Risky business

Global monetary policy has set the stage for inflation. How effective are hedging strategies, and which tools will best protect portfolio assets?

Inflation is a reality in all economies. Aggregate prices of goods and services will rise over time. Its symptoms, causes and cures have been the subject of much debate and analysis. It is widely accepted, however, that inflation risk is magnified by increasing the money supply to encourage economic growth during recession. Notwithstanding the unpredictable nature of inflation risk, the effects can be limited through financial hedging. Investors should know and understand the most effective tools available to lock in the real value of assets, future cash flows and future liabilities.

There are several ways to manage inflation risk, some more effective than others. The continuing evolution of financial markets has increased the number and complexity of hedging techniques. Today's tools include over-the-counter (OTC) swaps and exchange-traded instruments, government-issued inflation-protected bonds, certain commodity stocks, precious metal investments, or an optimal mix of all the above.

The bulk of inflation hedging products are offered and traded in the US, UK and eurozone, although emerging markets have made inroads into inflation-linked offerings. This article briefly discusses the potential for inflation given recent global money supply policies and examines the efficacy of various hedging tools. Highly effective tools are available to investors. The proper selection and use of these tools will depend upon investor objectives, sector exposures and an analysis of whether an investor is concerned with future purchasing power or their ability to satisfy future liabilities.

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Inflation and the consumer price index

Inflation is an increase in the price of goods and services over a measured time period. Inflation has numerous causal factors, few of which are subject to debate. One key risk factor is an increase in the money supply. Increasing the money supply drives down the real purchasing power of currency as more of that currency is then required to purchase the same amount of goods and services. The purchasing power of the currency deflates in real terms. Inflation risk is the risk associated with such decrease in purchasing power.

Beginning in 2008, in response to the global economic crisis, governments increased the relative money supply in their economies in the form of economic stimulus. Western-based Keynesian economic doctrine, based on the teachings of economist John Maynard Keynes, states that active government intervention plays a role in stabilising an economy. Therefore pumping stimulus funds into fledgling economies is sound fiscal policy during moments of economic crisis.

Unfortunately, the cost of adherence to traditional Keynesian economics is to increase inflation risk as an economy recovers. Inflation is sometimes referred to as the hidden tax because interest normally earned on investments is effectively reduced by the rate of inflation, thereby mimicking a tax on investment and inhibiting economic growth. Failure to manage inflation risk is akin to economic malpractice for investors.

Inflation is generally measured by reference to a consumer price index, representing the average price paid by consumers for a representative basket of goods and services comprised of food, housing, commodities, energy, transportation, medical services and other goods. The index provides a baseline for measuring inflation and deflation which provides the delta for calculation of virtually all inflation hedges.

Historically, with some exceptions, economic policy has been effective in holding down inflation rates. In addition, the price of one or more components of the basket comprising the consumer price index may increase, while the price of other component(s) may decrease, causing an offset. This offset will hold down the inflation rate. An example of this principle at work is the recent reduction in fuel prices which structurally offset an overall increase in commodity prices and held the inflation rate in check.

Anticipating inflation encourages investors to take pre-emptive measures to protect investment portfolios and cash flows. This is done by increasing allocations to investment assets which historically perform well during inflationary periods. These investments are positively correlated to inflation rates. Hedging inflation risk also helps to buffer price increases for goods and services as investors are better protected and more likely to pass efficiencies on to consumers.

It is also noteworthy that widespread inflation hedging could cause artificial spikes in commodity prices, and hence the inflation rate, as perceived inflation risk may cause speculative buying. Nevertheless, given the aggregate benefit to the global economy and consumers, over-hedging inflation is preferable to limited hedging.

The global financial crisis of 2008 crashed many developed world economies. Sovereign governments stepped in to compensate for lower consumer demand by following Keynesian economic stimulus policies. These policies led only to modest growth. Thus far inflation has remained low. The average annual inflation rates for the 34 member nations of the OECD, as of November 30 2012, was only 1.9%. This low rate was due in part to stable energy prices and low interest rates. The rate will likely rise as a global economic recovery gains momentum.

Inflation hedging methodologies

A hedge is a strategy or device used to protect against a potential loss occurrence or event. A hedge can take many forms depending upon the risk. A comprehensive inflation hedging strategy depends upon the needs of the investor and may consist of some optimal combination of asset purchases and financial instruments. Strategies include inflation swaps and options, purchasing certain hard commodities, exchange-traded futures, gold and precious metal investments, government-issued inflation protected securities (generally Treasury Inflation-Protected Securities – TIPS) and derivative products correlated to the performance of each. A major benefit of hedging is that counterparty liabilities may be funded by inflation-linked strategies during inflationary periods.

Gold and precious metals

Traditional wisdom dictates that an effective hedge against inflation risk is to purchase and hold interests in gold and other precious metals such as silver and palladium.

Gold in particular, and to a lesser extent other precious metals, tend to hold or gain value during inflationary periods. For example, in January 2008, one ounce of gold traded at approximately \$850 (£529.8). At the close of 2012 it was trading at over \$1,700.

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As an alternative, investors can also invest in exchange traded funds (ETFs) directly correlated to the price performance of gold and other precious metals. Investing in precious metal ETFs may eliminate any custodial or other issues associated with physically holding the asset. The potential drawback of this inflation hedge is the possibility of an added premium due to increased demand. Prices may be inflated as investors seek cover in this asset class. The resulting premium may reduce the overall economic benefit. This hedge is helpful but not ideal for any significant portion of an investment portfolio.

Inflation swaps

Inflation-linked swaps are derivatives used to hedge against inflation risk by transferring inflation risk from one party to another. These instruments provide important tools for investors seeking inflation protection.

The OTC market for inflation swaps is expanding as new products are created and marketed. Public utilities, real estate and certain commodities benefit from a rise in overall prices while private investors, pension funds, investment funds and insurance companies benefit from lower inflation rates. This supports a counterparty market for trading inflation-linked OTC products. Inflation swaps also meet the investment needs of bond issuers, asset holders and portfolio managers.

There are several primary inflation-linked swaps available. The most common is a zero-coupon inflation-indexed swap. This swap is used extensively in the dealer market. The cash payment of a zero-coupon swap is exchanged only at maturity. One counterparty pays a compounded fixed rate over the life of the swap and the other pays the cumulative increase in the inflation rate. The inflation leg of the swap is pegged to the referenced consumer price index. For example, Party A purchases a one-year zero-coupon inflation swap from Bank B on fixed assets valued at \$1million on the effective date of the swap. At the end of the swap, if the inflation rate has risen five per cent, Bank B pays Party A an amount equal to the five per cent inflation rate.

Another type of inflation-linked swap is a year-on-year (YoY) swap. This is structurally similar to a zero-coupon swap but with multiple inflation rate payments made on an annual basis over the term of the trade (primarily in the UK and eurozone) but sometimes on a monthly basis in the US. In both scenarios, the inflation leg of the swap is linked to the consumer price index. The non-inflation leg may be fixed or a London Interbank Offered Rate (Libor) float, each coupled with a spread.

These YOY swaps are more likely to be a component trade to a structured product or used to hedge inflation options such as caps or floors, given the flexibility of rates and inflation legs.

There is also an inflation-linked asset swap whereby the future cash flows of an inflation-linked bond are translated into an interest rate flow (Libor) with a spread. This type of swap leaves an inflation swap payer long on inflation risk, which helps even out the supply and demand of the inflation-linked swap market. It reduces dealer spreads for inflation protection buyers. Investors can also set a floor on the inflation leg to protect against a deflation scenario.

Total return swaps can also be used to hedge inflation risk. In exchange for either a floating or fixed rate (plus spread), the investor can gain access to the total return of an inflation-linked asset, index or other inflation-linked instrument. Total return swaps transactions allow investors broad-based flexibility to swap against a variety of inflation affected assets or indices. These transactions may have less tax uncertainties as well but investors should seek tax counsel for all inflation-linked products.

In addition to the flexibility of total return inflation-linked swaps, various option strategies are also available to an investor. These options include caps, floors and straddles linked to inflation rates. An inflation cap pays the receiver an agreed rate up to the cap rate unless the inflation rate exceeds the cap over a period of time. A zero-strike floor on inflation limits the down side for a counterparty in the case of deflation. There are also inflation swaptions which provide a counterparty with the right to enter into an inflation-linked swap upon the strike rate being reached.

Various swap strategies exist to hedge inflation risk. By understanding the key characteristics of each inflation swap, investors may devise the most effective swap strategy. As swap markets have evolved, hedging inflation is limited only by investor creativity. Inflation-linked swaps are therefore a very effective tool for hedging inflation risk.

Commodities

Commodity prices are often positively linked to inflation. With some exceptions, few assets benefit from rising inflation as do commodities (positive correlation). Demand and prices for commodities increase as investors seek traditional commodity hedges. Commodity returns are positively correlated with inflation, whereas equities and non-inflation linked instruments are negatively correlated. As demand increases for goods and services, so does the price of the commodities used to produce those goods and services. This

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positive correlation leads many investors to invest directly in commodities, futures or to access the upside through commodity ETFs.

ETFs are securities that track a single or multiple indices, commodities, securities or assets. ETFs trade on exchanges similar to equities. The advantage of an ETF is the investor receives the benefits of diversity and flexibility which accompanies an indexed fund, as well as the ability to purchase ETFs on margin or sell them short.

ETFs related to inflation hedging, such as commodity or inflation-linked bond ETFs, provide another level of flexibility key to effective hedging. Investors have many commodity-linked ETFs from which to choose and should select those best suited to their needs. When investing in cross-border ETFs referencing cross-border inflation linked securities, investors should confirm the underlying funds are effectively hedged against foreign exchange risk. An investment in key commodities (and related ETFs) represented in the relevant consumer price index represents an effective inflation hedge.

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An investor must determine which commodities and indices provide the best inflation hedge. There are many choices and all commodities are not created equal. Investments in wheat, grain, livestock, lumber, energy and coffee are likely to provide better inflation protection. These commodities are production components or goods for which global consumption remains steady during inflationary periods. By adding these commodities to a portfolio of assets, investors decrease the overall portfolio risk and, in many cases, increase expected returns. Commodities should be part of any overall inflation hedging strategy.

Inflation-protected government issued securities

Government-issued inflation protected securities, also known as linkers, have a high positive correlation with inflation and are very effective hedges. Linkers are a staple of many fixed income portfolios as they provide good liquidity and direct inflation protection. They generally outperform commodities, precious metals and energy as they are directly linked to rises in the consumer price index. This feature makes them one of the better hedges in the investor's inflation arsenal.

These bonds, known as TIPS in the US (also Treasury Inflation Index Securities and Real Return Bonds), provide investors with a guaranteed rate of return over the inflation rate. They work by matching returns to changes in consumer price indices measured by reference to the index ratio, which is pegged to some base level. The index ratio is then applied to the original principal amount of the bond to determine the payment obligation. The bond principal increases each year to keep pace with the consumer price index.

The major advantage is that the investor receives periodic interest payments on the increasing principal during inflationary periods. TIPS are also immune from state and local taxes in the US. These instruments may take the form of TIPS or other inflation-linked bonds issued by sovereign treasury departments. They are typically issued by western nations but there is a market in other countries such as Brazil, Israel, China and Chile, as well as emerging markets in Turkey, South Korea, South Africa and Poland.

Investors may purchase and hold inflation-protected bonds but may also access this hedge through inflation-linked bond ETFs pegged to single securities, a basket of securities or correlated indices. Inflation-protected ETFs provide the investor with exposure to changes in the inflation-linked instrument without holding the actual bonds in a portfolio. As with commodities, investors receive the benefit of diversity and flexibility and the ability to purchase ETFs on margin or sell them short. Inflation ETFs provide additional structural flexibility for investors seeking protection.

Investors should research the available range of inflation-protected bond offerings and ETFs as there are several dealers and exchanges offering products linked to the inflation rates of various economies. Given the efficacy of this hedging tool, demand for these instruments increase during inflationary periods. Renewed inflation anxiety could push TIPS to a low yield in the short term, underscoring the increased demand for these so-called real return instruments. Nevertheless, many investors have embraced ETFs as an efficient means of accessing inflation-protected bonds, as evidenced by the huge cash flows into TIPS funds invested in related ETFs.

Hedging inflation risk is mandatory for investors as global monetary policy has set the stage for increasing inflation risk. An investor has many options to consider when deciding which tools will best protect portfolio assets.

Traditional commodity hedging strategies, including futures and ETFs, provide a positively correlated degree of protection but not comprehensive. Inflation swaps and options open up a broad range of possibilities depending upon the investor class and whether a party is hedging liabilities or assets. Government inflation-protected securities and related ETFs provide a highly correlated degree of protection as they represent a well matched hedge against the inflation rate. Although gold and precious metals have historically been used to hedge inflation risk, they should only comprise a small portion of a hedged portfolio. A tailored optimal mix of these inflation-linked hedges will protect even the most sophisticated investor during an inflationary surge.

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