CAPITAL MARKETS RESEARCH

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Special Update

Are Canadian Equities Under-Valued?

- **We survey eight measures of Canadian equity valuations over long periods of time and conclude that while there are unique elements to the Canadian story, the bar is set high for the bulls to prove why evidence of under-valuation is so compelling.**

After having considered the deepest and most liquid stock market in the world in our previous note on U.S. equity valuations[1], we now consider Canadian valuations using the same metrics that we employed for the U.S. Yet again, we're approaching the issue from the vantage point of economists, as opposed to a bottom up perspective such that we're only considering broad markets without discounting the potential for under- or over-valuation across individual stocks. Since no one valuation measure is perfect for any asset class, we need to consider a variety of measures and do so over long periods of time so as not to fall into the trap of emphasizing a particular measure or time period that supports one's case.

Our conclusion is a bit stronger than it was for U.S. equities: two valuation measures are near their all-time highs; one is probably at fair value; and the other five are under-valued if market 'memory' is confined to the 1990s-onward environment but not in relation to prior history.

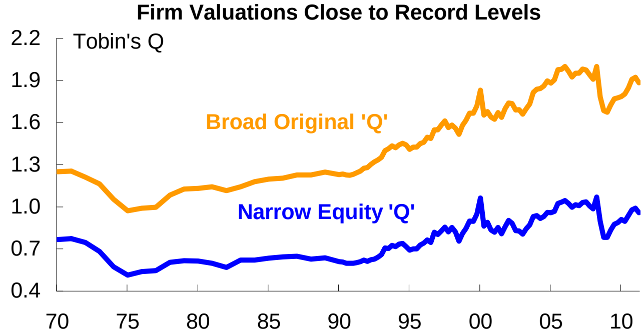
Tobin's 'Q'

Recall from our U.S. paper that Tobin's 'Q' is defined as the market value of corporate debt and equity divided by the replacement cost of nonfinancial assets. The higher the ratio, the more attractive it is for companies to invest in capital goods since the value the market attaches to the firm exceeds the replacement cost of its assets. Thus, it is also a stock valuation metric which contrasts what the market is willing to pay with the cost of reconstructing firms from the ground up. Indeed, this measure complements price-earnings ratios since an investor is buying an earnings stream but would also be interested in the starting point for the net valuation of a company's assets.

Chart 1 depicts the results (top gold line) back to 1970 when market value components to the National Balance Sheet (NBS) accounts for private non-financial corporations first became available (book value goes to 1961). According to this chart, Canada is currently flirting with a record high. Now since this ratio can only be calculated up to 2011Q2 we need to update it with what has happened since given the correction in the TSX since June 30th. We figure this has had the effect of pushing Tobin's 'Q' from a reading of about 1.9 in 2011Q2 to a reading of about 1.7 today which is still toward the upper bounds of history with the peak of 2.0 reached in 2008Q2. This is one reason why firms may be aggressively expanding investment in capital goods now, but it also signals that market valuations are near their highest ever in relation to the costs of rebuilding firms from scratch.

Chart 1

Firm Valuations Close to Record Levels



Source: National Balance Sheet Accounts, Statistics Canada, Scotia Economics.

[1] For further detail on the metrics and methodologies used in this paper, see "Are U.S. Equities Under-Valued?", October 14, 2011.

Equity 'Q'

Equity 'Q' is a narrower version of Tobin's 'Q' and compares the equity market value of nonfinancial private corporations to their net worth with assets valued at their replacement costs using the same NBS accounts.

In contrast to the United States, Canada's Equity 'Q' ratio is materially higher than it was during the period of the 1990s onward (chart 1 again). Indeed, prior to the equity market correction since June 30th, Canada's overall equity 'Q' stood near its high point and was about two-thirds higher than it was at the start of the 1990s. Since the end of June, the TSX has sold off about 10% of its value which likely leaves the equity 'Q' ratio currently at just under 0.9 and still relatively high by historical standards.

Price-Earnings Ratios

After smoothing out huge distortions introduced to the price-earnings ratio for nonfinancial and financial corporations like during the vicious recession of the early 1990s when Canadian earnings collapsed, today's price-to-trailing-earnings ratio currently stands roughly in line with its longer-run historical average (chart 2). A multiple of about 15 times trailing earnings may seem cheap in comparison to, say, the late 1990s — but it is generally in line with prior experiences.

Price-to-forward-earnings ratios are not available for as long a period as price-to-trailing so we can only go back to 1987, but the results are shown in chart 3. Today's TSX price index is about 11.8 times the level of one-year forward earnings expectations on the TSX. As such, it is low by the standards of the past 25 years. The ratio was skewed higher around the dot-com period, but even after controlling for that outlier and the late 2008-09 collapse at the opposite end of market performance, this multiple is still relatively low. That said, if we had forward earnings prior to 1987, then this multiple would likely be in line with the average over the period prior to the late 1980s since that was the conclusion for price-to-trailing-earnings and forward and trailing earnings largely track one another over time anyway (chart 4).

Price-to-Cyclically Adjusted Earnings

Chart 5 is our attempt at constructing a Canadian cyclically-adjusted price-to-earnings ratio for Canadian nonfinancial and financial corporations that mirrors Shiller's ratio for the United States. We take current valuations deflated by current CPI, and compare that to a moving average of the past decade's inflation adjusted earnings. The aim to this measure is to smooth out volatility in the earnings and valuation cycle. When one buys a stock, one isn't buying just that year's trailing earnings or one year's forward earnings. One is buying a cycle's earnings. It should be expressed in relation to forward earnings expectations, but there are no forward measures for a full cycle and one-year forward earnings expectations by analysts largely just extrapolate trailing earnings — as noted above.

What the ratio shows is that stocks are cheap now only in relation to the period of the late 1990s onward including the dot-com period when valuations soared at the start of the last decade. Stocks by this measure are expensive in relation to prior periods back to the mid-1960s.

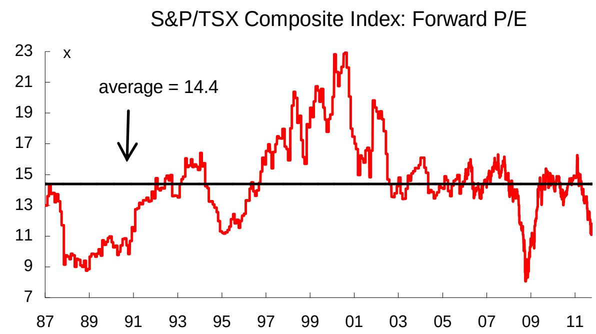
Dividend Yield

The dividend yield on the entire TSX currently sits at just under 3% which is in line with the long-run average of just over 3% dating back to

Chart 2

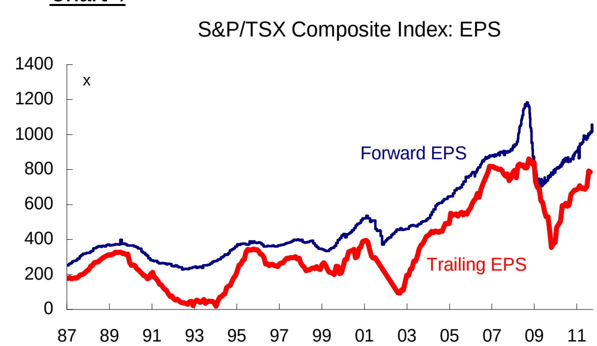
Source: TSX, Statistics Canada, Scotia Economics
Note: break in series from Aug. 2001-July 2002 is due to negative 12-month trailing earnings

Chart 3



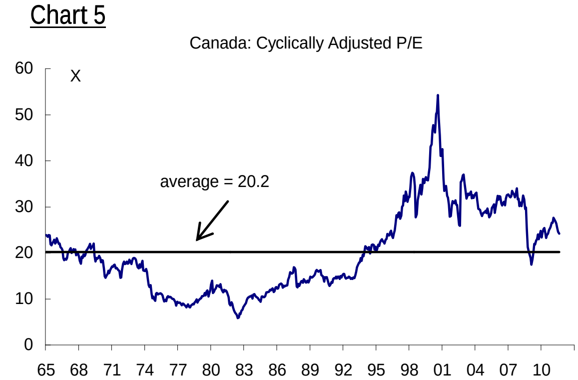
Source: Thomson Reuters, Scotia Economics

Chart 4



Source: Thomson Reuters, Scotia Economics

Chart 5



Source: Statistics Canada, Scotia Economics the 1950s (chart 6). While the dividend yield may be more attractive than the average over the 1990-onward period, and sharply higher than the roughly 1% level of mid-2000, it is not under-valued by comparison to the longer-run sweep. In order to address the possibility that earnings are not flowing through toward dividends, we also plot the earnings yield on the TSX and arrive at a similar conclusion (chart 6 again).

Price-to-Book Ratio

We can construct the price-to-book ratio using Statistics Canada's national balance sheet accounts for private non-financial corporations by taking the market value of equities over their book value. This can be reliably done from 1990 onward. Canada's aggregate price-to-book ratio sat near its high as at 2011Q2 (chart 7). We infer that this ratio has fallen from about 1.46 in 2011Q2 to 1.32 now after accounting for the drop in the TSX since the end of Q2 and leaving the other components unchanged. This would lower price-to-book toward the post-1990 average.

Competing asset model

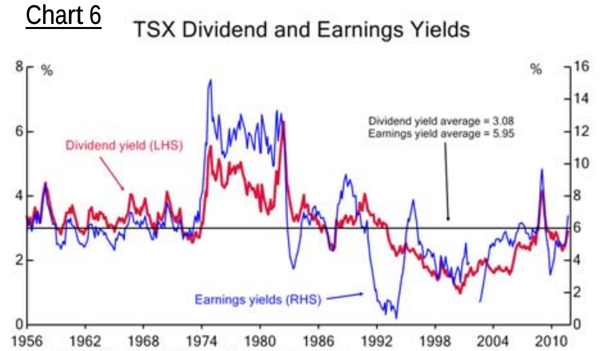
Charts 8 and 9 provide the Canadian comparison of the choice between receiving the earnings yield on the entire TSX versus the yield on Canada bonds with a maturity of 10+ years (the longest time series available). Like the U.S., this model has had a spotty track record over time and is characterized by the same flaws we outlined in our US paper. Chart 8 plots a variant of this by showing the ratio of the level of the TSX divided by its fair value determined as earnings discounted by the bond yield. The results are indexed to equal 100 at the start of the period. What it shows is that Canadian stocks are roughly fairly valued.

Conclusion

There are pros and cons with respect to which time period should be treated as the valuation benchmark in both Canada and the U.S. and we went over some of them in our earlier U.S. report. A key one is that the period of the 1990s onward may not — in our opinion — be a fair benchmark for assessing under/over-valuation since that period onward was marked by a structural shift higher in risk appetite during the years of leveraged excess. If so, then the 1990s-onward period was the anomaly. If that's true, then we're left with either pointing toward over-valuation in a minority of measures or fair valuation in a majority.

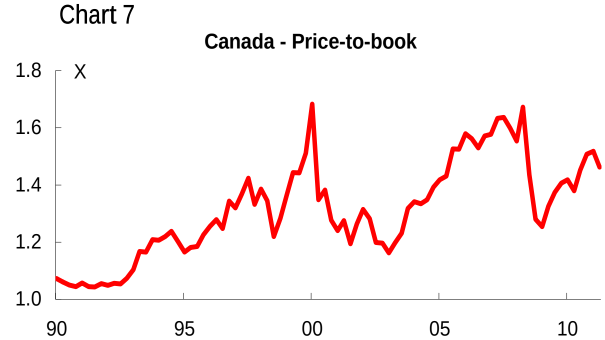
A unique Canadian twist, however, is that at present the world has come to love the country's banks by virtue of their having side-stepped most of the land mines that hit banks elsewhere. In addition, there have been huge structural changes in global commodities demand as emerging markets — China in particular — have dramatically raised their commodity appetites over the 1990s-onward period. This matters far more to a stock market like Canada's than in the U.S., since much of the TSX is a play on two key sectors: natural resources and financial institutions. Should China continue to dominate incremental demand for commodities into the future, then Canadian valuations may well have undergone a structural break higher over the recent past. What tempers our thoughts on this, however, is that if this were true then the evidence of exploring new peaks in, say, inflation-adjusted oil and gold prices is missing. An added concern is the impact that credit problems facing French banks may have upon at least short-term commodity trading since they finance so much of the business.

Chart 6



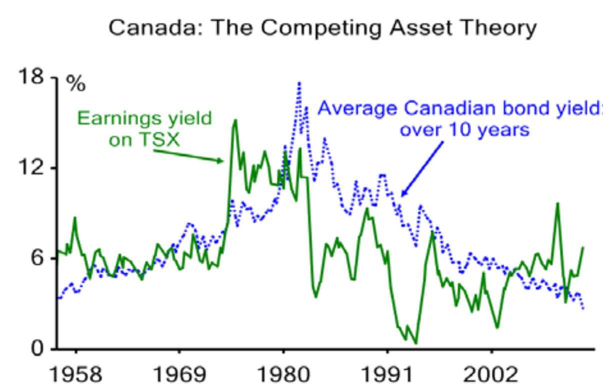
Source: TSX, Statistics Canada, Scotia Economics
Note: break in series from Aug. 2001-July 2002 is due to negative 12-month trailing earnings

Chart 7



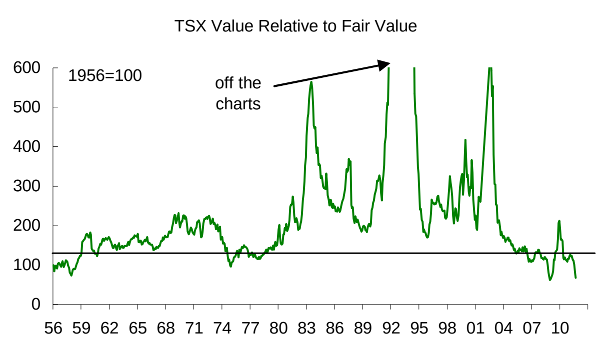
Source: National Balance Sheet Accounts, Statistics Canada, Scotia Economics.

Chart 8



Source: Statistics Canada, Scotia Economics

Chart 9



Source: Statistics Canada; Scotia Economics