

# What drives markets?

## GLASS BOX SERIES

*Money makes the world go 'round*—it's an old adage but there's no denying it holds true; even today. That's why investors, institutions and governments are on the constant lookout for ways to put their money to productive use. Capital markets (CM) are a means of doing just that; through the buying, selling, issuance or redemption of securities, individuals and entities have an efficient way of making their money work for them.

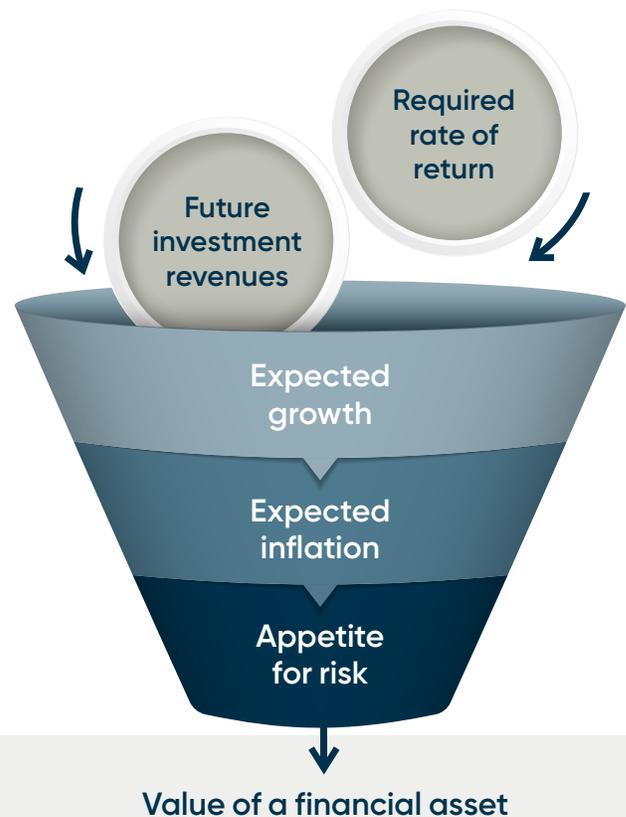
Whether an investor is planning for retirement, or a firm is looking to raise funds to finance growth, capital is fundamental in virtually every facet of life. CMs involve many players with different interpretations of current events and opposing views about the future. It is precisely these divergences that designate how prices of various securities fluctuate over a given time period.

## Capital markets at a glance

The price of any financial asset is determined by one simple rule: it is the present value of (1) the future interest or dividend revenues it will generate and (2) the reimbursement of capital when applicable (when a bond matures or a preferred stock is redeemed for instance). The rate at which the future revenues are discounted is the "normal" rate of return investors require for bearing investment risk.

It turns out that both future revenues and the required rate of return are largely influenced by three macroeconomic factors:

- › Expected growth
- › Expected inflation
- › Investors' appetite for risk



Hence, these are the factors that drive price changes in CM.

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### The impact of the three macroeconomic factors on expected future investment revenues



**1 Growth:** When the economy grows at a higher rate than currently expected, most companies make higher profits, which may have them raise their dividends or repurchase outstanding shares, which usually lifts their share prices. However, higher-than-expected economic growth won't raise the interest coupon issuers, for instance, pay on their bonds. Hence, traditional bond prices will not rise if there is more growth than anticipated. For commodities, more growth usually raises demand, which generally results in a surge of prices, because supply generally needs time to adjust to sudden additional demand.



**2 Inflation:** Inflation tends to push up companies' profits over time—hence dividend payments and share prices. However, they don't impact the (fixed) coupons paid by traditional fixed-income securities (with some exceptions, but we will not address them here). Regarding commodities, prices usually rise with respect to inflation in the short term, because production costs rise. In the long term though, technological advances often largely negatively compensate the impact of inflation.

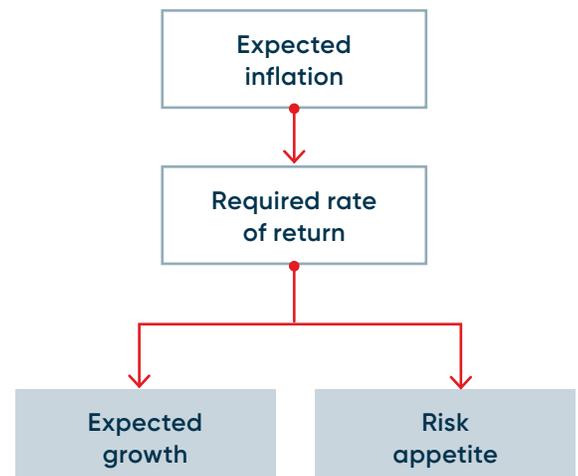


**3 Appetite for risk:** Appetite for risk doesn't play an important role in determining future investment revenue: it is more important for setting the required rate of return. However, changes in risk appetite usually have a direct and positive impact on commodity prices—which don't yield dividends or interest—as a greater appetite will generally push prices upward, with the notable exception of gold (which is a so-called *safe haven* investment).

### The impact of the three macroeconomic factors on required rate of return

When we invest, we expect the value of our investments to at least protect our buying power by growing at least as much as consumer prices. In other words, over the long term, investors expect the rate of return they will realize on their investments will at least be the expected inflation rate. In Canada, the Bank of Canada targets a long-term average inflation rate of 2% per year.

Moreover, because we don't spend the money we invest, we also want to get a "bonus," an additional return, to compensate ourselves for foregoing current consumption. This is called the "real return," which is added to the expected rate of inflation in calculating an asset's rate of return. In Canada, there is a good consensus that the annual real return is around 1.5%–2%.



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Lastly, investors want additional return if the investment is riskier: we call this the risk premium. The riskier an investment, the higher its required risk premium. For high-grade bonds, it is near zero; for corporate bonds, it may lie around 0.5%–2% per year (depending on their credit rating), and for stocks specialists, it is roughly 5%.

Since the 2008–2009 financial crisis and because of the 2020 COVID-19 sanitary crisis, monetary stimuli by central banks kept expected returns significantly below long-term equilibrium estimates (LTE) above. However, as markets gradually converge towards their LTE values, a lot of market action can be expected.

## Wrap-up: what drives the relative performance of asset classes

Now that we understand what drives financial asset prices, we are ready to go through what drives relative returns of the main asset classes. This is illustrated in the following figure.



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Stocks and commodities are more positively sensitive to growth than to inflation, which explains the stylized rankings above. Also, rankings between second and third places largely depend on shifts in risk appetite. For instance, when COVID-19 seemed less gloomy than initially feared, markets entered into the lower-right regime, which explains why stocks and commodities did so well (the fact that central banks suggested they would be lowering the interest rate if need be also added to the upswing of commodities). Going from "risk-off" to "risk-on" also contributed to this surge.

This framework also helps to understand why correlations between asset classes fluctuate over time. For instance, when we use a rolling window of a few years over the last 60+ years, the stock-bond correlation is close to zero on average (about +0.2) but can take values that range between -0.6 and +0.6. Let's say we go from Regime B to Regime C; in this case, stocks will suffer (as they are more sensitive to growth than to inflation), but bonds will surge (as the benefit from lower inflation and are not impacted much by a lower growth). Hence, in this case, the stock-bond correlation will be negative. But if the economy shifts from Regime B to Regime D, then both stocks and bonds will rise, so we will observe a positive correlation.

## Conclusion

This article compresses in a few pages the complex and fascinating dynamics of capital markets. It aims at outlining what the main macro drivers of market returns are, which helps us understand why some asset classes perform better than others following economic surprises. But accurately forecasting whether inflation, growth or risk appetite will surprise up or down is easier said than done. Hence, we hope we also convinced you of the value of the following reflection: If you don't know where markets are going, then you better well diversify your portfolio.

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