2009.

The trends in leverage and liquidity from worldwide consolidated balance sheets are similar to those from the Canadian balance sheets. While the trends in leverage were similar, leverage ratios were higher in the worldwide consolidated balance sheets, in particular for motor vehicle and parts producers. This suggests that parent companies of those Canadian subsidiaries raised the majority of their debt outside Canada. More detailed results in this matter are available from the author.

Impact of US–Canadian exchange rates on leverage

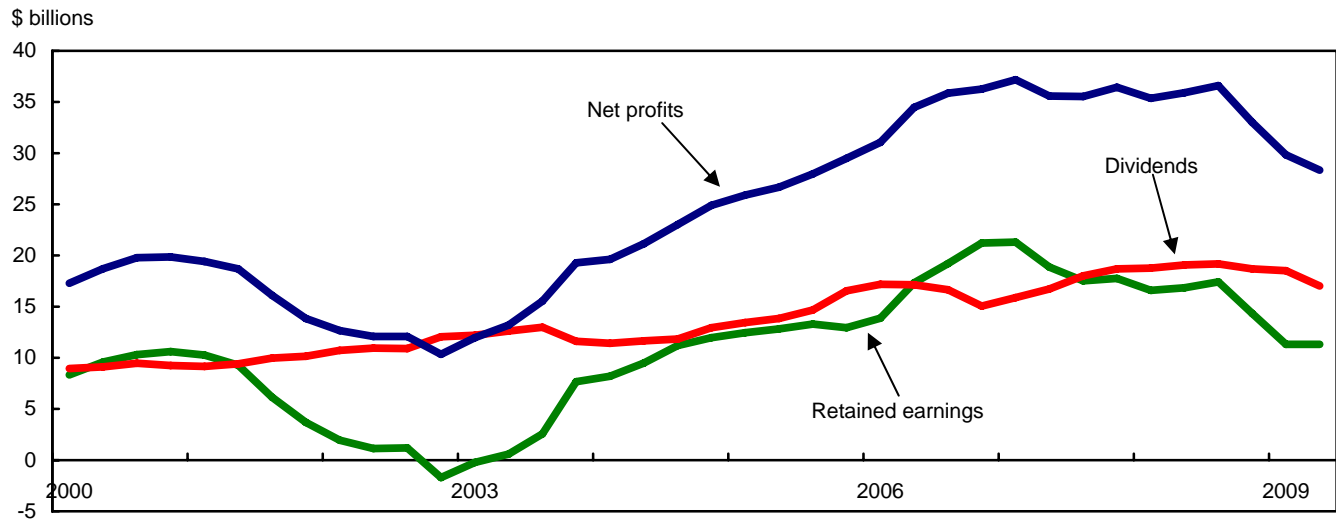
Given that a portion of total debt is outstanding in foreign currencies, fluctuating exchange rates affect the debt-to-equity ratio. However, the QFS currently does not ask respondents for the portion of debt that is outstanding in foreign currencies. To help address this issue, data from the Balance of Payments Division was used to determine the potential effects of changing foreign exchange rates, in particular the effects of the US–Canadian dollar exchange rate on the declining debt-to-equity ratio.

The ratio was slightly higher when varying assumptions on the proportion of loans and mortgages outstanding in US dollars were used along with data from Balance of Payments on the split of bonds and commercial paper and assuming 2002 exchange rates. However, it showed a similar trend as did the debt-to-equity ratio using current exchange rates.

3 Strong corporate profits and new share capital help lower leverage

Strong growth in non-financial corporate profits, especially from 2003 to 2006, led to an upswing in retained earnings. This refers to the portion of net profits not paid out as dividends and instead reinvested in the corporations. This retained earnings growth in turn contributed to lower leverage ratios. From 2003 to 2006, net profits for non-financial corporations rose an average 23.5% per year, while dividends increased an average 9.0%. As a result, corporate retained earnings grew considerably. This allowed corporations to rely relatively less on debt to finance new assets, and ultimately to lower the amount of leverage on their balance sheets.

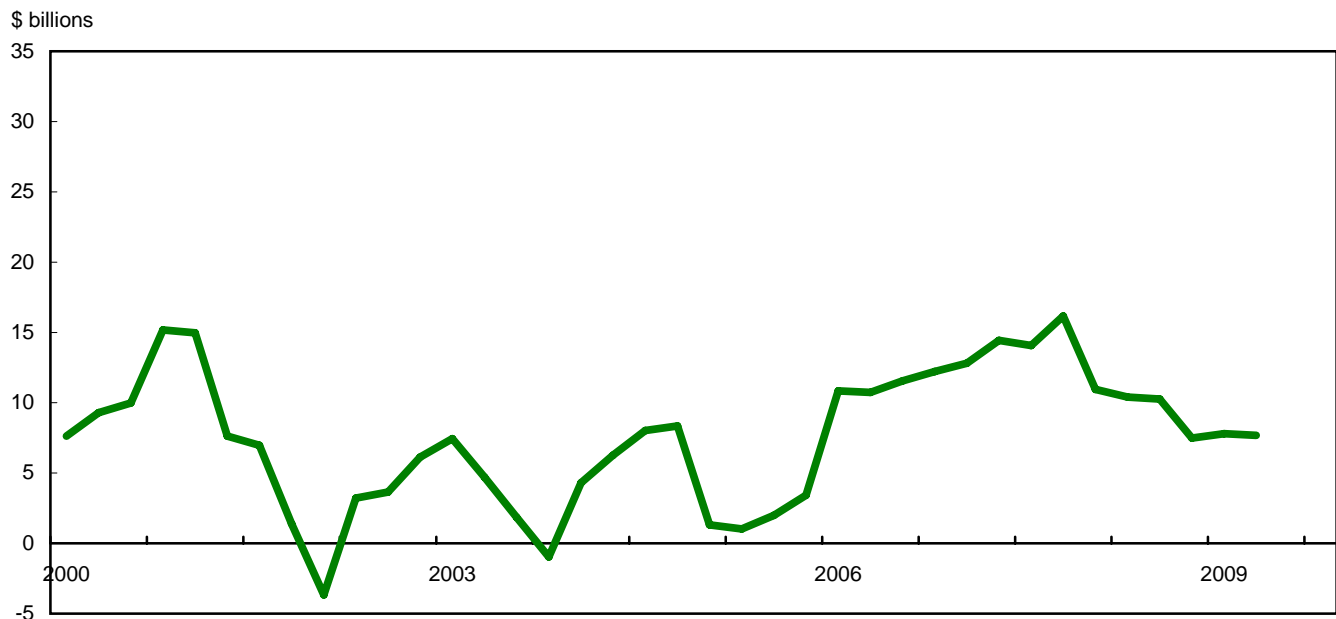
Chart 3
Higher net profits prompt growth in retained earnings



Note(s): Four quarters moving averages.
Source(s): Statistics Canada, special tabulation, Industrial Organization and Finance Division.

In addition to corporate profits, share capital, the other main component of total shareholder equity, also contributed to lowering leverage. Firms tapped equity markets and issued new shares: net issues of share capital grew from -\$3.9 billion in 2003 to \$64.7 billion in 2007.

Chart 4
Growth in net issues of share capital also helps lower leverage



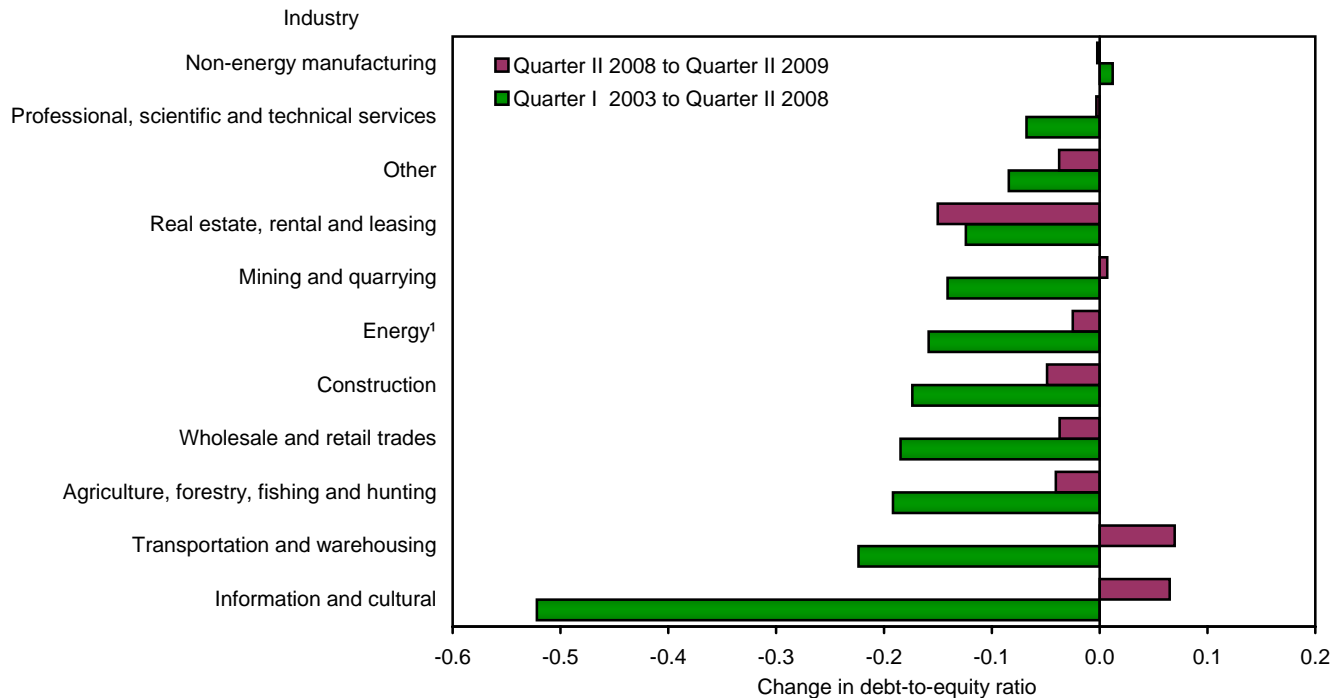
Note(s): Four quarters moving averages.
Source(s): Statistics Canada, special tabulation, Industrial Organization and Finance Division.

Beginning in the second half of 2008, lower net profits and declining equity markets slowed the growth of accumulated retained earnings and share capital. This slowed the growth of total shareholder equity in recent quarters which limited the degree in which non-financial corporations could reduce their leverage.

4 Most industries lower their leverage and increase their cash, even after mid-2008

Almost all non-financial industries have managed to reduce their use of leverage from 2003 to mid-2008. The decline from 2003, when net profits started growing for five consecutive years was widespread; 10 of 11 non-financial industries had less leveraged balance sheets at the end of second quarter of 2008 than they did in the first quarter of 2003.

Chart 5
Nearly all non-financial industries lower leverage, even after mid-2008



1. Includes oil and gas extraction as well as petroleum and coal products manufacturers.
 Source(s): Statistics Canada, special tabulation, Industrial Organization and Finance Division.

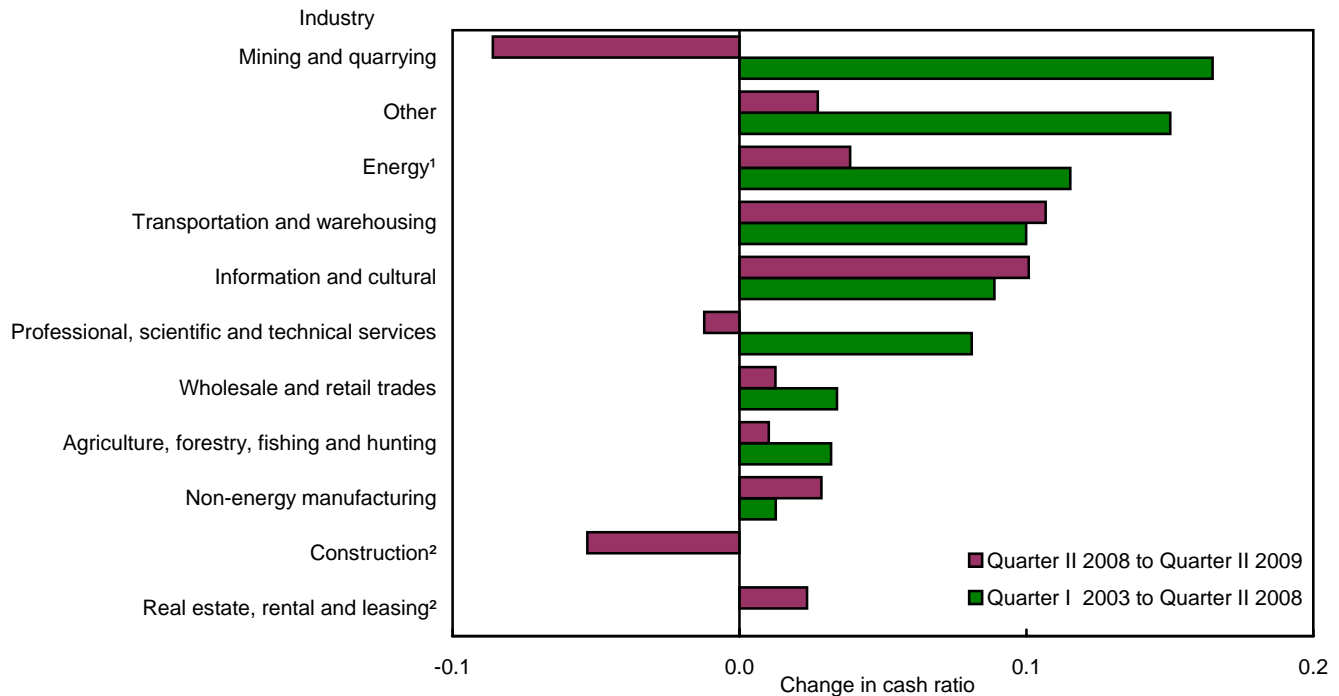
Of the 10 non-financial industries that managed to reduce their leverage from 2003 to mid-2008, 7 continued to reduce their indebtedness in the following year. These declines were offset by increases in the other 3 industries.

Of the 4 largest non-financial industries—energy, non-energy manufacturing, wholesale and retail trade, and real estate and rental and leasing—3 managed to invest in additional assets using relatively less debt prior to mid-2008 and in the following year.⁵ Non-energy manufacturing was the lone exception, as its leverage ratio edged higher from the first quarter of 2003 to the second quarter of 2008. This increasing trend was halted in the following year, as the leverage ratio stayed relatively stable.

Generally, liquidity improved for all non-financial industries from 2003 to mid-2008. In the following year, of the 9 industries in which cash ratios can be measured, 7 still managed to improve liquidity.

5. Size is measured by assets. For the purposes of this article, the energy sector refers to oil and gas extractors and petroleum and coal products manufacturers; non-energy manufacturers refer to total manufacturing excluding petroleum and coal products manufacturers.

Chart 6
General increase in liquidity position of most non-financial industries



1. Includes oil and gas extraction as well as petroleum and coal products manufacturers.

2. Liquidity ratio data for these industries could not be calculated for years prior to 2007.

Source(s): Statistics Canada, special tabulation, Industrial Organization and Finance Division.

5 Three of the largest industries lower their leverage and raise cash holdings

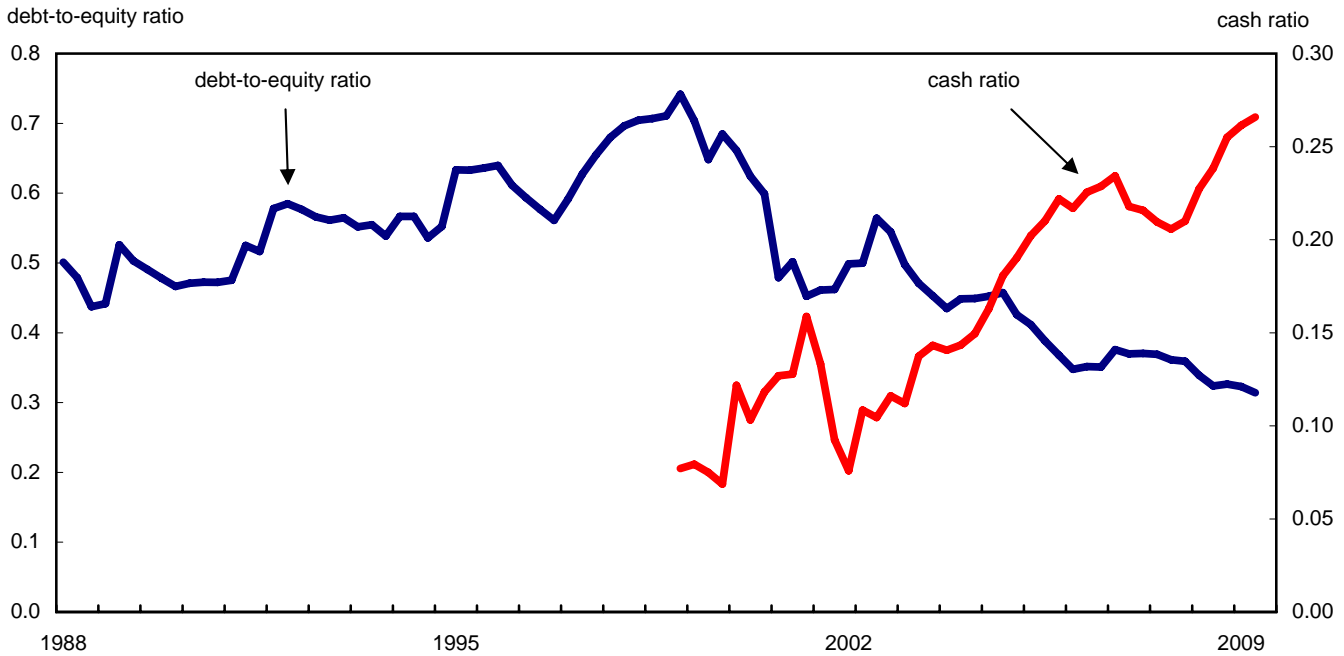
Because of the energy and retail and wholesale industries' sizable assets, their shift away from leverage towards liquidity is notable.

The energy sector's debt-to-equity ratio reached 0.56 in the third quarter of 2002, down from the peak of 0.74 in early 1999. Indebtedness further declined to 0.34 by the end of the second quarter of 2008. Much of the decline in leverage occurred during a period when higher crude and natural gas prices drove up profits.

Net profit rose by an annual average of 12.1% in the energy sector from 2003 to 2008. This profit growth helped stem the need to access debt, as total accumulated shareholder equity grew an average 18.9% from 2003 to 2008; total accumulated debt rose 12.3%.

Starting in the second quarter of 2008, indebtedness for the energy industry declined in three of the four quarters that followed, as the debt-to-equity ratio declined even further to 0.31. This was mainly the result of slowing growth in outstanding debt. Outstanding debt in the second quarter of 2009 remained flat compared with the second quarter of 2008. Cancellation of major capital projects by the energy industry, in light of uncertain conditions brought on by significantly lower oil and natural gas prices and the lack of available credit, limited the growth in debt.

Chart 7
Energy industries' lower leverage and increased liquidity



1. Includes oil and gas extraction as well as petroleum and coal products manufacturers.
Source(s): Statistics Canada, special tabulation, Industrial Organization and Finance Division.

As leverage declined, the energy sector accumulated cash faster than current liabilities. As a result, the cash ratio has generally risen since the early part of this decade. By the end of the second quarter of 2008, the cash ratio stood at 0.23. Cash rose by an annual average 29.1% from 2003 to the second quarter of 2008, nearly double the pace of other major asset groups, such as investment in affiliates, inventories and capital assets.

While the returns on cash are relatively low, corporations may have had several reasons to keep more cash, such as saving for potential major investments, for future mergers and acquisitions, or for risk management.

Like leverage, liquidity for the energy industry also improved starting in mid-2008. In the second quarter of 2009, the cash ratio reached 0.27, rising for four straight quarters beginning in mid-2008.

In the wholesale and retail trade industries, leverage has declined since 1988. In the first quarter of 2003, the debt-to-equity ratio for these two industries combined was 0.72. Since then, debt-to-equity has steadily dropped, finishing the second quarter of 2008 at 0.54. One reason for this decline was favourable economic conditions up to mid-2008. In particular, wage gains and employment growth helped retail sales and consumer spending generally, especially in Western Canada.⁶

Growing profits in wholesale and retail trade curbed the need for debt to finance new assets—much the same as in the energy sector. Double-digit average annual increases in accumulated retained earnings prompted total shareholder equity to grow at an annual average of 9.6% from 2003 to the second quarter of 2008. Total debt increased 3.6% on average per year during the same period.

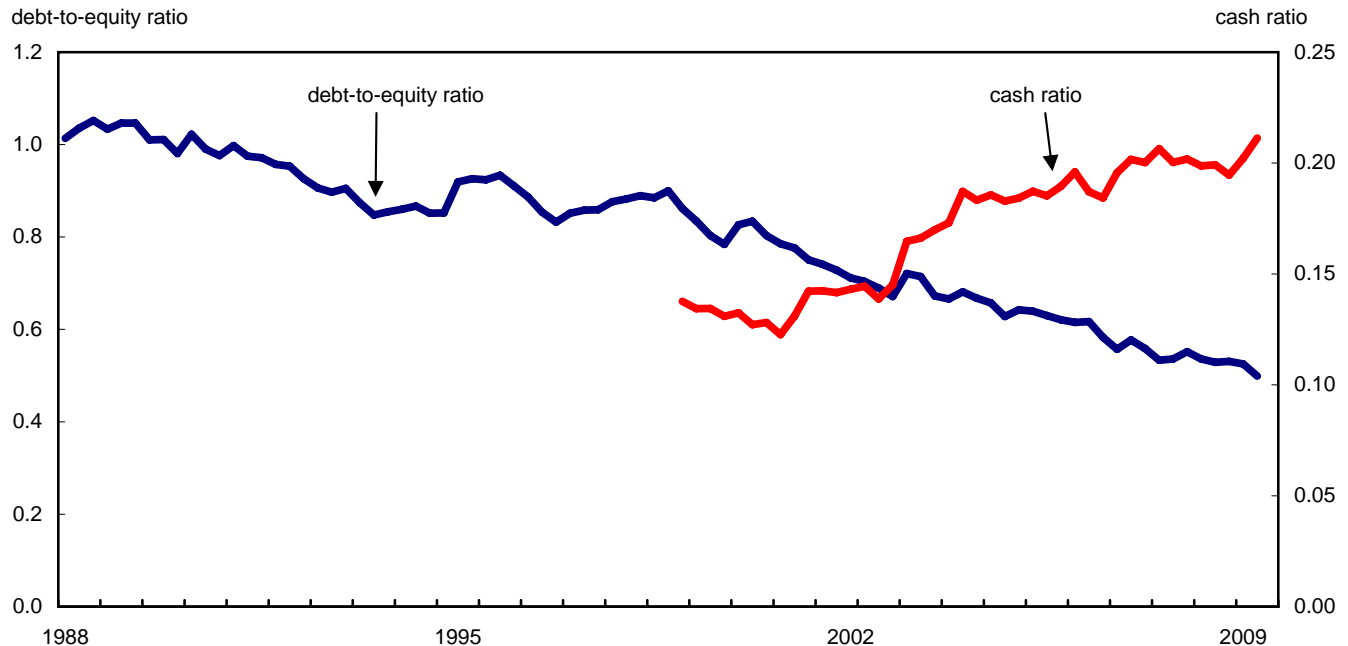
Despite the downturn in profits in these industries since the fourth quarter of 2008, leverage continued to decline, reaching 0.50 in the second quarter of 2009. Like the energy industry. Flat debt outstanding was the main contributor to the further declines in leverage.

6. See Lucy Chung, Mark Switzer and Paula Thomson, "Retail Trade: How the Provinces Fared in 2006," *Analysis in Brief*, no. 57, June 2007, Statistics Canada catalogue no. 11-621-M, <http://www.statcan.gc.ca/pub/11-621-m/11-621-m2007057-eng.htm>, Ottawa.

In wholesale and retail combined, cash amounted to \$32.5 billion by the end of the second quarter of 2008, an annual average increase of 8.5% since 2003. Cash holdings grew at a faster pace than other major asset groups in these industries, such as inventories, accounts receivables, and capital assets. The cash ratio ended the second quarter of 2008 at 0.20. Since then, liquidity for retailers and wholesalers continued to improve as the cash ratio increased to 0.21 in the second quarter of 2009, its highest level in 10 years.

Chart 8

Retail and wholesale trade industries also lower leverage and boost liquidity to 10-year high



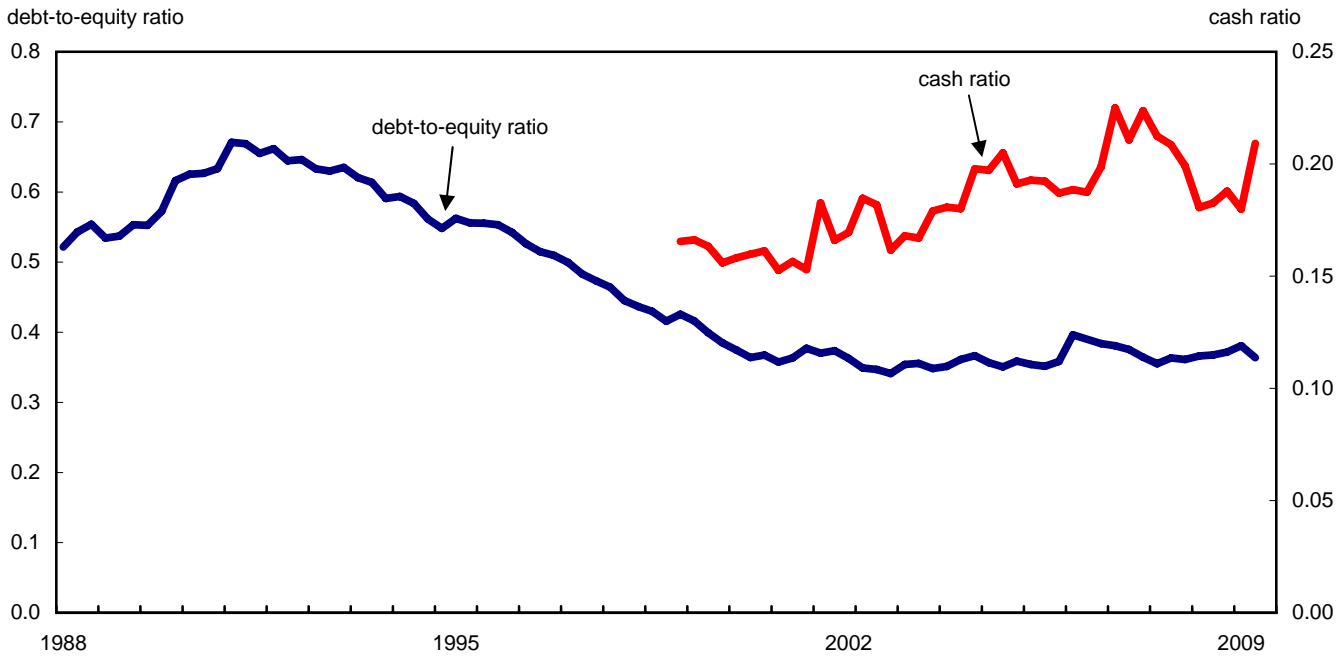
Source(s): Statistics Canada, special tabulation, Industrial Organization and Finance Division.

6 Non-energy manufacturers' leverage stay relatively flat

Non-energy manufacturing was the only non-financial industry that did not see a declining debt-to-equity ratio since 2003. After declining for the bulk of the 1990s, indebtedness for non-energy manufacturing has stayed relatively flat.

By the end of the second quarter of 2008, this industry's debt-to-equity ratio was 0.37. Economic conditions throughout much of the past eight years have been challenging for non-energy manufacturers, unlike firms in energy and distributive trades. Net profits in non-energy manufacturing declined, limiting these firms' ability to lower leverage—except during a few quarters in 2007.

Chart 9
Leverage for non-energy manufacturers is flat since 2000; liquidity rebounds in second quarter of 2009 after declining since the end of 2006



Source(s): Statistics Canada, special tabulation, Industrial Organization and Finance Division.

Manufacturers recorded strong net profits of \$28.0 billion in 2000. However, in six of the eight years since, profits did not reach \$20 billion. One reason was that profits among computer and electronic product manufacturers retreated after peaking in 1999.

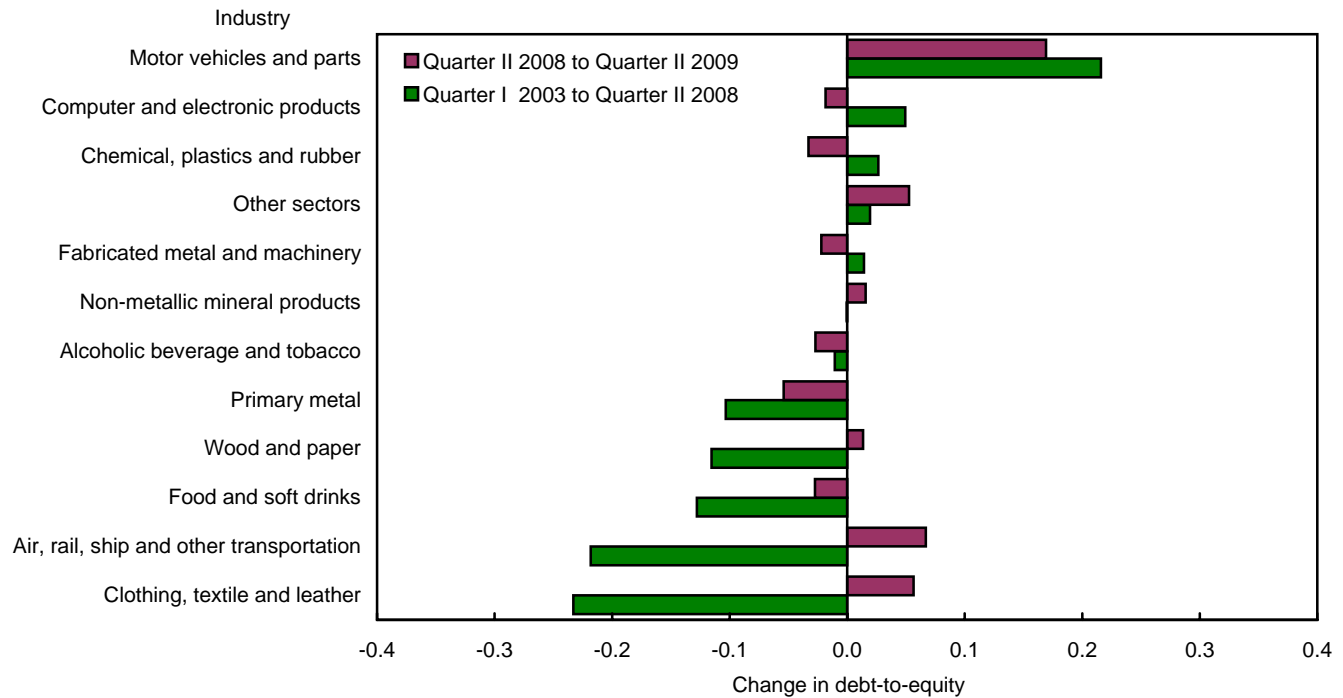
Several factors have had an impact on profits in the non-energy manufacturing industry in the last several years, including: a strengthening Canadian dollar, which reached parity in late 2007; declining automobile exports; slower activity in the information and communications technologies sector; trade disputes in the softwood lumber industry, combined with weak construction and newsprint markets; and foreign competition in the textile and clothing industries.

Liquidity rebounded in the second quarter of 2009 for non-energy manufacturers. This was largely the result of restructuring of motor vehicle and parts manufacturers, which helped boost cash holdings. This came after liquidity for non-energy manufacturers fell in six of the ten quarters from the fourth quarter of 2006—when the cash ratio reached its peak—to the first quarter of 2009. During this period, cash shrank by \$5.7 billion. By the first quarter of 2009, the cash ratio had declined to 0.18.

The cash ratio for non-energy manufacturers was lower in the early 2000s than in the first quarter of 2009. However, the early part of the decade was a time of still-growing revenues and profits, which lessened the need for firms to be as liquid.

Of the 12 non-energy manufacturing industries, 5 saw higher leverage ratios at the end of the second quarter of 2008 than in the first quarter of 2003. Of the five who posted increasing leverage ratios between 2003 and the second quarter of 2008, only two saw leverage continue to increase between the second quarter of 2008 and the second quarter of 2009. One of them was motor vehicle and parts manufacturers, who are among the largest non-energy manufacturing industries as measured by assets.

Chart 10

Autos post largest increase in indebtedness among 12 non-energy manufacturing industries, even after mid-2008

Source(s): Statistics Canada, special tabulation, Industrial Organization and Finance Division.

Overall declining leverage ratios for industries over the entire period from 2003 to the second quarter of 2009 do not tell the whole story, however. In the case of two industries—wood and paper, and clothing, textile, and leather manufacturers—leverage declined but total assets shrank, as plants were closed.

7 Autos' indebtedness increases while liquidity deteriorates until the first quarter of 2009

Motor vehicles and parts manufacturers were among the industries facing the toughest economic challenges. The debt-to-equity ratio for this industry has risen, especially since 2006.

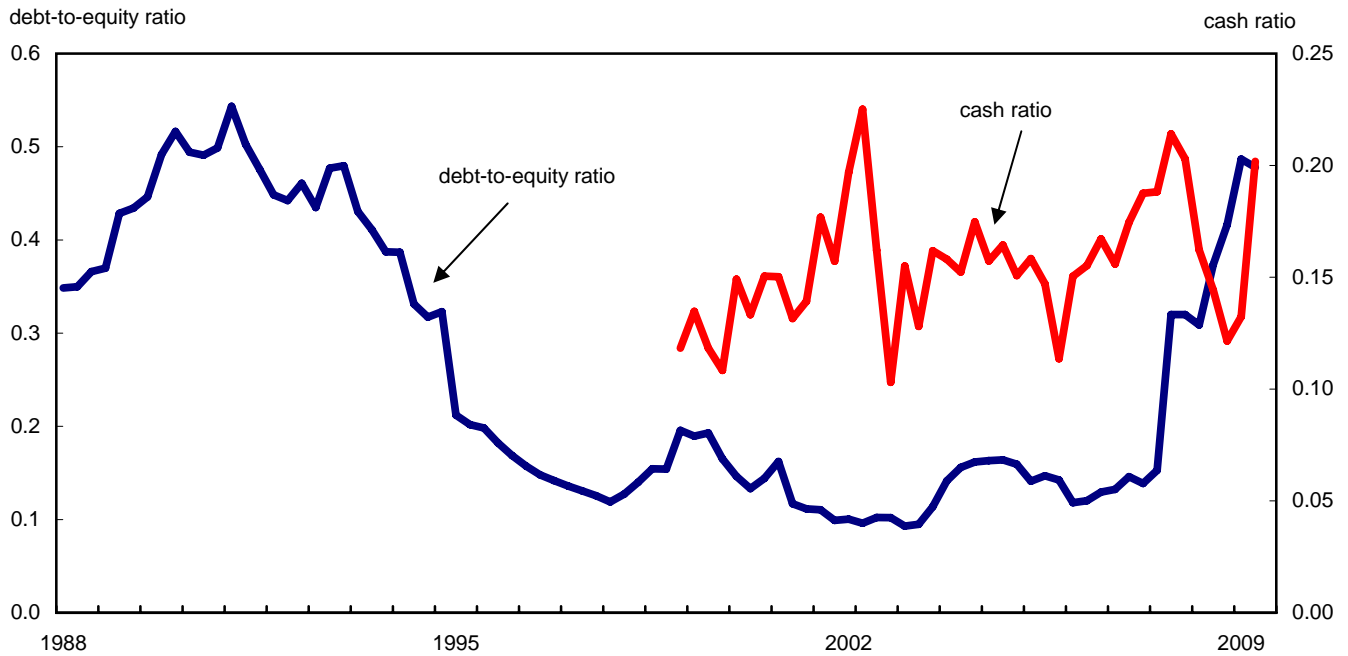
By the end of the second quarter of 2008, the ratio for the industry stood at 0.31. This reflected an annual average increase of 23.1% in debt load since 2003, coupled with declines in equity from profit losses. Further profit losses since the second quarter of 2008, coupled with assisted government restructuring in the industry, also helped to increase leverage. The debt-to-equity ratio rose again, to 0.48 in the second quarter of 2009.

Current restructuring in the industry, plus declining revenues and the added debt loads from government aid, is putting further pressure on profitability.

Liquidity rebounded in the second quarter of 2009, as restructuring in the motor vehicles and parts industry boosted cash. That rebound occurred after liquidity was quickly deteriorating as motor vehicle and parts manufacturers posted losses in each quarter of 2008 (on a seasonally adjusted basis). Those losses resulted in a 44% decline in total cash from \$6.3 billion at the end of 2007 to \$3.5 billion in the first quarter of 2009.

Declining cash levels pushed down the cash ratio for this industry in four of the five quarters from the first quarter of 2008 to the first quarter of 2009. By the end of the first quarter of 2009, the ratio had dropped to 0.13. However, during the second quarter of 2009 restructuring in the industry pushed up cash to \$4.7 billion and the cash ratio to 0.20.

Chart 11
Motor vehicle and parts indebtedness climb higher, while liquidity declines for five straight quarters before rebounding in the second quarter of 2009



Source(s): Statistics Canada, special tabulation, Industrial Organization and Finance Division.

8 Further research

This analysis of leverage and liquidity among non-financial corporations does not consider size of corporations. Further research can help determine if firms of different sizes are experiencing different leverage and liquidity trends. In addition, the analysis does not directly consider the cost of debt and equity during the time period under analysis. Consideration of the cost of raising both debt and equity would help shed light on the trends in leverage seen over the past several years. Lastly, Canadian corporate income tax rates may influence where multinationals operating in Canada choose to raise their debt. This might provide insight into the declining leverage among non-financial corporations. Since interest expense is a pre-tax cost, declining Canadian corporate income tax rates may have encouraged firms to raise debt in other countries where they operate, and where tax rates have become relatively less favourable.

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