NATIONAL BANK

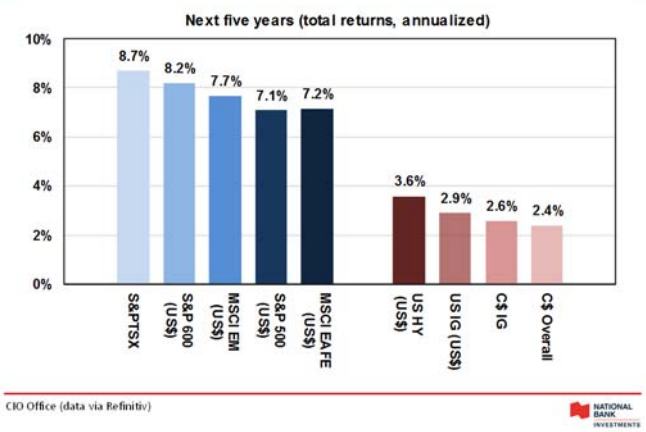
# LONG-TERM MARKET EXPECTATIONS 2019 2023

## Incorporating the inevitability of a slowdown

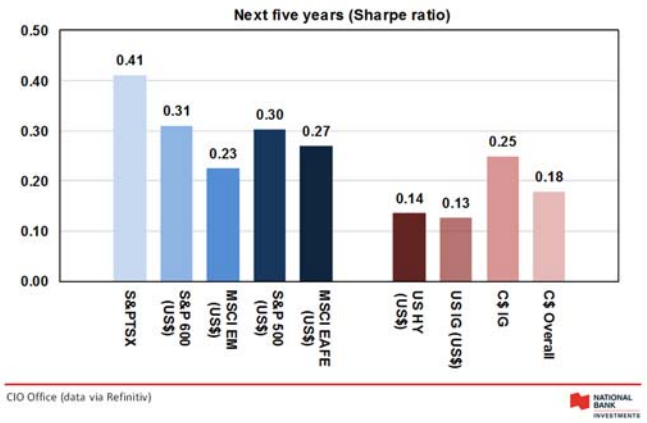
### Executive Summary

- The economic outlook for the next five years is relatively sound with a continuation of lackluster growth and tepid inflation. However, risks to our scenario are significant, and the possibility of a recession, albeit shallow, cannot be dismissed. In this regard, the investment environment should remain challenging, lead to higher asset volatility, and increase estimation errors around forecasts.
- Our first reflex would be to call for prudence. However, based on current valuations, risk assets should continue to deliver superior total returns both on an absolute and risk-adjusted basis (**Chart 1** and **2**).
- Compared to last year's estimates, we find expected bond returns to be weaker across the board. This is mainly due to lower starting yields following a resurgence of uncertainty linked to slowing global growth and the trade dispute at the end of 2018. As such, benchmark nominal bond returns for the U.S. should average 1.4% over the next five years. With even lower yield-to-maturity, average returns for Canadian benchmark will be below 1%.
- Credit indices will fare better with higher duration-adjusted starting yields. However, the flattening of the yield curve points to spread widening which could limit upside potential for riskier corporate issuer.
- Due to a sharp rebound in stock prices in Q1 2019, U.S. stock markets appear relatively expensive both historically and geographically. Therefore, we expect returns for the next five years (+7.1%) to be much lower than for the previous five years. Meanwhile, with cheaper valuations, Canadian equities (+8.7%) look set to rebound from a difficult period of chronic underperformance.
- All-in-all, a diversified balanced portfolio (50% bonds/50% stocks) should average around 5.1% until 2023, that is similar to the last five years, but contributions to growth are different.

**1 Expected returns**




**2 Risk/reward ratios**




### Introduction

Every year, we present our long-term forecasts for major asset class returns, volatility, and correlations. They form the bases of our Capital Market Line (CML), an important input into National Bank Investment's Strategic Asset Allocation (SAA) and portfolio construction effort.

In 2018, things really started according to what we foresaw with bond yields rising and equities delivering volatile, yet positive returns. But, as global growth started to waiver and geopolitical risks mounted, markets suddenly went into a tailspin enticing the Federal Reserve (Fed) to reassure investors that monetary policy was not on a preset course.

As our long-term forecasts are five-year averages, surely the 11.2%-correction the world stock index experienced in 2018 (MSCI ACWI US$) meant that returns for the next four years would be, on average, slightly higher than expected in the first place, right? With equity prices jumping off the blocks so far in 2019, it certainly looks that way. But, all things equal, the stronger we finish this year, the weaker the next four will be.

To be sure, in section 1, we start by updating historical premiums, the basis of what investors should expect over a life-long cycle. However, because past performance is no guarantee of future returns, long-run assumptions are simply a starting point. Despite empirical evidence of risk premiums' stability, asset classes' returns are not immune to the possibility of negative growth from one year to another. Therefore, other factors must be taken into consideration.

In section 2, we account for trends in economic growth and inflation. Then, working from the building-block methodology we outlined last year, we compute valuation-adjusted

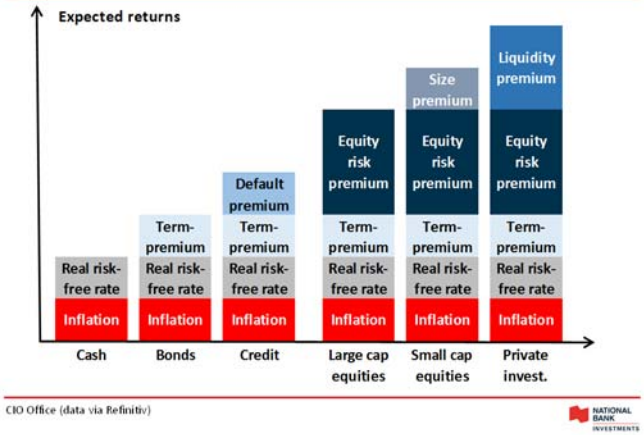
expected returns for major asset classes and alternatives in section 3. Finally, in section 4, based on historical volatility and correlations, we regress the optimal CML. Strategic asset allocation recommendations are made in section 5.

## 1. Historical Risk Premiums

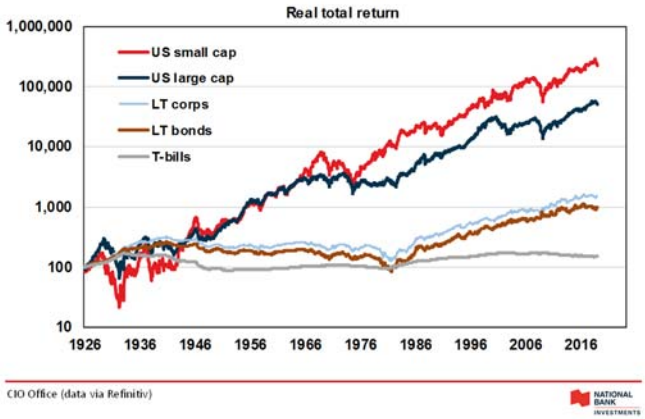
Based on data from Ibbotson/Morningstar covering multiple economic cycles, we first analyze long-term annualized returns for most major U.S. asset classes. The nominal returns are then adjusted for inflation to obtain the true measure of purchasing power over time (**Table 1**).

Premiums are excess returns demanded by investors for holding risky assets instead of cash (**Chart 3** for concept and **Chart 4** for historical series). For fixed-income securities, they pertain to the curve structure and credit default risks. For large cap stocks, the equity risk premium (ERP) compensates investors for estimation errors linked to future economic growth, profit margins, dividends, valuations, share buybacks, and the cost of equity capital among other things. Additional risk can be found in smaller capitalizations as the potential for estimation errors increases. Investors should be compensated for holding emerging market assets, which lack governance and bear higher political risks. Illiquidity may be an issue for non-listed markets, such as private equity, infrastructure, and real estate.

**3 Investors must be compensated...**




**4 ... for taking risks over time**




## 2. Economic Backdrop

In this section, we look at potential growth and inflation trends, which form the basis of the risk-free rate.

### 2.1 Economic growth

A common proxy for future economic activity is potential real GDP growth, which represents a combination of productivity (output per person) and labour force growth, both of which tend to vary only structurally.

Based on this, potential real GDP growth can be approximated at 2% in the United States. This is in line with forecasts from the Congressional Budget Office (CBO), which estimates underlying growth should average 2% until 2023 (**Chart 5**).

This is a tad above average real GDP growth forecasts from the International Monetary Fund (IMF), which point to a gradual slowdown, from 2.3% in 2019 to about 1.6% in 2023, likely due to the lagging effect of recent past rises in key interest rates (**Table 2**).

Canada will not be far behind. But, with weaker gains in productivity, average real GDP growth is expected to be a little bit lower over the next five years.

Overseas, with many structural difficulties still to overcome in major European countries and Japan, potential growth should remain the weakest of developed nations. Emerging and developing economies will continue to see the highest rate of

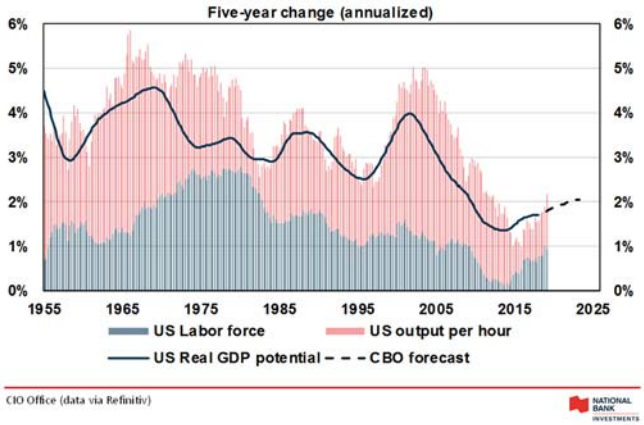
Table 1 **Historical annualized risk premiums** (1926-2018, USD)

| U.S. Asset classes | Volatility | Nominal returns | Real returns | Sharpe ratio | Risk premiums | |
|---|---|---|---|---|---|---|
| **Inflation** | 1.8% | 2.88% | - - - | - - - | | |
| **3-month T-bills** (risk-free rate) | 0.9% | 3.34% | 0.44% | - - - | | |
| **Long-term Treasuries** | 8.4% | 5.46% | 2.52% | 0.25 | **Term** | **2.07%** |
| **Long-term corps (IG)** | 7.5% | 5.94% | 2.97% | 0.35 | **Default** | **0.46%** |
| **Large cap equities** | 18.7% | 10.00% | 6.92% | 0.36 | **Equity** | **4.41%** |
| **Small cap equities** | 28.3% | 11.75% | 8.63% | 0.30 | **Size** | **1.70%** |

CIO office (data via Refinitiv)
Historical series are from Morningstar/Ibbotson

growth, but with China pursuing its deleveraging process and entering a more mature phase of its evolution, growth should be about 1% less than over the past five years.

**5 U.S. growth potential on the rise**




### 2.2 Inflation expectations

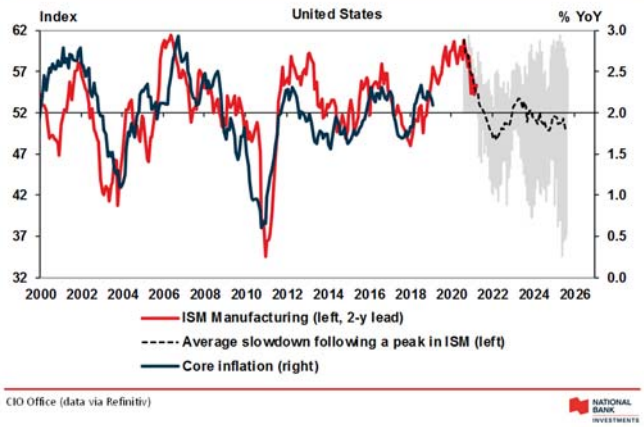
Generally, inflation is a lagging indicator of the business cycle. In the United States, more specifically, prices are a function of economic activity, the U.S. dollar (which affects both import prices and the value of commodities), and the labour market (via the pass-through effect from wages).

Activity wise, although the lagging effects of the sharp increase in manufacturing activity (from a low at the start of 2016 to a peak in the summer of 2018) should continue to exert upward pressure on inflation in the short-term, history shows that from this very high level of growth, some form of slowdown is to be expected. This would likely help underlying inflation decelerate and finish, on average, around 2% (**Chart 6**).

This is in line with forecasts from the IMF which suggest that the annualized rate of inflation in the United States should accelerate from 2% in 2019, to a high of 2.7% in 2020, before decelerating to 2.2% for the reminder of the five-year period (**Table 2**).

However, this could be on the high end of the spectrum as a pick-up in U.S. productivity suggest that wage pressure will remain muted (**Chart 7**).

**6 Short-term upside pressure on inflation transient...**




**7 ... as wage pressure should remain muted**

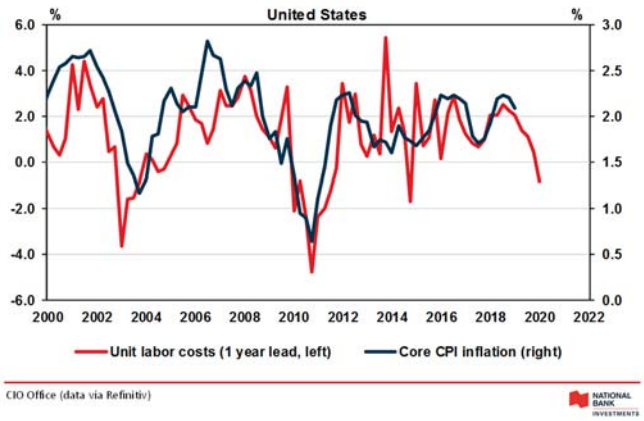



Table 2 **Five-year economic forecasts** (local currencies, annualized rate)

| Countries | Labor force growth | Productivity growth | Potential growth | Real GDP | Inflation | Nominal GDP |
|---|---|---|---|---|---|---|
| **United States** | 0.5% | 1.4% | 2.0% | 1.8% | 2.3% | 3.9% |
| **Canada** | 0.9% | 0.6% | 1.6% | 1.7% | 2.0% | 3.7% |
| **Germany** | 0.3% | 0.8% | 1.3% | 1.3% | 1.9% | 3.5% |
| **Japan** | -0.1% | 0.8% | 0.7% | 0.6% | 1.3% | 1.3% |
| **Australia** | 1.7% | 0.8% | 2.6% | 2.6% | 2.4% | 4.8% |
| **China** | 0.1% | 5.5% | 5.7% | 5.9% | 2.7% | 8.2% |

CIO office (data from Refinitiv) 2019-06-26

Labor force, productivity and potential growth estimates from Oxford economics.

Real GDP, nominal GDP and inflation forecasts from the Internatinal Monetary Fund.

For illustrative purposes only, subject to change, and no guarantee of the future.

## 3. Asset valuations

In this section, working from a building-block approach, we deconstruct expected returns for different major asset classes to estimate valuation-adjusted premiums for the next five years.

### 3.1 Risk-free interest rate

Cash returns are linked to Central Bank policy moves, which are in turn a function of growth potential and inflation expectations.

According to the last F.O.M.C. median projections (June 2019), the Committee continues to view sustained expansion of economic activity, strong labor market conditions, and inflation near the Fed's symmetric 2% objective as the most likely outcomes, but uncertainties about this outlook have increased. Because of these uncertainties and muted inflation pressures, many voting members consider that the level for the U.S. Federal funds should first be decreased by 50 bps to 1.9% over the next twelve months, before it can be brought back to a long-run steady state of 2.5% (**Chart 8**).

This is more than what market participants are currently pricing, but it is in line with the natural or neutral rate[1] (the rate at which the economy is running at its full potential without causing inflationary pressure) could be (**Chart 9**).

Based on inflation projections (see section above) and the Fed's symmetrical monetary policy approach to inflation targeting, we don't expect the Fed funds rate to average more than 2.25% until 2023.

### 3.2 Government bonds

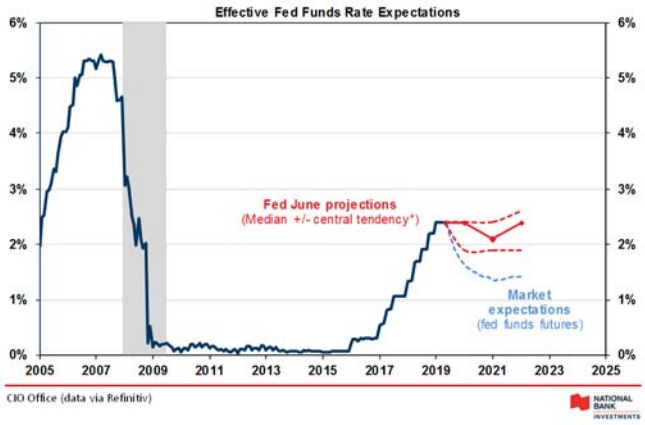
In 2017, based on a pickup in economic activity and reassessment of inflation expectations, our forecast was that higher short- and longer-term interest rates would continue to result in negative bond returns. After a hefty start in 2018, that scenario came to a halt. As global growth showed signs of fatigue and geopolitical risks mounted – the Sino-U.S. trade war at the forefront – equity markets fell on the verge of bear-market territory, enticing the Fed to put monetary tightening on the back burner. In a matter of about six months, yields on U.S. 10-year Notes lost 125 basis points from a peak of 3.25% in November 2018 to a low of 2.00% in June. It seems two years were lost in the process, as we are now back to the same level we were 24 months ago (**Chart 10**).

With the yield curve inverting for the first time since 2007, many investors fear the slowdown in global growth will persist and could even lead to recession. This is far from assured and understanding the nature of the current yield curve inversion can certainly shed light on what is to come. But, with the Fed on the side lines, the prospect of much higher yields than the long-run steady state rate seems a stretch in a context of a negative term premium.

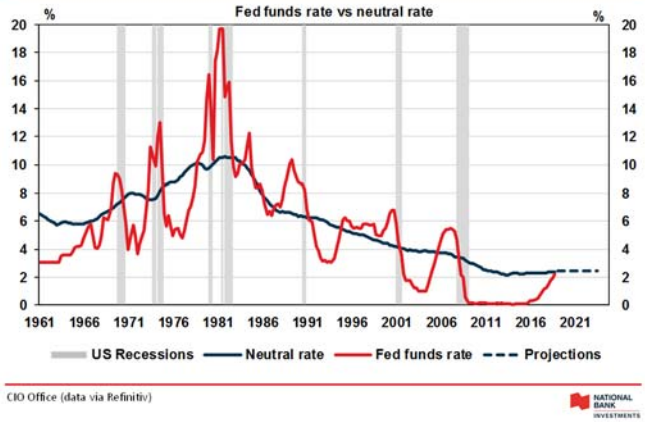
What does it mean for investors? Based on a building-block approach, we deconstruct bond returns in different components to isolate the yield (the income part), and the effect of roll-down, and duration risk on valuations (the capital appreciation part):

1. **Yield.** In the long run, the return of a bond is explained predominantly by its yield (**Chart 11**).

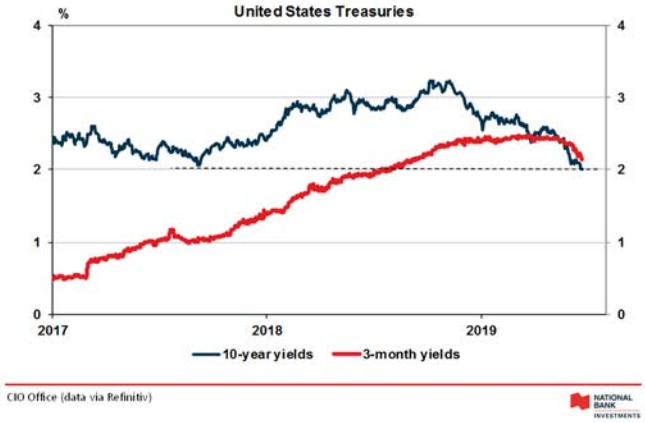
**8 Expected rate cuts by the Fed...**




**9 ... would leave policy in accommodative territory**

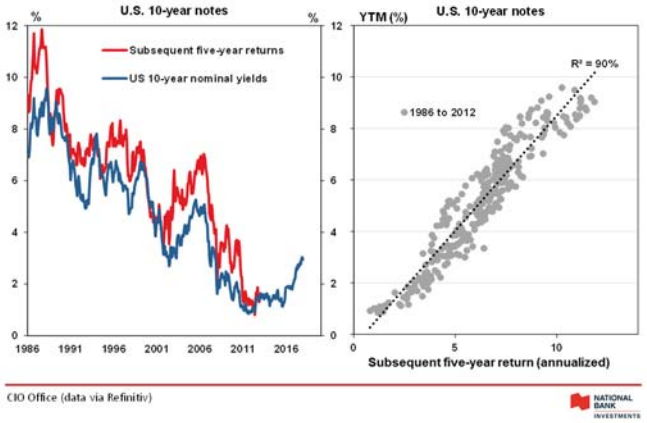



**10 Back to a two-year low for 10-year yields**




[1] The measure of neutral rate depicted here is that of Laubach-Williams (2003) augmented of a five-year annualized rate of PCE inflation.

**11 Returns predominantly explained by starting yield**




2. **Roll-down.** The roll-down effect represents the capital appreciation gained from the aging of the bond along an upward-sloping yield curve. Because the yield curve has flattened considerably over the past few years, the roll-down effect has become more negligible.

3. **Valuation change.** In the short run, because of duration risk, rising (falling) yields would likely lead to important capital losses (gains), and dominate bond returns. We proxy capital gains (losses) as duration multiplied by the projected fall (increase) in yields divided by the number of years.

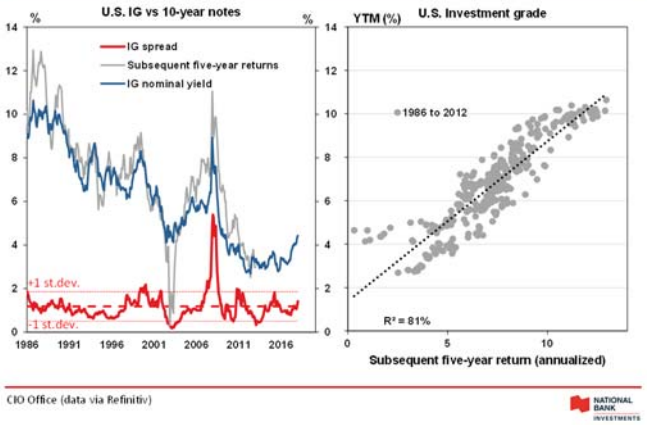
For U.S. benchmark bonds, starting from a current yield of 2.0% and adjusting for the impact from roll-down (expectations have been scaled down with the flattening of the yield curve), and the pro-rated effect of rising yields over the next five years, we get an expected annualized total return of 1.4% in nominal terms (**Table 3**). As we expect short-term bonds to average 2.25% over the same period, this means that the negative term premium currently observable should continue to hold in the near future.

By applying the same methodology to other regions, we find that bond returns in local currency terms appear to be at the high end of the spectrum in the United States. Canada is not too far behind, but with a lower starting yield, the average return should be less than 1% over the next five years. Expected real returns are negative in all regions.

### 3.3 Credit

For investment grade (IG) issuance, we find that yield-to-maturity (YTM) explains about 80% of subsequent five-year returns, with relative outperformance when spreads are narrowing. For high-yield (HY), the YTM explains about 60% of future returns. Therefore, the default premium plays a bigger role and more weight must be put on spreads. When they narrow to one standard deviation below average, subsequent five-year returns are at their lowest level. In contrast, buying HY when spreads are two standard deviation above average has always yielded double-digit returns for the next five years (**Chart 12** and **13**).

**12 IG returns explained by starting yield to maturity...**




**13 ... but the wider the spread, the better for or HY**

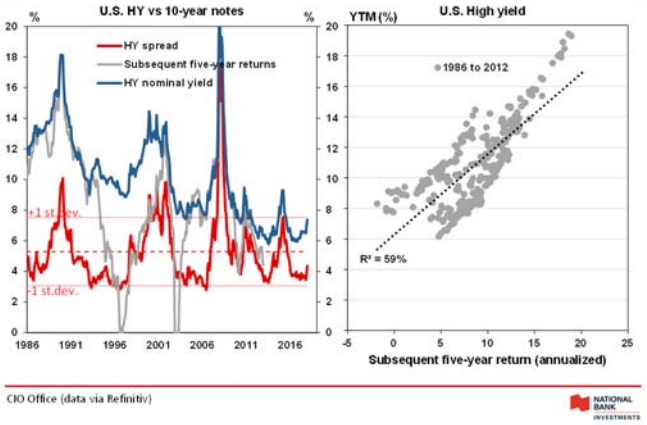



Table 3 **Fixed-income five-year total expected returns** (local currencies, annualized rate)

| | Income | + | Capital appreciation | | = | Total return | | |
|---|---|---|---|---|---|---|---|---|
| **10-year Treasury notes** | **Yield** | | **Roll-down** | **+ Rate change** | | **Nominal** | **- Inflation** | **= Real** |
| **United States** | 2.0% | | 0.3% | -0.9% | | 1.4% | 2.3% | -0.9% |
| **Canada** | 1.4% | | 0.1% | -0.8% | | 0.8% | 2.0% | -1.2% |
| **Japan** | -0.2% | | 0.1% | 0.0% | | -0.1% | 1.3% | -1.3% |
| **Germany** | -0.3% | | 0.3% | -0.1% | | -0.1% | 1.9% | -2.0% |
| **Australia** | 1.3% | | 0.2% | -1.0% | | 0.5% | 2.4% | -1.9% |

CIO office (data via Refinitiv). 2019-06-26

Inflation forecasts from the Internatinal Monetary Fund.

Expected returns are for illustrative purposes only, are subject to change, and are no guarantee of the future.

We establish our forecasts for credit indices by adjusting the income and the capital appreciation part of our building block methodology as follows:

1. **Income.** We start by adjusting the term premium to match the duration of credit indices. Additional income can be found in credit spreads, which compensates investors for taking risk. To capture the potential impact of downgrades in credit ratings (bond migration) and/or expected default losses, we apply a haircut to credit spreads. Specifically, we find that since 1985, credit spreads in IG and HY explain 70% and 40%, respectfully, of their historical credit premium.

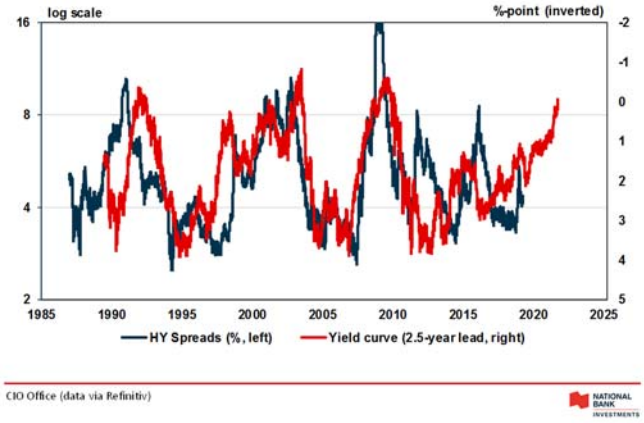
2. **Capital appreciation.** We then adjust our roll-down estimates to account for the impact of credit spreads to benchmark bond yields. We adjust for changes in nominal yields (duration risk) and the impact of spread deviation from long-term trends.

We anticipate U.S. IG to return about 2.9%, on average, over the next five years (**Table 4**). This is about 150 bps more than the expected return for Treasuries over the same period, as IG credit is usually of higher coupon and shorter duration, i.e. less sensitive to a rise in interest rates.

For HY bonds, as we expect the impact of past policy tightening to be conducive to a slowdown (as depicted by the flattening of the yield curve), spreads to Treasury benchmark (currently at 425 basis points) should gradually rise over the next few years (**Chart 14**), shaving a bit of potential return compared to last year's estimates.

In Canada, as we see yields slowly rising over the next five years due to a slight pick-up in growth and inflation, and the impact of higher yields in the U.S., investors will find the most value in shorter-term duration corporate strategies.

**14 The yield curve signals wider spreads**




### 3.4 Equities

For equities, our approach to forecasting long-term returns is based on the dividend discount model (DDM) which states that future prices are the sum of the dividend yield, the expected trend growth in earnings, and the expected change in valuations:

1. **Yield.** We proxy the expected dividend yield based on the average of the past five years.

2. **Earnings.** Our estimates for dividend growth or earnings are twofold. First, we look at historical annualized trend growth in real earnings. Second, we establish forward-looking estimates based on real GDP per capita – which tend to be more stable and more closely related to earnings forecasts – from the IMF. We apply a weight of 50% to both measures, and we annualize return over the next five years.

3. **Valuation changes.** As price-to-earnings ratio (P/E) tend to be mean reverting, we adjust our forecasts lower (higher) when values are above (below) historical averages.

Table 4 **Credit five-year total expected returns** (local currencies, annualized rate)

| | Income | | | + | Capital appreciation | | | = | Total return | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Credit indices** | **Duration match govies** | + | **Credit spreads** | + **Losses & default** | **Combined roll-down** | + | **Interest rate change** | + **Spreads valuation** | **Nominal** | - **Inflation** | = | **Real** |
| **BoAML** (USD) | | | | | | | | | | | | |
| Treasury Master | 1.9% | | -0.1% | 0.0% | 0.2% | | -0.6% | 0.5% | **1.9%** | 2.3% | | **-0.4%** |
| IG Master | 1.9% | | 1.3% | -0.4% | 0.6% | | -0.7% | 0.1% | **2.9%** | 2.3% | | **0.6%** |
| HY Master | 1.7% | | 4.5% | -2.7% | 1.2% | | -0.4% | -0.7% | **3.6%** | 2.3% | | **1.3%** |
| **FTSE/TMX** (CAD) | | | | | | | | | | | | |
| Universe | 1.4% | | 0.7% | 0.0% | 0.1% | | -0.7% | 0.9% | **2.3%** | 2.0% | | **0.3%** |
| Corps | 1.4% | | 1.2% | -0.2% | 0.1% | | -0.6% | 0.7% | **2.6%** | 2.0% | | **0.6%** |
| Short | 1.4% | | 0.3% | 0.0% | 0.1% | | -0.3% | 0.9% | **2.4%** | 2.0% | | **0.4%** |
| Mid | 1.4% | | 0.6% | 0.0% | 0.1% | | -0.6% | 0.4% | **1.8%** | 2.0% | | **-0.1%** |
| Long | 1.6% | | 1.1% | -0.1% | 0.1% | | -0.8% | 0.6% | **2.6%** | 2.0% | | **0.6%** |

CIO office (data via Refinitiv) 2019-06-26

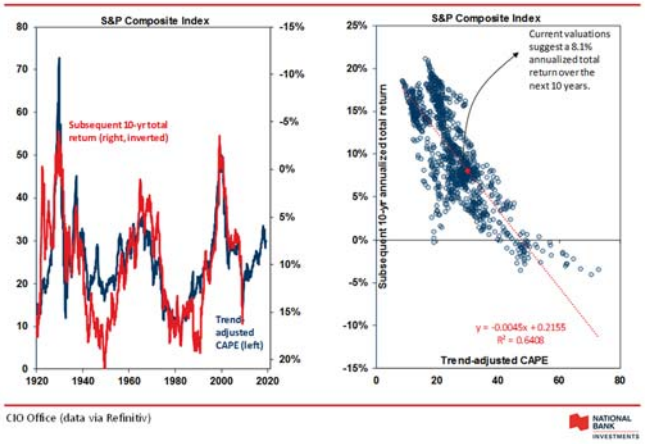
Inflation forecasts from the International Monetary Fund.

Expected returns are for illustrative purposes only, are subject to change, and are no guarantee of future performance.

On that basis, we find that returns for U.S. large cap equities should be around 7.1%, at an annualized rate, over the next five years (**Table 5**). Although that is much lower than the rate of appreciation of the average past five years, the expected equity risk premium over bonds should remain above historical values.

We looked at other measures of valuation. For one, Shiller's CAPE ratio stood at 30.2 in May, which, once adjusted for trend, suggests large cap equities should grow at a pace of around 8%. That is a bit higher than our DDM figure, but the time frame (best fit is the subsequent 10 years) is also longer (**Chart 15**).

**15 Valuations suggest decent returns to come**




For U.S. small caps, the higher trend growth in earnings puts our average expected return a touch over 8% for the next five years, leaving the size premium below historical norms.

In Canada, growth potential is expected to be a little bit less than in the U.S. But, with a higher dividend yield and cheaper valuations, the total return for Canadian large cap equities could reach 8.7% until 2023. This is a sharp contrast with the past five years, when the TSX underperformed its U.S. counterpart steadily except in 2016.

Total returns for EAFE equities should also be around 7%, with a higher dividend yield and cheap valuations offsetting weaker growth. Due to higher growth potential and fair valuations, EM equities should outperform developed markets in nominal local currency terms.

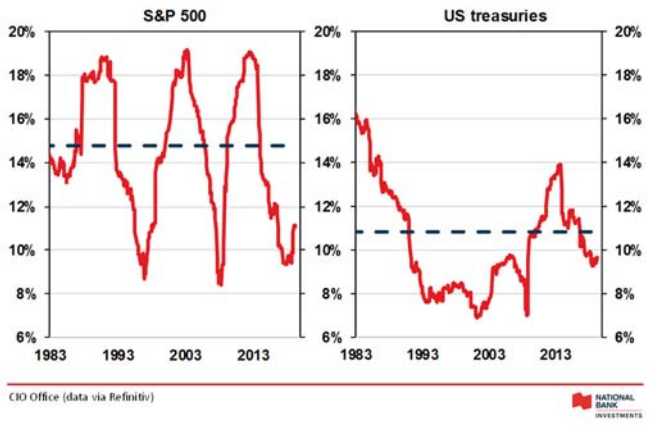
## 4. Capital Market Line

To put it all together, we determine volatility and asset correlation for all asset classes under study to come up with the optimal capital market line.

### 4.1 Volatility

Because volatility is mean reverting (**Chart 16**), we find the historical average to be the most representative of what years to come should look like. We compare the next five years with the last five years in terms of returns, volatility and risk/reward ratio (**Table 6** next page).

**16 Five-year rolling standard deviation of total returns**




### 4.2 Correlations

We derive correlation between assets based on the last 20 years of data available (**Table 7** next page). This accounts for more than two complete economic cycles, permitting us to circumvent recent trends or behaviours.

### 4.3 Capital market line

Putting it all together, we find that the optimal capital market line has slightly steepened, owing in large part to lower expected returns for fixed-income products, but also higher potential for Canadian equities (**Chart 17** on page 9).

Table 5 **Equity markets five-year total expected returns** (local currencies, annualized rate)

| | Income | + | Capital appreciation | | | = | Total return | | |
|---|---|---|---|---|---|---|---|---|---|
| Country/Style | Div. yield | | (EPS growth | + | GDP per capita)/2 | + Valuations | Real | + Inflation | = Nominal |
| **S&P 500** | 2.00% | | 4.47% | | 1.00% | 0.06% | 4.79% | 2.29% | 7.08% |
| **S&P 600** | 1.38% | | 5.92% | | 1.20% | 0.99% | 5.92% | 2.29% | 8.21% |
| **S&P/TSX** | 2.91% | | 4.16% | | 0.78% | 1.33% | 6.70% | 1.98% | 8.69% |
| **MSCI EAFE** | 2.84% | | 4.11% | | 1.11% | 0.05% | 5.50% | 1.65% | 7.16% |
| **MSCI EM** | 2.98% | | 0.82% | | 3.59% | -0.30% | 4.89% | 2.81% | 7.69% |

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EPS growth is past 25 years

Inflation and GDP per capita forecasts are from the IMF (scalar of 1.2 for US small caps GDP per capita growth estimate to account for beta difference)

Expected returns are for illustrative purposes only, are subject to change, and are no guarantee of the future.

## Table 6 **Total returns and volatility in local FX** (QoQ, annualized)

| Asset class | Last five years | | | Next five years | | |
|---|---|---|---|---|---|---|
| | Realized volatility | Realized returns | Risk / reward ratio | Historical volatility | Expected returns | Risk / reward ratio |
| **30-day T-bills (USD)** | 0.39% | 0.74% | --- | 0.18% | 2.25% | --- |
| **BoAML Investment grade credit (USD)** | 4.14% | 3.74% | 0.72 | 5.15% | 2.90% | 0.13 |
| **BoAML high yield (USD)** | 6.16% | 4.69% | 0.64 | 9.98% | 3.60% | 0.14 |
| **BoAML long-term T-notes (USD)** | 9.75% | 5.36% | 0.47 | 11.24% | 1.30% | -0.08 |
| **FTSE/TMX short-term universe (CAD)** | 1.26% | 1.87% | 0.89 | 2.23% | 2.30% | 0.25 |
| **FTSE/TMX investment grade credit (CAD)** | 3.03% | 3.90% | 1.04 | 3.49% | 2.60% | 0.25 |
| **FTSE/TMX Overall universe (CAD)** | 3.67% | 3.77% | 0.83 | 3.73% | 2.40% | 0.18 |
| **FTSE/TMX mid-term universe (CAD)** | 3.55% | 3.77% | 0.85 | 4.06% | 1.80% | 0.02 |
| **FTSE/TMX long-term universe (CAD)** | 7.58% | 6.42% | 0.75 | 6.75% | 2.60% | 0.13 |
| **Canadian equities** | 10.49% | 5.44% | 0.45 | 15.66% | 8.69% | 0.41 |
| **US Large cap equities (USD)** | 10.53% | 10.80% | 0.96 | 15.92% | 7.08% | 0.30 |
| **US Small Cap Equities (USD)** | 14.00% | 8.51% | 0.55 | 19.19% | 8.21% | 0.31 |
| **MSCI EAFE (USD)** | 11.23% | 2.81% | 0.18 | 18.23% | 7.16% | 0.27 |
| **MSCI EM (USD)** | 13.91% | 4.06% | 0.24 | 24.15% | 7.69% | 0.23 |

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Historical volatility is past 20 years

Expected returns are for illustrative purposes only, are subject to change, and are no guarantee of the future.

## Table 7 **Correlation* Matrix**

| *Assets (local currency)* | *Std dev* | *Beta vs S&P 500* | *Cash* | *US treas. LT* | *US Corp.* | *US HY* | *Can. Large Cap.* | *EAFE* | *US large cap* | *US small cap* | *EM equity* | *Commod.* | *Private equity* | *Farmland* | *Private real estate* | *Timber-land* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Cash** | 0.6% | (0.00) | 1.00 | | | | | | | | | | | | | |
| **US treas. LT** | 10.3% | (0.21) | 0.05 | 1.00 | | | | | | | | | | | | |
| **US Corp.** | 5.2% | 0.07 | (0.02) | 0.58 | 1.00 | | | | | | | | | | | |
| **US HY** | 9.0% | 0.39 | (0.15) | (0.14) | 0.55 | 1.00 | | | | | | | | | | |
| **S&P TSX** | 13.6% | 0.72 | (0.03) | (0.22) | 0.26 | 0.62 | 1.00 | | | | | | | | | |
| **MSCI EAFE** | 16.3% | 0.96 | (0.08) | (0.25) | 0.32 | 0.69 | 0.76 | 1.00 | | | | | | | | |
| **S&P 500** | 14.6% | 1.00 | (0.10) | (0.30) | 0.19 | 0.64 | 0.77 | 0.86 | 1.00 | | | | | | | |
| **S&P 600** | 19.4% | 1.11 | (0.09) | (0.31) | 0.14 | 0.64 | 0.75 | 0.76 | 0.83 | 1.00 | | | | | | |
| **MSCI EM equity** | 21.6% | 1.13 | (0.05) | (0.21) | 0.32 | 0.70 | 0.78 | 0.86 | 0.76 | 0.72 | 1.00 | | | | | |
| **Commodities** | 16.3% | 0.40 | 0.08 | (0.23) | 0.18 | 0.41 | 0.55 | 0.49 | 0.36 | 0.34 | 0.52 | 1.00 | | | | |
| **Private equity** | 8.4% | 0.75 | (0.08) | (0.52) | 0.10 | 0.63 | 0.77 | 0.87 | 0.94 | 0.84 | 0.77 | 0.20 | 1.00 | | | |
| **Farmland** | 2.7% | 0.03 | (0.01) | (0.04) | (0.12) | (0.04) | 0.08 | 0.15 | 0.11 | 0.10 | 0.10 | (0.09) | 0.14 | 1.00 | | |
| **Private real estate** | 1.3% | 0.02 | 0.29 | (0.00) | (0.14) | (0.08) | 0.14 | 0.17 | 0.19 | 0.15 | 0.04 | 0.17 | 0.19 | 0.19 | 1.00 | |
| **Timberland** | 2.4% | 0.00 | 0.22 | 0.08 | (0.10) | (0.15) | 0.05 | 0.09 | (0.00) | (0.08) | 0.03 | (0.04) | (0.01) | 0.71 | 0.31 | 1.00 |

CIO office (data via Refinitiv) *Historical data since December 1998*

** Cash, Treasuries, equities and commodities are monthly data; Private investments are quarterly data.*

## 5. Investment Conclusions

The economic outlook for the next five years is relatively sound with a continuation of lackluster growth and tepid inflation. However, risks to our scenario are significant, and the possibility of a recession, albeit shallow, cannot be dismissed. In this regard, the investment environment should remain challenging, lead to higher asset volatility, and increase estimation errors around forecasts.

Our first reflex would be to call for prudence. However, based on current valuations, risk assets should continue to deliver superior total returns both on an absolute and risk-adjusted basis.

Compared to last year's estimates, we find expected bond returns to be weaker across the board. This is mainly due to lower starting yields following a resurgence of uncertainty linked to the trade dispute at the end of 2018. As such, benchmark nominal bond returns for the U.S. should average only 1% over the next five years. Credit indices will fare a little better with higher duration-adjusted starting yields. However, spread widening, as suggested by the flattening of the yield curve, adds to return uncertainty going forward.

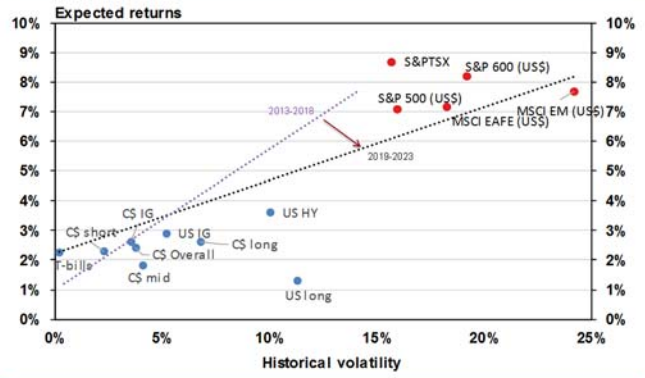
Due to a sharp rebound in stock prices in Q1 2019, U.S. stock markets appear relatively expensive, both historically and geographically. As such, we expect returns for the next five years (+7.1%) to be lower than that of the previous five years.

In Canada, growth potential is expected to be a little bit less than in the U.S. But, with a higher dividend yield and cheaper valuations, total returns for Canadian large cap equities could average more than 9% until 2023. This is a sharp contrast with the past five years, when the TSX underperformed its U.S. counterpart steadily except in 2016.

Total returns for EAFE equities should also be around 6%, with a higher dividend yield and cheap valuations offsetting weaker growth. Due to higher growth potential and fair valuations, EM equities should outperform developed markets in nominal local currency terms.

All in all, this means that average returns on a diversified balanced portfolio for the next five years should equal the past five years, but contribution to growth will be different (**Chart 18**).

**17 Capital market line**




CIO Office (data via Refinitiv)

**18 Similar growth, different contributors**

**Balanced portfolio (total return, annualized)**

| Référence | Weight | Last five years | Next five years | Difference |
|---|---|---|---|---|
| FTSE TMX | 50% | 3.77% | 2.40% | -1.37% |
| TSX | 17.50% | 5.44% | 8.69% | 3.25% |
| S&P 500 | 17.50% | 10.80% | 7.08% | -3.72% |
| MSCI EAFE | 10.00% | 2.81% | 7.16% | 4.35% |
| MSCI EM | 5.00% | 4.06% | 7.69% | 3.63% |
| | 100% | **5.21%** | **5.06%** | -0.15% |

CIO Office (data via Refinitiv)

**CIO office**
Cio-office@bnc.ca

**Martin Lefebvre**
CIO and Strategist

**Simon-Carl Dunberry**
Senior Analyst

**Louis Lajoie**
Senior Analyst

**Nicolas Charlton**
Analyst