CYCLICAL ANALYSIS OF PROFITS AND STOCK MARKET PERFORMANCE: JAPAN AND CANADA

Our analysis of cyclical behavior of U.S. profits and the S&P500 during prior business cycles—and our finding that the stock market has the tendency to continue rising for a sustained period and by large amounts after corporate profits pass their peaks during economic expansions—has generated a lot of attention (see “U.S. Stock Market and Economy: Room to Rise”, June 22, 2018). We have received a lot of questions about the study, including: What has been the relationship between cyclical peaks in profits and stock markets in other nations?

Looking into this issue, we find that the scope for analysis is limited by insufficient data on profits in most nations. Profits data are available for Japan and Canada but they are not available for EU nations (they tend to report on “gross operating surplus” that is not a sufficient proxy for profits with limited history) or large emerging market nations.

Facing these data limitations, we describe our findings for Japan and Canada below. Their cyclical trends in profits and stock market performance have been starkly different.

I. JAPAN

- Japan’s cyclical trends in economic, profit and stock market performance have been far different than in the U.S., with relatively short expansions interrupted by numerous recessions. This limits the cyclical analysis of the timing differences between peak profits and the Nikkei.

- Following an almost uninterrupted economic boom following World War II that concluded in the end of 1990, Japan incurred 7 recessions between 1990-2015 and on average experienced very slow growth and near price stability with periodic bouts of deflation. Its 1997 and 2014 recessions were generated by VAT hikes, while the 2008-2009 recession was imported from the U.S.

- Corporate profits chopped sideways from the 1980s through the early 2000s, and then rose sharply through 2007. Following a dramatic decline in 2008-2009, profits have rebounded sharply.

- Following the unsustainable 1980s stock market bubble that burst in late 1989, the Nikkei ratcheted down through the early 2000s, rose sharply through 2007 and collapsed in 2008-2009. It has been rising sharply since late-2012 but remains far below its 1989 peak. These trends are illustrated in Charts 1 and 2.

25 July 2018

Mickey D. Levy
Chief Economist US, Americas and Asia
+1 646 949 9099
mickey.levy@berenberg-us.com

Roiana Reid
Economist
+1 646 949 9098
roiana.reid@berenberg-us.com
• Whereas the U.S.’s S&P500 has continued to rise for a lengthy period following the cyclical peak in profits—nearly as long as real GDP grows before the onset of recession—the Nikkei has tended to peak soon after profits peak, well before the end of the expansion: the Nikkei peaked 10 months after profits peaked in December 1989 while the economy continued to grow for 36 months (albeit at a much slower pace than during the robust 1980s); in the mid-1990s and 2000s expansion, the Nikkei rose for only 1 and 4 months following the cyclical peak in profits—and their rise during those periods was only 3%, far below the U.S.’s median 40% appreciation following profit peak. Table 1 and Charts 3-5.

• Following the unexpected deep recession generated by Japan’s VAT hike in Spring 2014, the economy has expanded and profits rose sharply (interrupted by
the global industrial slump of 2015-2016). Profits plateaued in 2017 and the stock market has continued to rise significantly (Chart 6).

- Japan’s economic fundamentals have improved significantly, and it is too early to declare that profits have peaked cyclically. The table below only shows three of Japan’s expansions of sufficient length, and does not include the current expansion, in which the economy and profits have further room to grow.

### Table 1: Japan Corporate Profit Peaks, and Economic and Financial Market Performance

<table>
<thead>
<tr>
<th>Cyclic Expansion</th>
<th>Peak Mid-Cycle Profits*</th>
<th># of Months Between Profit Peak and Peak in:</th>
<th>Change in Nikkei 225 following profit peak (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Nikkei 225</td>
<td>Real GDP</td>
</tr>
<tr>
<td>Q2-1975 to Q1-1992</td>
<td>Q1-1989</td>
<td>Dec-89</td>
<td>10</td>
</tr>
<tr>
<td>Q2-1994 to Q1-1997</td>
<td>Q2-1996</td>
<td>Jun-96</td>
<td>1</td>
</tr>
<tr>
<td>Q3-2003 to Q4-2007</td>
<td>Q1-2007</td>
<td>Jun-07</td>
<td>4</td>
</tr>
<tr>
<td>Minimum</td>
<td></td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>Maximum</td>
<td></td>
<td>10</td>
<td>36</td>
</tr>
</tbody>
</table>

*Based on the highest level of Japan corporate profits. Nikkei 225 calculations are based on mid-point of quarter of profit peak. Source: Nikkei, Japan Ministry of Finance, Cabinet Office of Japan and Berenberg Capital Markets.

### Chart 3: Nikkei 225 Index and Corporate Profits During Q2-1975 to Q1-1992 Economic Expansion

Source: Nikkei, Japan Ministry of Finance and Berenberg Capital Markets.
Chart 4: Nikkei 225 Index and Corporate Profits During Q2-1994 to Q1-1997 Economic Expansion

Source: Nikkei, Japan Ministry of Finance and Berenberg Capital Markets.

Chart 5: Nikkei 225 Index and Corporate Profits During Q3-2003 to Q4-2007 Economic Expansion

Source: Nikkei, Japan Ministry of Finance and Berenberg Capital Markets.
II. CANADA

- Notably, in the modern era, Canada’s economic expansions have been lengthy, interrupted by only three recessions (Chart 7). Canada avoided recession in the 1970s and 2001. Canada’s economy slowed sharply in response to the first oil price shock in late-1973, and its profits fell and stock market corrected, but it did not follow the deep U.S. recession. Canadian growth slowed but did not fall in 2001. Following a recession in 2008-mid 2009 that was briefer and milder than the U.S. downturn, Canada’s current lengthy economic expansion has involved slower growth than prior expansions.

Chart 7: Canadian Corporate Profits and Real GDP

*Note: Corporate profits and GDP are seasonally adjusted and annualized. Sources: Statistics Canada and Berenberg Capital Markets.*
Even more so than in the U.S., Canada’s stock market has appreciated significantly after the cyclical peak in profits; in general, the S&P/TSX has risen as long as the economy has continued to expand (Table 2 and Charts 9-11). In fact, Canada’s S&P/TSX has expanded at least 18 months and as long as 30 months following the cyclical peak in profits. Moreover, the appreciation in the S&P/TSX after profits have peaked has been sizable, ranging from a low of 33% to a high of 40%.

In the current expansion, Canada’s corporate profits rose sharply through mid-2014, fell through 2016 amid the collapse in oil and commodity prices and the global industrial slump, and have rebounded strongly. Since 2016, profits have risen by roughly twice as much as the S&P/TSX (Chart 12).

Currently, the Canadian economy is healthy, despite concerns about new tariffs imposed by the U.S. and recent declines in some industrial and agricultural commodities prices, and underlying fundamentals point toward further growth in the economy and profits.

Table 2: Canada Corporate Profit Peaks, and Economic and Financial Market Performance

<table>
<thead>
<tr>
<th>Cyclic Expansion</th>
<th>Peak Mid-Cycle Profits*</th>
<th>Peak S&amp;P/TSX</th>
<th># of Months Between Profit Peak and Peak in:</th>
<th>Change in S&amp;P/TSX following profit peak (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2-1958 to Q1-1981</td>
<td>Q4-1979</td>
<td>Mar-81</td>
<td>18</td>
<td>40</td>
</tr>
<tr>
<td>Q1-1983 to Q1-1990</td>
<td>Q4-1987</td>
<td>Dec-89</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>Q2-1992 to Q4-2007</td>
<td>Q4-2005</td>
<td>May-08</td>
<td>30</td>
<td>36</td>
</tr>
<tr>
<td>Minimum</td>
<td></td>
<td></td>
<td>18</td>
<td>33</td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td></td>
<td>25</td>
<td>36</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td></td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>Maximum</td>
<td></td>
<td></td>
<td>30</td>
<td>40</td>
</tr>
</tbody>
</table>

Note: *Based on the highest level of Canadian corporate profits after taxes. S&P/TSX calculations are based on mid-point of quarter of profit peak. Sources: Statistics Canada, Toronto Stock Exchange and Berenberg Capital Markets.
Chart 9: S&P/TSX Composite Index and Corporate Profits During Q2-1958 to Q1-1981 Economic Expansion


Chart 10: S&P/TSX Composite Index and Corporate Profits During Q1-1983 to Q1-1990 Economic Expansion

Chart 11: S&P/TSX Composite Index and Corporate Profits During Q2-1992 to Q4-2007 Economic Expansion


Chart 12: S&P/TSX Composite Index and Corporate Profits during Current Economic Expansion (Q4-2009 to Present)

Disclaimer

This document was compiled by the above mentioned authors of the economics department of Berenberg Capital Markets LLC (hereinafter also referred to as “BCM”). BCM has made any effort to carefully research and process all information. The information has been obtained from sources which we believe to be reliable such as, for example, Thomson Reuters, Bloomberg and the relevant specialised press. However, we do not assume liability for the correctness and completeness of all information given. The provided information has not been checked by a third party, especially an independent auditing firm. We explicitly point to the stated date of preparation. The information given can become incorrect due to passage of time and/or as a result of legal, political, economic or other changes. We do not assume responsibility to indicate such changes and/or to publish an updated document. The forecasts contained in this document or other statements on rates of return, capital gains or other accession are the personal opinion of the author and we do not assume liability for the realisation of these.

This document is only for information purposes. It does not constitute a financial analysis, investment advice or recommendation to buy financial instruments. It does not replace the recipient’s procurement of independent legal, tax or financial advice.

This document has been classified as fair and balanced for the purposes of FINRA rules. Please contact Berenberg Capital Markets LLC (+1 646.949.9000), if you require additional information.

Remarks regarding foreign investors
The preparation of this document is subject to regulation by US law. The distribution of this document in other jurisdictions may be restricted by law, and persons, into whose possession this document comes, should inform themselves about, and observe, any such restrictions.

United Kingdom
This document is meant exclusively for institutional investors and market professionals, but not for private customers. It is not for distribution to or the use of private investors or private customers.

Copyright
BCM is a wholly owned subsidiary of Joh. Berenberg, Gossler & Co. KG (“Berenberg Bank”). BCM reserves all the rights in this document. No part of the document or its content may be rewritten, copied, photocopied or duplicated in any form by any means or redistributed without the BCM’s prior written consent. Berenberg Bank may distribute this commentary on a third party basis to its customers.

© 2018 Berenberg Capital Markets, LLC, Member FINRA and SPIC.
Contacts

BERENBERG CAPITAL MARKETS LLC

EQUITY RESEARCH
Andrew Fung  +1 646 949 9022
Donald McLean  +1 646 949 9020
Adam Mirzahi  +1 646 949 9022
Gal Manda  +1 646 949 9021
Patrick Trucchio  +1 646 949 9027

ECONOMICS
Mickey Levy  +1 646 949 9039
Ricardo Red  +1 646 949 9038

EQUITY SALES
SALES
Enrico DeMatt  +1 646 949 9220
Kelliegh Fahl  +1 647 292 8288
Ted Franchetti  +1 646 949 9221
Shawn Grist  +1 646 949 7220
Rich Hams  +1 647 292 8228
Zibin Noyt  +1 646 949 9220
Michael Lasor  +1 646 949 9221
Jessica London  +1 646 949 9220
Anthony Maccioni  +1 647 292 8302
Ryan McDonnell  +1 646 949 9224
Emily Mount  +1 435 902 3335
Peter Nicosia  +1 646 949 9301
Karen O’Doherty  +1 647 292 8292
Rodrigue Onggo  +1 646 949 8025
Ramesh Siva  +1 435 802 3023
Matt Waddell  +1 646 949 9220

CRM
Laura Gonzalez  +1 646 949 9220
Monika Kwok  +1 646 949 9220

CORPORATE ACCESS
Olivia Lee  +1 646 949 8307
Tiffany Smith  +1 646 949 9203

EVENTS
Laura Hayes  +1 646 949 9220

SALES TRADING
Ronald Centra  +1 646 949 9204
Michael Hough  +1 646 949 9206
Christopher Karan  +1 646 949 9203
Lori Schierau  +1 646 949 9201
Ryan Smith  +1 646 949 9205
Rob Spillane  +1 646 949 9212
Jordan White  +1 646 949 9220

E-mail: firstname.lastname@berenberg-us.com