What's the Best Safe Haven for Investors?
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September 23, 2016
Barron's

We are living through truly unprecedented, risky times for investors. Certainly, global markets have never been more distorted by central bank manipulations than they are today, and investors can only hope that such manipulations will miraculously avoid ending in yet another catastrophic financial crisis.

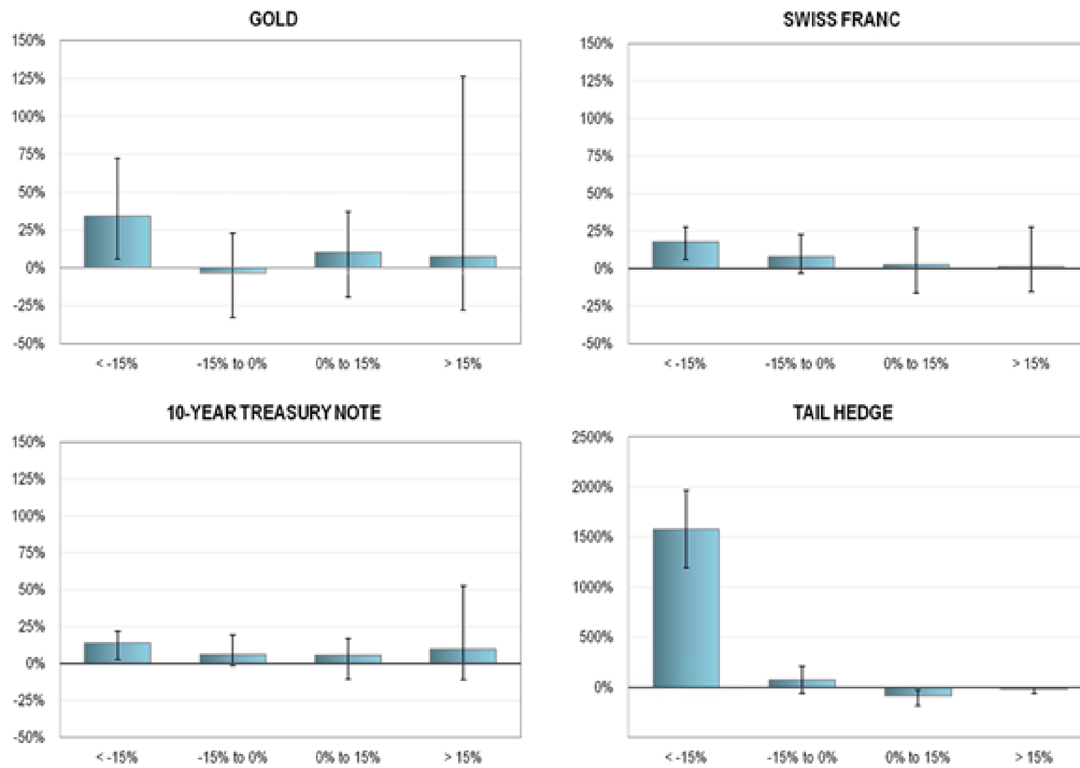
It is natural that so-called safe haven investments currently seem to be on everyone's minds, and it is timely to ask the question: Just what makes a safe haven a safe haven? And what's the best one out there? As someone who's spent his life trying to create just that, here's my take.

Clearly, the point of any safe haven investment comes down to one thing: protecting real economic value in a portfolio against economic catastrophe. This is both a defensive measure to avert future loss, and an offensive one to exploit future opportunities (with "dry powder"). While we often think of safe havens as merely protecting the capital invested directly in them, they are actually meant to do so much more. Rather than a well-timed place to hide away most of a portfolio, most investors appropriately think about a safe haven as a rather small, tactical allocation that indirectly provides protection to capital invested elsewhere in a portfolio. This requires a lot of bang for the buck from that small allocation. So a safe haven needs to be a highly nonlinear, insurance-like hedge that explodes in value whenever systemic markets crash.

In fact, the better a safe haven is at providing this insurance-like protection payoff, the better it serves its purpose. Specifically, the best safe havens both provide the highest and most reliable protective profit in a systemic crash, as well as have the greatest difference between their range of crash profit and their range of non-crash loss. The key here is, the better this insurance protection, the less capital is needed for the safe haven, the less portfolio drag from any of its losses, and the more return is available during more benign times from presumably more productive investments elsewhere in the portfolio. Paradoxically, what makes a safe haven the best safe haven is how much of it you don't need in order to stay safe.

Let's take a look at the historical ranges of profit and loss in various safe haven investments through different environments in hopes of determining the best safe haven out there. I'll use the S&P 500 stock index as a proxy for the systemic risks that investors will likely want protection from with a safe haven, and I'll bucket historical annual returns of different safe havens by corresponding annual S&P 500 total returns. (I'm using less statistically-significant annual returns because higher frequency data tend to obscure the economically meaningful nonlinear relationships I'm looking for here.)

Below are the conventional time-honored safe havens of gold, the Swiss franc and US treasuries, as well as a less conventional and somewhat more exotic safe haven of an equity tail hedge. Look at the high, low, and average of each bucket.



Mean, maximum, and minimum annual returns, bucketed by corresponding annual S&P 500 index total returns, 1974-2016

Swiss franc is vs. US dollar, tail hedge (1996-2016) is return on total annual invested premium

Notice that, since 1974, whenever stocks were down by over 15% in any given year (a "tail event," as there were only three such occurrences), gold returns ranged from about +70% to +5%, with an average of just over +30%—by far the best protection of the lot. In all other years, its returns ranged from +125% to -30%, with an average of under 7%. These are pretty good insurance-like returns, especially the average returns. The problem seems to be the volatile ranges around these average returns, particularly considering the amount of gold needed in our portfolio for an effective hedge. If we expect gold to make about 30% in a -20% stock market crash, we would need a gold allocation of two-thirds the size of our equity allocation in order to fully protect that equity position. With this size, we would actually be adding noise and potential drag to our portfolio in non-crash years, and even in the crash years, gold might do very little this time around. (I doubt it, but who knows?) This is like skydiving with a parachute that may or may not deploy; you'd be better off having no parachute at all, so a more informed decision can be made whether or not to jump. You can see how the degrees and reliability of the protection and insurance-like feature are the keys to the safe haven.

Still, gold looks pretty golden among the first three safe havens in our group. In fact, by our insurance protection criteria, it's the only safe haven among them. The others show meager protection or meager to non-existent insurance-like payoffs or both. I needn't even mention the obvious transformations over the years that have left their safe haven status even more unreliable—such as low treasury yields with little room left to fall (though lots to rise) and the sad monetary degradation of the Swiss franc. Gold's millennia of safe haven attributes, however, remain very much intact.

(I am ignoring many other so-called safe havens, such as high dividend-paying stocks, hedge funds, fine art, and US farmland, because their crash returns are very low—in the case of the first three, even negative; they simply do not provide any insurance protection.)

The fourth safe haven in our graph, the equity tail hedge, demonstrates what an extreme case of explosive protection and nonlinearity can look like. This generic tail hedge strategy—a cartoonish simplification, for sure—just spends a fixed amount of capital each month on way-out-of-the-money four-month puts on S&P 500 futures (with a straightforward constraint to avoid the priciest options) and mechanically "delta-hedges" them; the puts are kept until expiration or sold if they explode to a ridiculously high level. Pretty basic stuff, really. The data in the buckets are the annual returns on total capital invested in puts over any given year. (VIX futures might have been a simpler alternative to this tail hedge strategy, though it just started trading in 2004 and furthermore its popularity has lead to a very costly, steep "roll", making it a real stinker of a trade.)

We don't need to allocate much capital to these puts to protect our equity allocation—less than a couple percent of that equity allocation per year, since they make over 1500% when the S&P is down

over 15%! When there's no crash, the capital you expect to lose on these puts when they expire worthless is much smaller than what you've likely gained by allocating more to other more risky stuff like equities. This superior insurance protection profile of the tail hedge shouldn't be too surprising, since we're bucketing by the very same underlier of the puts. But it shows the benefits of being direct and not too cute in our choice of a safe haven. This parachute is the most likely to deploy.

Not all safe haven investments are created equal. Based on our insurance protection criteria, there are but two safe havens truly worthy of the name: gold and an equity tail hedge. They are in many ways functionally equivalent, as both hedge the same systemic tails—specifically bursting bubbles. This is really good news for mom-and-pop investors, as they have ready access to gold , if not so much to derivatives. ((There are gold ETFs such as the SPDR Gold Trust (GLD), however they come with significant risk of not enough physical gold backing the paper; there's also physical gold itself of course, which comes with the complexities of storage.)

What I've shown is just that, my own bias aside, an equity tail hedge (in the specific form depicted here) happens to provide much more explosive and reliable insurance-like protection; it is the one safe haven that is as good as—and even better than—gold.

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