CIBC Asset Management

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INSTITUTIONAL

LONG-TERM CAPITAL MARKET RETURNS

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Overview

Since the last publication of this report a year ago, the global economy has gained further momentum. The impetus of cyclical tailwinds has closed or significantly reduced the economic slack in many countries, spurred confidence, and lifted profit expectations. Equities have outperformed in this environment, but partly at the expense of rising valuations.

Last year (and likely this year) was not representative of conditions we believe will prevail over the long term. We expect lingering headwinds to eventually replace cyclical tailwinds, a shift that will limit economic growth and capital market returns.

This report presents our **2018 Long-Term Capital Market Returns**—our best assessment of average expected returns for major financial market asset classes for the next 10 years.

Long-term economic growth projections are modest overall, contained by unfavourable lingering macroeconomic forces.

For almost a decade, the ultra-accommodative actions of major central banks have leaned against prevailing forces, smoothing and postponing their negative impact. The banks' extraordinary actions have pushed interest rates to historically low levels and equity valuations to above-average levels relative to earnings (at least in parts of the developed world).

In some sense, thanks to central bank actions, investors have been living on borrowed time. This should change as monetary policy stances across the globe are renormalized—this is currently unfolding. Expected returns for advanced economy asset classes are not expected to exceed the approximately 7% figure still used by many pension plans and endowment funds in their financial planning.

Key Takeaways

- Our potential GDP growth estimates are little changed from our last edition.
- Monetary policy renormalization will continue and provide a headwind to growth.
- Global sovereign bond returns will remain subdued; the flat yield curve means investors are not being rewarded to take duration risk.
- Rising interest rates and high equity valuations continue to constrain expected returns over our 10-year time horizon.
- Corporate credit and high-yield credit remain attractive investment areas.
- Emerging markets, both sovereign bonds and equities, remain the most promising asset classes.

Section 1 presents the macroeconomic projections underpinning our capital markets outlook. Section 2 presents expected returns, in local currency and in Canadian dollar terms.

Section 1: Long-Term Macroeconomic Prospects

A well-anchored view of macroeconomic prospects is necessary to project financial asset returns over the long term. Our analysis has produced long-term economic projections for more than 30 economies, allowing us to identify key drivers of financial asset returns. These drivers include long-term neutral policy rates, interest rate paths, and corporate sales growth.

Potential GDP growth—the next 10-year outlook

Held back by a number of lingering headwinds, macroeconomic prospects remain subdued in advanced economies and contained in emerging economies—all below pre-crisis averages (Table 1).

We project GDP growth will average a mere 1.3% (average annual growth) in advanced economies over the next 10 years. U.S. and Canadian economies are both expected to grow at a stronger pace, by 1.8% and 1.6%, respectively. In continental Europe, we project advanced economies will grow at a weak pace, below 1% in the majority of cases.

The outlook for emerging economies remains stronger, owing to ongoing catch-up growth as living standards gradually converge towards those of advanced economies (Figure 1).[1] We project emerging economies will grow at a 4.5% pace, with China and India pulling up the aggregate. Elsewhere, in other emerging economies, growth figures are within a 2-4% range, in most cases.

Emerging economies have made progress in transitioning away from a reliance on exports and commodities. This helps to lower their current account vulnerabilities and, along with the implementation of many structural reforms, paves the way for sustainable long-run macroeconomic performance. In this ongoing scenario, we expect the consumer to play an increasing role.

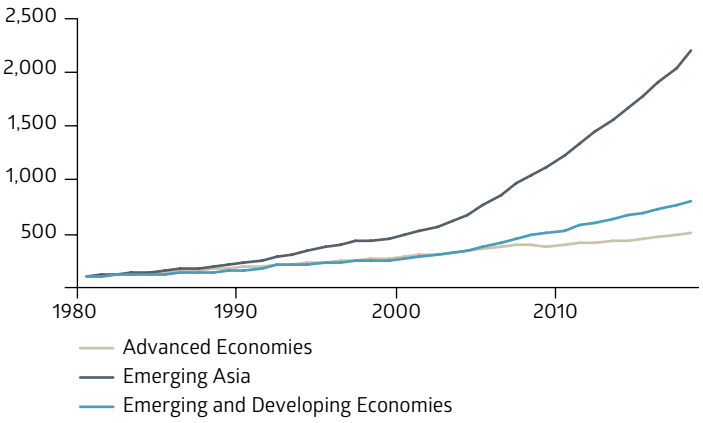
TABLE 1 – POTENTIAL GDP GROWTH ESTIMATES

COUNTRY	2001-2007	NEXT 10 YEARS	COUNTRY	2001-2007	NEXT 10 YEARS
North America			**Asia**		
Canada	2.4	1.6	China	9.9	4.9
U.S.	2.4	1.8	Hong Kong	4.9	2.5
Eurozone	1.7	0.8	India	7.6	6.5
France	1.9	0.8	Indonesia	5.1	4.6
Germany	1.3	0.9	Japan	1.2	0.4
Italy	1.0	0.4	Korea	4.6	2.5
Netherlands	1.9	0.8	Malaysia	5.0	3.3
Spain	3.4	1.1	Philippines	5.0	4.7
Western Europe			Taiwan	4.6	2.1
Denmark	1.5	1.1	Thailand	5.4	2.9
Norway	2.1	1.1	Singapore	5.9	2.6
Sweden	2.4	1.1	**Others**		
Switzerland	2.1	0.8	Australia	3.4	2.1
U.K.	2.4	1.1	New Zealand	3.3	2.0
Emerging Europe			South Africa	3.0	2.1
Czech Republic	4.4	2.0	**Latin America**		
Hungary	3.5	1.7	Brazil	3.6	2.3
Poland	3.8	2	Chile	4.5	2.7
Russia	5.8	1.8	Colombia	4.6	2.7
Turkey	4.8	2.3	Mexico	3.0	2.3
			Aggregates		
			World	**4.0**	**3.1**
			Developed Economies	2.3	1.3
			Emerging Economies	6.6	4.5

World and other aggregates are calculated from our country sample using time-varying IMF country weights. Projections made based on information available as of January 31 2018
Source: CIBC Asset Management

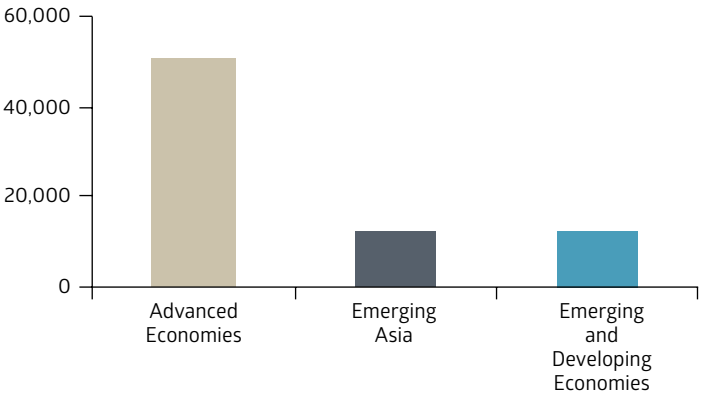
FIGURE 1 – CATCH-UP GROWTH IN EMERGING ECONOMIES IS FAR FROM OVER

Figure 1a – GDP Per Capita 1980 = 100 Index



PPP, International Dollars
Source: Thomson Reuters Datastream, CIBC Asset Management calculations

Figure 1b – GDP Per Capita



PPP, International Dollars; 2018 IMF Projections
Source: Thomson Reuters Datastream, CIBC Asset Management calculations

[1] Catch-up growth is projected to remain an important contributor to economic growth in emerging economies, according to projections made by Rachel and Smith (2015). As emerging economies accumulate more capital and improve efficiency by adopting the latest technologies from overseas, productivity per worker rises.

Lingering headwinds will weigh on GDP growth

For each economy we cover, our GDP outlook is a function of labour input, productivity, capital, and the effects of monetary policy renormalization. (See Box 1 for an overview of our macroeconomic framework.) The contributions of those factors to GDP growth are presented for select economies in Figure 2.

Unfavourable demographics and **monetary policy renormalization** should considerably limit economic growth looking ahead. An offset from a pick-up in productivity growth appears limited.

Labour input is calculated as the working age population times the participation rate. The International Labour Organization projects that the working age population in nearly all economies will decline or grow at a much slower pace in the future (Figure 3). This should limit economic growth in both advanced and emerging economies, despite projected increases in participation rates in many cases.

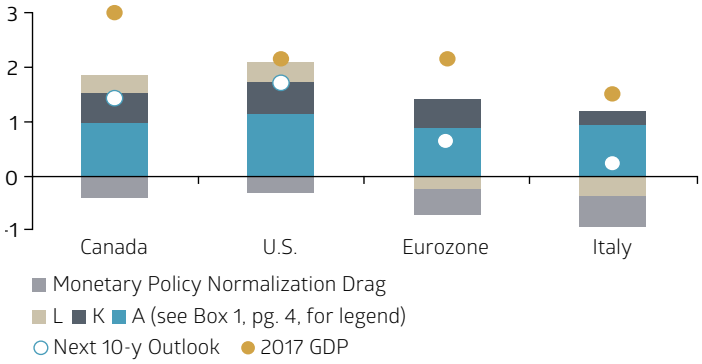
Monetary policy renormalization should be a lingering headwind in advanced economies, where policy rates are well below neutral policy rates (Figure 4) and indebtedness has increased substantially post-crisis (Figure 5). According to a recent Bank for International Settlements (BIS) paper, the sensitivity of an economy to higher rates is twice as great for highly-indebted economies (Hofmann and Peersman, 2017). Most advanced economies fall into that group.

Higher indebtedness implies a larger debt-servicing burden for a given percentage point increase in the policy rate and greater downward pressures on expenditures by households and governments.[2]

[2] On the other side of the balance sheet, from a debt-holder perspective, debt-servicing receipts should be essentially saved, owing to 1) a smaller marginal propensity to consume for debt-holders (this diminishes with income/wealth); 2) increased inequalities (amplifies the previous point); 3) and weak or lacklustre capital market returns prospects (which increases the need to save more in order to reach a given consumption path post-retirement).

FIGURE 2 – GDP GROWTH BREAKDOWN

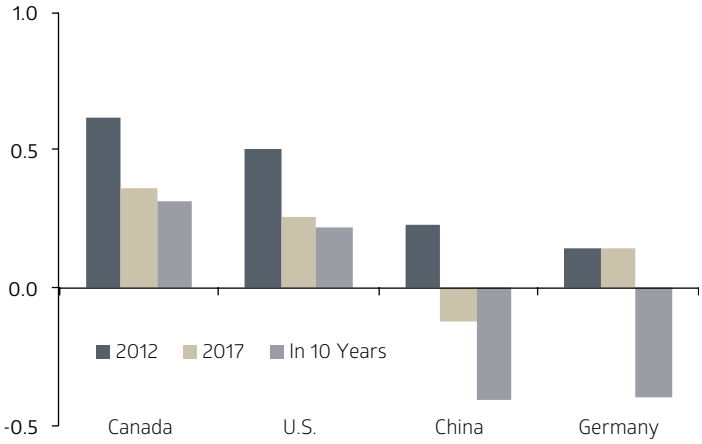
GDP Growth Outlook in Selected Economies with contribution to growth breakdown %



Source: Thomson Reuters Datastream, CIBC Asset Management calculations

FIGURE 3 – LABOUR INPUT GROWTH PROJECTION OF THE INTERNATIONAL LABOUR ORGANIZATION

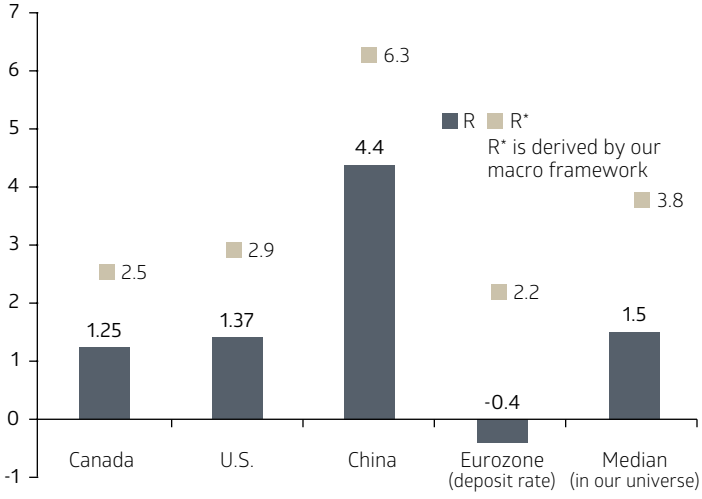
Labour Input Growth %



Source: Thomson Reuters Datastream, CIBC Asset Management calculations

FIGURE 4 – POLICY RATES: CURRENT (R) AND NEUTRAL (R*)

Nominal rate %

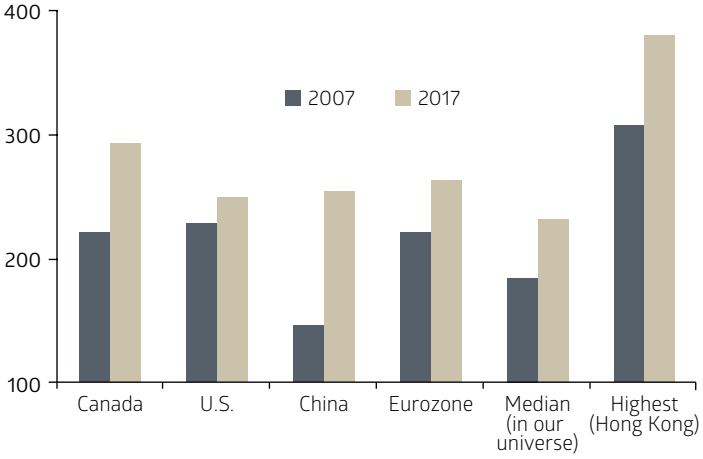


Source: Thomson Reuters Datastream, CIBC Asset Management calculations

Total factor productivity (TFP) growth is not likely to offset the effects of the aforementioned headwinds. TFP growth should be interpreted as the impact that productivity growth is having on economic growth. Technological advances, despite being increasingly impressive, have had decreasing effects on trend TFP growth over the past six decades (Figure 6). This is consistent with the law of decreasing marginal returns: the higher the level of productivity, the more difficult it should be to increase it by the same percentage.

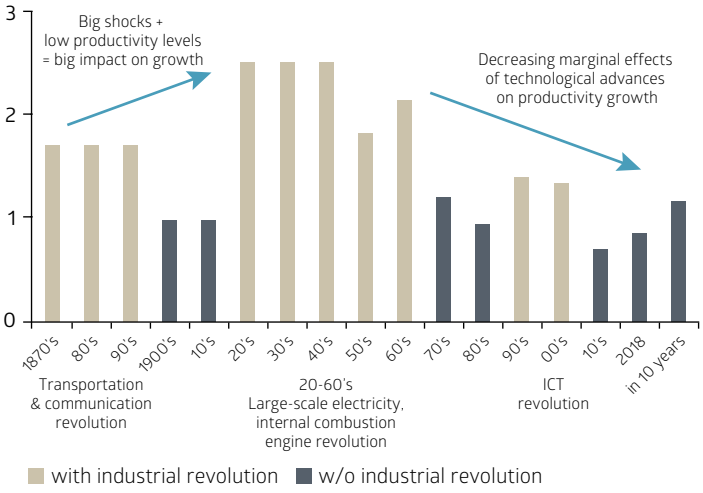
- In their long-term projections, Gordon (2012, 2014), a prominent scholar, Fernald and Wang (2015), and the Congressional Budget Office (CBO) all share the common view that TFP growth prospects in the U.S. should remain subdued by historical standards.
- Given that incremental advances in technology and knowledge are not bounded by borders, TFP growth should be lacklustre by historical standards globally over the long term. Supporting this assumption, TFP growth has displayed important trend co-movements across economies over time.

FIGURE 5 – TOTAL NON-FINANCIAL DEBT OF GDP (%)



Source: Thomson Reuters Datastream, CIBC Asset Management calculations

FIGURE 6 – HISTORICAL PERSPECTIVE OF U.S. TOTAL FACTOR PRODUCTIVITY (TFP) GROWTH %



Source: Thomson Reuters Datastream, Shackleton (2013), CBO, CIBC Asset Management Calculations.

Box 1: How we generated potential GDP growth projections

We use a macroeconomic textbook framework to make our projections, where GDP growth is a function of labour and capital inputs, as well as total factor productivity.

A key feature of our approach is that we augment the textbook specification to take into account the impact of monetary policy renormalization in a context of high indebtedness of the world economy.

For each of our 32 economies we follow, we use the following specification:

$$GDP: Y = AL^{\alpha} K^{1-\alpha} - D$$

$$GDP\ Growth: y \approx a + \alpha l + (1-\alpha)k - d$$

Where:

A: total factor productivity (TFP), **a=**the growth rate of A;

L: the stock of the labour input (labour force times the participation rate), l= the growth rate of L;

K: the stock of capital, **k=**the growth rate of K;

D: the impact of monetary policy renormalization on the level of GDP, **d:** the impact of higher rates on GDP growth. For a given economy, **d** is function of:

- the difference between the current policy interest rate and the projected neutral policy rate;
- the projected non-financial debt / GDP ratio (the impact of higher rates on the economy is proportional to this ratio);

α: the labour share of the economy (total labour costs / GDP).

For each economy, we calibrate the growth rate of inputs based on the available literature, reliable external projection sources and qualitative internal research.

Lastly, we assume that all output gaps will be closed over the projection horizon. For economies with elevated excess supply, such as Spain or South Africa, this assumption adds 0.2 p.p. to their respective next-10-year GDP growth outlook.

We do not project that **structural reforms** will be a game-changer for productivity (and economic growth) over the long term, despite their positive effects. In countries where reforms are likely to be implemented, we project their median impact on average GDP growth will be within a mere 0.1 and 0.2 p.p. in the next 10 years. Overall, our TFP projections embed the effects of almost 140 reforms, which we assume will be implemented only gradually over time. The impacts of reforms are calibrated using reform-multipliers available in the economic literature. We assume reforms will have permanent effects on the level of GDP, but temporary effects on economic growth.

Looking ahead, capital growth prospects are contained by both higher rates and modest TFP growth prospects. As summarized by Fisher (2016), the weaker the TFP growth prospects, the lower the number of profitable, investable opportunities from a macroeconomic perspective. Subdued demographic prospects should also weigh on capital accumulation growth, particularly through housing.

Section 2: Long-Term Capital Market Expected Returns

For fixed income and equity, we calculate expected returns based on this formula:

RETURN =
[Current Income] + [Growth in Income] + [Change in Value]

Where:

- **[Current Income]** is the coupon yield (fixed income), or the dividend yield (equity)
- **[Growth in Income]** refers to earnings growth. This only applies for equity.
- **[Change in Value]** is the impact of varying interest rates (fixed income), or cyclically-adjusted P/E ratios converging towards their long-term equilibrium value (equity).

We use a similar framework for currency returns, which are used for converting expected return proceeds from abroad into Canadian dollars. [Income] refers to the proceeds from carry trade, while [Change in Value] refers to the impact of currency prices converging towards their respective long-run equilibrium value. This value is based on the assumption that purchasing power parity (PPP) will hold across economies in the long-term.[3]

Expected fixed income returns

Fixed income return prospects are still subdued in advanced economies but higher than last year's publication (Table 2 and Figure 8). This is a result of the impact of unfolding monetary policy renormalization. This headwind is important because renormalization is taking place in a context of low interest rates (greater negative effect of convexity). The implementation of extra-loose monetary policy stances in recent years had the opposite effect.

Even after the completion of monetary policy renormalization, we project interest rates will remain at low levels due to low neutral policy rates (a product of our long-term GDP growth outlook).

Interest rates of fixed income assets are expected to converge over time towards their respective long-term targets. This equals the sum of: 1) the neutral policy rate of the reference economy, 2) a country-risk premium, 3) an asset-class specific risk premium, in the case of corporate bonds, 4) a default rate (negative impact) and 5) a term premium.

Country-risk premiums are estimated econometrically, using projected government debt-over-GDP ratios and World Economic Forum scores on the quality of institutions and competitiveness. Risk premiums for corporate debt are assumed to converge towards their historical average (last 20 years).

Lastly, the term premium is assumed to be zero, looking ahead. Inflation volatility (uncertainty) has historically been a key driver of the term premium, according to Bernanke (2015). Looking ahead, elevated elasticities of substitution between domestic labour input and capital or foreign labour input should keep the bargaining power of workers low. This should result in inflation volatility that remains subdued by historical standards (wage growth is the main driver of inflation) and a Phillips curve that is less responsive to excess demand.

Returns for Canadian and U.S. government bonds (expressed in CAD) are not expected to be materially above Canadian inflation—meaning negligible real returns. U.S. high-yield bonds are expected to provide better returns.

Prospects are the highest for emerging-market government bonds. This is owing to higher starting yields, less aggressive monetary policy renormalization paths, and expected currency valuation gains in a number of undervalued currencies relative to the Canadian dollar.

TABLE 2 – NEXT 10-YEAR FIXED INCOME RETURNS

NEXT 10-YEAR OUTLOOK	OUTLOOK IN CAD	OUTLOOK IN LOCAL CURRENCY
CN Money Markets	2.1%	
CN 10-y Government	2.7%	
CN Corporate	3.7%	
U.S. Money Markets	2.6%	2.9%
U.S. 10-y Treasury	2.9%	3.2%
U.S. Corporate	3.5%	3.9%
U.S. High Yield	4.6%	4.9%
Intl Government Bond	2.4%	1.8%
Emerging Sovereign Debt	7.3%	7.1%
Canadian Average Inflation Outlook	1.9%	

Source: CIBC Asset Management, calculations made using country-weights from JP Morgan

[3] Purchasing power parities are the rates of currency conversion that equalize the purchasing power of different currencies.

Expected equity returns

Equity return prospects are weak in the United States, modest in other advanced economies, and relatively more attractive in emerging economies (Table 3 and Figure 8).

TABLE 3 – NEXT 10-YEAR EQUITY RETURNS

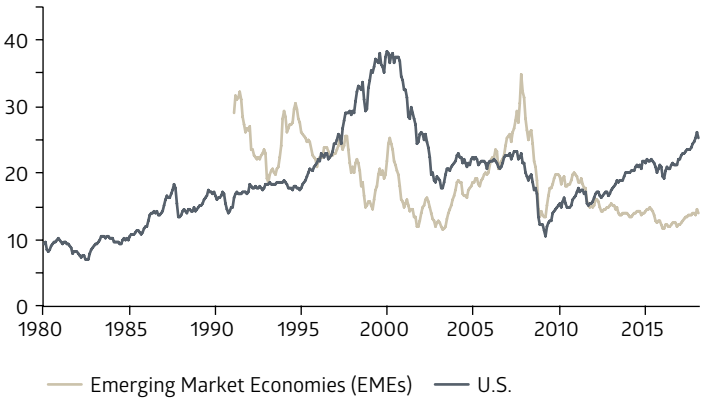
NEXT 10-YEAR OUTLOOK	OUTLOOK IN CAD	OUTLOOK IN LOCAL CURRENCY
Canada	4.3%	
U.S.	1.4%	1.6%
MSCI EAFE	4.1%	3.4%
MSCI Emerging	8.5%	8.3%
MSCI World	3.1%	3.0%
Canadian Average Inflation Outlook	1.9%	

Source: CIBC Asset Management. calculations made using country-weights from MSCI

Prospects in advanced economies are held back by modest trend-sales growth (a function of domestic and foreign export-weighted GDP) and low starting dividend yields.

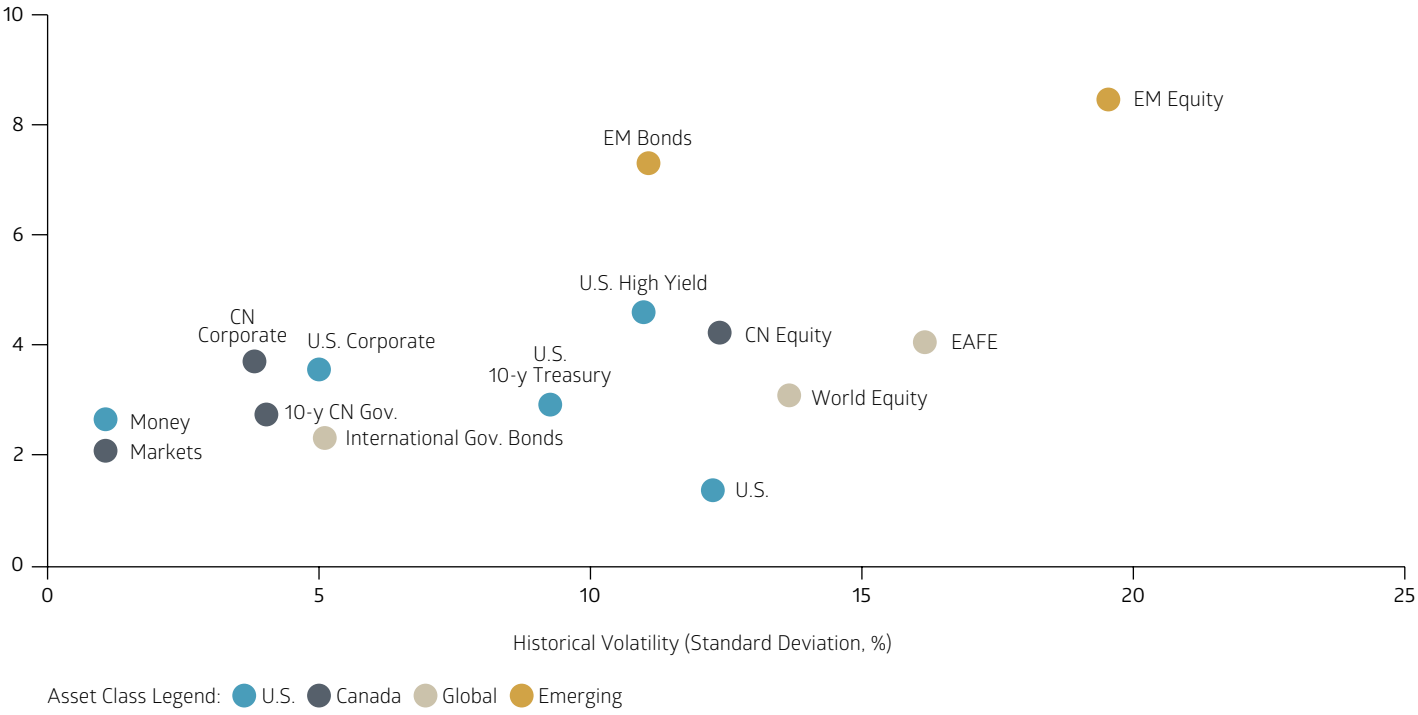
In some cases, notably for the U.S., prospects are contained by expensive valuations (Figure 7). Over the long-term, P/E ratios are projected to revert towards their respective historical moving averages (as has been the case in the past). This makes U.S. equity less attractive than elsewhere, particularly when compared to emerging economies, where valuations are much less expensive and macroeconomic prospects are better.

FIGURE 7 – CYCLICALLY-ADJUSTED P/E RATIOS IN THE U.S. AND IN EMEs



Source: Thomson Reuters Datastream, CIBC Asset Management calculations

FIGURE 8 – LONG-TERM EXPECTED RETURNS IN CAD, NEXT 10-YEAR AVERAGE (%)



Source: CIBC Asset Management Calculations

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