



It is difficult for inflation to be sustained without credit expansion

A bank's deposit base and loan book should grow with inflation because there cannot be sustained inflation without expanding money supply. Rising money supply requires credit creation. If a bank were to pay out all of its earnings as dividends, such that its equity base stays constant, its ROE will rise year after year if its deposit base and loan book were to grow year after year owing to inflation. This rising ROE would seem to be the result of a rising leverage ratio (assets/equity). However, this rising ROE is not actually from rising leverage but rather the same distortion that occurs with industrial companies when the value of assets and equity are carried at historical cost and yet earnings rise with inflation over time. Thus, while Energy stocks make for good inflation hedges that originate with commodity price shocks, Bank stocks make for good inflation hedges that originate or are exacerbated by excessively loose monetary policy.

If one assumes that the profits of a bank are purely the result of prior-period investment (no financial risk profits or economic profits), then the only reason why a bank can make a profit on collecting deposits and making loans is that such services require investments in real assets such as buildings, ATMs, vaults, computers and even intangible investments such as brand building advertising, developing institutionalized professional knowledge and an established reputation for safety and service. It is the value of these assets that should appreciate with inflation. Thus, while a bank's assets/equity ratio may rise from inflation-driven deposit and loan growth with no growth in retained profits (should returns on its nominal assets lag actual inflation for a period during an inflationary shock), in actuality the economic value (or franchise value) of the book equity will rise with inflation. A counter argument to this logic would be that regulatory capital isn't measured this way. But we believe it is economically incorrect to neglect franchise value albeit understandable for prudent capital measures.

Putting theory into practice with correct valuation formulas

Often incorrect valuation formulas are used to value banks

There are many formulaic single-stage versions of the Dividend Discount Model (DDM). The best known and a version we support is called the Gordon Growth model. This model is as simple as dividing any company's current dividend per share (DPS) by its nominal cost of equity less its long-term dividend growth rate.

It is simple to validate the Gordon Growth model by projecting dividends for several hundred years at the assumed growth rate and then discounting those projected dividends at the assumed nominal cost of equity. We think it crucial to validate any intrinsic valuation formula or model with this simple test. Any model that cannot pass this test is not consistent with intrinsic valuation.

Unfortunately, there is far too often a common misuse of return on capital metrics to justify multiples on invested capital or book values based upon incomplete valuation frameworks that fail to agree with proper DCF or DDM intrinsic valuation models.

Below, we examine a popular yet dangerously oversimplified version of the Gordon Growth DDM commonly used to value bank stocks and substantiate PB multiples that approximate ROE / nominal COE ratios. It is our conclusion that this formula is dangerously opaque and prone to produce estimates of fair value that are too low. We believe investors should reject the use of this formula and instead use the standard Gordon Growth formula for valuing banks or use fully constructed DDM models.

The value of a stock is the present value of all future free cash flows. Don't rely on any valuation method that doesn't reconcile with this concept and a full DCF model.