

2nd Quarter Commentary

July 2020

Introduction

This review will take a very different tack than usual. We’ve spoken more times than I care to recount about the ever-greater inflation risk from the government’s excessive money creation, which this year has taken on a historically monumental character. Serious inflation is about the greatest financial risk one can face and it is worth every effort to prepare for before it becomes publicly evident. But that’s the rub, isn’t it, because if it isn’t publicly evident, then of course it isn’t generally believed. So, we continue to receive questions from clients about this topic. That tells me that we haven’t done a good enough job explaining it. And lately, we’ve received even more questions. And last month, on a particular occasion, we received a virtual deluge of them. And that’s hopeful, because it tells me that although we might not have done a good enough job explaining it, the message is persisting even if the skepticism is, too.

The occasion of that deluge, and which prompted me to change the format, was a webinar last month hosted by our Chief Investment Officer, Murray Stahl. Following some general statements of his interpretation of the important changes afoot in the financial markets and economy, he fielded questions for over two hours, questions sent in via email during the webinar. The overwhelming number of them were about inflation, and most of the rest were about oil prices and energy-related investments like Texas Pacific Land Trust. Similar questions have been coming our way in other recent forums, as well.

Some are of an *open* nature, asking, basically, how is it that just printing more money becomes inflationary? That’s because it is such an abstraction; people want to know, even if they don’t express it in these words: “How does it really happen?” And those clients are not alone – I can tell you frankly that even most investment professionals don’t understand the actual mechanisms by which inflation arises.

Then, there is another class of questions, and these are of a *skeptical* nature, perhaps because almost without exception the public discussion by economists and bankers, by other investment firms and analysts



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either never mentions inflation, or directly negates the possibility. Sometimes, the challenging question is because the benchmark inflation statistic, the Consumer Price Index, has only been rising at a 2% rate. A related strain of skepticism involves the inflation-beneficiary-class of assets we've been employing, such as energy, since public sentiment is so uniformly negative about oil prices.

In any case – at least to my ears – it struck me that Murray's extemporaneous verbal responses to these questions had an in-the-moment, ordinary-discussion feel that made the answers and mechanisms -- which are very different than people are accustomed to hearing – more accessible and sensible. In other words, more effective than the carefully composed and formalistic presentation I would have been making here today.

So, it is on the strength of your questions, and in the recognition that we truly are in a dangerous moment, that the bulk of this review will be comprised of a selection of Murray's actual on-the-run verbal responses to a variety of such questions, drawn from transcripts. I say dangerous moment, because we're in the midst of more than a few historic extremes, and it is well to be mindful that history happens at inflection points, the points when what used to be normal changes. For those of you who attended the June 18th webinar, much of this will be repetitive, but it is leavened with responses of Murray's from other meetings, also, as well as with supplemental commentary and informational exhibits. I'm sure you'll let me know how it goes.

This first section or two are from Murray's opening statements, which encapsulate some of his views on topics that are of present concern to him. A number of areas have been left out, due to the stricture of time. The focus remains predominantly on the preponderance of questions asked about inflation and energy. I'll tell you up front that there is a lot of this, but the message I heard is that the desire is to hear these arguments and the information from as many angles as will help to bring clarity to what are, really, complex, misunderstood and insufficiently explained subjects.

Murray Stahl: I personally think that indexation, which has really been a 20-25-year phenomenon in terms of raising assets and becoming unquestionably the dominant investment strategy, is just about ready to come to its end. And I say that because I think the index methodology is going to prove, at the end of the day, to be stenotic, narrowing to the point of failure.

There are a number of good characteristics about indexation, because, anything can be a good if you don't take it to an extreme. But that's a problem with investing, which is a problem in social science: people take things to extremes. They also lack patience, but the bigger problem is they take things to great extremes. No investment strategy is a strategy for all times. The indexation strategy is a good idea in the sense that, in theory, it is a diversified portfolio with exposure to basically everything that's in the market. So, some elements in the index will do well and, obviously, some others will not, but in the fullness of time, assuming the market as a whole does well, the whole of the index should do well.

And in the last 20 years, at least the part of the index that is technology, which is now clearly its biggest element, has done outstandingly well. And it's obvious how that happened: because of the growth of the internet, from a handful of users to now, if I'm not mistaken, over 4.8 billion of the roughly 7.7 billion people on this planet. The growth rates, if you measure country by country, are

just astonishing. And a lot of that internet activity is concentrated on the platforms of certain companies, and you know which ones they are: Amazon, and Microsoft, and Facebook, and Apple, and Google.

So, they've been incredible growth companies. And I don't believe that they are going to be unprofitable. I'm not really saying anything bad about them. I'll only say two things, one of which is completely obvious. By definition and by simple math, there's a clear and calculable limit to how much growth they're going to have in the sense that if we're at almost 4.8 billion users and there are only 7.7 billion people on the planet, well, then, the maximum cumulative growth in users can only be the 60%, that being from the current number of users to 7.7 billion, and that's if every single human on the planet is connected. Which means you're not going to get the returns of the past. I personally think that's self-evident, but as I look around at sales projections, no one else seems to agree with me.

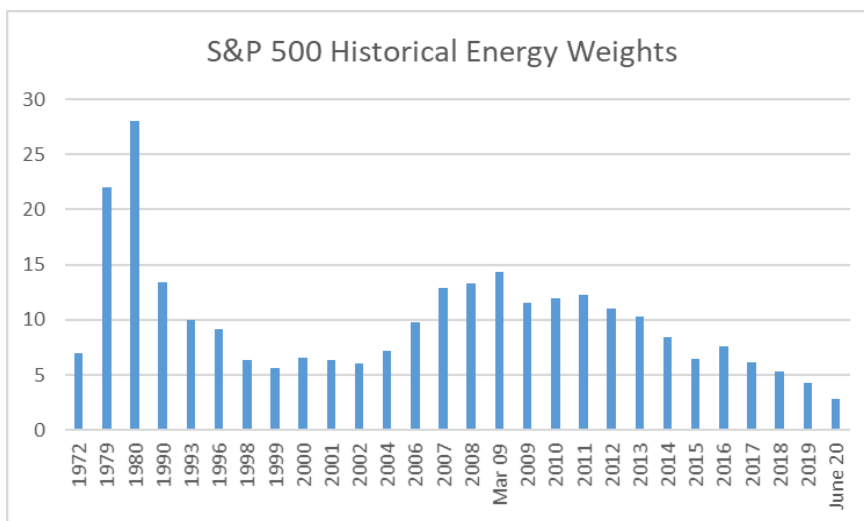
More importantly, let's just imagine the following possibility: Let's just say something else, some other segment of the index – of the S&P 500 – is going to do extraordinarily well at some point in the future. Well, if that's true, the problem is that the index is now dominated by a handful of companies, meaning that it has undiversified itself and might no longer have much exposure to that other segment that will do extraordinarily well in the future. Many people don't think about this, but that eventually happens to every index: sooner or later, even if every stock in an index goes down, some stock is going to be the best-performing one, and that's going to become the biggest position, and the next best performing stock is going to be the second biggest position, and eventually the index will be heavily dependent upon some particular few companies or sector.

This undiversifying happens over a very extended period of time and, because of that, this phenomenon hasn't been studied – but in our case, that time is now. The S&P 500 is now a concentrated portfolio, and has undone the logic of its original purpose and is not diversified at all. The top five companies, out of 500 constituents, now account for 21% of the index.

The problem is not that something horrific will befall the largest investments, although that can happen, of course. In all likelihood, they will remain profitable. The problem – and perhaps the least appreciated one – is that some other group in the index will become desirable, but its exposure will have become negligible within the index as it gets crowded out. Hence, no matter how high the return of the negligible part of the index, it will have virtually no impact upon the total index.

So, imagine you were in control of the S&P 500 index, and you would like to rebalance it in order to give it exposure or greater exposure to some other sector of the economy. And let's just make believe that sector is energy. Now, here I'm just asking you to admit the possibility. I understand it's very controversial. I'm not making an argument that energy is going to do well. I'm just saying theoretically there's a possibility that energy might do well, and you're in control of the index and you want to alter the weightings such that energy, which is now not even 3% of the index, is going to be higher. How much higher? Let's say you wanted to make it 15%. How would you actually go about doing it? Well, arithmetically it's pretty easy. You would come up with a formula, and the computer would do the rest of the work. And once upon a time, you could even do that.

But in another way, it's impossible. Why? Because, in practice, most of the investment world is now indexed, so this theoretical re-balancing would take place at a time when indexation is the dominant strategy – which never happened before. And it becomes more dominant with every passing day as the world divests itself of its active management community. In fact, rebalancing is impossible in two separate but completely related, ways.

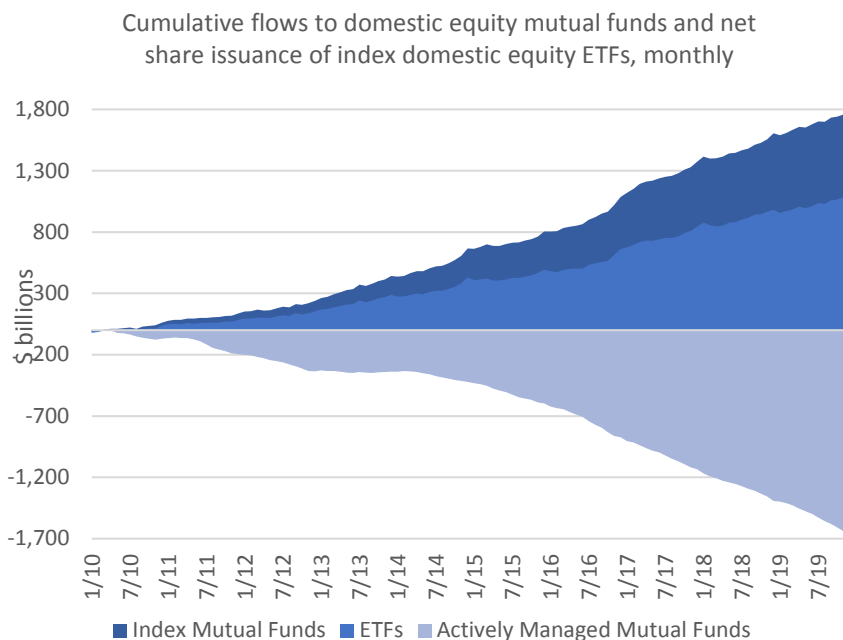


Source: S&P Global, Bloomberg

Here's the first problem: there's no longer enough money being managed in the active investment community to accommodate such a change. All the major indexes – and it's not just the S&P 500, because they all have so much overlap in holdings – are going to be doing the exact same thing.

They'll want to sell their leading positions to re-balance, but who in the world are you going to sell to, even if they wanted to buy them? The buyers, the active managers, don't have enough money. So, you can't change or re-balance the index.

And, second, why should they buy it? The terms of trade are about to change radically in favor of the active management community, small and battered though it may be.



Source: ICI Fact Book

I’m going to make an addition here, one that Murray didn’t mention in this particular presentation. Which is that there’s actually a third problem, though it’s not a problem for investors who are already there. In this theoretical index-rebalancing exercise, there will not be sufficient float, or shares or available stock market capitalization, in the desirable-but-negligible index segments to satisfy the index investors without extreme market disruption.

Consider that the entirety of the gold mining industry within the S&P 500, is less than 0.2%, and that the market capitalization of that one company is only \$50 billion. Even if you added up the market values of all the significant U.S. gold miners, including those *not* in the S&P 500, the total is only \$122 billion. Union Pacific, the railroad company, also has a \$122 billion market cap, and it’s all of a 0.45% weight in the S&P 500. The weighting of the entire energy sector is not even 3%. There simply isn’t enough supply of the crowded-out sectors in the index, should they become desirable. The price appreciation, should there be the slightest institutional interest in increasing their allocations in this direction, could be unusual indeed.

<i>As of 7/17/20</i>	Market Cap. (\$ bill.)	Weight in S&P 500
Newmont Corp	\$49.4	0.19%
Barrick Gold	47.7	--
Gold Fields	9.9	--
Kinross Gold	9.5	--
Yamana Gold	5.2	--
Largest U.S. Gold Cos.	\$121.7	0.19%
Union Pacific	\$122.9	0.45%

Source: Factset

Back to Murray, now. Sorry, I don’t do voices.

Therefore, by definition, if some other sector, like energy, were to perform reasonably well, I don’t believe it’s possible for it to meaningfully impact the performance of the major indexes. So, if it’s not possible, in a scenario of rising energy prices, for that sector to meaningfully impact the index, then the index, by definition, doesn’t do what it says it does. Meaning, it’s not diversified. And even though it has a lot of money in it and those shares trade a great deal during the day, it’s actually not really liquid, since as a practical matter it can’t really be rebalanced in order to restore diversification.

So, everybody thinks they own a diversified portfolio, via the index, but they’re going to figure out they only own an undiversified portfolio, and they only own the same companies and sectors that other people own. I don’t believe that’s a healthy situation. So, that’s one thing that’s happening, something to pay attention to.

The Diminishing-Float Stage of Indexation: And What it Has to Do with the Mega-Cap Valuations

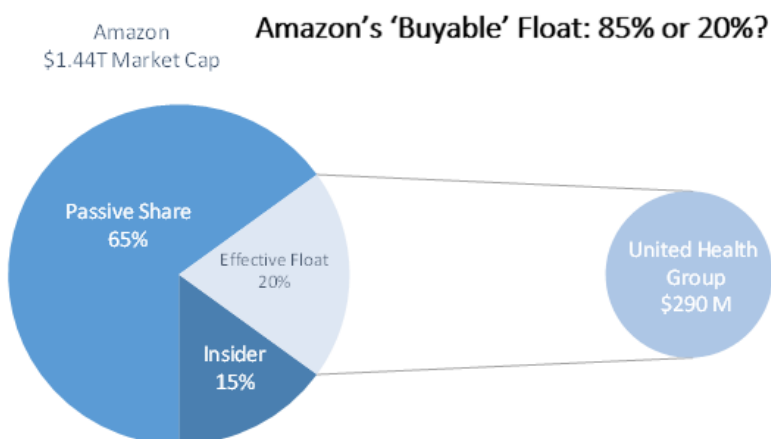
Related to Murray’s last statements about the crowding out of important sectors other than Information Technology and mega-cap companies, here is one of the most important single statistics about the stock market there is. According to a CNBC article in June 2019, the passive management market share index

funds and ETFs in the U.S. equaled 60%. This draws on data from Bank of America Merrill Lynch. Based on that data alone, passive investing is now the most crowded trade in the history of investing.¹

So what, you might ask? As in what relevance does that have? Let’s use Amazon as a mini-case study to explain the relevance. The standard definition of float, as it would be calculated for Amazon, is this: insiders own 15% of Amazon. Therefore, the balance, 85% of Amazon’s \$1.44 trillion market capitalization is the float, presumably available for purchase, and that’s \$1.22 trillion.

Except that doesn’t depict reality. As long as the index funds receive new money, they must be buyers of Amazon stock; they cannot, they are unable to sell; they are only permitted to buy more of what they own. Therefore, in an implementable sense, the passive, indexation stake in Amazon is not part of the float, because it is not generally available for sale. On a given day, you can’t access that theoretical supply of shares. That 60% calculated passive market share figure is from a year ago, so it is certainly greater than that now, given the combined and continued inflows into passive investment funds and outflows from actively managed assets. Let’s say it’s another 5% higher, so that indexation’s share of the market is 65%.

Taking that into account, the effective or real-world float of Amazon would be calculated as the market capitalization of \$1.44 trillion minus insider ownership of 15% and minus passive share of 65%, which leaves an effective float of only 20%, or \$288 billion. Think about how small that is, at least in terms of supply relative to all the demand for Amazon stock.



Effectively, the index funds are in the process of cornering the market for Amazon shares. In this light, the bubble facet of the Amazon share behavior is seen more clearly. Amazon trades at 144.57x the consensus 2020 earnings estimates of \$19.99 per share and 75.26x the 2021 consensus earnings forecast of \$38.40. If you’ve ever casted about for an explanation of Netflix or Tesla, maybe you should think about this.

In any case, it is a far more reasonable explanation of the Amazon share price than the efficient market in action, if one accepts these couple of facts:

- a) That the index or passive market share is indeed on the order of 65%, give or take, and
 - b) that an index is essentially a mechanical, price-indifferent buyer. In which case, it should logically follow that
 - c) the prices of most securities are now simply based on localized index supply and demand, just like commodities, and therefore do not properly reflect the fundamentals of the companies in question.
- We could stop there, but it’s worth the further thought, that if that is so, then

¹ <https://www.cnbc.com/2019/06/28/80percent-of-the-stock-market-is-now-on-autopilot.html>

- d) the performance evaluation systems are really measuring supply and demand imbalances, and not the abilities of the active managers.

Many Ways to Look at the Same Phenomenon

Year-To-Date Total Return Through 7/17/2020		iShares Core S&P 500 ETF Companies, ranked by weight, descending order			
	Total Return (%)		Ending Weight (%)	Total Return (%)	Contribution To Return (%)
iShares Core S&P 500 ETF	0.86	1-10	27.08	20.43	5.60
iShares Russell 2000 ETF	-10.77	1-50	54.45	8.74	5.55
iShares S&P 500 Growth ETF	12.30	51-100	15.24	-2.94	-0.71
iShares S&P 500 Value ETF	-12.30	101-150	9.10	-0.30	-0.03
iShares U.S. Technology ETF	19.45	151-200	5.67	-13.59	-1.12
ProShares S&P 500 Ex-Technology ETF	-4.37	201-250	4.49	-5.97	-0.44
		251-300	3.51	-7.28	-0.35
		301-350	2.65	-7.40	-0.29
		351-400	2.03	-20.37	-0.62
		401-450	1.73	-16.05	-0.34
		451-506	1.11	-36.26	-0.76
		Total	100.00	0.89	0.89

Source: Factset

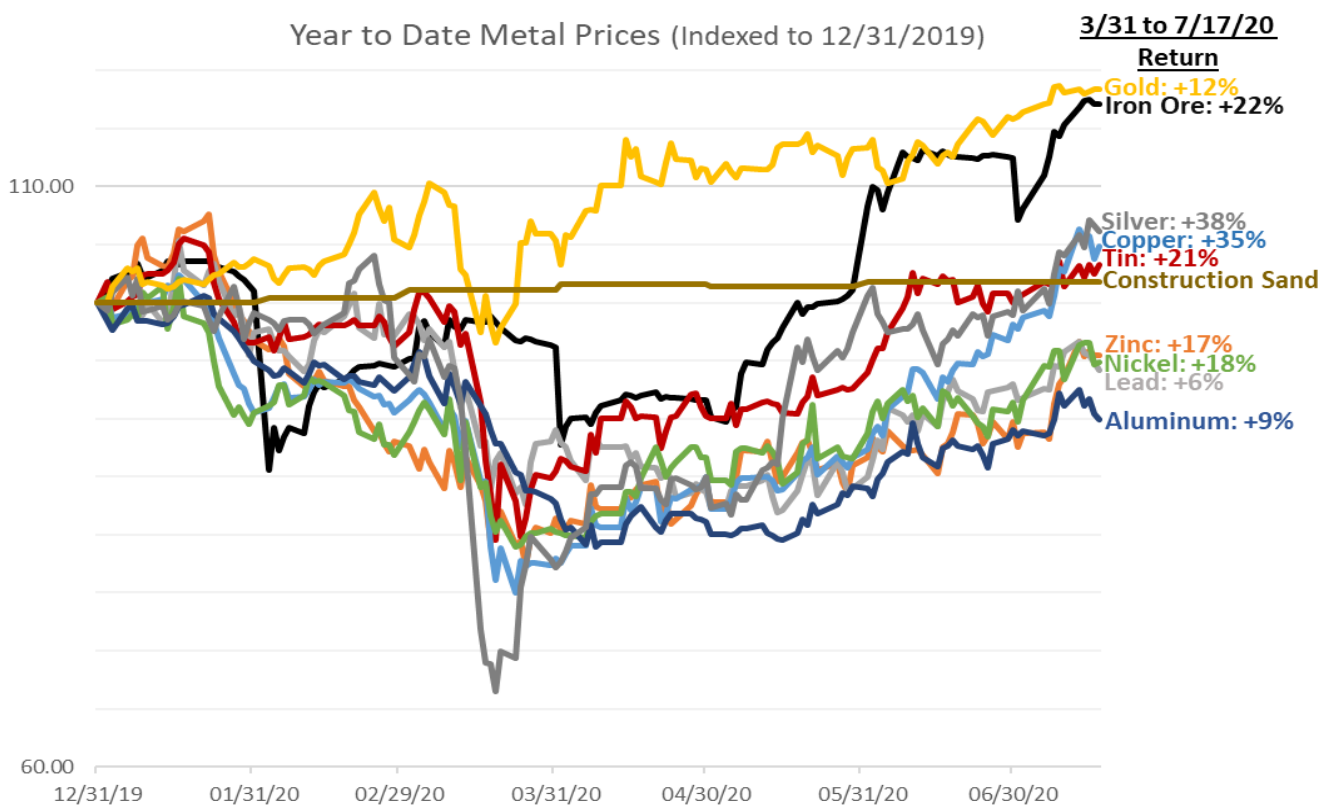
This next bit is the last section I’ll read from Murray’s initial remarks, before the Q&A section, and it’s about inflation in the limited context of index investing.

Inflation in the Index Context

If the government keeps printing up money the way it’s doing at the moment, there’s going to be a problem. Looking at the National Debt Clock, which contains a lot of this type of data – there’s \$26 trillion just in U.S. federal government debt, and it goes up every single day. In the last three months, the government probably charged up \$3 trillion of additional debt. That’s being monetized by the Federal Reserve, because there’s no one else that’s really going to buy bonds on that scale. And that number is going to keep increasing, and therefore, the money supply is rising at a very high rate. The Chairman of the Federal Reserve has said – and I don’t blame him for saying this, but he did say it and it’s worthwhile pointing out – that there’s no possibility of reversing that policy for years.

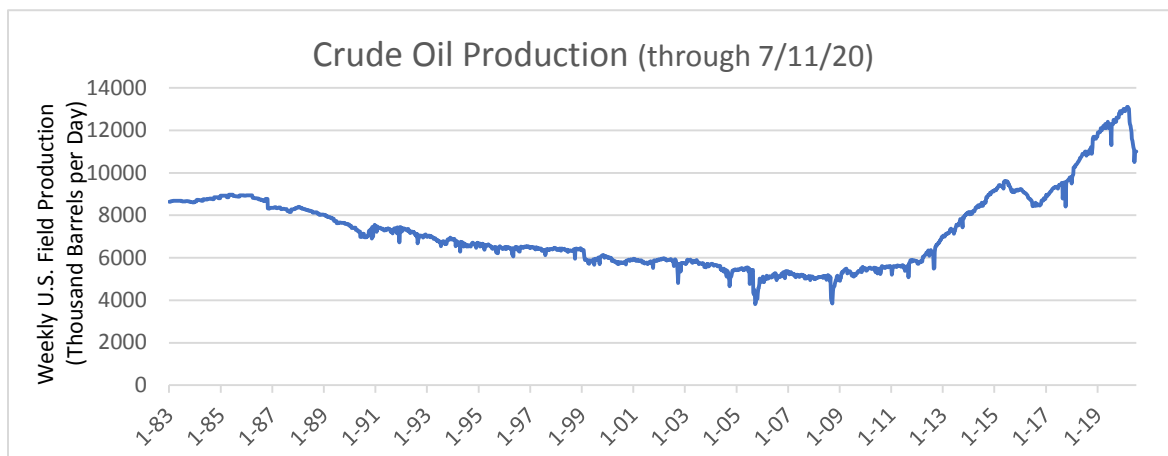
Generally speaking, if you print up a lot of money, you get inflation. Quite obviously, we’re printing an extraordinary amount and, at the same time, we’re quite obviously in a recession. You could debate with one another how deep it is, you could debate with one another how prolonged it will

be, but there is no disagreement that we are in a very serious recession. Yet, if you were to look at commodity prices last month – it doesn't have to be oil, which has risen very sharply from where it was – you'll see that the prices of iron ore or copper are higher. When have you seen a recession when the prices of commodities actually go up? Because there are more dollars and less of the commodity.



Source: Factset, St. Louis Federal Reserve

So, if you do nothing other than believe in the law of supply and demand, there are more dollars, less commodity. And I don't see any possibility that oil production is going to increase, at least in the United States, for a while. And it may never increase again. If you go to the government's energy information website and look at oil production in the U.S. in the last 90 days – it's graphed – you'll see the scale of the drop is greater than at any time in American history. So, I want to have companies that will benefit from insufficient supply and rising demand in my portfolio.



Source: US Energy Information Administration

Other people might say, I want the bulk of my money to be indexed, and maybe they’re right to say it. I have a different view. But it’s a different matter to say, “I’m going to avoid everything else and throw all my money in an index because of the idea that it’s the universal investment set.” Because indexation is no longer the universal investment set, and it doesn’t protect you very much against that kind of inflation.

Here begins the Q&A, and I’ll read the questions as well as the responses.

Inflation Questions

Moderator: Okay. A lot of people seem to want to hear more on the topic of deflation versus inflation. So, perhaps we can go through some of those questions first.

One listener agrees with much of what we said on the idea of money printing translating to inflation, but says that has not been shown to be the case since 2008. The government can print as much money as it wants, but if it is not circulating, then it is not causing the desired effect. The velocity of money seems to point to a non-inflationary environment. So, he doesn’t see inflation happening until the government loses control, and typically, historically, deflation comes first before inflation happens. So, in his mind, inflation seems to be many years away. Do you have anything to respond to that?

Murray Stahl: Well, maybe I’m wrong and maybe it would be better for the world if I were wrong, but I don’t think I’m wrong and here’s why I say that. The difference between now and the last ten years is as follows: The last ten years were, I would say, the high tide of not just indexation, but of outsourcing: the outsourcing of labor, the outsourcing of manufacturing. So, that in itself was a deflationary trend: through the mobility of labor, a global labor arbitrage. And I just don’t see that continuing; it’s coming undone even as we speak.

Secondarily, what was the world thinking about in 2007? Well, we know, because it’s in retrospect. They were thinking about the industrialization of China, partially because even then

the global outsourcing movement was happening, and there was a commodity boom in 2006-2007, which lasted into the first couple of months of 2008. It was anticipated that the emerging market economies, led by China, would demand tremendous quantities of commodities, and they were right.

The trouble is that all the commodity companies in the world – we could talk about gold companies or oil or iron ore or others – were able to raise enormous quantities of capital and engage in a lot of development projects and collectively fill whatever the incremental demand for the commodity was. So, just go back 10 or 14 years and look at how big the energy sector was in the junk bond market, at how much equity issuance there was in energy-related projects. Then the demand for those commodities fell. That meant oversupply, and all the producers had to cut their production. And ever since then, the prices have stayed too low for the producers to make a return on new investment, and they reduced their capital expenditures and stopped replacing their reserves. So that has been another deflationary pressure ever since, beginning in 2008 and various years thereafter.

S&P GSCI Commodity Index

(24 commodities from all commodity sectors)



Source: Factset

There's a third element in suppressing the inflationary impact of money creation that Murray did not address in this particular question. During the Credit Crisis, the money the government created went into the banking system, and it stayed there because the banks needed to rebuild their capital. What the banks did with the money was to buy bonds. Treasury yields at the time were in the 5% to 6% range, so a bank could make an excellent leveraged return by buying and holding bonds. The term for that, in debt market parlance, was that the Fed sterilized the money – by design, it didn't have an inflationary impact. The government engineered that combination of ultra-low short-term rates and higher long-term rates,

because it wanted banks to generate a lot of earnings in order to rebuild their balance sheets. So, despite the money creation, the banks were not lending it out again, so it didn't filter its way through the broader economy.

Today, unlike a decade ago, the banks are not going to collaborate with the Fed in that way. How could they, because to buy long-term bonds at less than 1% is to get a negative real rate of return? The new money is not going to the banks and onto their balance sheets. The Fed itself can keep buying bonds, but if it buys them from the investing public, then it puts money in the public's hands. And if the Fed is buying newly issued bonds from the Treasury Department, the Treasury is taking that money and it's spending it into the general economy.

Moderator: The next question is still on inflation vs. deflation. The average American, or politician, or investor currently looks to the reported CPI number, that 2% figure, and those still do not reflect meaningful inflation. At what point, when and what catalyst do you think will lead to a consensus arising to our point of view that inflation is based on M2 growth, and what percentage of inflation rate do you envision in the coming three to five years?

Murray Stahl: Well, it's impossible to know what the rate of inflation is going to be. But I can tell you this, that the commodities we rely on for our standard of living, they're just not being produced in sufficient quantities. It wasn't that many years ago, I think in June 2014, that we were at \$110 for a barrel of oil, six years ago call it. And at the time, people didn't even think that was really an outlandish price. U.S. production was less than 10 million barrels a day, and then it went to its high point of, I believe, 13.1 million. It took roughly six years to accomplish that increase in production. Now, in a few weeks, we're going to be down to the June 2014 production level. We're not there today, but in a matter of weeks, we're going to be, and production is going to drop from there.

Demand for fuel at the moment is depressed because of the pandemic. But even if we're in lockdown forever, production is going to keep dropping and we're going to end up in a supply shortage anyway, it just may take a few more months. But if we experience even modest reopening of the various economies of the world, we are very obviously heading for a shortage. In that case, if we get to \$110 a barrel for oil, you will see that in the CPI, because oil is in everything you buy – at the supermarket, the hospital, the new car lot or furniture store, or wherever you happen to be and happen to buy things. Because oil is a key commodity; therefore, it's going to be incorporated into the manufacturing cost of every sort of product, and the cost inflation number is not going to be 2%.

There's another way to understand the low CPI phenomenon and the inflation risk, which is to look at the last ten years. Even with the global manufacturing outsourcing trend, even with the global labor cost arbitrage, even with the enormous decline in interest rates, even with the massive declines in all sorts of commodity prices, even all of those really significant factors which served to lower production costs, and even with the way the government calculates it, we've had 2% inflation a year. So, what's going to happen if you get a surge, or just a recovery in commodity prices? What do you think the CPI numbers are going to be?

Let's get at inflation in a completely different way. The United States pays, for all of the debt that exists in the country, about \$3.8 trillion in interest expense. That's such a large number, what does that even mean? And what would it mean if interest rates were to rise, even a modest amount? Here's a way to understand that. Let's say interest rates go up by some modest amount relative to what they are. Right now, we're charging ourselves roughly 4.7% on the entirety of our debt. That's the blended rate, from 0.6% Treasuries to 24% auto loans to 3% conforming mortgages. Let's say we're going to pay 1.5% points more. I don't think that's an outlandish number.

So, let's just calculate it. A 1.5%-point increase from 4.7% is a little over a 30% increase, 32%. Take 30% on \$3.8 trillion of current interest expense. I have a calculator here, and the figure is \$1.2 trillion of additional interest expense. So, again, how can we imagine a figure that large in a relatable way? Let's place that increased interest expense in the context of what we pay for a barrel of oil. We're all familiar with that, we hear it every day – a barrel of oil is about \$38, now. Before the pandemic, the U.S. consumed something like 20 million barrels of oil a day. Maybe now we're consuming 16 million. So our national oil bill, at 16 million barrels a day, at \$38 per barrel, amounts to \$608 million a day. Multiply that times 365 days, and that's \$221 billion. That's our annual oil bill.

Divide the \$1.2 trillion of higher interest expense by the \$221 billion we pay for oil, and that's 6.8 times more. So, if I take the current oil price of \$38 and I multiply it by 6.8, that's \$201 a barrel. Never been seen before. So, all you really need for inflation – the price of oil doesn't have to change at all – is for the American population to collectively pay 1.5% point more on their debt. That's equivalent to oil going to \$200 a barrel, which I think we'd all agree is inflationary.

Now, by the way, that debt number is increasing every minute of every day, and by a lot, so even if interest rates *don't* change, the interest expense burden is going up anyway. In the last year, more or less, we've increased the debt number alone by something like \$8 trillion, and we're borrowing more. Let's say we increase that total debt figure, that \$80 trillion total, by \$12 trillion – that's 15% right there and we haven't even moved the interest rate. So, that's a 15% increase in debt, not 30%, but that's the same as an oil shock. That'll get you to the equivalent of \$100 a barrel right there even if the price of oil doesn't change. Not that the oil would be \$100 a barrel; oil would still be \$38 a barrel, it's just that arithmetically an increase in the interest expense burden is the exact same thing. That doesn't even require an increase in interest rates, as we did in the prior exercise.

And, by the way, where is the higher interest payment going to come from? That's not a rhetorical question. The government doesn't have any money. The government gets their money from you. So, anything the government has to pay, really you have to pay, and \$1.2 trillion extra interest, on just a 1.5%-point rise in interest expense, is a pretty big hit to the rest of us.

Anyway, because of the extremes we've reached, you don't even need price increases in iron ore, or oil, or coal, or copper, or anything else to get the equivalent inflation. All the government needs to do is keep doing exactly what they're doing in the debt market and they're going to get there very nicely on their own. It doesn't need any help from oil. So, inflation is coming, I have absolutely no doubt. So, I hope that's enough data to demonstrate not necessarily that I am correct, but the basis for my views.

Moderator: There was another question sent in as you were answering. Are we in an inflationary environment or not? To look at asset prices, yes. To look at the CPI, no. For those who say inflation is coming, some argue it's already here.

Murray Stahl: Yes, I believe it's here. If you look at your car insurance rates, at your health insurance rates, look at your college tuition bill if you're going to college or you have a child going to college, if you look at property casualty insurance rates, at the prices you pay for drugs, every one of those are going up a lot more than 2% a year, every single one of them.

So, if your biggest expense is college, you're not living in a 2% inflation world. If you just happen to need health insurance because you don't have a job or Medicare and you have to purchase supplemental insurance, see at what rate the price for that policy is going up. If you own property, a building, and you have to insure it, look at what's happened to that insurance rate. And that might be a big expense for you. So, that CPI number, despite that the Bureau of Labor Statistics says it's 2%, I don't agree with it. Now, the statisticians who calculate the CPI say it doesn't matter, because their methodology includes sophisticated adjustments. I'll use beef, here, because it's a classical example, but among the many, many adjustments that go into the CPI figure, they assume that if beef is up 10%, that doesn't really matter because people will just substitute; they'll eat more chicken instead. But maybe that particular CPI adjustment really does reflect reality, let's just say it does.

So, what are you going to do if it's college? All the tuitions are going up. You can say, 'I'm going to go to another college.' Okay, some might be less expensive than others, but they're all raising their tuitions. Then you need graduate school. How do you measure that in inflation index terms? Because before, you didn't need graduate school for a certain type of job, but now you need it. So, calculating the cost-of-living inflation in this instance is not just a mere matter of recording the increase over what tuition was the year before. It has to include the fact that you now have to buy more goods and services to be properly credentialed than you were required previously.

I think we're there, as far as inflation starting. I think it's happening, and it's happening everywhere. And for everything I look at, the prices seem to be rising. I don't know of anything for which the prices are going down. At least I don't see that.

By the time the Department of Commerce or the Bureau of Labor Statistics get around to issuing a press release that says, yes, there is inflation and the number is X, it will be too late to do anything about it. You'll just be in a lot of trouble.

Moderator: What do you think about the theory that the Western aging population and also advanced technology is creating a deflationary environment? And that whatever quantitative easing is doing, it cannot fight this deflationary phase?

Murray Stahl: Well, I completely and totally disagree, even though virtually every responsible economist endorses it. They want to say, well, it doesn't matter how much money the Federal Reserve prints up, because we have technology and the efficiencies it creates, and that's going to save us. Let's examine that. The university is a center of technology and now you can attend online classes, so you don't have to go to campus. Have they lowered their tuition? No, they haven't. Now you can't even go to school. They won't let my kids or anybody else's kids go to school because of the coronavirus. Okay, I understand that. So, we're not going to the building, there's no more school lunch program or other services. How about lowering the local property tax? Have they done that? No. They're going to raise it.

Show me the goods and services that people buy that are actually going down in price. There's only one, really, and that's computers, technology, and it hasn't gone down that much. What's happened to the price of an iPhone in the last couple of years? Has that dropped a lot? I don't think so; or a laptop, if you want to buy one of those. Even books and periodicals, are they really cheaper? I don't think so. What is the marginal cost to a publisher to sell a book on Kindle? It's almost zero. Think about that – they don't have to ship the book to you, because it downloads virtually instantaneously, but it's still \$12 or \$13. Why isn't it 20 cents? Because at the end of the day, the providers, the publishers and authors, have to make money. How about lawyers? They've got much better efficiency-driving technology than they used to. Are those bills down? How about doctors? Are those bills down?

Moderator: Communication cost is practically zero. Zoom is free.

Murray Stahl: Yeah, Zoom is free, but the tuition is not. So, when they construct the inflation index, it depends on what they include and exclude – think of what we've discussed about constructing stock indexes – and also on how you weight each item. So, is your rent going down? I don't think so. Show me anybody who's getting a reduction in their property taxes, unless you grieve it because yours are out of line with your neighbors. But as a general proposition, are they lowering property taxes anywhere? I haven't seen it.

So, they say these things and people make these assertions and expect you to refute them. But I think the burden is on the people who make that assertion to provide the empirical evidence of the items that have declined in price. What are those items and how much have they declined in price over a given period of time? I don't think rents in New York City have declined.

For most people, at least the ones I see, it's just getting harder and harder to make ends meet. There's a great deal of difference between today's circumstance and the 1970s. How did people in that last epic inflationary experience make ends meet? Because we know that prices went up. Well, it required a form of social revolution. Prior to the 1970s, women stayed home and took care of the family while the men went to work. And then it got to the point where the inflationary pressure was such that the family just couldn't make it on one salary, or at least very few of them could, and the women had to go to work if the family wanted to exist. That was a major societal change. So, now

the men go to work and the women go to work, so how are we going to make ends meet in the next inflation shock? It's an open question. And I don't think there's a good answer for it.

So, I think inflation is here. If I can make a modest advertisement for the Horizon proposition – knowing that there's no guarantee that I'm right, and that I could be wrong, yours to assess – do I have a 1 in 100 chance of being right about inflation? A 10% chance of being right, or a 90% chance? You can assess that. But the question is not whether I'm right or wrong; the question is not even what is the probability that I'm right or wrong. As long as there's at least a small probability that I'm right, then a portfolio like that, an insurance policy, it's worth having some.

You can debate how much you want to have, depending on how high you think the probability of success is. If you think it's low, then you shouldn't have a lot of money in the thing; if you think it's high, then you should put some money into it. And the weighting, in the context of your wealth, should be equivalent to what you think the probability of success is. But if you say zero, all you're really saying is I don't think this scenario is even possible, while some would say it's already here. Anyway, no more advertisements. I just wanted to throw one in. I don't think it was such a big one.

Why Do So Many People Believe That Money Creation Is Not Problematic?

To finish this section, before we move on to energy, a few descriptions of the different mechanisms by which money creation can manifest itself into what we experience as inflation. It can work very differently than people expect or believe it to.

In classical economic theory, money creation is considered to be problematic if it increases more rapidly than the available supply of goods and services, when more money is available to bid for each unit of production. With more demand than supply, the selling prices of those units of production increase.

This concept is generally presented as in the accompanying table, with a supply of an imaginary product, such as a commodity like an orange. As the supply of money rises, the commodity price rises:

Typical Textbook Illustration of Problematic Increase in Money Supply

	<u>Supply of Oranges</u>	<u>Supply of Dollars</u>	<u>Price Per Unit</u>
Year 1	10,000	\$10,000	\$1.00
Year 2	11,000	\$12,000	\$1.09
Year 3	12,000	\$14,000	\$1.16
Year 4	13,000	\$20,000	\$1.53
Year 5	14,000	\$30,000	\$2.14

Example 1: This table shows that during imaginary years one through five, the supply of oranges increases by 1,000 a year, from 10,000 until it is 14,000. Meanwhile, the supply of dollars rises faster, starting at \$10,000 in the first year, and reaching \$30,000 in year five. In year one, dividing the \$10,000 supply of money by the 10,000-unit supply of oranges, we see that the selling price of an orange equals \$1. By year five, there is a supply of \$30,000 available to bid for 14,000 oranges, so the selling price increases to \$2.14 each.

The problem is that most people do not think along these lines. In response to this narrow abstraction or examples like it, the average person knows that they still desire only one orange. Therefore, they expect to continue to spend only the original \$1 for that orange and save the balance of the created money.

That misconception is based upon the presentation of inflation as deriving from *rising prices* when in reality it is a function of a *decline in the value of money* priced in terms of these products. There is a distinction, because *inflation also operates under conditions of scarcity*. That right there is what so many of us miss.

Example 2: To better comprehend this, especially the phenomenon of inflation under conditions of scarcity, Murray recently posed an artificial and extreme imaginary scarcity. What if the U.S. government were to create a universal income program with \$1.2 million per year, or \$100,000 per month, as the standard-of-living guarantee? At this level of tax-exempt income, everyone should be able to live a very comfortable existence without having to work at all. The Federal Reserve would purchase any quantity of bonds that the U.S. Treasury were required to issue to finance this program, so that's taken care of.

In theory, no one would be required to work, and let's say that every working person chose to retire. The problem is that wouldn't eliminate supply/demand problems. Children would still need education. That would lead to a demand for teachers. But, the supply of teachers would be fixed in the short run, since most people do not have the credentials to be teachers. In this imaginary example, supply is uniquely constrained, since very few teachers—perhaps none—would sacrifice a significant portion of their leisure time for an ordinary full-time teaching salary, since they're already receiving a universal basic income of \$1.2 million.

By necessity, the governmental authority tasked with managing the educational system would need to pay far more than the current U.S. average of roughly \$60,000 per annum to convince a qualified teacher to return to work. In other words, because there is so much extra money, *the purchasing power of money would decline in relation to the employment compensation or value of a qualified teacher*.

It is impossible to state with certainty what salary a teacher would require in such circumstances for the sacrifice of so much leisure time. All that can be reasonably asserted is that if \$1.2 million is the universal basic income, the labor rate should logically be much higher.

That being the case, let's say the teachers would accept a \$3.6 million salary. Such a teacher might be inclined to bid for the nicest house in their chosen neighborhood, because the purchasing power of a \$1.2 million annual universal basic income plus a \$3.6 million salary is enormous. That's \$400,000 a month, versus less than a \$20,000 monthly payment on a 30-year, \$4 million mortgage. This imaginary teacher can purchase any home desired, within reason, just by bidding aggressively. The seller might be surprised by the munificent proceeds of sale and, in turn, would be able to afford an expensive residence elsewhere.

This imaginary society, though, also would certainly need physicians. A great deal more money might be required in order to induce a physician who also already has a \$1.2 million tax-free income to sacrifice his or her leisure time. Let's say that the going rate will be \$7.2 million a year. The physician can now obviously outbid the teacher for a desirable home.

Moreover, health insurance premiums obviously would need to increase, if for no other reason than to pay the physicians. The physicians would surely need various types of equipment. Somehow, those who produce such equipment would need to be encouraged to sacrifice leisure time in order to manufacture the necessary items. This can only be done by paying them a high salary, too. And so on.

It should be noted that serious inflation occurs when a limited labor resource becomes scarce. The preconditions are not merely money creation, but scarcity of desired resources, too. Hyperinflation caused by excessive money creation therefore occurs in discrete packets, and does not appear uniformly or all at once.

Example 3: Here’s an entirely different vector of inflation. Insurance companies have begun to raise the premiums they charge. For the March 2020 quarter, Marsh McLennan, the insurance broker/consultancy firm, reported double-digit year-over-year increases in premium pricing across a variety of types of insurance. This included commercial insurance, property, casualty and auto insurance. It includes both domestic and global results. The report indicated that this was *not* due to the COVID-19 pandemic, though it anticipated that this would impact future results. As one of many costs that are rising, some individuals or businesses might be forced to raise their own prices or request salary increases.

But why is the cost of insurance rising? On a cyclical basis, it’s odd, because insurers have been profitable on an operating basis, which is not always the case; you wouldn’t think they are pressured to raise their prices. But, insurance companies do not actually earn very much from the premiums they charge – the basic activity of underwriting insurance is typically not far from break-even after all the claims are paid out – but from the interest income they receive on their capital. Essentially, they hold very large bond portfolios, which is what comprises most of their assets, and those have to be investment grade bonds; they cannot afford a great deal of portfolio risk. But bond yields are at historic lows, close to zero. So, insurers’ essential source of income has collapsed in the last few years and they have to make that up, which is a reason for raising prices.

**Insurance Premium Price Increases,
Year/Year as of Q1 2020**

Commercial insurance	14%
Property rates	21%
Casualty	5%
Directors & Officers	44%
Cyber insurance	6%
Auto insurance	10%
<i>International:</i>	
United Kingdom overall	21%
Pacific region	23%
Continental Europe	8%

Source:
<https://www.businessinsurance.com/article/20200511/NEWS06/912334501/Commercial-insurance-pricing-up-sharply-in-Q1-Marsh>

And that yield decline is directly tied to excess money creation. Yields didn’t go down on their own; it’s the result of intervention by the Federal Reserve and Treasury to encourage bond buying and of the government itself buying bonds and bond ETFs, in order to bid the prices up and force yields down. And that requires the creation of money to fund the bond buying. This particular vector, the insurance industry,

is just one of an untold number of ways in which excess money creation results in inflation. Ultimately the price must be paid; the extra money is not free.

Moderator: There are a few remaining questions on deflation and inflation. It seems to me a confusing topic for many people. Do you see a world where there's uneven inflation in prices?

Murray Stahl: Well, let's put it this way: All inflation, by definition, is uneven. That's what makes it so horrible. Pick a number arbitrarily. Let's just say there was 10% inflation, but it was even across the board: your expenses went up by 10% and you got a 10% raise. It's an annoyance but it doesn't change your life. But that's not how inflation works. You see, the CPI is an index. And it's designed to say answer the question, 'what is the average rate of inflation?', but it's like asking 'what is the average height of a human being?' Well, everybody's different. Even if we knew what the CPI would be, even if the number were correct, it wouldn't help us much because *the CPI doesn't tell you what your personal inflation rate will be.*

To make this clearer, let's compare two different people. To take one extreme, one person inherited their mother's engagement ring and other gold and diamond jewelry. The price of gold went up a lot, the price of diamonds skyrocketed. That person didn't do anything. There's gold and a few diamonds sitting in a safe deposit box, yet all of a sudden they find themselves to be very well off. Somebody else, though, worked their whole life, they worked really, really hard, they finally retire and they get Social Security and they have a pension from their job, and it adds up to a fixed amount, and they think they can live comfortably in a certain place on that money. But there's inflation. Even if the annual price increases are only 5%, it's a disaster for you. Even just 5%.

That's the evil of it – inflation changes everybody's position in society, but without them working, without them doing anything. That's why inflationary situations become incredibly unstable. You don't want that. So, the inflation rate might be 5 percent, but for you it could be 20%, because your rent went up 20% and that's by far your biggest cost. You've got to prepare for that.

That's why I spend so much time thinking about that, as opposed to time thinking about whether Apple going to beat the S&P and what should my Apple weighting be? Because that doesn't have any relevance to my life.

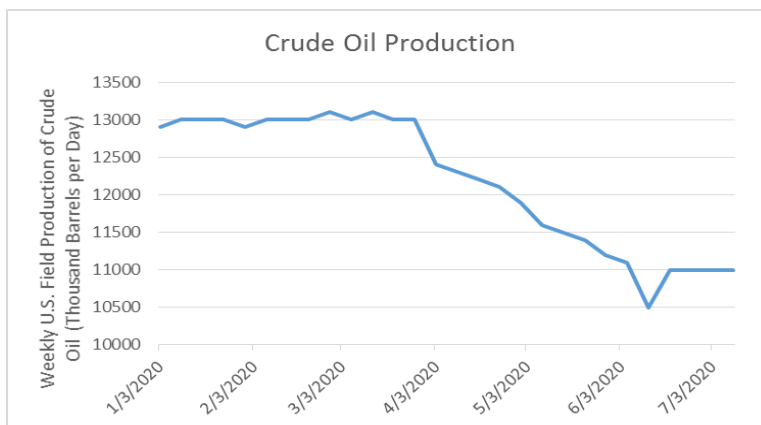
Inflation, though, has relevance to everybody's life and they should pay attention to it. But, unfortunately, very few people do. So, you have to prepare for the contingency. So, for example, I would rather be 1% or 2% a year under the S&P forever, but know that I'm prepared if we have inflation, that I'm going to do great. As opposed to being 1% or 2% over the S&P, but I'm not prepared for inflation, and that if the inflation comes, even if it's a very low probability event, I'm facing a calamity in my life.

That focus on the index as the primary goal is the same idea as saying I would have more disposable income if I didn't pay for health insurance. But then what if something happened to me? It's would be disastrous.

The Energy Section

Moderator: Can you go through, again, why you’re predicting that oil prices will go up, particularly since demand is so much lower because of the pandemic?

Murray Stahl: Again, I’m not predicting it. I’ll just give you some statistics and you can draw your own conclusion. So, at the end of February, before we really started going into lockdown mode because of the coronavirus, oil production in the U.S. was 13.1 million barrels per day. As of June 12th, last Friday – this is according to the United States Energy Information Administration – production was 10.5 million barrels a day. That’s a big drop. It’s about 20-odd percent.



Source: US Energy Information Administration

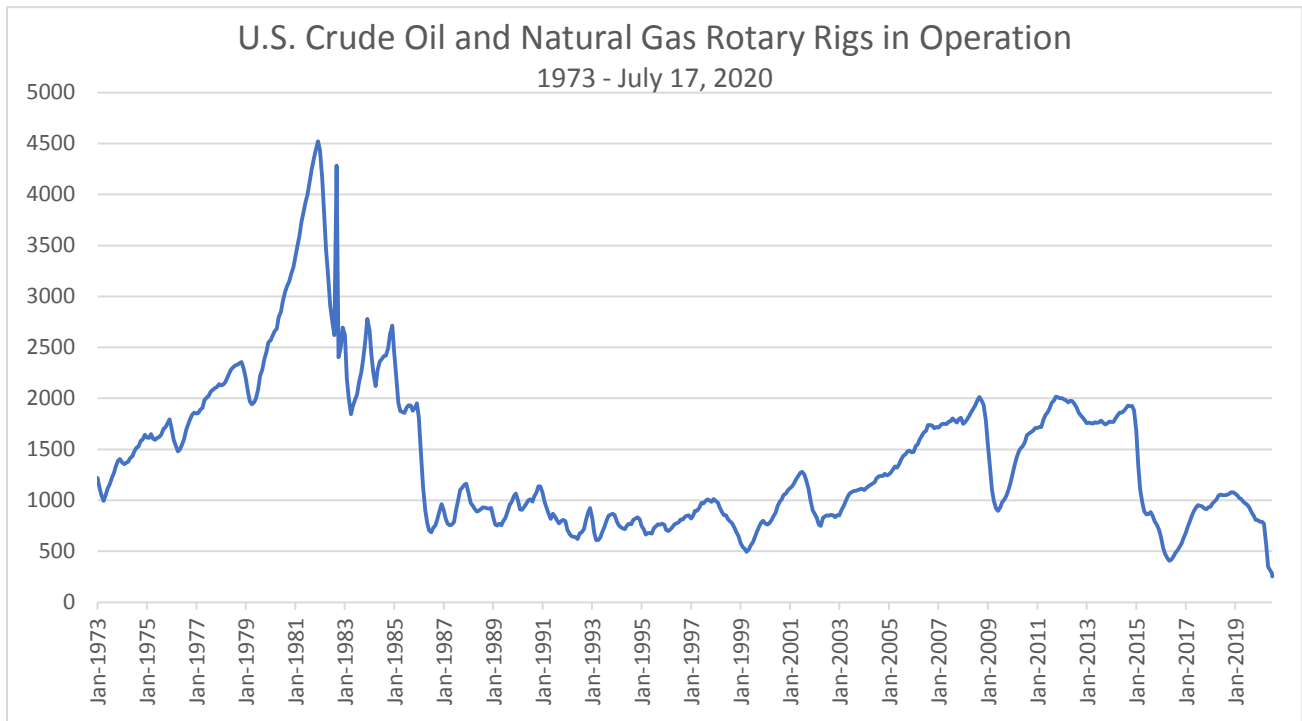
And it’s going to continue to drop. How can I say that with such confidence? Because the U.S. rig count, which a year ago was almost a thousand, is 279 as of last Friday, June 12th. Now, with a rig count not far from a thousand, most companies couldn’t fully replace their reserves – remember, they’re constantly depleting their reserves as they produce. Royal Dutch Shell and British Petroleum have probably been replacing 60-some-odd percent of their reserves a year. Chevron replaced, last year, 44% of reserves. But we’re not even at the year-end 2019 level of drilling activity, as depressed as that already was; we’re at this drastically lower level. And, by the way, this collapse in drilling activity is happening all over the world. I’m just giving you the American figures.

To get a handle on what’s happening, if production continues to drop, then at some point supply is going to cross below the level of demand. At that point – and we might be reaching that point very shortly – there’s just going to be a shortage. Right now, we’re kind of in a temporary equilibrium state, because demand has declined, oh, maybe 25% or 30%, it’s hard to know exactly, and maybe the production’s down 20% or so. But it won’t be long before we hit a 30% production decline. Whether that might be six weeks, or eight weeks, or ten, I don’t know that it matters very much.

But if you think this production decline can reverse itself, that the oil companies might decide to just increase production again, you have to consider a few things.

First, environmental groups are going to fight every single oil permit. And they might not even have to fight very many, because there are a whole range of companies and pension plans and institutions – thousands – that have pledged to divest themselves of fossil fuel investments. It’s all

on a website called gofossilfree.org, if you're interested, and more join every week. They're not going to put any money into any company that develops fossil fuels.



Source: US Energy Information Administration

Generally speaking, to develop a big project, you need outside capital and, with some rare exceptions, developers can't get it, which, obviously, has direct implications for production capacity. So, I'm not predicting that the price of energy is going to go up; I'm just giving you some relevant facts. It's all a question of supply and demand. The energy production statistics in the United States have fallen off a cliff. The rest of the world, too.

So, if every energy company tomorrow decided they wanted to increase production, there's not a lot they could do about it. They don't have the money or access to capital, they don't have the permits; they face enormous opposition. It's just not going to happen.

But, more importantly, they don't have the desire. Because in the last ten years, for most oil companies, it's been a capital-losing proposition, because the pricing has been too low. That's why they've reduced their capital expenditures for years and have been replacing only a portion of their annual production.

So, even if we stay in lockdown forever at this level of oil production and economies never open again, we're rapidly approaching a point of supply shortage. And I think the same is true for lots of commodities, not just oil. Oil is the most obvious example, because I think there are 1,600 different products that use oil as a component, often the primary component, so it's central to the economy. You can't avoid its use.

During the last cycle, which was believed to be a commodity super-cycle, one might recall that the demand from China was supposed to be so enormous that there would not be enough commodities. That proved to be a faulty assumption, because China did not grow at a rate anything like what was anticipated. Producers prepared more commodities than were actually needed.

Now the situation is the opposite. In the current environment of capital insufficiency for reserve replacement, particularly with the potential to sink to a point of insufficient economies, we might not be able to rectify it at all within the historical cycle-time experience. Supply shortages and elevated prices might go on for a very long period of time. This might be the greatest up-cycle of all.

And we don't have to develop macroeconomic theories. There are plenty of statistics about production and consumption and prices. You can track it week by week. So, I'm not saying I'm right; I'm just telling you the basis upon which I reach my conclusions. I really hope that I'm wrong, because if it turns out that I'm right, I might make some money personally but it will be a grim outcome for most of the world. Because inflation is one of the worst things that can happen to people, because it amounts to an involuntarily transference of wealth.

If you're in a position that you benefit from inflation, you're going to become wealthier. You won't have needed to do anything. But if you're in a position where you have a fixed income, even if it's a lot of money but it happens to be fixed – like a person who owns a \$100 million bond portfolio – that person, that portfolio is going to be less well off. Anyway, that's what I base my assessment on. I hope it makes sense, and we'll see what happens.

Moderator: Returning to the issue of rig counts, we are down 70% from a year ago, but how many other times has it dropped more than 50%?

Murray Stahl: I think it happened once before, but it took about five years to drop that much. From roughly sometime in 1980 to roughly sometime in 1984, the rig count probably dropped by way over 50%, but it took four or five years, though that statement should also be qualified because I'm going by memory. Some argue that was not really as steep a drop, because the newer rigs, the equipment coming out in 1984/1985, was so much more productive and efficient. The same amount of drilling could be conducted with fewer rigs. There is truth in that argument.

In any event, a drop like this is entirely without precedent. You have to bear in mind that when the rig count drops over a four- to five-year period, a certain quantity of resources is simultaneously being developed – there's time for that to occur. The current drop happened in about five months, with no time to develop or replace a lot of reserves as operations are being shut down. Thus, the supply capacity decline is much greater just at the time that development is much reduced. The prospect of improvement in any material way anytime soon is so close to zero, one might just as well call it zero. If, next week, two or three more rigs are activated, as a practical matter it does not mean anything.

This is why I think that we are entering a commodity cycle the likes of which has never been seen before and I do not think it is going to be quick. I think it could last for 40 years.

And even if you think that all those limiting factors we just spoke about were to reverse themselves, that oil production could rebound, it would take a lot more time than you might think. Commodities cycles are only quick if the producers have access to capital. They cannot do much in a month, but in a year or two or three, they can remedy the supply deficiency to at least some degree. They can get a lot of equipment out to the fields or mines. But that doesn't simply happen freely.

There is the necessity, for all but the largest, best capitalized companies, to raise capital, either equity or debt. There is also the question of permitting; an exploration company can't simply haul new equipment out to the field and establish a new well or even, perhaps, resume drilling at an established well that they closed. In the current investment and political climate, access to capital has been severely curtailed. Major investment firms, pension funds, financial institutions and the like are *selling* their energy securities, not buying them. On the legal front, a producer faces intense challenges to every permit application, and even if a producer is willing to mount such an effort and wins the permit, it is going to take years to get it. And, in a sense, that requires capital as well; at the end of the day, the money required to get the permit just may not be worth it, since there's not even assurance that the expenditure will be successful. There's nothing that's going to happen between now and tomorrow to increase production, just nothing.

Moderator: Any facts and figures you can share related to TPL-specific well locations being productive or not in this environment?

Murray Stahl: Well, because of my position in the company, I probably shouldn't say much on that subject. So, all I'll say is this: just look at what's happened in the energy sector so far this year, and then what Texas Pacific's earnings are and how well it's done, just on the financial statement, and compare it to other companies in the industry. Is there anything that has even remotely the same degree of profitability? The world of hydrocarbons has been a disaster scenario. Don't forget, on one of the last days of the month in April, the oil price was actually negative. You had to pay people to take your oil away. How much worse is it going to get from that? Yet, TPL is quite profitable, with a quite robust return on equity. I'm just going to leave it at that, rather than give, you well-by-well data, if you don't mind.

	2012	2019	2020*
Oil Price (Brent) \$	\$110.80	\$67.77	\$43.29
TPL Price (\$)	53.43	781.22	575.01
TPL Operating Revenue (\$mm)	32.59	490.50	96.6
TPL Pre-Tax Operating Margin	90%	82%	74%
XOM Price	86.55	69.78	42.50
XOM Operating Revenue (\$mm)	482.30	264.94	56.16
XOM Pre-Tax Operating Margin	16%	7.6%	-0.5%

*Prices are through 7/21/2020,
Company Results reflect 1Q2020
Source: Company reports

Personally – this is an opinion, not a fact – I think TPL is the best piece of property for this commodity on the planet. And once you have it, you don’t ever want to surrender an asset like that. I’ve never seen anything better than that. My personal opinion. When you look at this data and at the profitability of the company and you compare it to everything else, I think you’ll see why I reached that conclusion.

Moderator: Okay. There’s a request for a thought experiment, if you’re ready for one. Can we assume that inflation remains low, at 2% a year for the next five years, or even a potential deflationary environment in the next five years: how would that affect your opinion of Texas Pacific Land Trust? And apart from that, what else will do well in that type of environment?

Murray Stahl: Well, to begin with, we don’t even have to make it a thought experiment, we can make it a real one. Because, if you’ll recall some earlier commentary, in June of 2014, the price of oil was not far from \$110 a barrel, and this April, as you know, the price actually went negative. But even if we use today’s prices, oil has declined by 70% in the past six years. That’s seven-zero percent. So, I would say we don’t have to imagine a deflationary environment; I just lived through one. In the case of Texas Pacific, it did happen and yet the stock went up six times. Instead, can you imagine what would happen if you actually had *inflation*?

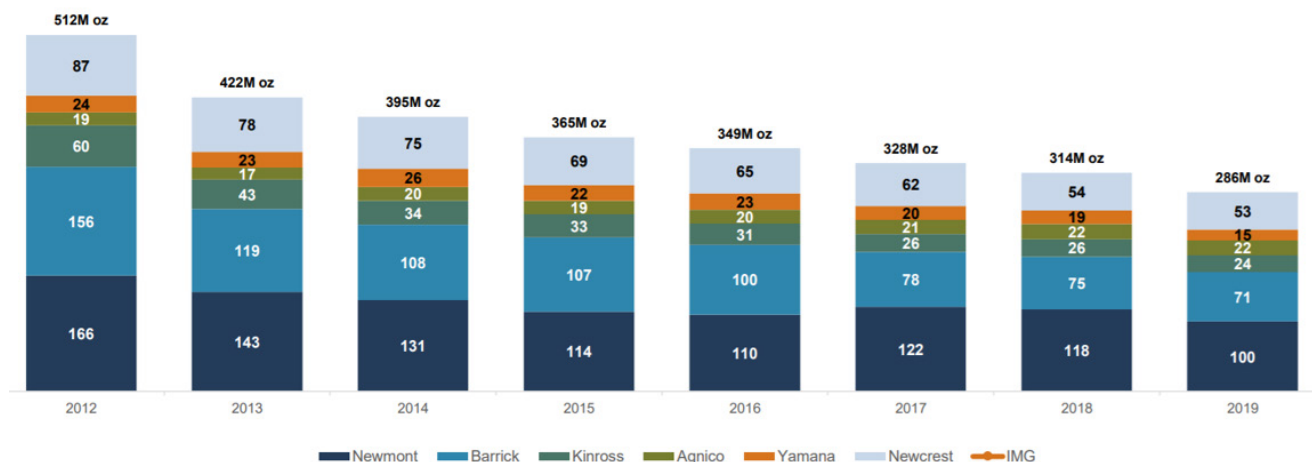


Source: Factset

Now, I don’t need to rely on Texas Pacific. I could engage in the same exercise with gold. It’s not as dramatic as the oil exercise, but in 2012, the price of gold got to \$1,800 an ounce. And it declined, at its low, to not far from \$1,000 an ounce. Now it’s back to \$1,700. So, first there was a considerable degree of deflation; if you prefer to measure from the high point until now, it’s a modest amount of deflation.

Yet, look at what happened to the Franco-Nevada share price: it flourished, despite a lower gold price. That’s the whole idea of a royalty business model. And, again, imagine what might happen if the price of gold actually rises.

Gold Companies have also ceased replacing their reserves



Source: IAMGOLD Investor Presentation

The whole idea is that I don’t know, and I don’t think anybody else knows either, what the price of oil or gold or any commodity is going to do. I can posit a theory as well as anybody else, but it’s likely to be wrong, and I know it’s likely to be wrong. So, I don’t rely on it. I don’t buy Franco-Nevada or Texas Pacific because I think the price of gold or oil is going to rise. All I say is it’s possible that might happen, but if it doesn’t happen, the important question is what’s the return on capital going to be? Does the business require throwing the cash back into the business, in which case, is my return on capital is going to be low? Or does the business not really require much capital, so that you can basically repatriate the capital earned to the shareholders, in which case, the equity base is going to be very low and my return on capital is going to be very high? That’s what it comes down to.

It bears reiterating that the basic reason for holding TPL in our portfolios relates to inflation. The reason it’s so important to keep repeating is that investors are accustomed to looking at ordinary energy companies, ordinary business models, and assuming that the profitability and health of the company is directly correlated with oil prices. Ergo, this line of reasoning goes, if oil prices are down, you shouldn’t own an energy company, and if you do, you should still get rid of it, even at a loss.

But as a royalty business, TPL doesn’t really have to replace reserves like an Exxon or a Chevron. It has very little capital on the balance sheet and doesn’t need it, and it has minimal operating expense, and it has about the highest after-tax free cash flow you can find, and it has no debt. Whatever capital expenditures it makes are for the water business, but it’s not a heavy capital expenditure company. So, the earnings and cash flow are available to the company. Under those circumstances, a business has only two choices for

how to deploy that free cash flow: it can buy back stock or pay a dividend. If the price of oil were to rise or if the price of water that it sells were to rise, all of that price increase goes right to the bottom line. Meaning, that the company doesn't have to take the cash flow and keep reinvesting in more leases, which are now more expensive, which is the standard cyclical challenge for oil companies.

There aren't too many companies in the world like that. And TPL's position as, if we may say this, the crown jewel property within the Delaware Basin portion of the Permian basin, which is itself the crown jewel of the United States energy portfolio, makes it irreplaceable. But the key understanding is that because of the royalty business model and the land and royalty position, you don't even need oil prices to go up for TPL to be a successful investment. If that were to happen, though, it's almost a one-of-a-kind exposure.

The Royalty Model vs. Some of the Most Profitable Companies in the S&P 500

	Market Cap, \$ billion (7/20/20)	2019 Revenue (\$ billion)	Employees	Revenue/ Employee	FCF Margin
Wheaton Precious Metals	\$22.2	\$0.86	39	\$22,085,000	58%
Texas Pacific Land Trust	\$4.5	\$0.49	94	\$5,218,000	70%
Franco Nevada	\$29.2	\$0.84	38	\$22,213,000	75%
Alphabet	\$1,068.2	\$161.86	118,899	\$1,361,000	19%
Visa	\$385.7	\$22.98	19,500	\$1,178,000	52%
Johnson & Johnson	\$394.1	\$82.06	132,200	\$621,000	24%

Source: Company reports, Bloomberg

Moderator: And then on TPL, this is the kind of favorite question that everybody asks. Can you speak a little bit more about the potential upside in cash flow for TPL, both on the base-case and best-case scenarios?

Murray Stahl: Well, the base case is kind of right now. There's one investment firm that follows TPL and their analyst's earnings estimate is on the Zacks Database of Earnings, so you can look it up. And remember that whatever that estimate is, I think you'll be shocked when you look at it, considering what just happened to oil prices, because that's an earnings estimate at this level of oil prices. But, for all the reasons I discussed earlier, I think that oil prices are going to be a lot better.

Then, secondly, on the TPL website, if you look at the presentation, they show you all the development opportunities, at least the significant ones in the Delaware Basin that they control. With the data there, I think you can come up with a pretty good idea, even in a steady state for oil prices, of what the earnings are likely to be, let alone if oil goes up. Everything you need to formulate your own reasonable estimate should be there in that presentation. And, the Zacks number, that's a reasonable estimate.

Also, remember, when you look at that analyst's earnings number, that's the *bad* scenario. There's isn't a good-scenario number in there. Obviously, the good-scenario earnings are going to be higher.

So, the operating leverage – not the financial leverage, because there is no debt – is just extraordinary. Also, the earnings are – not entirely but, more or less, it's true to say this – are essentially free cash flow. There are very few companies like that. That's about the best I can say about the TPL earnings case without getting myself in trouble. But anyway, I would go to the Zacks Database and ask myself, if this is the bad time, can you imagine what would happen in the good time?

Cryptocurrency, Bitcoin, and the Ultimate Inflation Hedge

This final item is from Murray's initial remarks, but I reserved it for last, because I did not want to confuse the discussions about inflation and commodity cycles, which required a certain sustained concentration, with this topic, which is cryptocurrency. The mere mention of cryptocurrency tends to disrupt people's thoughts. It's not complex, there's nothing new here, but there's value in restating the basic case.

Murray: And speaking of inflation, I would be remiss if I didn't cover cryptocurrency.

To begin, cryptocurrency is the solution to a debasing currency because, for certain few cryptocurrencies, their total supply is fixed. Ultimately, that crypto is going to have the same value as the M2, the money supply, of the world. Crypto, at the moment, is a tiny fraction of the M2 of the world and the supply of M2 is expanding rapidly. In the case of bitcoin, the total units that will eventually be outstanding are 21 million, to be reached in the year 2140. And there remain only about 2.6 million coins yet to be mined over the course of the next 120 years.

So, if we as a society can enable people to easily transfer bitcoin, if a network were to develop sufficiently, I personally don't see how anyone is going to prefer a government-issued fiat currency constantly being debased to a fixed issuance currency, a currency with a fixed reference point. The network exists right now, but it's nowhere as easy to use as PayPal or Mastercard or Visa – but one day that's going to happen. And when it does, the shift can happen in a very short period of time.

And if you pay attention to various articles, you'll know that there are plenty of major financial institutions right now, all working on ways to increase their ability to transact in and even manage bitcoin and other cryptocurrencies as well. That's in the process of happening. We're nowhere near a robust exchange network, like we have in Visa or Mastercard, but it is coming.

Nota Bene:

These developments are literally in the works. Even as I was making this presentation, an announcement was made of yet another milestone, yet another first: The Office of the Comptroller of the Currency (OCC) provided clarification on national banks' and federal savings associations' authority to provide cryptocurrency custody services for customers.

"From safe-deposit boxes to virtual vaults, we must ensure banks can meet the financial services needs of their customers today," said Acting Comptroller of the Currency Brian P. Brooks. "This opinion clarifies that

*banks can continue satisfying their customers' needs for safeguarding their most valuable assets, which today for tens of millions of Americans includes cryptocurrency."*²

"Today's opinion applies to national banks and federal savings associations of all sizes and is consistent with a number of states which have already authorized state banks or trust companies to provide similar functions."

*Major institutions seem to be on the ready for this green light. Visa, almost concurrently, disclosed efforts they've taken to position themselves as the preferred network for digital currency wallets.*³

So, if you were to imagine that the market value of bitcoin, that's presently all of \$180 billion, were instead equal to the market value of just the United States dollar – and bear in mind that the U.S. dollar supply is increasing each and every week – that coefficient of expansion by itself would be 100x. And I think even that figure dramatically understates the appreciation potential, because bitcoin is a universal coin and to do the calculation properly, I would have to figure out the M2 of all the nations in the world.

Secondarily, even though bitcoin's real market cap is \$180 billion, the effective market cap – somewhat analogous to the float for a company with inside ownership – is less than that because a certain amount of bitcoin has been lost, because people have lost their private keys. So, the actual available supply is lower, meaning that its practical, available market capitalization is less than the \$180 billion I just gave you. How much less? I don't know exactly, but various people have produced all sorts of estimates, which are probably all wrong, so I won't share them with you, but it's not a small number whatsoever.

There are blocks of bitcoin that we can see on the blockchain that have never changed hands in ten years. Now, it might be that somebody's holding it for the long term, or it might be the particular person who held a 7,500-coin block of bitcoin, kept the private key to it on his computer, forgot all about it, one day upgraded to a new computer and accidentally threw out the old one, along with the private key, where it now sits in a garbage dump in Wales. That bitcoin is worth well over \$50 million, and the last I heard, the person who owned that computer is petitioning the Welch government for the permission to search the garbage dump. I don't think the person actually received permission, nor will he. I think there are lots of people like that out there. So the supply of bitcoin actually shrinks over time; that makes it, ultimately, even more valuable: a deflationary currency.

Anyway, a small position in bitcoin, even a fraction of 1% – let's use the number, 1%, just for the heck of it – can be more than sufficient, from a return point of view, and entirely reasonable from a risk point of view. If bitcoin were to go to zero in the next couple of years, some of you might be able to tolerate a 1% position that went to zero. And maybe it won't go to zero. Maybe it'll just be a bad investment and I or someone else might have the wisdom – probably not likely, but possibly

² <https://www.occ.gov/news-issuances/news-releases/2020/nr-occ-2020-98.html>]

³ <https://usa.visa.com/visa-everywhere/blog/bdp/2020/07/21/advancing-our-approach-1595302085970.html>

– to sell before it actually gets to zero. So, maybe you won't even lose 1% in failure mode. However, in success mode – and I think the 100-fold expansion possibility I cited before is a vast understatement – you understand that anything that appreciates 100-fold is going to dominate your portfolio.

So, there's nothing else out there with that kind of risk-reward ratio. That's why I think bitcoin should be in every portfolio. And I think the day is fast approaching when your typical financial institution is going to have a cryptocurrency management effort, and it won't seem as bizarre as it currently appears, because there's no other asset or asset class with that risk-reward potential out there.

That concludes my prepared remarks. I did receive a question just before we started.

Someone asked me to compare the precious metals streaming companies, Wheaton Precious Metals and Franco Nevada. I can give you a couple of comments that I think are relevant, at least as I look at them. They each have about the same market capitalization, they're both royalty companies. Why do we own both? Well, Franco Nevada, in terms of the look-through production of precious metals that it's contractually entitled to, produces, overwhelmingly, gold. Roughly 10% or so, as of last year, was silver. Even Wheaton Precious Metals, which was originally focused on silver, has since expanded its mix. In terms of gold equivalent ounces of production, silver now accounts for roughly 40% of the look-through output the company expects, from this year looking forward. So, Wheaton Precious Metals is about the only place you can get that much exposure to silver. And that's a form of diversification.

There are big differences over time between gold and silver. Silver, for one, has a lot more industrial usage than gold. But, importantly, silver has fallen way, way more than gold. And therefore, the recovery potential is much greater as well. So, there is an optionality factor there, in Wheaton Precious Metals, on that single factor, that is advantageous.

Both companies have very, very long expected mine production lives of their reserves. I think it's about 20 years for Franco Nevada and about 30 years for Wheaton. But that's not the half of it, because, for both of them, a very large proportion of their contract portfolios aren't even producing yet. In the case of Franco Nevada, I think two-thirds of their portfolio isn't even producing yet. That's a huge amount of optionality.

And there are decades more of production life if we go to their inferred and indicated resources. Wheaton has some debt. Franco Nevada has \$200 million of cash and no debt. As to Wheaton, it has \$870-odd million in debt and \$100 million of cash. To put that in context operationally, last year they had about \$500 million in free cash flow and paid dividends out about \$130 million. The difference they used to pay down \$390 million of debt. In 2018, they repaid \$330 million of debt. They apparently expect to defease the balance of their debt over the next two years, and obviously they can do that with their free cash flow. So that's what I would say about Franco Nevada and Wheaton Precious Metals.

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