

4th Quarter Commentary

January 2018

Some Clients Have Begun to Ask about Portfolio Leverage and Inflation Protection – Practical Questions about Real Risks

Prefatory Remarks and the CalPERS Problem

Technology changes, human nature is changeless. You can devise a better mousetrap – or industry (*biotech, the internet*) or product (*mortgage backed securities, MLPs*) or tactic (*momentum investing, factor investing*) – but the tides of market behavior always wash in the same directions. The manner in which bubbles build over time is changeless as well, with rising prices feeding confirmation bias, and self-reinforcing patterns like new fund flows to asset managers paying for advertising for new investment products, which beget more inflows and rising prices. The longer the bubble continues, the greater the evidence that the majority is correct. There’s a reason the expression attributed to John Maynard Keynes, who died in 1946, never ceases being quoted: “Markets can remain irrational a lot longer than you and I can remain solvent.”

In every bubble, there a small minority who never play along; they’re ‘losers’ until, inevitably, they’re winners. Today, that would include noted value investors who rely on their own research to inform them what reality is, such as Chuck Royce and Mario Gabelli. There are some who, even realizing the danger, can’t help themselves – they are caught in the grip of more powerful forces.

One such, some might judge, is CalPERS (the “Fund”). With \$356 billion of assets, it the 2nd largest pension fund in the U.S., and among the most sophisticated of institutional investors. It is difficult to appreciate its scale. Just in private equity, it has 194 different managers; it paid them \$234 million in management fees last year, and another \$455 million in incentive fees. It paid \$33.6 million in stock trading commissions, on 18 billion shares; this was less than 0.2¢ per share¹. At the end of 2016, the Fund held 2,000 separate corporate bonds (aside from mortgage backed securities, Treasury and Agency bonds, and so forth) and, believe it or not, over 4,000 different domestic publicly traded stocks².

With all of this institutional capability, with their multi-layered consulting, ranking and review processes and manuals, which stocks have they chosen as their largest 10 holdings? CalPERS has access to whatever investment, research and theoretician talent it might like. In 2012, they published a sophisticated emerging manager program, a 5-year plan with explicit guidelines for how to qualify and cultivate creative, value-added talent. One might think that the result would be at least a scintilla different than this:

Apple Computer	Microsoft	Amazon	Johnson & Johnson	JP Morgan Chase
ExxonMobil	Facebook	Samsung	Wells Fargo	Alphabet (Google)

Yet, they expose themselves to the same securities at the center of the indexation fund flows as a retail investor directed by an online robo-advisor. But that is not CalPERS’s momentary plight; they have a more

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¹ <https://www.calpers.ca.gov/page/investments/asset-classes/asset-allocation-performance/investment-fund-values>

² <https://www.calpers.ca.gov/page/investments/about-investment-office/investment-financial-reports>

serious issue. This relates to the calculation of their pension obligations. CalPERS serves almost 2 million public employee members, over a third of whom are already retirees and beneficiaries. It paid out an average of about \$33,000 each last year³, and the number of members increased by 3%. It’s a growing load.

CalPERS recently made a strange decision. Some background facts, first, so you can understand how strange it is. In 2016, the Fund lowered the rate of return it expects to earn from its investment portfolio from 7.5% to 7.0%. The Fund expected to be only 68% funded for 2017, relative to its pension obligations; a decade earlier, in 2006, it was 87% funded. A major problem is that the average investment grade bond yield in the U.S. is only 2.74%⁴. It was 5% in 2006. Whereas the Fund must earn at least 7%⁵.

Knowing these facts, one can ponder why the Fund’s board announced last month that it would increase the proportion of the Fund invested in bonds from 19% to 28%. The only thing those bonds could do is make the Fund’s return lower. They also increased the equity weighting from 48% to 50%. However, the prior year, a Board member stated, “We’re in a low-growth (investment) environment, and it’s expected to remain that way the next five to 10 years.” Separately, CalPERS advisor Wilshire Consulting predicted that the Fund return over the next decade would likely be just 6.2%.

In a low-growth, record-high-valuation environment, a major risk to bond prices in particular is an increase in inflation or interest rates. Yet, not only did CalPERS increase its weighting to below-required-return bonds as well as stocks, but in order to increase those weightings, it reduced its allocation to Inflation Assets and Real Assets by 6% points. These are classic inflation beneficiaries, and these Fund investments ranged from commodities and inflation-linked bonds, to real estate, forest land and infrastructure. The Fund also reduced cash, which provides flexibility in the event of sudden, large price changes, to almost zero.

Asset Class	New Target Allocation	10/31/2016 Allocation
Global Equity	50%	48.3%
Fixed Income	28%	19.4%
Real Assets	13%	19.0%*
Private Equity	8%	8.0%
Liquidity	1%	4.8%

It all seems backwards. Why would they do that? Perhaps that’s explained by the following headline. It appeared in the Business & Real Estate Section of the Sacramento Bee the day after the Fund’s decision to lower the expected investment return by ½% point to 7%⁶:

CalPERS moves to slash investment forecast. That means higher pension contributions are coming.

Some additional verbatim statements and quotes from the newspaper:

- CalPERS has spoken. Its ominous message is reverberating through government buildings and employee cubicles all over California.

³ This is a rough estimation derived by dividing total distributions by total retirees and beneficiaries.

⁴ iShares Core U.S. Aggregate Bond ETF as of 1/4/18

⁵ <https://www.calpers.ca.gov/page/newsroom/calpers-news/2017/asset-allocation-selected-for-investment-portfolio>

⁶ <http://www.sacbee.com/news/business/article122088759.html>

- The move, closely watched in the pension industry, reflects an acknowledgment that investment returns are softening. “This is very monumental for the organization,” said board member Richard Costigan moments before the vote.
- The state says its CalPERS bill will increase by \$2 billion a year, including a \$1 billion-a-year hit to the general fund [almost a 20% increase]. Representatives of California’s school districts said they’ll have to shell out another \$500 million a year.
- “It is possible that we could see some bankruptcies,” said Dane Hutchings of the League of California Cities in an interview Wednesday.

If CalPERS were to yet again reduce the expected investment returns, then the taxes and pension contributions of cities, towns, and school districts across California, and even the union dues of teachers, police officers, would rise a lot -- again. One can imagine the conversations that took place.

The solution CalPERS chose was to increase those asset classes whose expected returns – the ones used in future projections – are still based on historical results, so as to support the official 7% long-term return assumption. Even though bonds cannot, from this starting point, provide more than, or even as much as their current yield. Even though equity valuations are at all-time highs. Even though:

- BlackRock expects U.S. bonds to return 1.8%/year in the next five years, and stocks to return 3.9%.
- Jack Bogle, revered founder of Vanguard Group, expects 3% from bonds over the next decade, and 4% from stocks.
- Morningstar, expects only 2.5% over the next 10 years from bonds and 1.8% for stocks.

By adding more money to bonds and stocks, CalPERS can maintain an official return expectation of 7% and thereby not be the proximate cause of ensuing budget hardships. Translation: they say they will earn 7% by buying more assets that earn 2 ½%, and their constituents accept this, and both can pretend that it is so – for now. And this is only one of the innumerable vectors of buying demand that help perpetuate bubbles.

Perhaps this is why we’ve been fielding more questions from clients asking about debt leverage among our holdings and about whether we have any inflation beneficiaries in our portfolios. What those questions are really about is diversification – diversification in practical, effective terms, not in robo-advisor terms.

The Topic of Inflation Beneficiaries and other Diversifying or Counter-Cyclical Holdings

Perhaps we haven’t been doing a very good job of communicating what our portfolios really look like. No doubt, I use too many words and obscure the message. So, here is a picture. It displays four different equity strategies we manage (for efficiency, 2 are attached as Appendix A). Some are different primarily because the manager might be a Mr. Bregman as opposed to a Mr. Stahl, but two are clearly oriented around smaller companies, while larger companies predominate in the other two. While there are distinct differences, there are plenty of holdings in common.

I’ve taken the liberty of identifying, in each strategy, those businesses that would be considered inflation beneficiaries or counter-cyclical or independently-cyclical relative to the balance of the economy. Shown are the industry groupings, individual holdings within them, and industry weights.

The businesses identified not only differ markedly from the broad stock market – which is heavily skewed toward information technology and finance – they differ markedly from each other: in their business models, the way they derive their revenues and customers, and the factors that may cause them to do well or to recover if they happen to be depressed. They comprise between about 35% and 55% of each strategy. Which is very substantial.

Weightings as early January 2018 ¹			
	Core Value	%	Small Cap
Marine drilling & shipping	Subsea 7		Subsea 7
	Navigator Holdings	11.9	Stolt-Nielsen
	AP Moller Maersk		Clarkson plc
	--		Braemar Shipping Services
5.9			
Precious metals	Wheaton Precious	7.8	--
	Royal Gold		--
			-
Real Estate, infrastructure²	Howard Hughes	14.9	Howard Hughes
	Texas Pacific Land Trust		Texas Pacific Land Trust
	Brookfield Asset Mgmt		Dream Unlimited
	--		Equity LifeStyle Pptys
			23.0
	--		TRI Pointe Group
Oil & gas, mining²	Continental Resources	10.4	Texas Pacific Land Trust
	Texas Pacific Land Trust		Civeo Corp
	Cheniere Convert Note		--
	Civeo Corp		--
			16.1
Consensus (crypto) money	GMO Internet	6.0	Bitcoin Investment Trust
	CME Group		--
	CBOE Global Mkts		--
	Hive Blockchain Tech		--
			1.5
Other counter-cyclical	--	-	--
	--		--
			-
Sub-total: Securities (%)		50.9	46.6
Cash and short-term funds		20.2	16.2
Total: Securities, cash (%)		71.1	62.7

¹ See Appendix A for allocations for Strategic Value and Research select

² TPL given one-half weight in each of Real Estate/Infrastructure and Oil & Gas/mining

Source: Fiserv APL, Based on the Strategy's current values in the accounts, not model weights (as of 1/4/2018)

And if the 15% to 25% cash balance in each strategy is included, the differentiable character of these portfolios is even more substantial. Cash is a much underappreciated asset. It's one of the only price-stable assets that is simultaneously highly value-elastic: it increases in value as other asset prices drop. The more they drop, the more valuable the cash. Because with the same amount of cash, you can buy more of the declining assets. And in today's near-zero interest rate world, the cost of holding cash is near zero, too.

So these strategy holdings might even qualify in a specialized hard-asset or inflation-hedge ETF. Perhaps to be called the Functional Diversifier ETF or the Non-Systemic-Risk ETF. Those don't roll off the tongue very smoothly, so maybe we'll just keep calling them Core Value and Strategic Value and Small-Cap Equity.

Now that we've revealed just how high these weightings are – although it's not as if we haven't covered most of these securities in past reviews – there are the natural follow-up questions:

Why do you own so much? One reason is pure opportunism: the best time to buy an inflation-beneficiary security is precisely when no one is concerned about inflation. That's when they sell at deep discounts. If you wait until there is a public desire to buy inflation protection, you'll have to pay the premium.

How about timing? When is the time to look at marine shipping stocks and bonds? The answer is that you don't have to be an economist or trading wizard and try to divine the future. The prices tell you all on their own. That's usually when no one wants them or expects a recovery or is willing to wait for a recovery. The only time to get a good price in a tourist shop is when the season is over, the tourists have left, and it's a long winter ahead for the shopkeeper.

Beyond superficial opportunism, we've been preparing our portfolios for preservation of purchasing power:

- Bond yields are so low, even 5% junk bonds, that they just about guarantee a negative after-tax, after-inflation return. That's losing money, not making money, not so different than CalPERS.
- And the S&P 500 is at an all-time high P/E. Recall from prior reviews that whatever figure you see when you look at that S&P 500 number, it doesn't include the companies with egregiously high P/E's – like Amazon, with its year-forward P/E of 155x.

The regular way of figuring out when to buy inflation beneficiaries is to watch like a hawk for every monthly government statistic that is released, trying to read the conflicting month to month signs until there is clear confirmation that one should act. And then act, at precisely the correct moment – along with everyone else. And pay the then going rate. Or, you can simply pre-position yourself in securities that already provide alluring safety and return characteristics.

Let's review a few of these sectors and representative securities. We're covering a large swathe of the portfolio, so a lot of this is appended to this review in the form of one- or two-page company summaries, along with a couple of industry-sector reviews. For the most part I'll limit myself to comments about the merits of a few industries and some pertinent characteristics about some representative companies.

Some Diversifying Industries and Companies

Marine drilling and shipping

These are among the most depressed industries in the world. Examples:

- The lease rates for transporting various raw materials⁷ is down 41% from its high at year-end 2013. That is hardly extreme for this industry: despite being down from 2013, this index is up 380% from its low in early 2016⁸. Which means it had declined by 87% to its low two years ago.

⁷ The Baltic Dry Index

⁸ <https://tradingeconomics.com/commodity/baltic>

- The number of offshore drilling rigs has declined by 82% since 2004.

Off-shore drilling rig operator, **Diamond Offshore**, had 56% lower revenue in 2016 than in 2009. But it might be startling to know that it still generates substantial free cash flow and has a reasonably stable balance sheet – it has no debt maturing until November 2023. So this company, which is controlled by the Tisch family, has a certain staying power and therefore represents a long-term call option on higher oil prices. How much optionality? When these shares were purchased in the Research strategy recently, they were priced at 65% of book value. Alternatively, the company trades at only 3.4x its average earnings since 2004, if that may be considered a normalized figure. If a recovery P/E ratio is only 12x, the shares would appreciate by 3.5x. Even if that were to take 5 years to accomplish, it would be 28% per year.

A P Moller-Maersk, which is the largest container shipping company in the world, does not depend on a recovery in oil prices. It is also a family-controlled business, is also profitable, has repurchased substantial quantities of shares, and recently acquired a significant failed competitor. The company simply requires a normalized rebalancing of the excess supply of ships with demand from the persistent rise in global trade, in order to provide a very robust rate of return. It trades at about 1.1x book value.

Although both Diamond Offshore and A P Moller-Maersk earn their money from ownership of ocean-going vessels, their businesses are not correlated with one another, nor with the stock market as most people think of the stock market. That is functional diversification. As a reference, the S&P 500 trades at 3.4x book value.

For those who don't feel comfortable with this flavor of risk/return, here's another flavor. **Clarkson plc** and **Braemar Shipping Services** are shipping brokers. Accordingly, they are asset-light businesses. They don't own ships; they provide information about ships, routes, pricing, logistics, and other related services. Moreover, they are diversified across the spectrum of shipping sectors, so their exposure is to tankers, container ships, bulk carriers, and so forth. They are profitable, despite the market depression.

And they have an additional form of earnings leverage in that a portion of their fees are a function of the vessel lease rates. Ergo, if container shipping rates rise sharply, that will be reflected to a degree in revenues, separate from increased transaction activity. The investment return will be lower than in a recovering asset-intensive operator like A P Moller-Maersk or Diamond Offshore, but we believe it should be high nevertheless. Clarkson and Braemar fall into the croupier category of business model -- intermediaries who don't risk any serious amount of capital, but take their fair share of the activity of other participants.

Precious Metals Royalty Companies

Many people presume that gold mining companies are good hedges against inflation. It's not actually true. To illustrate, imagine that you could be transported back to 1970, yet retain your general historical knowledge of the era. Gold was \$35 per ounce, and with the advantage of hindsight we know that in the intensely inflationary decade of the 1970s gold appreciated to well over \$500. With this information advantage, should you, as a hedge against impending inflation, have bought Newmont Mining in 1970?

No, you shouldn't have. At year-end 1969, when gold was \$35.47/oz., Newmont was nearly the same price, \$31.75 per share. Ten years later, at year-end 1979, gold had risen to \$512/oz., but the Newmont shares

were only \$39.63. The one rose by over 1,300%, the other by 25%, or only 2.2% per year. Even worse, this was a negative real return, since consumer prices rose at more than a 7% rate during the period. At least the Newmont earnings did rise by 10.7% per year. But the gold price had risen at a 30% annualized rate.

What went wrong? The major problem is that when the gold price is higher, miners all increase production. Therefore, they also need to acquire new properties to replace depleting reserves, but at a cost that is rising with both inflation and competition for resources. The same applies to their need for increasingly scarce mining equipment and labor. Rising costs limited the potential for margin expansion.

A more elegant approach to earn money from gold is via a royalty company. The gold price doesn't even need to go up. It can even go down. Royalty companies solve a problem that miners run into. When gold prices are low, debt funding doesn't work, because interest payments begin accruing on day one, but the project might take years to develop and produce cash flow. At such times, the equity valuations are low, too, so that raising money by selling shares would be too dilutive.

A royalty company does not require interest payments or equity from the miner. It simply purchases a proportion of the future gold production, once the mine becomes operational. Say the current price of gold is \$1,200 an ounce. A royalty buyer makes an upfront cash payment to a miner to develop a particular resource. That entitles the royalty company to buy a certain proportion of future production at today's price, but discounted for the time value of money. Let's say that discount rate is 15%. If the mine were operational by the end of a year, the royalty company would buy its share of the ore for 15% less, which would be \$1,043. The next year's production would be discounted by an additional 15%, and so on.

If this is a 20-year contract, then the price for the 20th year's ore would be only \$73, which is a 96% discount. Add up all of the payments to be made over the 20 years, from \$1,043 all the way down to \$73, and compare that with what it would have cost to pay the full \$1,200 an ounce every year: the royalty company would end up paying—on average—only \$375 an ounce, almost a 70% discount.

Reality unfolds more interestingly, though. First, the royalty company earns even more profit if the price of gold rises, since its margin increases relative to the established cost; there is no countervailing competitive or expense burden, as

Royalty Contract Calculation Example

Current Gold Price	\$1,200
Discount Rate	15%

Period	Present Value	% of Curr. Price	Current Mkt. Val.
1	\$1,043	87%	\$1,200
2	907	76%	1,200
3	789	66%	1,200
4	686	57%	1,200
5	597	50%	1,200
6	519	43%	1,200
7	451	38%	1,200
8	392	33%	1,200
9	341	28%	1,200
10	297	25%	1,200
11	258	21%	1,200
12	224	19%	1,200
13	195	16%	1,200
14	170	14%	1,200
15	147	12%	1,200
16	128	11%	1,200
17	112	9%	1,200
18	97	8%	1,200
19	84	7%	1,200
20	<u>73</u>	6%	<u>1,200</u>
Total	\$7,511		\$24,000

Cumulative present value, as % of cumul. mkt. value (\$7,511 ÷ \$24,000)	<u>31%</u>
Cumul. PV discount, %, applied to curr gold price (31% x \$1,200)	<u>\$375</u>

would impact the miner. More importantly, the discount provides an enormous margin of safety in a scenario of declining gold prices. Sticking with the same example, if the price of gold were to decline by 15% every year for 20 years, down to a price of \$73 per ounce—which is nearly impossible to imagine under plausible circumstances—this contract would be breakeven.

As to the present environment, it is a particularly good time to buy the royalty companies. Gold recently rose to \$1,300/oz, but it was over \$1,800 in 2011. The gold miners are not making much money. As a consequence, they have curtailed exploration and development of new resources. As a further consequence, production volumes will eventually decline and reserves will plummet. It is precisely a time like this, when the price of gold is low and public market investors are unenthused about gold investing that is opportune for royalty companies to make those investments, because the miners lack for funding.

This current circumstance is not a stable one. The laws of supply and demand do not expire, and scarcity makes itself felt in price changes. It's really not a bad time to have exposure here.

Sandstorm Gold, which is in the Research Select strategy, can serve as an example. It has a \$925 million market capitalization. Its share price is down about 60% from January 2013. It owns 171 royalty streams, of which only 20% of the underlying mines are operating. The latter can be considered dormant assets, because as the miners develop them in the coming years, they will start producing.

Its practice is to associate itself, as a small player among larger royalty companies, with large land packages that have significant exploration upside. The idea is that as enough optionality is realized, the cash flow will more than replace the existing reserve streams. This entails the risk that some upside will never materialize. The trade-off is that these properties are very inexpensive, since the consensus sees little likelihood of gold price increases. Sandstorm is essentially buying optionality with the current level of cash flow.

Based entirely on purchases that have already been made, Sandstorm anticipates that its pro-rata royalty production should increase by 100% in the next 36 months. According to the company, this should result in \$100 million of after-tax cash flow in 36 months.

The average cost of an ounce of gold via the royalty interest optionality is \$246. The company made \$4.8 million in the third quarter of 2017 and it is repurchasing its shares, which is very unusual for a royalty company. Substantially all of its properties are in geopolitically stable areas, with 68% in North America and 24% in South America. In addition to gold, Sandstorm has silver, copper, and diamond streams. The balance sheet has no debt, and \$659 million of equity. It trades at 1.4x book value.

Consensus Money and Blockchain

Changing the Discussion

Last quarter we introduced the topic of consensus money, still popularly known as cryptocurrency (more on the difference later), which we purchased in a trivial amount for many clients a year or so ago. It was not discussed as another security that might appreciate a lot; it was discussed as a method to diversify portfolio risk. Being completely outside the bond and S&P 500 stock universe that is the substance of most people's financial savings, it lacks that systemic risk – it's outside the system.

Today, I'll go to go a step further and suggest that *as a form of insurance* for their own protection, everyone should own some consensus money – appropriately sized to account for the risk – that it is the ultimate conservative investment. Obviously, this can hardly be a credible conversation without addressing what we hear and read every day, because it flies in the face of the public discourse.

First, Bubble or No Bubble?

As ordinary human beings, we're not equipped, unless appropriately armed with actual -- you know, facts -- to deal with the drama cooked up daily by the financial news media. There is the parade of financial markets celebrities being asked how much of a bubble they think bitcoin is. The responses are wildly divergent. And pretty much all the negative comments I've heard are either flatly incorrect as to basic facts or are misinterpretations based on an insufficiency of facts.

It has been remarked on television by more than one well-known fund manager that bitcoin could not function as a common transactional currency, since, at \$15,000 a coin, there is little that is cheap enough to buy with it. Yet, it is divisible into one-100 millionths of a unit. These are known as satoshis, and would each be worth about 1/10,000th of a penny. Not only is bitcoin divisible, it is breathtakingly more divisible than a single penny. This is a simple example of a fundamental misstatement that is not subject to dispute. Clearly, that comment was not preceded by even a cursory reading of a basic description of bitcoin.

Do we know everything about this topic? My knowledge doesn't even approach 'hardly'. Do I know what will happen? No; I'm peering into the future, like everyone else, but with what I believe is reasoning appropriately grounded in facts and historical context.

Another argument that bitcoin is a bubble is based on its seeming to be all over the news, that Uber drivers now bring up the topic and that someone's unemployed nephew is mining cryptocurrency in his bedroom. All the earmarks of the Internet Bubble of 18 years ago. But it is a superficial resemblance. You cannot have a bubble – that is, ready to collapse as soon as more money stops being added to it – until pretty much everyone who wants to be in is in. But no one's really in, yet. For bubble-measuring purposes, here's how much no one, is in. The global consulting firm Capgemini produced a study late last year that said that there were 16.5 million millionaires in the world at year-end 2016. There were barely more than 16 million bitcoin then; there are 16.8 million today, just as there are probably more millionaires as well.

So look at it this way. What if the full extent of bitcoin's eventual success is that the only people in the entire world who wish to own it are the millionaires? Almost none of the other 99.9% of the planet want it, and each of the millionaires only wish to own one single coin and no more. That would be demand for 16.5 million coins, which would be a 100% excess relative to the supply. In order for each millionaire to buy their one coin, every single one of the non-millionaire owners of bitcoin would have to be willing to sell their entire holdings. Wouldn't the shipping companies and drillers and gold companies be delighted to be in that position? Wouldn't you? What price would *you* ask? It could well be that bitcoin fails to become a globally accepted parallel currency or store of value. A lot can go wrong. But it's not a bubble.

But to be clear, so that I'm not criticized due to grammatical object confusion: YES, there is a cryptocurrency bubble – just not in bitcoin. There are over 1,300 cryptocurrencies or coins, many of which are poorly conceived, poorly designed, or have no proprietary value. Most importantly, almost none have a non-

inflationary monetary policy. The latter, by our lights, are the only ones that can have long-term worth as a store of value.

How Can Bitcoin Really Still Go Up 1,000x?

The IBM PC was rolled out in August 1981. Its primary market was commercial. Working in Bankers Trust Company, we didn't get ours until about 1983. As for the household market, I was one of the skeptics. Didn't know why I should pay \$3,000 for a computer for the sole purpose of writing a letter with a keyboard instead of a pen. The internet was a decade-plus away. Microsoft, which provided the operating system for the PC, came public in 1986. How many times your money would you have made if you bought Microsoft almost any time during most that year, and held to year-end 1999, the end of the Tech Bubble?

The answer is 646x. In a \$100,000 account, if you risked \$1,000, and every other holding went to zero, you finished with \$646,000. You didn't have to understand technology or software to make that decision. You just had to consider the 'what if'. Not that many people owned a PC in 1983. What if, 10 or 20 years later, it was actually popular? By 1999, pretty much every household in the developed world that wanted a PC had one. And buried inside each was the Microsoft software. It was simply a study in a product going from minimal market penetration to market saturation on a global scale over the course of 15 years. The same for consensus money, if it comes to be accepted, except that it can be much bigger, if you think about it.

At that point, it will no longer be volatile because it will have reached some mature market value in the scores of trillions of dollars. There is about \$90 trillion of M2 money supply in the world⁹. There is \$85 trillion of assets on the balance sheets of the world's largest 100 banks¹⁰. There is \$38 trillion of developed market sovereign debt¹¹ and it pretty much all earns a negative real rate of return. There is \$0.235 trillion of bitcoin as of January 14, 2018.

Back to the Conversation about Safety and Insurance

Last quarter's review described the historical context for why mankind's first non-debasable money, with a fixed number of units, could become very valuable. Why, for instance, was the paper currency of the major economies so stable (more or less) from 1946, onward, for 25 years? Because until 1971, U.S. dollar bills were exchangeable into gold at the Federal Reserve, and other countries pegged their currency to the U.S. dollar. There was a certain reliable scarcity value in this equation.

Bear in mind that a "bill", as in "dollar bill", was historically an instrument that could be presented by the bearer to the responsible party for redemption into legal tender, which was gold or silver; the bill itself wasn't legal tender. But there is hardly a governing power in the history of the world that did not debase its currency. Even during the stable period after World War II, every single major nation except Japan and the U.S. at some point devalued their currencies relative to the fixed exchange rate they were committed to maintain. And those inflationary policies robbed the populace of their savings and financial safety.

⁹ Source: CIA World Factbook

¹⁰ Source: Bloomberg. Most recent balance sheet as of December 21, 2017

¹¹ Source: Bloomberg World Countries Debt Monitor, Developed Markets, as of December 21, 2017

This can be an abstruse topic. Let me make it more relatable by sharing some of my personal history. It's a tragedy, really, my own riches to rags story. On my 18th birthday, a wealthy uncle whom I had never met set aside money for me in a Trust. It was not for my immediate use, but to ensure my safe retirement. I was to receive it upon my 65th birthday, which is still some years away. And to ensure the money's safety, it was placed in a safe deposit box in a Manhattan bank, so that I could claim it on the appropriate anniversary. I didn't know how much it was, but I knew that my uncle was fabulously wealthy, lived in a grand apartment on Fifth Avenue, with servants, chauffeurs and other appurtenances of that lifestyle. Understanding that my retirement was assured (when I was 18, in the 1970s, an Upper West Side 2-bedroom, newly renovated, air-conditioned apartment with dishwasher and terrace could be rented for \$425 a month¹²), I treated myself well and did not bother to save any of my earnings. Until quite recently, I presumed it could be a million dollars, half a million at least.

But thinking about bitcoin, recently, I thought about how much prices have changed. I just hadn't been paying attention. I needed expert advice, but now I was concerned about the cost. So I consulted some free resources. According to the St. Louis Federal Reserve Bank's online database, I saw that GDP in the U.S. expanded by 4.02% per year in these past 39 years. Ok, that's good. But it also says that the monetary base increased at a 9.25% rate. Which means that 5% more dollars were required every year to buy the same goods. That means that the purchasing power of those dollars in the safe deposit box have been eroded by over 85%. So, while I'm thinking a million dollars today, my uncle might have been thinking \$150,000 40 years ago. Uh-oh.

That's a picture of the destructive power of a currency being debased, and it is the stated policy of the Federal Reserve to inflate the currency at a 2% rate. Not that they can't miss their target, everyone does now and then; it could be higher. So one needs protection.

But if consensus money becomes accepted as a long-term store of value, then it is also an alternate currency. This can be both a blessing and a curse. Having lived for most of a century with the world's reference currency, Americans are not generally aware of what a weak currency means. People in other countries are exquisitely sensitive to the relative strength of their currency versus others; the Italians, the Venezuelans, the Indians, the Israelis, the South Africans, the Mexicans, and the list goes on. Americans also are not aware of the existential fragility of currencies, of, in fact, the absolute, 100% failure over the sweep of history of every single one of the thousands of currencies that ever existed.

Suppose that some indeterminate number of years from now bitcoin does become broadly accepted. What would happen is that there will be one currency with a stable number of units, while the fiat currencies are expanding, as they always do. If the number of U.S. dollars increases by 2.6% more in a given year than

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<p>BOERUM HILL/BKLYN HTS. floor thru apartment \$175/mo. electricity included. Quiet people desired. 852-8431</p>
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¹² <https://ny.curbed.com/2013/11/21/10172014/what-would-50-in-1940-rent-a-new-yorker-today>

GDP, as happened last year, while the number of bitcoins do not increase, then it would take 2.6% more dollars to purchase a given amount of bitcoin. Kind of like what happened to my inheritance.

A tale of two savers: Now, staying in the future, take a clerical worker in a law firm who happens to own a good portion of her savings in bitcoin. She has saved enough to buy a vacation home on a popular erosion-protected beach, the price is right, and she does it. She converts some of her bitcoin to dollars (unless the seller insists on bitcoin), and makes her down payment. Now take a partner in that successful law firm who doesn't own any bitcoin; she earns enough and never had time to pay attention anyway. She had been thinking of buying a vacation home in the same town as the clerical worker. But prices kept rising. She got priced out of the market. She doesn't quite know why.

The attorney was unaware that her functional currency, dollars, was depreciating against bitcoin over the course of several years. What if the world became divided between those who own bitcoin and those who don't, a world in which bitcoin assumes the reference currency status that the U.S. dollar did in the generations after World War II? It could become the *greatest wealth transference* experience in history. This is the reason to buy some insurance – appropriately sized – through a stable-monetary-policy consensus money. No one seems to mind – or, at least, to question – paying for homeowner's insurance, and not just once, but year after year, decade after decade. This just needs to be the once.

Moving On

There are many other questions we've been asked in recent weeks about bitcoin, blockchain, initial coin offerings and so forth. They can't all be answered here. We've even carried on extended e-mail correspondence with people – both clients and complete strangers – from all over the world about these issues. Being real questions from real people – not convenient props like my fake uncle – along with their follow-up questions and opinions, these are very engaging and enlightening conversations. In the next few weeks, we intend to make many of these available on our website. One consideration is to put these into a podcast Q&A format so that they can be downloaded and listened to conveniently; another is to post them in the ordinary print format.

Before reviewing a couple of consensus money and blockchain related investments now in the portfolios, an explanation of why 'consensus money' is our preferred term for cryptocurrency. The 'crypto' terminology sends the wrong message and often derails the conversation into the many technical aspects of bitcoin. One of the problems in this debate, even seasoned investment professionals are unfamiliar with the history of money or banking. The first thing to recognize is that all sorts of objects have represented money. All that is necessary is that there is a consensus that the object has a certain value. Sea shells have been used as money and, as we all know from the movies, packets of American cigarettes were better than almost any form of cash money throughout Europe during World War II, and could buy just about anything, as they still do in prisons around the world. There are more formal examples, too, of what has been considered money both by edict and consensus:

- In 1576, by the Act 18th Elizabeth, c. VI, corn was required to be the standard of value in drawing the leases of land properties, although silver was the common measure of value.

- For a number of decades in some of the American colonies in the early 1600s, because of a drastic shortage of coin money, tobacco leaves were the safest and most reliable currency. So much so, that they could be exchanged for gold and used to pay taxes.^[1]

GMO Internet, is an indirect way to participate in the expansion of consensus money and blockchain technology. It was founded over 25 years ago by Masatoshi Kumagai, who both owns over 40% of the shares and is Chairman and President. GMO has acquired a variety of internet service related companies over the years and now has the largest market share in a variety of online sectors. Among these is internet domain registry for companies with internet addresses (e.g., .com, .net, .co.jp, etc.), server/cloud based services, and online payment processing services for retailers. It is a growing company; revenues in the third quarter of last year were 12.5% higher than the prior-year period.

At the time of our first purchases last year, the shares traded for a normal valuation, roughly 18x estimated year-forward earnings. Another way to view its valuation relates to the company's policy of letting the minority interests of its various subsidiaries trade publicly. There are well over a half-dozen of these, and GMO Internet's stock market value is actually considerably lower than the collective public market value that it owns of those subsidiaries. Why is it so cheap? Maybe because it's in Japan and not in a major index. The market cap is \$2 billion, but with the owner-operator stake, the tradeable market cap is only \$1.2 billion. Plus, it's already got "Internet" in the name, which isn't news, and it hasn't adopted "Crypto".

Our interest in GMO relates to two new businesses pending: it is one of over a dozen Japanese companies that have recently been licensed to operate cryptocurrency exchanges; it is also partnering with a major semi-conductor chip manufacturer to deploy a next-generation currency mining operation, which will be located in Sweden (home of low cost hydro-electric power and low-temperature environs).

The company appears to be staying within its historical circle of competence in that both of these will be service businesses, including the mining operation, which will be a cloud-based mining-as-a-service, not for the company's own account. Therefore, if these new ventures will be successful, their future potential does not appear to be reflected in an egregious valuation, which is to say that the optionality – which could be substantial – comes gratis with the rest of the business. All in all, an old-school way of participating in new-school experiments.

CME Group and **CBOE Global Markets** might seem less exotic than GMO Internet, but the potential might not be. Last month, following CFTC approval, both the CBOE and the CME began offering bitcoin futures contracts. A sufficiently liquid futures market would permit bitcoin investing and trading to transition from a retail to a true institutional clientele. A bulge-bracket brokerage firm/investment bank could, in principle, hedge the volatility and thereby offer itself as an intermediary for quasi-proprietary products. A mass market retailer, which could not otherwise take the price risk of accepting bitcoin as payment, would in principle be able to hedge the downside risk. What would be the motivation? If the typical retailer net profit margin is 3% or so, that is net of about 3% paid to the credit card intermediaries like Visa. A retailer could double its profit margin if it could bypass the transaction processors. Just two companies, Wal-Mart and Amazon, have generated over \$600 billion of annual sales, which pretty much are paid via credit cards. A robust bitcoin futures market could be enormously profitable for CBOE and/or CME.

Of course, developing a sufficiently liquid futures market, even if ultimately successful, can take time. The CBOE first offered its VIX volatility futures contracts in 2004. In the past five years through October, VIX futures volumes have increased by an annualized rate of 30%, and in 2016, VIX futures and options activity accounted for over 60% of CBOE's revenues.

4th Quarter Commentary: Appendix A

Inflation Beneficiary, Counter-Cyclical or other Diversifying Holdings

Research Select and Strategic Value Strategies

January 2018

Weightings as early January 2018				
	Strategic Value	%	Research Select	%
Marine drilling & shipping	Oceaneering Int'l. AP Moller Maersk Clarkson plc --	6.7	Diamond Offshore Stolt-Nielsen Clarkson plc Braemar Shipping	8.1
Precious metals	Wheaton Precious Franco Nevada	4.3	Sandstorm Gold Franco Nevada	3.2
Real Estate, infrastructure²	Howard Hughes Texas Pacific Land Trust Madison Square Dream Unlimited Brookfield Asset Mgmt	13.8	Howard Hughes Texas Pacific Land Trust Dream Unlimited -- --	22.5
Oil & gas, mining²	Texas Pacific Land Trust Civeo Corp -- --	7.1	Texas Pacific Land Trust Cheniere Convert Note -- --	16.5
Consensus (crypto) money	Bitcoin Investment Trust GMO Internet CME Group CBOE Global Mkts	8.6	Digital Garage -- -- --	1.9
Other counter-cyclical	Associated Capital Icahn Enterprises	4.6	Associated Capital Oaktree Capital Group	4.8
Sub-total: Securities (%)		40.5		52.2
Cash and short-term funds		23.2		13.9
Total: Securities, cash (%)		63.7		66.2

² TPL given one-half weight in each of Real Estate/Infrastructure and Oil & Gas/mining

4th Quarter Commentary: Appendix B

Selected Holdings Write-Ups

January 2018

Associated Capital was spun off from GAMCO Investors, Inc. in late 2015, separating the institutional research and alternative investment businesses from the traditional investment management business. Associated Capital has two lines of business: institutional research and alternative investments, the former a low-growth, mature business, while the latter is a potentially high-growth operation.

The alternative investments business manages just \$1.4 billion of client assets in merger arbitrage and event-driven value strategies. Its challenge has been many years of exceedingly low interest rates, a consequence of which is narrow price spreads between companies that are parties to a pending merger. Accordingly, merger arbitrage, which is a low-volatility investment strategy, has been producing low returns. Nevertheless, the AUM are growing: AUM has increased by almost 30% since the spin-off, and has the potential to expand more rapidly should merger arbitrage spreads widen. This optionality takes multiple forms: wider spreads; more deals to which capital is allocated, and more AUM raised for that purpose. In success more, this would lead to higher earnings (potentially amplified if incentive fees are earned), and higher valuation multiples. In that sense, Associated Capital is a diversifying element in a portfolio in that its operations and valuation could improve in response to higher short-term interest rates.

At present, the institutional research services company is loss generating. There is no reason to anticipate significant growth for this business, and it is likely to operate at or near breakeven for the foreseeable future. The advisory business is the main lever for stock price appreciation.

Associated Capital's valuation is essentially an exercise in calculating adjusted book value and option value for the operating business. As of year-end 2016, the company had approximately \$974 million in adjusted book value (\$40.16 per share), primarily comprised of 30% cash, 50% investments and 15% in equity interest in the parent company of the spin-off, GAMCO Investors. The receivable note is currently deducted from shareholders' equity due to the structure of the note, but after reversing this entry one arrives at the \$974 million cited above. This compares to a market capitalization of approximately \$800 million at year-end, or approximately an 18% discount to NAV. It should be noted that adjusted book value, all else equal, would be in excess of \$1 billion if not for over \$40 million of share repurchases in 2016. In the simplest sense, the stock represents an investment vehicle, with considerable liquidity, of the esteemed investor and controlling shareholder Mario Gabelli.

At present, the operating businesses comprise 10% of NAV, at most, in current form, although should the investment advisory business flourish, this dynamic could change dramatically. Focusing on the book value again, we believe that Mr. Gabelli could compound book value between 6-8% over a full business cycle, which, when combined with eventual NAV reconciliation, equates to a low double-digit annualized return. There is upside optionality in the investment advisory business, and downside protection in the form of tangible book value. We would view an adverse market as highly favorable to Associated Capital, as it would allow Mr. Gabelli to allocate balance sheet capital opportunistically, and enhance merger/risk arbitrage spreads, favoring the investment advisory business.

Civeo Corp. provides temporary accommodations and hospitality services in remote areas, primarily to the oil services industry in Canada and the US, and the metallurgical coal industry in Australia. These are typically under multi-year contracts. Both markets have suffered meaningfully due to declining commodity prices, which forced producers to cut back on the capital expenditures that are the key drivers for Civeo's business (resource development projects, infrastructure buildouts, among others). As a result, earnings have fallen dramatically – even revenues in 2016 were down almost two-thirds since 2012 – in turn causing balance sheet concerns due to relatively high leverage (debt was equal to 4.4x EBITDA as of 9/30/2017). The share price declined by more than 90% between late 2014 and early 2016.

Once oil prices stabilized, one could see a path for Civeo to not only survive the current environment, but for shareholders to earn a tremendous rate of return if the market were to recover. The company maintained a meaningful baseline of business throughout the bottom of the cycle and was able to generate free cash flow of \$30 million per year, despite the poor environment. This was not obvious to casual observers, however, as stated earnings were significantly negative during this period due to large non-cash impairment charges. Its free cash flow yield, though, was well in excess of 10% (relative to the market capitalization at the time) and seemed sufficient for the company to service its debt. In other words, even absent a recovery in the oil and metallurgical coal markets, shareholders could earn an adequate rate of return should Civeo simply continue to generate the current level of free cash flow and pay down its debt.

The upside in a recovery is multiples of the current share price. In 2012, for example, Civeo generated cash from operations of \$433 million; its current market value is \$300 million. Capital expenditures, which were almost entirely related to growth projects, were \$314 million, implying a conservative free cash flow estimate of \$119 million for the year. However, because of negligible capital expenditure requirements for the foreseeable future, the existing infrastructure could generate annual free cash flow of over \$200 million in a better environment. If this were valued at only 10x, Civeo could appreciate by nearly 600%.

Civeo is yet another company that, despite a business environment that one would think would bankrupt a typical company – think of Marriott International or Simon Property Group coping with a 65% decline in revenue – remains profitable on a cash basis. Therefore, having faced down its existential risk, one can comfortably hold, through these shares, a long-term call option with tremendous optionality.

Recently, Civeo announced its intention to acquire Noralta Lodge, which would increase its trailing twelve month free cash flow by approximately 75%. The transaction removes some of Civeo's balance sheet risk, as it lowers the company's leverage ratios from 4.4x to 3.2x, and gives it a slightly more stable book of business (Noralta's business, which is focused more on year-round employees and not the project-based employees that occupy some of Civeo's lodges, has not suffered to the same extent as Civeo's). Approximately \$165 million of the \$289 million purchase price will be paid in cash, implying that the transaction could be significantly accretive to Civeo's earnings once the market improves. Civeo would also have a much larger asset footprint, which should allow it to better bid on future contracts, such as projects related to the burgeoning liquid natural gas business in Canada.

Texas Pacific Land Trust (“TPL”, or “The Trust”) was created in the late 19th century as part of a railway bankruptcy reorganization in which bondholders received interests in the Trust, which held approximately 3.5 millions of acres of land located in western Texas that were put up as collateral against the bonds. The governing document requires any income (earned, variously, from easement/sundry and grazing fees, periodic land sales, and oil and gas royalties generated by mining and energy companies active on the acreage) to be applied to the repurchase of shares and to pay dividends (which have, historically, been modest). There is precedent, however, for value enhancing transactions. The Trust’s main assets fall into three categories: Land, Mineral Rights, and Water.

Land

As of September 2017, the Trust owned 877,000 acres of surface land located in 18 counties in western Texas. “Surface” acreage, as defined under Texas law, is similar to “fee simple” interest in other jurisdictions, but differs in that surface ownership can be separated from mineral ownership. Of this surface acreage, over 268,000 acres hold various royalty interests related to oil and gas production. The Trust is one the largest private landowners in the U.S., Texas and, most importantly, the Permian Basin. The Permian Basin has become the largest oil and gas deposit in the U.S. and, globally, is second only to Saudi Arabia. The Trust owns 610K surface acres and 296K royalty acres in counties in the Delaware Basin portion of the Permian Basin, and 80K surface and 51K royalty acres in counties in the associated Midland Basin. Recent improvements in drilling technology have spurred great interest in this acreage. Were the Trust to sell at the average price per acre realized over the last 10 years from 2007 through 2016 (on an inflation adjusted basis), the fair value would amount to \$1,260 per acre, or \$1.12 billion for the surface estate. And using the price per acre of \$3,802 realized during 2016 land sales, the result is a fair value of \$3.3 billion for the surface estate, or approximately the current market capitalization for the company.

Mineral Rights

The Trust also owns perpetual oil and gas royalty interests beneath approximately 459K acres of land. This acreage is also concentrated in the Midland Basin and Delaware Basin.

Water

In recent quarters, the Trust has recognized an increasing contribution to easement revenue from water—a vital, and increasingly costly input in the drilling process. For the quarter ended September 30th 2017, the Trust recognized nearly \$8 million of water related revenue—an increase of nearly 4x compared to the previous year. There are significant needs pertaining to water supply and disposal for the companies drilling on and near TPL’s land, and TPL owns the water below ground on its acreage. The water services business has the potential to be even larger than its existing oil royalty and land segments.

Icahn Enterprises (NYSE: IEP), which has a \$9 billion market cap, is a primary investment vehicle of investor Carl Icahn, who owns approximately 90% of the depositary units. Through public and private investments, IEP is a highly diversified portfolio of businesses, which include the automotive sector, energy, hotels and gaming, railcar manufacturing and leasing, food packaging, metals, and real estate.

Mr. Icahn is an activist investor with a deep value opportunist's bent. Recent transactions include the acquisition of all remaining outstanding shares of car parts manufacturer Federal-Mogul in late-2016, the shares of which he began accumulating when that sector was deeply depressed in 2001. Last year, IEP sold its subsidiary American Railcar Leasing LLC (ARL) to SMBC Rail Services, which is a subsidiary of Mitsui Banking Corp. The sale price was \$2.78 billion; IEP booked a pre-tax gain of \$1.5 billion on the sale. In addition, IEP quadrupled its investment in the Las Vegas casino formerly known as the Fountainbleu, which it acquired in 2010 for \$150 million and divested in August 2017 for \$600 million.

IEP shares trade at just a slight premium of about 8% to the market value of its public holdings, interests in investment funds, and estimated value of private businesses, adjusting for consolidated net debt. Even so, the shares may not be fully discounting the inherent optionality in IEP's holdings, particularly among the company's private investments and the short/swap positions it holds in its investment funds (see below). All of the cash needs for the dividends are being met by the dividends IEP collects from CVR Energy (NYSE: CVI), which have exceeded \$2.0 billion over the past five years.

IEP's public holdings of CVR Energy (NYSE: CVI), American Railcar (NASDAQ: ARII), and CVR Refining LP (NYSE: CVRR) plus its holding company interest in its funds total about \$6.5 billion. The private businesses can be valued at just over \$7.0 billion. Adjusting for net debt, the net asset value is roughly \$8.7 billion, vis-à-vis IEP's current market capitalization of \$9.4 billion. It should be noted that, approximately a year ago, the NAV premium was 77%, versus the current 8%, and during that period, the NAV increased from \$4.9 billion to \$8.7 billion – a 77% improvement. For example, IEP's largest public investment, CVR Energy (CVI) has gained 75% in the past year. Despite that, the IEP shares declined approximately 10%. However, including dividends, the total return has been approximately zero. Over time, the premium has reached as high as 90% (in mid-2016) and as low as a 30% discount in early 2009.

As of September 30th, 2017, the company's net short notional exposure – which pays off in the event of a stock market decline – was over \$12 billion, or 77% in its investment funds. This makes the company a self-hedged vehicle. It also has over \$1 billion of credit default swaps, which pay off in the type of market upset that sparks corporate bond credit downgrades and defaults.

Also, with approximately \$35 billion in total assets (\$33 billion tangible) on its balance sheet, there is significant leverage relative to its \$9.4 billion market capitalization, so that if, for example, the investments were to collectively gain 10% per year while its liabilities remain steady, IEP would realize substantial profits. The company's shares are excluded from the ETF industry because of its limited partnership structure and its insider ownership; with only 10% of its shares available to trade, its effective market capitalization is only \$900 million. As a result, IEP appears to be a neglected, misunderstood, out-of-favor, undervalued asset. It's analogous to being a limited partner in an activist/distressed investing hedge fund, but one with public market liquidity and, instead of paying a management and incentive fee, one is paid an 11% distribution yield to remain invested.

Stolt-Nielsen is a Norwegian shipping company operated by the Stolt-Nielsen family, who own just over 50% of the shares. It provides transportation, storage and logistics services related to its particular segment of shipping: bulk liquid products, ranging from edible oils to industrial acids, as well as clean petroleum products (gasoline, jet fuel, naphtha and certain condensates).

The company's primary assets are a fleet of over 150 tankers (including new-builds) with a capacity for nearly 3 million deadweight tons. The company also has an extensive terminal business, with a bulk-liquid chemical capacity of 4.5 million cubic meters, and handles approximately 12 million cubic meters per year. The company's tank container business has 35,000 tanks in its fleet and provides "door-to-door" shipments of many bulk-liquid products, which its other businesses transport. Finally, it has a smaller interest in sea farms, as well as a joint venture in liquefied natural gas supply chains.

Despite the dramatic declines in global shipping volumes and pricing, Stolt-Nielsen has achieved, remarkably, rising revenues, operating income and earnings. It has been profitable in each of the past 10 years, and has recorded higher operating margins in the most recent fiscal year than during the shipping boom prior to the global financial crisis. However, perhaps due to the wider malaise of the global shipping industry, the shares trade at only 11.5x 2017 run-rate earnings (which are down considerably from 2016) and at 52% of 2017's beginning book value. Additionally, it has paid a dividend in every year since 1988, now amounting to over \$0.75 USD, or a yield of 5.9%.

We believe that Stolt-Nielsen is one of the most well managed shipping companies in the industry, as evidenced by a consistently profitable business model that has endured and even prospered amid the depression in shipping prices. It is an example of a relatively low-risk way of investing in a recovery in the shipping industry. The investor isn't required to assume undue balance sheet or liquidity risk, collects a 5.9% or higher annual dividend yield, and owns the optionality on higher cyclical earnings and a possible re-valuation vis-à-vis the large discount to book value.

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